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Contents

SITUATION ON THE MORTGAGE MARKET OF THE CZECH REPUBLIC IN YEARS 2004–2011 7
Markéta Bartoňová, Jan Mačí

ENVIRONMENTAL POLICY OF THE CZECH REPUBLIC 17
Monika Bartošová, Marie Vondráčková

REFLEKSJE NAD WOLONTARIATEM DLA SENIORÓW 29
Daniela Becelewska

CONSUMER BEHAVIOR IN THE CZECH - GERMAN PART OF THE EUROREGION NEISSE – NISA - NYSA 37
Jaroslava Dědková, Iveta Honzáková, Světlana Myslivcová

INTEGRATION OF EUROPEAN MORTGAGE CREDIT MARKETS 46
Šárka Hyblerová

DETERMINATION OF REGIONAL DISPARITIES IN THE CZECH REPUBLIC AND IN THE EUROPEAN UNION 54
Helena Jáčová, Jaroslava Syrovátková

EFFICIENCY MANAGEMENT OF THE CZECH HEALTH CARE 64
Irena Jindřichovská, Radka Pešková, Ivana Funková, Eva Nesládková

REGIONAL DISPARITIES ACROSS EUROPE: FUTURE PERSPECTIVES OF REGIONAL DEVELOPMENT IN ENGLAND 76
Miroslava Lungová, Kateřina Maršíková

COMPONENTS OF REGIONAL INNOVATION SYSTEM 86
Kateřina Maťátková

K DÍLČÍM VÝSLEDKŮM DOTAZNÍKOVÉHO ŠETŘENÍ - JAZYKOVÉ KOMPETENCE DOKTORANDŮ V NĚMECKÉ ČÁSTI ERN 94
Helena Neumannová

THE INVESTORS IN PEOPLE IN THE CZECH REPUBLIC 101
Martina Ortová, Petra Špačková

WEBQUESTS AS A TOOL FOR ENHANCING ACTIVE ENGAGEMENT, THINKING SKILLS AND CROSS-CURRICULAR LINKS 111
Stanislava Pavlíková, Ivana Pekařová

DAS ENERGIEKONZEPT DER BUNDESREGIERUNG DEUTSCHLANDS BIS 2050 - EIN VORREITER FÜR NACHHALTIGE ÖKOLOGISCHE ENTWICKLUNG.....121
Wilhelm Riesner

PROBLEMS RELATED TO MAINTAINING AND IMPROVING ISO 9001 QUALITY MANAGEMENT SYSTEM 129
Piotr Rogala

DATA BASE ANALYSIS FOR EXPLORATION OF EU COHESION AND COMPETITIVENESS.....136
Michaela Staníčková, Lukáš Melecký, Eva Poledníková

THE USE OF ARTICLES IN ACADEMIC WRITING 147
Renata Šimůnková

THE INFLUENCE OF INNOVATION POTENTIAL ON ECONOMIC PERFORMANCE IN CZECH REGIONS 155
Eva Štichhauerová

EXPECTED NET PRESENT VALUE – INSTRUMENT FOR PROFITABLE INVESTMENT.....165
Pavla Švermová

BUSINESS GERMAN ONLINE.....174
Irena Vlčková

ROBERT GLIŃSKI JAKO PORTRECISTA PROSTYTUCJI NIELETNICH. „ŚWINKI" NA GRANICY.....181
Natalia Zatka

LIST OF AUTHORS 190

LIST OF REVIEWERS.....191

GUIDELINES FOR CONTRIBUTORS.....193

EDITORIAL BOARD.....199

SITUATION ON THE MORTGAGE MARKET OF THE CZECH REPUBLIC IN YEARS 2004–2011

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Abstract

The aim of this popularing scientific article is to give a comparison of the development of mortgage market in individual years, in order the reader has a certain understanding of how banking houses managed to, quite flexibly, react to new economic situations, especially to the financial crisis. Three dominant entities of the mortgage market, namely Česká spořitelna, Komerční banka and Hypoteční banka, are being compared in the article; both in terms of the volume and the number of newly provided mortgage loans. This article was written as an outcome of the research project „Vybrané aspekty finančních trhů EU“, which took place at the Technical university of Liberec in 2011, and was financially supported by the university as a part of the “Studentská grantová soutěž“, a contest aiming to support university research projects.

Introduction

A bank is not a world of its own; it is a part of something bigger, a part of economic affairs – both locally, within the Czech Republic, and at the international level – which all reflects into the bank’s economic situation. Banks, both universal and specialized, play an irreplaceable part in the current system of the financial market, as they fulfil many functions beneficial to the economy as a whole. They play a key role in the area of private housing financing, where deficit financial resources are needed, by providing loans based on a banking license. This function is described in article 1, paragraph 1, letter b, of the Czech Act no. 1992/21 on Banks.

In the following text, the article focuses on three, more precisely four, biggest entities operating in the mortgage market of the Czech Republic. Namely it focuses on Hypoteční banka (named Českomoravská hypoteční banka before January 1st, 2005), Česká spořitelna and Komerční banka, with Raiffeisenbank closing the imaginary list of mortgage giants. These four banking houses realize the majority of mortgage loans in the market, as they achieve 80–90 % coverage and thus significantly shape this segment of the market (see table 1, 2, 3 and 4).

Tab. 1 Market Shares of Individual Banks According to the Volume of Newly Provided Mortgage Loans (million CZK)

Market Shares of Individual Banks According to the Volume of Newly Provided Mortgage Loans (million CZK)					
Years/Banks	**Hypoteční banka**	**Česká spořitelna**	**Komerční banka**	**Raiffeissenbank**	**total**
2005	12 108	31 422	12 468	2 450	**72 069**
2006	24 353	35 715	20 214	8 235	**100 840**
2007	38,098	42,175	28,222	18,637	**142,289**
2008	37,241	18,847	25,831	19,129	**120,090**
2009	26,737	13,352	17,088	7,285	**73,851**
2010	27,051	14,501	19,674	12,211	**84,800**

Source: Own based on [7]-[10], [13]-[22]

Tab. 2 Market Shares of Individual Banks According to the Volume of Newly Provided Mortgage Loans in %

Market Shares of Individual Banks According to the Volume of Newly Provided Mortgage Loans in %					
Years/Banks	**Hypoteční banka**	**Česká spořitelna**	**Komerční banka**	**Raiffeissenbank**	**total**
2005	16.80	43.60	17.30	3.40	**81.10**
2006	24.15	35.42	20.05	8.17	**87.79**
2007	26.76	29.64	19.83	13.10	**89.33**
2008	31.02	15.69	21.51	15.93	**84.15**
2009	36.20	18.08	23.14	9.90	**87.32**
2010	31.90	17.10	23.20	14.40	**86.60**

Source: Own based on [7]-[10], [13]-[22]

Tab. 3 Market Shares of Individual Banks According to the Number of Newly Provided Mortgage Loans (pieces)

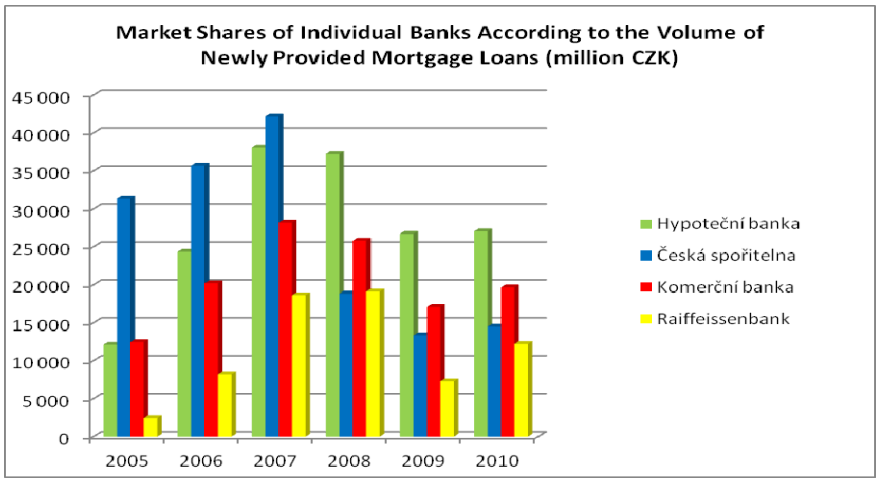
Market Shares of Individual Banks According to the Number of Newly Provided Mortgage Loans (pieces)					
Years/Banks	**Hypoteční banka**	**Česká spořitelna**	**Komerční banka**	**Raiffeissenbank**	**total**
2004	11,078	14,283	8,668	1,414	**40,985**
2005	12,297	17,348	12,297	2,143	**51,026**
2006	16,747	23,114	14,458	5,367	**67,344**
2007	21,828	24,509	18,005	10,138	**83,344**
2008	19,557	10,989	15,564	10,243	**67,530**
2009	15,654	7,654	10,994	4,118	**44,251**
2010	16,349	8,995	11,976	6,275	**50,775**

Source: Own based on [7]-[10], [13]-[22]

Tab. 4 Market Shares of Individual Banks According to the Number of Newly Provided Mortgage Loans in %

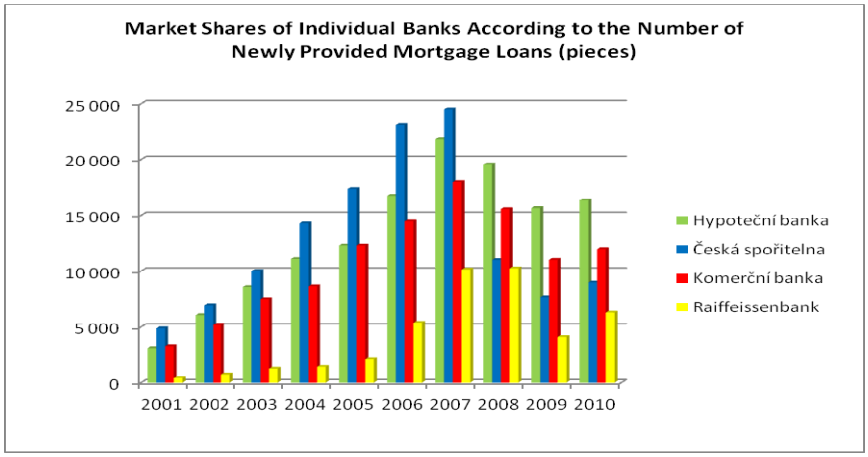
Market Shares of Individual Banks According to the Number of Newly Provided Mortgage Loans in %					
Years/Banks	**Hypoteční banka**	**Česká spořitelna**	**Komerční banka**	**Raiffeissenbank**	**total**
2004	27.03	34.85	21.15	3.45	**86.48**
2005	24.10	34.00	24.10	4.20	**86.40**
2006	24.87	34.32	24.47	7.97	**91.63**
2007	26.19	29.41	21.60	12.16	**89.36**
2008	28.96	16.27	23.05	15.17	**83.45**
2009	35.38	17.30	24.84	9.31	**86.83**
2010	32.20	17.72	23.59	12.36	**85.87**

Source: Own based on [7]-[10], [13]-[22]



Source: Own

Fig. 1 Market Shares of Individual Banks According to the Volume of Newly Provided Mortgage Loans (million CZK)



Source: Own

Fig. 2 Market Shares of Individual Banks According to the Number of Newly Provided Mortgage Loans (pieces)

1 Methods and Objectives

Descriptive methods have been used in this article. An interdisciplinary approach examining both macroeconomic and microeconomic data, including some of the legal subjects, has been.

The objective of this article is to describe and summarize the mortgage market situation between the years 2004 and 2011, and to point at some of the interesting relations that occurred in the Czech mortgage market during that time.

2 The Czech Republic's Mortgage Market in Selected Years

The described period are years from 2004 to 2011. The situation of the mortgage market in this period is put into a broader economic framework not only from the viewpoint of basic economic indicators, but also from the perspective of indicators focused particularly on the area of mortgage loans.

2.1 The Period between the Years 2004 and 2007 – the Golden Age

Taken from the viewpoint of many economic indicators, the year 2004 was favourable in the Czech Republic, as for example the deficit of payment balance fell from 160.6 billion CZK to 147.5 billion CZK, which signalized a strong decrease of 8.16 % [1]. At the same time, the gross domestic product increased by 4.5 % and the Czech koruna did well (more see [11]), its strengthening being the proof of that [5]. Last, but not least, even the Fincentrum Hypoindex developed favourably, as the average interest rate gradually decreased, positively affecting the demand for mortgage loans [3]. The reason for increased interest in mortgage loans were very low interest rates. Other influencing factors were the growth of real wages and the property prices, which were stagnant, even though the Czech Republic entered the European Union and their growth was expected. Nearly all of the positive factors for increasing demand for mortgages persisted almost for the whole period; the GDP was increasing, inflation was stable, in 2005 Fincentrum Hypoindex even broke 4 % and reached its minimum in July. After that month the index began to increase slowly which foreshadowed growing uncertainty in the financial market (see *Tab. 5*).

Tab. 5 The Development of the Hypoindex indicator from 2004 to 2007 (in % p.a.)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2004	5.00	4.96	4.76	4.55	4.48	4.56	4.77	4.95	5.05	4.87	4.85	4.74
2005	4.66	4.43	4.27	4.14	4.03	3.75	3.62	3.64	3.63	3.64	3.77	3.98
2006	4.13	4.12	4.11	4.02	4.06	3.98	4.14	4.25	4.19	4.36	4.38	4.36
2007	4.35	4.27	4.20	4.22	4.27	4.46	4.67	4.93	5.10	5.24	5.28	5.34

Source: Own based on [2]

In comparison with the previous year, the number of issued mortgage loans increased by 30 % and their volume by 43 % [13]. As far as the volume of mortgage loans is concerned, Česká spořitelna dominated the mortgage market in 2004, as it controlled almost 35 % of the market. The second most successful bank was Hypoteční banka with 27 %, followed by Komerční banka with 21.15 %. These banking institutions controlled 83 % of the Czech Republic's mortgage market [7], [14]. The prognosis that the year 2005 would be very successful in terms of mortgage loans turned out to be true above all expectations. Should we compare the data with that of the preceding year, it can be said that the number of newly issued mortgage loans increased by 25 % and the volume raised by 39 % in 2005. This year was the strongest since 1995, the year when the very first mortgage loans appeared in the history of the

independent Czech Republic. In 2005 a new record in the volume of mortgage loans was set; the banking institutions provided natural persons with 72 billion CZK [13]. The mortgage market was still dominated by Česká spořitelna with its 34 %, Komerční banka and Hypoteční banka followed, both having 24 % [10], [15]. The mortgage boom continued in 2006, as the volume of newly provided mortgage loans exceeded 100 billion CZK [13]. A factor that hasn't been mentioned yet, but influenced the situation essentially nonetheless, was that day's uncertainty concerning the 5 % lowered VAT rate on building works related to housing after the expiry of the transitional period following Czech Republic's entry into the EU [4], which was to end in 2008 (this also affected mortgages in 2007). Last, but not least, of the influencing factors was the demography, as the baby boomers were also looking for housing solutions. In 2006, the volume of newly provided mortgages increased by 40 %, and the number of mortgages raised by 32 % [13]. Česká spořitelna was still the dominant entity from the viewpoint of newly provided mortgages, it controlled 35% of the mortgage market. Next was Hypoteční banka with its 24 %, at this moment it got ahead of Komerční banka (20 %) for the very first time. Together, these three banking giants covered 87 % of the market [6], [20]. From the point of of mortgage loans view, the year 2007 was, again, very successful. The annual increase in volume reached 40 %, which nominally represents an increase of 40 billion CZK, while the number of newly issued mortgages raised by 24 % [13]. The position of the three banking houses mentioned above remained unchanged even during this year. Considering the amount of loans provided, Česká spořitelna kept its leading position, having 29.64 %. Hypoteční banka, with 26.76 %, was second, and Komerční banka, with its 19.83 %, was the last in the trio. Altogether, these giants covered the market from 89.23 %. As far as the number of new mortgage loans is concerned, the situation was similar (see *Tab. 4*). In summary, these entities provided mortgages worth 108,495 million CZK from the total amount of 142,289 million CZK [12], [21].

When looking at the market from the viewpoint of state financial support of the mortgage credit, the situation changed in 2004. The state ceased to provide its financial support of mortgages intended for new housing (Government Regulation No. 244/1995 Coll.) and the support of mortgages intended for older housing for young applicants up to 36 years of age fell from 2 % to 1 % (Government Regulation No. 249/2002 Coll.). In addition, new products started to appear in the market; these were non-specific mortgages and mortgages for cooperative housing. This development was based on Act No. 190/2004 Coll. (Bonds Act), which allowed banks to use receivables from issued non-specific mortgage loans as a cover block of mortgage bonds, which in turn allowed them to offer their clients non-specific mortgages and mortgages for cooperative housing. In 2005, the state financial support of mortgages intended for older housing for young applicants up to 36 years of age (Government Regulation No. 249/2002 Coll.) changed again, falling from 1 % to 0 %. Additionally, the State Housing Development Fund provided a 2% interest rate loan of up to 300,000 CZK, due in 20 years at the latest (according to the Government Regulation No. 616/2004 Coll.). Banks also newly provided mortgages without an income confirmation, retroactive funds payments and allowed to give evidence of the purpose of funds drawing retroactively. The state financial support of mortgage credit remained the same in 2006. According to Act No. 586/1992 Coll. on Income Tax, which was in effect in 2006, certain changes took place in the area of income taxes related to mortgage loans; it said:"From the tax are newly relieved only those interest incomes from mortgage bonds, in whose emission conditions the issuers pledged to use as a coverage of their obligations only those receivables from mortgage loans (or their parts), which were provided solely for the purpose of housing financing. At the same time, the way of applying paid mortgage loan interests as a deductible from the base tax on natural persons is being changed." There was no change in the state housing support in 2007.

2.2 The Economic Decline between the Years 2008 and 2009

Predictions concerning mortgage loans for the year 2008 were not quite as favourable as the year before, as the market grew by 40 % several years in a row, which is a growth that is not considered sustainable in the long term. In 2008, contrary to expectations, the volume of newly provided mortgages actually even dropped by 16 %, to the total of 120,090 million CZK. The number of new mortgages decreased annually by 19 %, to the total of 67,530 [13]. The reason for this decline was, without a question, the unfolding financial crisis, which escalated into an economic recession that manifested itself in all the financial markets, including the mortgage market. This crisis started emerging as early as in 2007, but was fully registered in the second half of 2008. In spite of the decline, the year 2008 was considered one of the most successful years (more precisely, it was the second most successful year). Other reason for a decreased interest among the population was the fact that clients stocked up on mortgage loans in fear of increased VAT rate on building works related to housing. According to the Fincentrum Hypoindex [2], the interest rate also rose slightly, which had been expected (see *Tab. 6*). In 2009, expectations were that the net result would not be as positive as in previous years; again though, the results were far more pessimistic. The impact of financial crisis forced banks to be more cautious, more prudent; the same applied to the clients. However, based on the information from Fincentrum Hypoindex [2], the interest rates fell slightly, as shown in *Tab. 6*.

Tab. 6 The Development of the Hypoindex indicator in 2008 and 2009 (in % p.a.)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2008	5.54	5.55	5.52	5.51	5.52	5.53	5.63	5.82	5.73	5.70	5.63	5.69
2009	5.74	5.74	5.50	5.54	5.51	5.55	5.61	5.67	5.63	5.60	5.60	5.61

Source: Own based on [2]

In 2008, the state financial support had an interest rate limit of 5 % for the payment of the support. This is why the year 2005 (January) was the last one in which this support was being paid. Since 2005, the interest rates were below the 5% limit and thus the support was not paid. In 2008, the average interest rate grew to 5.64 %. Because of this, the state financial support was again to be paid (from February 2009) based on the Government Regulation 249/2002 Coll. and its conditions. The possibility to deduce already paid mortgage interests from the base tax on income, up to 300,000 CKZ a year, remained the same. In 2009, due to exceeding the 5% interest rate limit, the state renewed its support of mortgage loans intended for older housing for young applicants up to 36 years of age (Government Regulation No. 249/2002 Coll.), where the interest rate raised from 0 % to 1 %.

There were certain changes in the area of income tax related to mortgage lien certificates in 2008. So far, the revenues from HZLs (mortgage lien certificates) were relieved from the income tax. Newly, the interest revenues from HLZs emitted after January 1st, 2008, were to be subjected to a withholding tax, which made their emission more expensive.

At this time, a fourth entity gets among the biggest banking institutions in the observed mortgage market segment, Raiffeissenbank. For the very first time, Hypoteční banka took the lead in the mortgage market with its 32.02 % of the total volume of mortgages. Komerční banka, with 21.51 %, was second, followed by Raiffeissenbank with 15.93 % and Česká spořitelna, which reported a huge downturn, with 16.54 %. Together they covered 84.15 % of the whole market. The situation concerning the number of new mortgages was practically similar, the only difference being that Raiffeissenbank and Česká spořitelna swapped places. Compared to the previous year, a downturn of 39 % in the volume and of 34 % in the number of newly issued mortgages took place in 2009 [13]. Number one of the mortgage market at

that time was still Hypoteční banka, which provided its clients with 15,654 mortgages, 35.38 % of the total number of mortgage loans. It also provided 36.20 % of the total volume of mortgages, which amounted to 26,737 million CZK. Komerční banka took the second place and Česká spořitelna the third one (see *Tab. 1, 2, 3* and *4*). It is appropriate to count Raiffeissenbank into this large banking group as well, as it issued 4,118 mortgage loans amounting to 7,285 million CZK. Together, the three largest banks covered 77.42 % of the market; including Raiffeissenbank they covered 87.28 %. [9], [17]

2.3 The Year 2010

The trend of the year 2009 continued even in the year **2010**, when the impact of the financial crisis subsided. At the beginning of the year the volume of mortgages still decreased, but the second half of the year marked a sharp increase. Several reasons for this can be identified – the stabilization of property prices, banks being more willing to lend money, clients losing some of their pessimism – all these helped the mortgage market to move forward again. This, on the other hand, was caused by the positive growth of national economy and by halting the trend of rising unemployment. At the same time, the basic interest rates announced by the Czech National Bank decreased. They fell so much that they hit the all-time minimum and no further decrease was expected; more of the contrary actually, as the inflation rose and some kind of a reaction from the central monetary authority was expected. Because of the exceeding of the 5% interest rate limit in 2009, the state financial support of mortgages intended for older housing for young applicants up to 36 years of age (Government Regulation No. 249/2002 Coll.) stayed at 1 %.

In the year 2010, the total volume of newly provided mortgage loans amounted to 84,800 million CZK, which represents an annual increase of 14.83 %. The number of new mortgages increased by 14.74 %, which means 50 775 new mortgages. Number one in the volume of new mortgage loans was still Hypoteční banka with 31.9 % share of the market, this represented 27,051 million CZK. The second place was occupied by Komerční banka, which provided mortgage loans amounting to 19,674 million CZK and so had a 23.2% share of the market. The trio is, as usual, concluded by Česká spořitelna with its 17.1% share, this represented the amount of 14,501 million CZK. In total, these three largest entities, together with Raiffeissenbank, controlled 86.6 % of the market. [8], [18]

Tab. 7 The Development of the Hypoindex indicator in 2010 (in % p.a.)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2010	5.52	5.37	5.41	5.29	5.12	4.92	4.84	4.79	4.56	4.42	4.33	4.23

Source: Own based on [2]

2.4 Current Development in 2011

The current situation in the mortgage market seems to be positive for this segment, especially thanks to the ongoing CNB's policy of low interest rates (2W repo rate 0.75 %) and the continued favourable interest rates in the interbank market (PRIBOR 14 days 0.83 %, 1Y PRIBOR 1.72) [3]. In favour of the successful year speaks not only the overall macroeconomic development of the Czech Republic in 2011, which is stable, as there is a slight economic growth and a low inflation, but also the planned raise of the lowered VAT rate, from 10 to 14 %. As the Fincentrum Hypoindex [2] shows, these facts are being used by the banking houses to encourage the demand for mortgage loans, especially by offering decreasing interest rates while maintaining the standards for verifying the quality of potential clients.

Tab. 8 The Development of the Hypoindex indicator in 2011 (in % p.a.)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2011	4.20	4.26	4.27	4.28	4.24	4.14	4.14	4.09	3.89	3.77	N/A	N/A

Source: Own based on [2]

As far as the market share of individual banks is concerned, no fundamental change can be expected in the division of the market, as none of the entities came with a revolutionary offer that would significantly affect the current situation. An interesting thing about the mortgage market may be the fact that new, smaller banks (Fio banka, Equa bank) and, after the reduction of state financial support, building societies (e.g. Modrá pyramida stavební spořitelna) start to provide this kind of a loan as well. However, with their mortgage product portfolio being what it is, their ability to compete with the largest banking institutions is limited.

Conclusion

The aim of this article was to summarize the situation in the mortgage market in selected years. The mortgage loan market has developed very dynamically, mainly thanks to the economic boom in the first five years of the new century. However, the financial crisis slowed down this rapid growth. Now, when the crisis subsided, the growth returns. At all times, should it be in the time of growth, or the time of recession, there are still the same dominant entities in the market, Česká spořitelna, Hypoteční banka and Komerční banka. These three giants manage to maintain their leading position in the mortgage market and so control the majority of the market.

Literature

[1] Běžný účet platební bilance [online]. Praha: Businessinfo.cz [cit. 201–10-26] Available from WWW: <http://www.businessinfo.cz/cz/clanek/analyzy-statistiky/hlavni-menove-a-fiskalni-ukazatele-cr/1000431/49262/#pb>

[2] Fincentrum Hypoindex [online]. Praha: hypoindex.cz [cit. 201–10-26] Available from WWW: <http://www.hypoindex.cz/hypoindex-vyvoj/>

[3] Fixing úrokových sazeb na mezibankovním trhu depozit – PRIBOR [online]. Praha ČNB cz [cit. 201–10-26] Available from WWW: < http://www.cnb.cz/cs/financni_trhy/penezni_trh/pribor/denni.jsp?date=DD.MM.RRRR>

[4] HAVLÍČEK, D.: EU možná prodlouží možnost nižší DPH na byty a domy [online]. Praha, Ihned.cz [cit. 201–10-26] Available from WWW: <http://byznys.ihned.cz/zpravodajstvi-cesko/c1-21496700-eu-mozna-prodlouzi-moznost-nizsi-dph-na-byty-a-domy>

[5] HDP 2011, vývoj hdp v ČR [online]. Praha: Kurzy.cz, 2011 [cit. 201–10-26] Available from WWW: <http://www.kurzy.cz/makroekonomika/hdp/?G=3&A=2&page=2>

[6] HLAVÁČ, P.: Jaký vývoj bude mít český hypoteční trh? *Top finance: Ročenka finančního a kapitálového trhu v ČR*, 2006, p. 17 -18. ISSN 1212-4273.

[7] Hypoteční banka, [online]. Praha: Hypoteční banka, a.s., 2004 [cit. 2011–10-10]. Výroční zpráva 2004, pp. 22-27. Available from WWW: <http://www.hypotecnibanka.cz/__SYS__/FileStorage/download/vyrocni-zpravy1/VZ%202004%20Hypotecni%20banka%20%28CMHB%29%20CJ.PDF>

[8] Hypoteční ročenka [online]. Praha: Hypoteční banka, a.s., 2010 [cit. 2011–10-10]. Výroční zpráva 2010, pp. 14-16. Available from WWW: <http://www.hypotecnibanka.cz/__SYS__/FileStorage/download/vyrocni-zpravy1/Vyrocni%20zprava%202010_Hypotecni%20banka_oprava.pdf>

[9] Hypoteční specialisté, v roce 2009, [online]. Praha: Hypoteční banka, a.s., 2009 [cit. 2011–10-10]. Výroční zpráva 2009, pp. 14-18. Available from WWW: <http://www.hypotecnibanka.cz/__SYS__/FileStorage/download/vyrocni-zpravy1/HB_VZ09_CZ.pdf>

[10] Kdo by nechtěl bydlet ve svém? [online]. Praha: Hypoteční banka, a.s., 2005 [cit. 2011–10-10]. Výroční zpráva 2005, pp. 18-22. Available from WWW: <http://www.hypotecnibanka.cz/__SYS__/FileStorage/download/vyrocni-zpravy1/VZ%20Hypotecni%20banka%202005%20%28CJ%29.pdf>

[11] Kurz CZK/EUR [online]. Praha: Businessinfo.cz [cit. 201–10-26] Available from WWW: <http://www.businessinfo.cz/cz/clanek/analyzy-statistiky/hlavni-menove-a-fiskalni-ukazatele-cr/1000431/49262/#kurzczkeur>

[12] KÜHN, P.: Byl rok 2007 posledním rekordním rokem hypoték? *Top finance: Ročenka finančního a kapitálového trhu v ČR*, 2007, pp 17-18. ISSN 1212-4273.

[13] Ministerstvo pro místní rozvoj. Statistiky z oblasti bytové politiky [online]. Praha: Ministerstvo pro místní rozvoj. [cit. 201–10-26] Available from WWW http://www.mmr.cz/Bytova-politika/Statistiky-Analyzy/Statistiky-z-oblasti-bytove-politiky-%281%29>

[14] RYSKOVÁ, S.: Nejúspěšnější rok hypotečního financování. *Top finance: Ročenka finančního a kapitálového trhu v ČR*, 2004, pp. 15-17. ISSN 1212-4273.

[15] SADIL, J.: Stále výjimečný? *Top finance: Ročenka finančního a kapitálového trhu v ČR*, 2005, pp. 17-18. ISSN 1212-4273.

[16] SADIL, J.: Potenciál pro nové hypotéky zůstává. *Top finance: Ročenka finančního a kapitálového trhu v ČR*, 2008, pp. 15-16. ISSN 1212-4273.

[17] SADIL, J.: Hypotéky: hlavní cesta k novému bydlení. *Top finance: Ročenka finančního a kapitálového trhu v ČR*, 2009, pp. 15-16. ISSN 1212-4273.

[18] SADIL, J.: Rok 2009 nebyl úplným zklamáním. *Top finance: Ročenka finančního a kapitálového trhu v ČR*, 2010, pp. 15-16. ISSN 1212-4273.

[19] SADIL, J.: Hypoteční trh po dvou letech opět směřuje k růstu. *Top finance: Ročenka finančního a kapitálového trhu v ČR*, 2011, pp. 15-16. ISSN 1212-4273.

[20] Specialisté, [online]. Praha: Hypoteční banka, a.s., 2006 [cit. 2011–10-10]. Výroční zpráva 2006, pp. 17-19. Available from WWW: <http://www.hypotecnibanka.cz/__SYS__/FileStorage/download/vyrocni-zpravy1/VZ%20Hypotecni%20banka%202006%20%28CJ%29.pdf>

[21] Specialisté 2007, [online]. Praha: Hypoteční banka, a.s., 2007 [cit. 2011–10-10]. Výroční zpráva 2007, pp. 17-19. Available from WWW: <http://www.hypotecnibanka.cz/__SYS__/FileStorage/download/vyrocni-zpravy1/Hypotecni_banka_VZ07_FULL_CZ.pdf>

[22] Specialisté ´08, [online]. Praha: Hypoteční banka, a.s., 2008 [cit. 2011–10-10]. Výroční zpráva 2008, pp. 11-13. Available from WWW: <http://www.hypotecnibanka.cz/__SYS__/FileStorage/download/vyrocni-zpravy1/09-04-28-Hypotecni_banka_VZ08.pdf>

SITUACE NA HYPOTEČNÍM TRHU V LETECH 2004 - 2011, PŘÍPAD ĆESKÉ REPUBLIKY

Cílem tohoto popularizačního vědeckého článku je provedení komparace vývoje jednotlivých let na trhu hypotečních úvěrů tak, aby si čtenář dokázal vytvořit podvědomí, jak bankovní domy dokázaly poměrně pružně reagovat na nové ekonomické situace, především na finanční krizi. V článku jsou porovnávány tři dominantní subjekty hypotečního trhu, jak z hlediska objemu, tak v počtu nově poskytnutých hypotečních úvěrů. Jedná se o Českou spořitelnu, Komerční banku a Hypoteční banku. Tento článek vznikl jako výstup výzkumného projektu „Vybrané aspekty finančních trhů EU“, který byl realizován na Ekonomické fakultě Technické univerzity v Liberci v roce 2011 za finanční podpory ze strany TUL v rámci soutěže na podporu projektů specifického vysokoškolského výzkumu (Studentská grantová soutěž).

DIE SITUATION AUF DEM HYPOTHEKENMARKT ZWISCHEN 2004 UND 2011, DER FALL TSCHESCHISCHE REPUBLIK

Das Ziel dieses Popularisierungsartikels besteht in der Analyse der Entwicklung des Hypothekarkreditmarktes in einzelnen Jahren, so dass der Leser sich dessen bewusst werden kann, wie flexibel sich die Banken verhalten, um auf neue wirtschaftliche Herausforderungen reagieren zu können, insbesondere auf die Finanzkrise. Der Artikel enthält einen Vergleich zwischen den drei dominierenden Subjekten des Hypothekarkreditmarktes, sowohl in Bezug auf das Volumen und als auch laut der Zahl der neuen Hypothekarkredite. Es handelt sich um die Tschechische Sparkasse (Česká spořitelna), die Kommerzbank (Komerční banka) und die Hypothekenbank (Hypoteční banka). Dieser Artikel wurde als Ergebnis des Forschungsprojektes "Ausgewählte Aspekte der EU-Finanzmärkte" erstellt, der an der Ökonomischen Fakultät der Technischen Universität in Liberec im Jahre 2011 mit finanzieller Unterstützung seitens der Technischen Universität im Rahmen des Wettbewerbes für Unterstützung von Projekten spezifischer Forschungen (Wettbewerb um Stipendien für studentische Forschung) realisiert wurde.

SYTUACJA NA RYNKU KREDYTÓW HIPOTECZNYCH W CZECHACH W LATACH 2004-2011

Celem niniejszego artykułu popularno-naukowego jest porównanie sytuacji na rynku kredytów hipotecznych w poszczególnych latach, tak aby czytelnik mógł uświadomić sobie, jak banki były w stanie elastycznie reagować na nowe sytuacje gospodarcze, szczególnie kryzys finansowy. W artykule jest porównanie trzech dominujących graczy na rynku kredytów hipotecznych w Czechach, pod względem wielkości i liczby nowych kredytów hipotecznych. Są to: Ceska Sporitelna, Komercni Banka i Hypotecni Banka. Artykuł powstał w wyniku projektu badawczego "Wybrane aspekty rynków finansowych UE", który został zrealizowany na wydziale ekonomicznym Politechniki w Libercu w 2011 roku przy wsparciu finansowym z badań uniwersyteckich w konkursie na wsparcie konkretnych projektów (grant studencki).

ENVIRONMENTAL POLICY OF THE CZECH REPUBLIC

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Abstract

Various legal and voluntary types of environmental tools are used for environmental protection. This article aims at defining the environmental policy of the Czech Republic, classifying its tools and focusing on some of them in depth. First, the article classifies the environmental policy from the point of view of the National Policy on environment and it lists the environmental tools listed in the National Policy document. The other part is focused on the appraisal of the ecological tax reform up to now as one of the tools influencing the environment within the environmental policy of the state. In the final part the article focuses on the environmental accounting in more detail, as a voluntary instrument of the state environmental policy.

Introduction

In 2004 the government drew up the State environmental policy (SEP), which defined the scope of the long-term and medium-term direction of the development of environmental policy and sustainable development of the Czech Republic. The SEP defines the main areas of the environment (protection of the nature, sustainable use of natural resources, protection of the Earth´s climate system, etc.),sets objectives and measures. The SEP has also determined a large number of tools needed to achieve the objectives with the lowest demands on financial, human, technical and other resources. The main tools are, for example, public awareness, legal instruments, economic tools, voluntary instruments, information tools, strategic planning, public involvement tools, research and development, international cooperation, and institutional tools.

The main objective of the environmental policy is to preserve and improve the quality of the environment, life and health of the population together with the requirement of sustainable development. This responds to the major changes in the environmental condition of the Czech Republic.

The article investigates the implementation tools of the SEP, especially the ecological tax reform and environmental accounting.

1 Economic tools for implementation of the SEP

he fundamental economic tools of the SEP are environmental taxes and fees to which the ongoing ecological tax reform (ETR) is closely related. The main idea of the ecological tax reform is to transfer the tax burden from taxing work to taxing energy which is harmful to the environment with respect to the tax neutrality. Besides the tools of negative stimulation – fees and taxes, the economic tools also include providing support and positive stimulation. [1]

1.1 Ecological tax reform, environmental taxes

The conventional environmental policy was mostly concerned with setting standards of environmental quality or of maximum emissions per unit of a polluting source. This road has proven fundamentally unsatisfactory when considered from a global perspective. Currently, the environmental protection is a more frequent topic of discussions. The economic regulatory tools, particularly taxes and fees imposed on environmentally wasteful products are used to improve the environment. These taxes are called environmental taxes, sometimes energy taxes. Environmental taxes are implemented and harmonized within the European Union. The most essential regulation on the environmental taxes in the present is the Directive 2003/96/ES or the energy directive. The ecological tax reform in the Czech Republic is also based on this Directive.

The Czech Republic became a full member of the European Union and it accepted its policy and the Directives as well, and currently there is the ecological tax reform in progress. The original concept has supposed three phases.

The first and the most important phase began in 2008. In this phase the particular environmental taxes were implemented to the tax system (tax on natural gas, coal and electricity). Taxpayers are individual people and companies; that delivered the subject of the taxation to the final consumer. The Czech Republic used mainly the minimum rates that are required by the European Union Directive. The second phase has been in progress since 2010 with the planned ending in 2013. During this period the proposal for the reform expects the changes in the taxes that were implemented in the first phase and also the revision and conversion of some other existing environmental instruments on environmental taxes. Within this phase the relevant outcomes of various scientific studies should be used. For example, the impact on the competitiveness, employment and also on the national budget of the Czech Republic. The last third stage should be implemented in years 2014 – 2017. The results and effects of the first two phases will be analyzed and the overall assessment of the ecological tax reform will be dealt with.

The main idea of the ecological tax reform is simple. It should decrease the tax burden of the work and increase the taxes and fees to products that are not ecological. It means to tax more products and services whose production or consumption has a negative impact on the environment and human health. It is a reduction in direct taxes (for example, social security and income tax) and an increase in indirect taxes (for example excise). The basic principle of the reform is tax neutrality, which means that the resulting total tax rate must be the same. [1, 2, 3]

1.1.1 Assessment of the current effects of ETR

Tab. 1 shows anticipated and real revenues from environmental taxes.

Tab. 1 Comparison of the anticipated and real revenues from particular environmental taxes in the Czech Republic in 2008-2010 (in billion CZK)[2, 4]

Tax on	Revenues in 2008		Revenues in 2009		Revenues in 2010	
	real	anticipated	real	anticipated	real	anticipated
Electricity	1,1	x	1,4	1,1	1,4	1,3
Gas	1	x	1,3	1,5	1,3	1,3
Coal	0,4	x	0,5	1,6	0,5	0,6
Total	2,5	4,3	3,2	4,2	3,2	3,2

The revenues from environmental taxes in the first years of the reform were significantly lower than it had been planned, especially in the first year. The most significant difference between the planned and real revenues was in the tax on coal in 2009. The revenue from this tax was 1.1 billion lower than planned. In 2010 revenue projections were more accurate and they were almost achieved. The differences between revenues are listed also in the following figure.

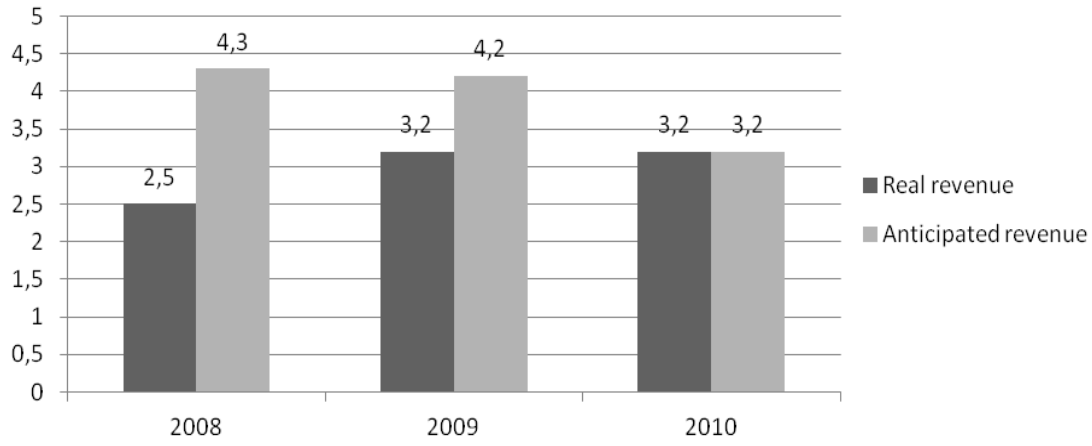

Fig. 1 Comparison of the total planned and anticipated revenues from environmental taxes (in billion CZK)[2, 4]

The government planned that the share of environmental taxes in GDP would be between 0.5 - 1%. The share of the environmental taxes in GDP is shown in *Fig. 2*.

The figure shows that the share of the environmental taxes in GDP in the first years of the reform did not achieve the expected values. In the first year the share in GDP was 0.067 %, in 2009 it was 0.088 % and in 2010 the share was a little bit lower, 0.087 %.

The biggest difference between the planned and real revenues was in 2008. The estimate value was 1.8 billion higher than in reality. In 2009 the difference decreased to 1 billion CZK and in 2010 the estimate number was almost identical with reality.

All phases of the tax reform should be revenue-neutra It would reduce the tax burden on labour and increase the tax burden in the area of indirect (excise) taxes; it means implementation of the environmental taxes. The reduction of the tax burden on labour would be realized by the decreasing income tax and the rates of the social security up to 1.5 % for employees and 3 % for employers.

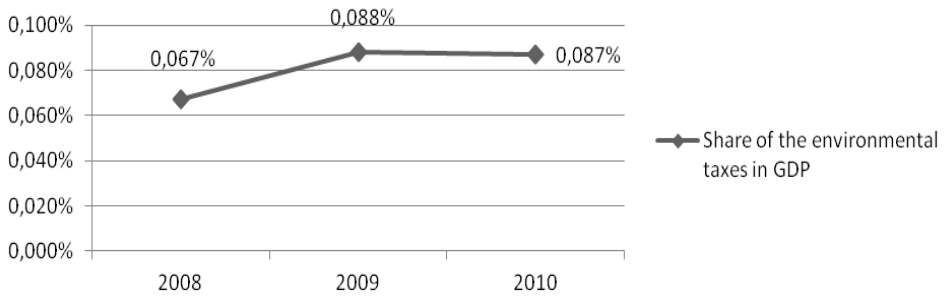

Fig. 2 Share of environmental taxes in GDP in 2008 – 2010 [own calculations]

Tab. 2 Summary of changes in the tax burden of labour [own treatment]

Year	Social security	Income taxes
2008	-	Lowering the tax rate on corporate income from 24 % to 21 % Unification of the differentiated tax rate on the personal income to 15%
2009	Reduction of social security contributions by 1.5 % for employees and by 1 % for employers. Totally by 2.5 %	Lowering the tax rate on corporate income from 21% to 20 %

The most remarkable changes in social security occurred in 2009, when the contribution was totally reduced by 2.5 %. The tax rate on corporate income was gradually reduced from 24 % to 20 % in 2009.

Revenues from the social security - pension contributions, health insurance and contributions to the state employment policy (for simplicity further called social security) are shown in the *Tab. 3*.

Tab. 3 Social security revenues [5]

Description/Year	2008	2009	2010
Social security revenues (in billion CZK)	375.4	337.8	346.1
Number of payers	4,978,920	4,905,021	5,011,797
Conversion to 1 taxpayer	75,397	68,868	69,057

In 2008 the social security revenues were 375.4 billion CZK. In the following year there was a planned reduction of the rate of the social security totally by 2.5 %. The social security revenues were 337.8 billion CZK, it is 37.6 billion CZK less than the previous year. In 2010 the revenues were 346.1 billion CZK, more than in 2009 but less than 2008 by 29.3 billion CZK.

Also after the conversion of the social security revenues to 1 payer we can see the decrease in revenues in 2009 and 2010 in comparison with 2008.

Environmental taxes were implemented in the Czech Republic in 2008. In the following year the social security rates were reduced in order to ensure the tax neutrality of the reform. In 2008, 2009 and 2010 the revenues from the environmental taxes reached 8.9 billion CZK. In 2009 the revenues from the social security were lower by 37,6 billion CZK than in the previous year as a result of the reduction of the rates. And in 2010 it was also lower by 29.3 billion CZK.

The effects of the reduction of the tax rates on corporate income and the unification of the differentiated tax rates on personal income to the tax revenues are shown in *Tab. 4*.

Tab. 4 Development of collection of income taxes in the Czech Republic in 2005-2009 (in thousands CZK)[6]

Tax/Year	2005	2006	2007	2008	2009
Personal income	144,829	141,773	166,418	187,621	127,144
Corporate income	142,431	136,783	151,462	143,315	127,547

Revenues from corporate income taxes were increasing in the Czech Republic (except a slight decrease in 2006) up to 2008. In 2009 there was a sharp decline in revenue from this tax due to the lower tax rates on corporate income. The revenue from personal income tax has already decreased in 2008, when the differentiated tax rate was unified.

Development of total revenues from taxes on income in the Czech Republic is shown in *Fig. 3*.

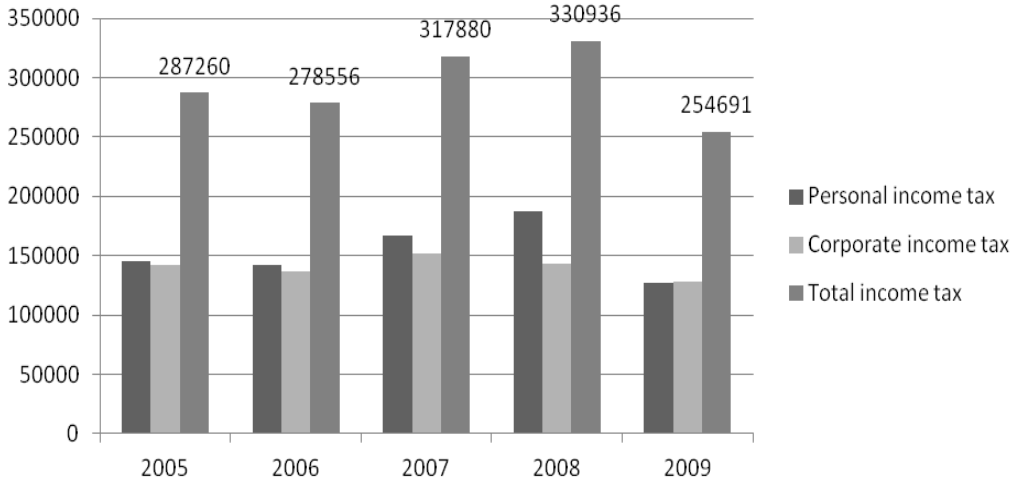

Fig. 3 The development of tax collection in the Czech Republic in 2005-2009 (in thousands CZK)[6]

Total revenues from income taxes had an upward trend up to 2008 (except of 2006, there was a slight decrease). In 2009 the largest decline was recorded in the collection of this tax.

Within the implementation of the ecological tax reform in the Czech Republic, the tax neutrality should be observed. Increasing the tax burden due to new environmental taxes should be compensated by reducing labour taxation. From the present results of the reform it can be assumed that the tax neutrality is not fully kept. The environmental taxes implemented in 2008 did not reach the revenues that had been planned and reducing of the tax burden has been largely observed. Although the social security rates have been reduced less than it was planned, the total reducing of the tax burden was larger than the revenue from the new environmental taxes.

2 Environmental accounting

The importance of environmental accounting, in parallel with an interest in environment and liability for damages, have been growing recently. Compensation for damages needs a strict definition of activities which have an influence on the environment, determination of the extent of damages, evaluation of damages and reporting. Currently the environmental protection has prevailed in the so called post form i.e. penalties, fees and taxes from the

caused consequences. For the future it is important to prevent environmental damages. Environmental accounting helps quantify and evaluate environmental processes, capture these processes on the corresponding accounts, and it reports the results about development of the environmental performance.

Through environmental accounting we can obtain information on the macroeconomic and microeconomic levels. The term "environmental accounting" is not officially defined. Usually we can find the following definitions.

The system of Environmental – Economic accounts (SEEA) serves as a source of information about consumption of the national nature renewable and nonrenewable resources. Often it is determined as nature sources accounting. SEEA includes the national economy.

The environmental management accounting (EMA) can be defined as a part of management which identifies, gathers, estimates, analyses, reports and presents information about material and energetic flows, environmental costs and other value expressed types of information. EMA works with information about separate business units. [7]

2.1 Environmental accounting – the macroeconomic perspective

Environmental accounting was founded as a reaction to the change of economic trends towards the sustainable development. Promotion of the sustainable development is dependent a lot on the development of information systems. The basic information system in the Czech Republic is called the system of the national accounts (SNA). This system is formed by a framework of collection and presentation of economic information, and it generates materials for the economic analysis and for the decision-making process. SNA captures flows of goods and services, and the capital stock used for production of these goods and services. The environmental and economic accounting (SEEA) is a satellite account to the system of the ational accounts. SEEA allows the inclusion of the environmental aspect into the SNA. The environmental and economic accounting serves as a source of assessment of the situation and formulation of suggestions for possible solutions to environmental problems. [9, 8]

SEEA includes the following parts:

1. *Expenditure account for the protection of the environment* – This part of the SEEA provides information about expenditure for environmental protection, quantifies and identifies the costs used in individual sectors of economy. There are costs which affect competitiveness and performance of individual sectors. These costs are caused by legislative regulations and economic measures in environmental protection.

2. *Accounts of loss potential of the environment* – This part of the SEEA is divided into two subcategories: "use of natural resources" and "degradation and pollution of the environment".

This part of SEEA provides information for shaping the national economic policy based on the modeling negative impacts on the environment.

The information system SEEA simplifies the recognition of main environmental problems and their assignment to the relevant economic activities. The information from SEEA serves to create standards and limits in the environment. The main target is a detection of environmental problems and identification of priorities for their solutions. When the industrial classification of economic activities is used, we can determine a sector which derives and degrades the nature resources. The information from SEEA can be used as an international management instrument used mainly for assessment of emissions and waste flows between neighboring states. [9]

2.2 Environmental accounting – the microeconomic perspective

The environmental management accounting is a voluntary activity and we can include it into the voluntary instruments of the national environmental policy. These voluntary instruments are defined in the following text. [10]

2.2.1 Voluntary instruments of the national environmental policy

Voluntary instruments are activities which reduce a negative impact of business units and their enterprises. Instruments are implemented voluntarily beyond the legislative requirements. Among the voluntary instruments we include technological innovations, new managements systems, new approaches to supporting economic growth, competitiveness, profitability, etc.

The following voluntary instruments are currently used in the Czech Republic:

The environmental management and audit scheme (EMAS) is a way for implementing the environmental management system into the business unit. This is a business management tool, including the requirements for the environmental protection into the company strategy.

The environmental accounting relates to the approval of the sustainable development strategy. The environmental accounting can be applied at the macroeconomic level and at the microeconomic level too. From the macroeconomic perspective, the environmental accounting presents information about the national environmental situation and about the national economic performance. From the microeconomic perspective, the environmental accounting provides information which helps to the decision making process in a company, informs external and internal users and supports environmental management.

The cleaner production is a strategy eliminating the causes of the environmental problems at the enterprise level. It is a prevention method for these problems and it minimizes them.

The environmental labelling is based on the ISO 14020. Basically it is an assessment of product proprieties and their impact on the environment.[1] [7]The instrument, which isn't present in the national environment policy (the documents from 2001) is EMS – *The environmental management system.* This system is based on the ISO 14000. It says, how companies could formulate their environmental policy, measures, plans and goals and harmonize the achieving this goals. The basic EMS requirement is implementing an EMS, document, promote, maintain and continuously improc the environmental profile of the company. [12]

Usage of these tools at the enterprise level is of great importance; not only that there is less environmental impact, but the company is also becoming more competitive with a better image, making it more interesting for investors. The application of voluntary instruments can also lead to the reduction of operating costs. [7]

2.2.2 Environmental management accounting

The environmental accounting from a microeconomic perspective or the environmental management accounting (EMA) is similar to the national environmental accounting, but used at the enterprise level. EMA is a management instrument that allows decision-making in the

[1] Other voluntary instruments of the national environmental policy, but unused at microeconomic perspective: *The friendly public administration* supports the state or government purchases which meet the environmental requirements. *The voluntary agreements* are contractual agreements and commitments of businesses to the state, binding to the fulfillment of obligations in the excess of applicable laws.

areas of the environmental policy. It is in relation to the national environmental policy. The information resulting from EMA is meant for internal (management) and external users. That information is used in environmental reports about the company activities for the public, suppliers, customers, employees, investors, etc. The great advantage of EMA is its universality. EMA can be used in a small or large company; in various industries and services it can be applied on the whole production process or only one product. Business targets and needs are a reflection of the used form of EMA.

The benefits resulting from EMA are unambiguous. EMA helps to make better use of materials and energy, and this leads to a reduction in operating costs and a better economic performance of a company. EMA provides efficient management and monitoring of environmental costs of business processes, and identifies the environmental problems affecting the business. It can also help to a better implementation of legal regulations related to the environmental protection and to the improvement of the company image or competitiveness. As a result of the more efficient use of nature resources, more goods and services can be produced while using a smaller volume of material, energy, water and waste .The effectiveness of management grows and the impacts of the company activities on environment decreases. [11]

3 Environmental taxes and fees in the environmental accounting

3.1 Environmental taxes – the macroeconomic perspective

The environmental policy instruments – the environmental taxes reform and environmental accounting were defined above. Now we will classify the status of the environmental taxes in the system of environmental accounting and their relations.

The definition of the environmental taxes generated by the system of the national accounts is different from the legislative definition. The SNA definition enables an international comparison and connection with the data flowing from the national accounts in the system of the environmental and economic accounting. The national accounts divide environmental taxes into three basic categories: the taxes on production and imports, the current taxes on income or property, and the taxes on capital.

The following table illustrates the SEEA classification of the environmental taxes.

Tab. 5 The classification of environmental taxes [9]

Type of tax	**SEEA classification**
Energetic products Import or sale of vehicles Agricultural inputs (fertilizers, pesticides) Individual products (packaging, batteries, tyres, lubricating oil, etc.)	Taxes on products
Measured or estimated emissions to air, water, discharged waste water, waste Annual vehicle taxes Noise	Other taxes in production (if paid by the manufacturer) Other current taxes on income or assets (if they are paid by households)

In the framework of SEEA, the environmental taxes are sorted on the account of expenditure on the environmental protection. For the purpose of this account the term “specific taxes” is used. Specific taxes participate in funding of the environmental protection. Funds raised through these taxes are used for production subsidies and services for the environmental protection, the financing of investment grants and non-market activities in the environmental protection. [9]

3.2 Environmental taxes – the microeconomic perspective

The financial accounting classifies the environmental taxes as costs; the environmental management accounting classifies the environmental taxes as costs too. For the EMA definition of costs we must include impacts of business activities, products and services on the environment. We must include all significant items. This is reflected in the environmental accounts in the chart of the company.

In the case of the financial accounting, the environmental taxes are assigned with the accounting class number 5 – exactly 538 – Other taxes and fees. This account includes gift and inheritance taxes, taxes on the transfer of property and consumption and environmental taxes. The information coming from the financial accounting is not sufficient for environmental management. The environmental taxes are charged together with other taxes. It is not possible to observe the costs arising from the environmental taxes separately. That is why the environmental management accounting defines directly the environmental costs and divides them to the following categories (according to the methodical instruction for applications of EMA by the Ministry of the Environment of the Czech Republic):

- waste management, waste water and emissions to the air,
- environmental management and pollution prevention,
- price of the material contained in the non-production output,
- costs of the non-product output.

Tab. 6 Classification of environmental costs [10]

Account and accounting group in financial accounting		**EMA classification of costs**
53	Taxes and fees	
531	Road tax	-
532	Property tax	-
538	Other taxes and fees	a) Basic fees for the air pollution b) Basic fees for the storage, collection, sorting and disposal of waste c) Fees for use of the sewerage network d) Fees for the air pollution e) Environmental tax

The environmental taxes are sorted on analytical accounts, which are a part of the first category – waste management, waste water and emissions to the air. This account includes various kinds of environmental fees and environmental taxes (from natural gas, solid fuel, electricity). The binding form of the chart of accounts is defined according to the Act No. 563/1991 Coll. This chart must be followed by entities. EMA belongs to the national environmental policy and voluntary instruments. The division of costs on analytical accounts is voluntary too. EMA is dependent on internal criteria and needs of management. [10]

Conclusion

At present, the impact of business units on the environment is frequently mentioned. The ecological tax reform is in full swing; new taxes, fees and emission allowances are created. But we cannot only punish the damage, we must prevent it. The government has prepared a document called the National environmental policy, which offers many possible instruments for affecting the environmental policy. It should start from the source of pollution and find its ways to prevent pollution. Environmental accounting is a very suitable instrument for this. SEEA and EMA provide environmental information about business units, production

processes, and single products, and at the macroeconomic level also about economy of individual countries. Due to this there is a possibility to observe the causes of damage and exceeded environmental costs, and to and prevent their occurrence.

SEEA and EMA appear to be a suitable instrument for the regulation of the environmental performance of business units. For future development, it is important to take EMA into legal rights and to unify it. The information from EMA would be more comparable and with a better information value.

The ecological tax reform began in the Czech Republic in 2008, when the environmental taxes were introduced. In the early years of the introduction of the environmental taxes, the revenues from these taxes were significantly smaller than estimates. In 2010 the revenue from the environmental taxes was closer to the estimates. Also, the proportion of the revenue from the environmental taxes on the GDP in the Czech Republic was lower than originally estimated. The ecological tax reform was revised to meet the fiscal neutrality of taxation within the newly introduced environmental taxes to be offset by reducing labour taxation. The most fundamental measure is a reduction of the social insurance by 2.5 % in 2009 and a reduction of the tax rates on income tax. The reduction of income taxes was bigger than revenues from the environmental taxes. The financial neutrality was not fully respected. The Czech Republic is in the second phase of its ecological tax reform; after the third phase it will be possible to evaluate the whole reform and present the results.

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Literature

[1] *Principy a harmonogram ekologické daňové reformy [online]*. Praha: MŽP ČR, 2002. [cit. 2011-09-20]. Dostupný z www: <http://www.mzp.cz/C1257458002F0DC7/

[2] cz/principy_harmonogram/$FILE/OEN-Koncepce-20070104.pdf>

[3] *Ekologická daňová reforma [online]*. Praha: Hnutí duha, 2008. [cit. 2011-09-28]. Dostupný z www: http://hnutiduha.cz/uploads/media/ekologicka_danova_reforma.pdf>

[4] *Ecological tax reform [online]*. Bonn, Institute for European Environmental Policy, 2005. [cit. 2011-10-21]. Dostupné z www: <http://esl.jrc.it/dc/etr/ecological_tax_reform.htm#_Toc109534443>

[5] *Výsledky daňového řízení 2010, 2009, 2008 [online]*. Praha: Celní správa ČR, 2011. [cit. 2011-09-28]. Dostupné z www: < http://www.celnisprava.cz/cz/statistiky/Stranky/

[6] vysledky-celniho-a-danoveho- rizeni.aspx>

[7] *ČSSZ: pojistné na sociální zabezpečení se daří vybírat úspěšně [online]*. Praha: ČSSZ, 2011. [cit. 2011-09-28]. Dostupný z www: <http://www.cssz.cz/cz/informace/media/

[8] tiskove-zpravy/tiskove-zpravy-2011/cssz-pojistne-na-socialni-zabezpeceni-se-dari-vybirat-uspesne.htm>

[9] *Daňová statistika za roky 2005-2009 [online]*. Praha: MFČR, 2011. [cit. 2011-09-28]. Dostupné z www: <http://www.mfcr.cz/cps/rde/xchg/mfcr/xsl/dane_dan_

[10] statistika.html>

[11] *Státní politika životního prostředí* [online]. Praha MŽP ČR, 2001. [cit. 2011-09-29]. Dostupné z www:<http://www.cenia.cz/web/www/web-pub2.nsf/$pid/MZPMSFHW5QFD/$FILE/statni_politika_zp.pdf >

[12] BARTELMUS, P., STAHMER, C., TONGEREN, J. *Integrated environmental and economic accounting: framework for a SNA satellite system*. Review of Income and Wealth, vol. 37, iss. 2, pages 111-148. June 1991. ISSN: 1475-4991.

[13] *System of Environmnetal-Economic accounts (SEEA)* [online]. New York, United Nations Publications Board, 2011. [cit. 2011-09-12]. Dostupné z www:<http://unstats.un.org/unsd/envaccounting/seea.asp >

[14] HYRŠLOVÁ, J. *Využití environmentálního manažerského účetnictví na podporu rozhodovacích procesů v podniku* [online]. Praha MŽP ČR, 2005. [cit. 2011-09-11]. Dostupný z www: <http://www.mzp.cz/osv/edice.nsf/32F86DDACD32D0B0

[15] C125708B001BA67A/$file/planeta7_web.pdf>

[16] *Metodický pokyn pro zavádění environmentálního manažerského účetnictví 2002*[online]. Praha MŽP ČR, 2002. [cit. 2011-08-31]. Dostupný z www:

[17] http://www.enviweb.cz/download/ea/metodika_metodicky_pokyn_cz.pdf

[18] HŘEBÍČEK, J., KONKRMENT, L. *Standardizace environmentálního reporting v České republice*. Environmentální účetnictví na mikroekonomické úrovni, vol. 15, iss. 2/2006, pages 5-9. 2006. ISSN: 1801-6898.

ENVIRONMENTÁLNÍ POLITIKA ČR

K ochraně životního prostředí slouží velká řada environmentálních nástrojů, ať již zákonných či dobrovolných. Cílem článku je definovat environmentální politiku ČR, klasifikovat její nástroje a podrobněji se zaměřit na některé z nich. Nejprve článek klasifikuje environmentální politiku státu z hlediska dokumentu o Státní politice životního prostředí ČR a vyjmenovává environmentální nástroje, které dokument stanovuje. Dále se článek zaměřuje na zhodnocení dosavadního průběhu Ekologické daňové reformy, jako jednoho z nástrojů ovlivňujících životní prostředí v rámci environmentální politiky státu. V poslední části se článek podrobněji zabývá environmentálním účetnictvím, jako dobrovolným nástrojem státní politiky životního prostředí a to jak z mikroekonomického hlediska, tak z hlediska makroekonomického.

POLITYKA ŚRODOWISKOWA REPUBLIKI CZESKIEJ

Do celów ochrony środowiska służy wiele narzędzi środowiskowych, wynikających z przepisów prawa lub podejmowanych dobrowolnie. Celem artykułu jest zdefiniowanie polityki środowiskowej RCz, klasyfikacja jej narzędzi oraz szczegółowa analiza niektórych spośród nich. W pierwszej kolejności w artykule zklasyfikowano politykę środowiskową państwa z punktu widzenia dokumentu Państwowej Polityki Środowiskowej RCz oraz wymieniono narzędzia środowiskowe wskazane w tym dokumencie. Następnie skupiono się na ocenie dotychczasowego przebiegu Ekologicznej Reformy Podatkowej, będącej jednym z narzędzi wpływających na środowisko naturalne w ramach polityki środowiskowej państwa. W ostatniej części artykułu przedstawiono szczegółowo rachunkowość środowiskową, będącą dobrowolnym narzędziem państwowej polityki środowiskowej, ujmując ją zarówno w aspekcie mikroekonomicznym, jak i makroekonomicznym.

UMWELTPOLITIK

Um die Umwelt zu erhalten, müssen wir die negativen Umweltauswirkungen identifizieren und kontrollieren und auch vermeiden. Für den Umweltschutz gibt es viele Instrumente, nicht nur gesetzliche, sondern auch freiwillige. Das Ziel des Artikels ist es, die Umweltpolitik der Tschechischen Republik zu definieren, ihre Instrumente zu klassifizieren und manche im Detail zu beschreiben. Am Anfang erklärt der Artikel die Staatsumweltpolitik aus der Sicht des Dokuments „Die Staatsumweltpolitik der Tschechischen Republik“ und zählt die Instrumente auf, die das Dokument festsetzt. Weiter beschreibt der Artikel die Bewertung des ökologischen und steuerlichen Reformprozesses als ein Instrument, das die Umwelt im Rahmen der Umweltpolitik beinflusst. Im letzten Teil konzentriert sich der Artikel im Detail auf die Umweltbuchhaltung als eines der freiwilligen Instrumente der Umweltstaatspolitik aus makro- und mikrowirtschaflicher Sicht.

REFLEKSJE NAD WOLONTARIATEM DLA SENIORÓW

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Streszczenie

Artykuł analizuje, w jakim zakresie zmieniła się sytuacja wspierania lokalnych działań woluntarnych wobec seniorów, w ciągu ostatnich pięciu lat w subregionie jeleniogórskim. Autorka odwołuje się tu do własnych spostrzeżeń, poczynionych w czasie uczestnictwa w konferencji zorganizowanej przez Euregion Nysa i Hochschule w Görlitz w 2006 r. Spostrzeżenia te konfrontuje z obecnie przeprowadzoną lustracją tego zagadnienia, przez studentów KPSW w Jeleniej Górze. Na tej podstawie dokonuje ocenę tego problemu i podaje przykładowe propozycje, w jaki sposób można bardziej zaangażować środowisko lokalne do aktywniejszych działań na rzecz seniorów w subregionie.

Wstêp

W 2006 roku uczestniczyłam, jako przedstawiciel naszej uczelni, w trójstronnej konferencji w Euroregionie Nysa nt. „Integracja ludzi starszych oraz wspieranie zaangażowania wolontariatu", zorganizowanej w Hochschule w Görlitz - Zittau, a w części panelowej pracowałam w sekcji: „Wspieranie zaangażowania wolontariatu w niesieniu pomocy ludziom starszym". To pozwoliło mi na zebranie i uogólnienie pewnych obserwacji dotyczących tego zagadnienia.

Subiektywne refleksje, poczynione w trakcie uczestnictwa w tej konferencji, pozwoliły mi również na dokonanie własnej oceny analizowanego problemu. Ocenę tę przedstawiłam (w styczniu 2007 r.), na spotkaniu z naszymi seniorami – studentami Jeleniogórskiej Akademii III Wieku, która działa przy Klubie Nauczyciela w Jeleniej Górze (a została zorganizowana w 1999 r. przez, nieistniejący obecnie, Specjalistyczny Ośrodek Pracy Socjalnej).

Przedstawiając swoje uogólnienia, uznałam wówczas, że najbardziej zaawansowane i skuteczne działania w procesie aktywizacji i wspomaganiu seniorów, realizowane są na terenie Niemiec. Dość dobrze, w mojej ocenie, sytuacja ta przedstawiała się także w Czechach. Natomiast działania podejmowane w naszym subregionie (co oceniłam na bazie relacji prezentowanych na tej konferencji, przez przedstawicieli naszej strony), uznałam jako dopiero „raczkujące". I tu niewątpliwie nasuwa się następujące pytanie:

1. Dlaczego tak właśnie przedstawiał się u nas problem integracji seniorów oraz zaangażowanie społeczne w działania woluntarne dla ludzi starszych?

Spróbuję, zatem, krótko odpowiedzieć na to pytanie, w świetle dostępnych danych i uzasadnić ówczesną moją ocenę. Otóż jeszcze ćwierć wieku wstecz, nasz kraj, określany był społeczeństwem ludzi młodych. Natomiast obecnie, od co najmniej 20 lat, dostrzega się u nas istotne zmiany demograficzne i społeczne. Obecnie obserwuje się niski przyrost naturalny, utrzymującą się progresywną tendencję emigracji zarobkowej i to szczególnie dotyczącą ludzi młodych, oraz systematycznie wydłużający się cykl życia naszej najstarszej populacji.

W tej ostatniej kwestii przewiduje się, że w 2015 r. populacja ludzi starych wzrośnie u nas do 18.55 % całości społeczeństwa, z dalszą tendencją zwyżkową w latach następnych.

Z tych badań (przedstawionych przez GUS), jednocześnie wynika, że ponad 40% naszych seniorów, którzy ukończyli 70 rok życia., to osoby niepełnosprawne, lub posiadające jakąś dysfunkcje, cierpiący na jakieś dolegliwości, czy chorobę przewlekłą. Przewiduje się też, że dane te, w ciągu najbliższych lat, będą procentowo zwyżkować, aż do poziomu około 46,5% u populacji powyżej 80 r. życia. Są to dane, które będą stwarzać nowe problemy społeczne.

Tu należy przyznać, że taka sytuacja demograficzna, przedstawiona w ostatnich latach, właściwie wszystkich nas zaskoczyła i dlatego wcześniej, w zasadzie, nie zajmowano się tym, tak niespostrzeżenie narastającym problemem, dotyczącym takiej właśnie sytuacji życiowej naszych seniorów.

W minionym okresie były u nas niewątpliwie „ważniejsze" zagadnienia socjalne do rozwiązania oraz inne, bardziej wymagające wsparcia, czy wręcz systematycznej pomocy, grupy społeczne.

Ludzie starsi, których w przedstawionym wyżej kontekście nie dostrzegano, gdyż stanowili wówczas jeszcze niewielki procent w skali naszego, „młodego" jeszcze wtedy, społeczeństwa. Z tego to właśnie powodu zostali oni w naszej ówczesnej problematyce społecznej, zupełnie zmarginalizowani.

Dopiero te dane GUS, zwróciły uwagę teoretyków i praktyków, na problemy ludzi III wieku w Polsce. To z kolei pozwoliło różnym ośrodkom naukowym, instytucjom i organizacjom społecznym, bardziej zająć się problematyką dotyczącą ludzi starszych. To z kolei skutkowało, coraz częściej, publikowaniem tych problemów w piśmiennictwie fachowym, podejmowaniem badań naukowych, organizowaniem konferencji, ale jeszcze nie w wystarczającym zakresie znalazło to swoje odzwierciedlenie, w podejmowanych działaniach praktycznych.

Dlatego moje wcześniejsze przemyślenia, dotyczące tej problematyki pomocowej, opublikowałam również w 2008 r., w artykule p.t. „Wybiórczy wolontariat" w miesięczniku społeczno-pedagogicznym „Problemy Opiekuńczo-Wychowawcze" (nr 7, 2008 r.), ukazując, że wolontariat dla ludzi starszych, w dalszym ciągu, przegrywa z bardziej spektakularnymi działaniami woluntarnymi na rzecz innych („młodszych"), grup społecznych (ale niewątpliwie), także wymagających takiej pomocy.

Obecnie, po pięciu latach od tamtej konferencji, pragnę odnieść się do tej samej kwestii społecznej, w kontekście ewentualnych zmian, które można dostrzec w naszym subregionie i określić w postaci odpowiedzi na następujące pytanie:

2. Jak przedstawia się obecna sytuacja psychospołeczna seniorów?

Aby odpowiedzieć na to pytanie, posłużę się poniższymi spostrzeżeniami, dotyczącymi sposobów radzenia sobie przez ludzi w wieku gerontologicznym, z własną, nową dla siebie, sytuacją egzystencjalną, tj. wejścia w III etap swojego życia. I tu można zauważyć następujące zachowania ludzi w wieku poprodukcyjnym.

Seniorzy młodsi, bardzo często, szczególnie zaraz po przejściu na emeryturę (i naturalnym z tego powodu, rozluźnieniem się społecznych kontaktów zawodowych), nie zrywają swoich dotychczasowych relacji interpersonalnych z innymi ludźmi.

Dążą do utrzymania swoich dotychczasowych więzi z rodziną, przyjaciółmi, sąsiadami, znajomymi. Czasem nawiązują też nowe relacje, kontaktując się z własnej inicjatywy, lub z namowy swoich znajomych, z działającymi w najbliższym otoczeniu, rówieśniczymi grupami społecznymi, zrzeszającymi osoby starsze, takimi jak np.: kluby seniora, zespoły śpiewacze lub parateatralne. Włączają się w kręgi różnorodnych grup parafialnych,

uczestniczą w zajęciach organizowanych w osiedlowych świetlicach dla dorosłych, zapisują się do uniwersytetów III wieku itp.

Należy zaznaczyć, że w tych zachowaniach seniorzy najczęściej przejawiają, zdolność zaspokojenia własnej potrzeby afiliacji, ale też i energię niezbędną do takiej działalności.

Przede wszystkim jednak, wykazują swoją umiejętność inicjowania, nawiązywania i podtrzymywania takich, często zupełnie dla siebie nowych, relacji interpersonalnych.

Takie właśnie działania zapobiegają wystąpieniu u seniorów syndromu „opuszczonego gniazda", a także przeciwdziałają ewentualnej izolacji społecznej człowieka w III wieku swojego życia.

Problem społeczny pojawia się natomiast wtedy, gdy osoba starsza, z różnych przyczyn obiektywnych, w określonej sytuacji swojego życia, staje się jednostką osamotnioną, niezależnie od tego, czy ma subiektywne poczucie tego faktu, czy też tego jeszcze sama nie dostrzega (i na razie się tym nie przejmuje).

Problem taki jednak zaczyna szybko narastać szczególnie wówczas, gdy dodatkowo, poczynają ujawniać się u tej osoby dolegliwości lub schorzenia psycho-organiczne wieku podeszłego. Wtedy także, w zachowaniu takiego seniora, stopniowo może też ujawnić się (subiektywnie często nie odczytywany), chłód emocjonalny, czy postępujący proces uwewnętrznienia psychicznego, lub nasilająca się potrzeba izolacji społecznej (czyli: „spokoju", „ciszy", 'medytacji", „subaktywności"). Wtedy to zaczyna narastać niechęć do podtrzymywania wszelkich dotychczasowych kontaktów społecznych, często również z członkami swojej najbliższej rodziny.

Wówczas to okazuje się, że osoba ta, po pewnym czasie, staje się zupełnie (lub choćby częściowo), wyobcowana ze swego dotychczasowego środowiska, wyizolowana społecznie, opuszczona przez grono dotychczas bliskich sobie osób, w tym także często, przez własną rodzinę (czasami mieszkającą daleko od niej).

To wtedy właśnie, najczęściej pojawia się społeczna konieczność, pomocy takiemu seniorowi, który stopniowo, staje się też osobą nie w pełni samowystarczalną, lub wręcz egzystencjalnie niepełnosprawną. Jest to ten czas, gdy jednostka taka, staje przed poważnym problemem pojawiających się trudności w radzeniu sobie z obecną własną, sytuacją życiową, społeczną, zdrowotną i psychologiczną.

Dla takich właśnie osób, tak we wczesnej, jak i późniejszej fazie nie radzenia sobie (szczególnie przy braku najbliższej rodziny), wyłania się problem konieczności udzielenia wsparcia woluntarnego, gdyż na odpłatna pomoc, na ogół go nie stać.

W takiej sytuacji seniora, co należy także brać pod uwagę, odrębnym zagadnieniem psychospołecznym w działaniach pomocowych, może się stać, dość często spotykana u wielu seniorów niechęć, do korzystania z pomocy innych osób, przy jednoczesnej występującej nieufności wobec obcych. Problemem jest tu też fakt, permanentnie odczuwanej i demonstrowanej przez wielu seniorów, potrzeby samostanowienia o sobie i swoim dalszym życiu.

Równie często pojawia się także u tych osób, lęk przed przyznaniem się (szczególnie przed innymi), do własnej nieporadności, czy niepełnosprawności. Lęk ten, z kolei (prawie zawsze), blokuje wszelkie próby udzielania takiemu seniorowi, niezbędnej pomocy, czy wsparcia. Proponowane wówczas przez innych (sąsiadów, pracowników socjalnych, opiekunów społecznych itp.), działania pomocowe, najczęściej przez takiego seniora postrzegane są, jako działanie natrętnie ze strony innych osób (Becelewska D., 2005 r.).

W świetle powyższych uogólnień, dotyczących sytuacji psychologicznej i somatycznej osób w wieku gerontologicznym, oraz systematycznie zwiększającej się procentowo w naszym

społeczeństwie, jak pokazują dane GUS, populacji ludzi starszych, postanowiłam jeszcze raz zająć się tym problemem.

Dlatego obecnie spróbuję odpowiedzieć na następujące pytanie:

3. Co zmieniło się obecnie, w analizowanym problemie, w naszym subregionie?

W tym celu zainicjowałam przeprowadzenie sondażu oraz lustracji terenowej, przez studentów stacjonarnych I roku pedagogiki opiekuńczej i resocjalizacyjnej naszej Szkoły, na temat: sposobów wspierania procesu wzajemnej integracji seniorów i oceny działań woluntarnych dostrzeganych w naszym subregionie wobec osób starszych. Wyniki tych badań, pozwalają na przedstawienie następujących spostrzeżeń:

- w dalszym ciągu nie ma w naszym subregionie zintegrowanego centrum informacji o działaniach woluntarnych, które dysponowałoby ofertami oraz rejestrem potrzeb woluntarnych naszych seniorów, jak również powszechnie dostrzeganej w mieście i w terenie, sieci funkcjonującego już takiego wolontariatu,
- brak jest również pełnej informacji o ofertach ukazujących możliwości lokalnego integrowania się seniorów, w otwartych i dostępnych dla wszystkich chętnych: klubach, świetlicach, domach dziennego pobytu oraz o punktach poradnictwa, czy terapii dla seniorów,
- nie ma również pełnej informacji o możliwościach ewentualnych szkoleń dla potencjalnych wolontariuszy, ani też systemu zachęt, do podejmowania się takich działań na rzecz ludzi starszych.

W świetle powyższych stwierdzeń, istotna wydaje się dalsza konieczność rozeznawania i analizowania tego, społecznie istotnego zagadnienia, przez decydentów, oraz teoretyków i praktyków zajmujących się tą problematyką zawodowo i naukowo. Konieczne wydaje się też, zwracanie większej uwagi społeczeństwa (w tym także ludzi dobrej woli), na problem inicjowania różnych działań w zakresie lokalnej integracji seniorów oraz wspierania już istniejących działań woluntarnych na rzecz osób starszych (potrzebujących takiej pomocy).

Zagadnienie to staje się obecnie u nas, tak jak dużo wcześniej w zachodnich społeczeństwach europejskich, istotnym zagadnieniem socjalnym, o czym szczegółowo mówiliśmy także, wówczas na tamtej konferencji, sprzed pięciu laty w Görlitz.

W jaki sposób można zatem obecnie, jeszcze bardziej zainteresować nasze społeczeństwo, a szczególnie decydentów i animatorów inicjatyw społecznych, tym właśnie zagadnieniem, gdy w naszej rzeczywistości wszechobecny jest przecież „kult młodości".

Na tym tle populacja ludzi starszych, jest w dalszym ciągu społecznie: marginalnie dostrzegana, często skrywana, izolowana, a nawet często także lekceważona.

Jak zatem zwrócić uwagę społeczników, na tę „niemodną", ale jakże procentowo coraz wyraźniej obecną w naszym społeczeństwie (i jakże często, nie radzącą sobie w nowej dla siebie sytuacji), starość?

I tu należy stanowczo podkreślić, co jest jednak optymistyczne, iż potencjał zaangażowania społecznego, w różne działania woluntarne, a w tym wobec ludzi starszych, niewątpliwie drzemie, w osobowości wielu ludzi, na co wskazują prowadzone na ten temat badania (Becelewska D., 2004 r., Bocheńska-Seweryn M. i Kluzowa K., 2005 r., Kukla D., 2005 r., Sowiński J., 2005 r. i in.).

W działaniach prospołecznych ważne jest tylko to, aby zainicjować takie właśnie zachowania prospołeczne (ale w sposób racjonalny), i to tak, aby wykorzystać ten potencjał (ale w sposób przemyślany) i zdopingować ochotników do działań (ale tylko w odpowiednim zakresie dla ujawnionych potrzeb).

Wiemy bowiem doskonale (co często nagłaśniane jest także w naszych mass mediach), o wielu inicjatywach ludzkich, czy spontanicznych akcjach pomocowych, lub też doraźnych działaniach różnych osób, które niestety zostały później, w jakiś sposób zmarnowane, zaprzepaszczone, czy też niewłaściwie spożytkowane. A to zniechęca innych.

Dlatego też, aby zainspirować potencjalnych wolontariuszy do pożądanych działań woluntarnych, a szczególnie tych, mało spektakularnych, jak pomoc ludziom starym, niezbędne jest dalsze nagłaśnianie tego zagadnienia i wskazywanie jak najszerszego pola do takiego działania. I tu można postawić następne pytanie:

4. Jakie wnioski, można sformułować w celu dalszego wspomagania działań woluntarnych wobec ludzi starszych?

Sądzę, że wnioski te, sformułowane na podstawie wielu dyskusji i przeprowadzonych badań można ująć w kilku następujących punktach:

- W procesie wzmacniania działań woluntarnych wobec ludzi starszych nader ważny jest dwustronny przepływ informacji: od i do człowieka starszego, tak, aby był on świadomy możliwości skorzystania z takiej pomocy, czy wsparcia, i aby mógł z niej, z własnej woli, skorzystać.
- Inicjując, lub wzmacniając, wolontariat dla seniorów istotne jest też to, aby w tych działaniach, nie wyręczać funkcjonujących na danym terenie służb społecznych, instytucji pomocowych, czy organizacji odpowiedzialnych za pełnienie określonych zadań na rzecz tej populacji naszego społeczeństwa.
- W procesie realizacji wolontariatu dla ludzi starszych, ważne jest także właściwe rekomendowanie osób, już działających w woluntariacie oraz także wcześniejsze przygotowanie osoby starszej do samodzielnego podjęcia decyzji o możliwości skorzystania z takiej pomocy, aby przełamać jej uprzedzenia, obawy, czy niechęć do korzystania z cudzej pomocy.
- Przydatne w wolontariacie wobec seniorów, wydają się nie tylko osoby już działające w sposób bezpośredni (na rzecz osób całkowicie lub częściowo niezdolnych do samodzielnej egzystencji), ale także i tacy „ochotnicy", którzy mogą udzielać woluntarnej pomocy: prawnej, administracyjnej, bankowej, internetowej, oraz pomocne w nawiązywaniu wzajemnych kontaktów z innymi osobami, a także mogące umożliwić potrzebującemu seniorowi zaspokojenie potrzeb kulturalnych, religijnych oraz np. pomocy typu: sekretarzowania, dokumentowania, czy archiwizowania jego zasobów itp.
- Istotne jest też kształtowanie w procesie wychowania dzieci i młodzieży, postaw prospołecznych wobec ludzi starszych (a w tym np. na rzecz własnych dziadków), gdyż to w przyszłości będzie procentować zaangażowaniem tych osób, jako już dorosłych, w taki właśnie wolontariat.
- Ważne jest też, jak należy sądzić, wczesne przygotowywanie ludzi do własnej starości, w postaci profilaktyki i niezbędnej edukacji w tym zakresie.
- Konieczne wydaje się też intensywniejsze budowanie dla seniorów niezbędnej infrastruktury lokalnej , np. przez dalsze organizowanie klubów, czy świetlic dla seniorów, tworzenie w mieście „kawiarenek dla seniorów", organizowanie wzorem zachodnim, punktów wzajemnego wsparcia w postaci. „centrumświadczenia doraźnych usług za 1 euro", a także pomocy przy projektowaniu, czy wykonywaniu zmian w mieszkaniu przyszłego seniora niepełnosprawnego itp.

Powyżej sformułowane propozycje, a także i inne kreatywne działania lokalne na rzecz ludzi starszych, niewątpliwie mogą przyczynić się do dalszej, permanentnej integracji seniorów w swoim środowisku lokalnym, w tym także w zakresie wzajemnej samopomocy.Należy też

sądzić, że tym samym przyczynią się także do wspieranie zaangażowania potencjalnych wolontariuszy, chętnych do działań na rzecz potrzebujących seniorów. Istotne jest także to, aby o takich działaniach stale informować społeczeństwo lokalne.

Stąd w dalszym ciągu, konieczne wydaje się także stałe:

A) propagowanie idei wolontariatu dla ludzi starych w miejscowych :

- mediach (TV, radio, prasa, tablice informacyjne itp.)
- instytucjach pomocowych oraz związanych z tym zagadnieniem, jak: szpitale, przychodnie, apteki, urzędy pracy itp.

B) informowanie o możliwości podjęcia się takich działań przez potencjalnych wolontariuszy przez:

- przybliżanie celów i zadań woluntarnych na rzecz senior,
- ukazywanie możliwości korzystania z takich ofert i sposobów
- zgłaszania swoich potrzeb,

C) zachęcanie do makrodziałań lokalnych przez:

- tworzenie „banku ofert i potrzeb" oraz informowanie o miejscu działań woluntarnych (odkrywanie i likwidowanie białych plam),
- nawiązywanie współpracy z działającymi już w tym zakresie innym instytucjami i organizacjami,
- umożliwianie chętnym osobom doskonalenie swoich kompetencji woluntarnych, w dość specyficznej jednak, opiece nad seniorami.

Prawda jest bowiem taka, że w dalszym ciągu obserwujemy jednak „wybiórczy wolontariat", który preferuje inne grupy społeczne, (niewątpliwie też) potrzebujące pomocy i wsparcia, a bardzo często zapomina o tych, którzy jawnie, czy w sposób asertywny, nie potrafią (a może z różnych względów jeszcze nie chcą), poprosić innych o taką pomoc dla siebie, czy swoich najbliższych..

Literatura

[1] BECELEWSKA D. *Motywy podejmowania spontanicznej pracy woluntarnej, w: „Wychowanie na co dzień" nr 6*. 2004.

[2] BECELEWSKA D. *Wybiórczy wolontariat, Problemy Opiekuńczo - Wychowawcze nr 7.* 2008

[3] BECELEWSKA D. *Wsparcie emocjonalne w pracy socjalnej*, Śląsk, Katowice. 2005.

[4] BOCHEŃSKA-SEWERYN M., KLUZOWA K. Wolontariat parafialny, 2005.

[5] KROMOLICKA, B. Wolontariat w obszarze humanistycznych wezwań opiekuńczych, Toruń, Akapit. 2005.

[6] KUKLA Dr. Współczesny wolontariat w pomocy rodzinie, w: S. Czarnecka

[7] MIROWSKA, M., R. MAJER, (red.), *Rodzina w lokalnym systemie pracy społecznej*, Częstochowa. 2005.

[8] SOWIŃSKI, J. W poszukiwaniu ideału osobowości wolontariusza, 2005.

[9] KROMOLICKA, B. Wolontariat w obszarze humanistycznych wezwań opiekuńczych, Toruń, Akapit. 2005.

[10] STĘPIEŃ, B. Potrzeby człowieka, starego w środowisku, w: (red.). 2004.

[11] KRZYSZKOWSKI J., MAJERA R. Problemy społeczne, pomoc społeczna, praca socjalna: wymiar polski i europejski, Częstochowa. 2004.

[12] Ustawa z dn.24.04.2003 r. o działalności pożytku publicznego i wolontariacie, Dz. U. 2003, nr 96, poz. 873.

[13] WÓDZ K. Praca socjalna w środowisku zamieszkania, Śląsk, Katowice. 1998.

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ÚVAHY O DOBROVOLNICTVÍ PRO SENIORY

Tento článek obsahuje úvahy o potřebě podpořit sociální dobrovolnictví pro seniory. Autor zkoumá, do jaké míry se situace změnila k podpoře místní akce dobrovolníků pro seniory, v posledních pěti letech v podoblasti Jelení Hora. Odvolává se zde na vlastní pozorování nabraná během účasti na konferenci, kterou pořádají Euroregionu Nisa a vysoká škola ve Zhořelci (Görlitz) v roce 2006. Autorka a studenti KPSW srovnávají současné situace s tímto. Na tomto základě autorka předkládá posouzení problému a uvádí příklady návrhů, jak lépe zapojit místní prostředí, na takové akce pro seniory v subregionu Jelenia Gora.

REFLECTIONS ON VOLUNTEERING FÜR ÄLTERE MENSCHEN

Dieser Artikel stellt Überlegungen über die Notwendigkeit einer sozialen Unterstützung der Freiwilligenarbeit für ältere Menschen an. Die Autorin untersucht, inwieweit sich die Situation um lokale Aktionen für Senioren in den letzten fünf Jahren in der Subregion Jelenia Gora hinsichtlich Unterstützung geändert hat. Sie bezieht sich hier auf eigene Beobachtungen, die sie während der Teilnahme an der von der Euroregion Neiße und der Hochschule Görlitz organisierten Konferenz 2006 angestellt hat. Die Autorin stellt mit Hilfe von Studenten der KPSW einen Vergleich mit der gegenwärtigen Situation an. Auf dieser Basis stellt die Autorin eine Bewertung des Problems vor und gibt Beispiele für Vorschläge für eine bessere Einbindung der lokalen Umgebung für eine solche Aktion für Senioren in der Subregion.

REFLECTIONS ON VOLUNTEERING FOR OLDER PEOPLE

This article presents reflections on the need to support the social volunteering for older people. The author examines the extent to which this support has changed in the past five years in the region of Jelenia Gora. She refers here to her own observations made during participation in the conference organized by the Euroregion Neisse and Hochschule in Görlitz in 2006. These observations are confronted with the results of a survey carried out by students of KPSW in Jelenia Gora. On this basis, the author presents an assessment of the problem and gives examples of suggestions on how to better involve the local environment in such actions aimed at senior citizens in the region of Jelenia Gora.

CONSUMER BEHAVIOR IN THE CZECH - GERMAN PART OF THE EUROREGION NEISSE – NISA - NYSA

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Abstract

The economic position of the Liberec region is highly influenced by geographical proximity of the neighbouring states (Germany and Poland). This closely affects not only the potential of cooperation between companies on both sides of the borders, but also the "shopping tourism". We can come across these visitors in shopping centres, recreation areas, entertainment centres, at sports events, etc.
The article describes partial results of primary research on the behaviour of customers in the Czech- German part of the Euroregion Neisse - Nisa - Nysa (ERN). The main objective of the research was to identify the purchase behaviour in the Czech-German part of the ERN and analyze relevant dissimilarities. This article deals with a partial objective – to ascertain reasons for visiting the Czech-German border region.

Introduction

Every customer makes different decisions in terms of his/her purchase behaviour and is influenced by various factors. Behaviour of the customers differs very much and businesses should consider this issue if they want to compete on the market. The so-called “The European consumer” is characterized in connection with a tendency towards integration and globalization, and can be identified by common features as well as by much dissimilarity. [1]
More and more people are in a position to travel abroad and it is the proximity of the German border that has led the marketing department of the Faculty of Economics in Liberec to accomplish a primary research of the purchase behaviour in this area. This particular topic is described in more detail in a joint project of the TU Liberec and IHI Zittau, called: “Analysis of the consumer behaviour in the Czech-German part of the NISA Euroregion, regarding ecologically oriented behaviour of the buyers”, sponsored from the program -

Objective 3/Ziel 3 – for the support of the cross-border cooperation between the Czech Republic and the Free State of Saxony. [2]
Purchase behaviour focuses on decisions of individuals, when they spend their own resources (time, money, effort) on items connected with consumption. That includes: what, why, when, where and how often people go shopping, how often they use the products, how they value them after shopping and the impact of these evaluations on their future shopping. Purchase behaviour and determination of the customers result from their needs and purchase opportunities. [3] Consumer behaviour cannot be accepted separately in relation to common behaviour and in connection with the society. [4] Purchase behaviour of the same person can vary from one type of goods to the other.
Many factors affect purchase behaviour, for example personal characteristics of the customer, external influence, parameters of goods and consumer's situation, etc. [5] A common customer may not notice some of those effects, though they are quite substantial. These influences can include values recognized in society, and connected with the overall culture in particular countries. [6] It is important to follow the perception of novelties on the market, provenance of goods and feelings of consumers in those countries, in connection with their different culture. [7]
For years, retailing was considered to be a regional element and belonged to small and middle-sized businesses. Over the past 20 years the market in the Czech Republic has undergone a dynamic development. New services and products had to establish their own market and find their own consumers, by creating another business infrastructure. The entrance of retail chains into the Czech Republic represented a significant role. They flooded the market and changed the style of life as well as shopping and social conventions of the consumers. The first foreign retail chains entered the Czech market at the beginning of the nineties of the 20th century. They took over parts of the commercial network of the former state enterprises at first, and then started to expand their outlets on "Greenfield land" and began to establish common developments in commerce. [8] Numbers of outlets multiplied, accompanied by intensive modernization, with new forms of sales trends, new sorts of retail units and wholesale stores. This brought a period of expansion of retail areas and improvements of service standards of retail network. To ensure the growth of companies with high turnover of goods, it was necessary to take advantage of the existing retail areas more intensively and focus on the strategy of marketing diversity from the competing businesses. [9] More shopping facilities and forms in retailing allowed the customers to make decisions by their feelings and needs. [10] That could be noticed in changes of preferences, i.e. supermarkets and hypermarkets became the main shopping places. [11] The selection of shops, where the customers consequently make their purchase, is a process of interaction between retail dealers and their strategies on one hand, and customers and their characteristics on the other. [12]

1 Material and methodology

To learn about the required information on purchase behaviour, we selected a quantitative system of data collection in the form of a written questionnaire, which was distributed by trained consultants – students of the EF TUL Liberec and the IHI Zittau, in the Czech-German part of the Euroregion Neisse - Nisa – Nysa. This Euroregion is situated on the territory of three border regions, the Czech Republic, Germany and Poland, and was officially founded on 21st of December 1991.

There are 1 051 105 citizens in the Czech-German part, according to available data as per 31.12.2008. The population of the Czech-German part of the ERN is split in ratio: 42% citizens in the Czech part of the ERN and 58% in the German part. According to the structure

of the population in the Czech-German part of the ERN, the biggest group of citizens is in the age group of 25 to 44 i.e. 27,3 % of the total number of the population in the Czech-German part of the ERN; 25,6% of citizens aged 60 and older; 22,4% is in the age group of 45 to 59. The remaining 24,7% are citizens up to 24 years of age (resulting from data as per 31.12.2008).
Income, which highly differs, is an important parameter for the purchase behaviour analysis. According to the available statistics from 2008, the average gross monthly income in the Czech part of the ERN was 21 170,- CZK, which is 792 € according to middle rate of the Czech National Bank in 2008 (1€ = 26,738 CZK). In the German part of the ERN, the average gross monthly income was considerably higher, i.e. 2 366 €. [13]
The structured questionnaire included several sections to complete all the objectives of the research. Three groups of consumer goods were selected as the interest sphere of the questionnaire: fast-moving consumer goods (consumables), clothing and footwear, and durable goods. The aim was to survey customers' buying habits regarding these groups of consumer goods, in different regions of the ERN in connection with the influence of different cultural and social environment, and to analyze dissimilarities of consumer behaviour. The presented article applies to these particular objectives:

- reasons for visiting neighbouring regions,
- purchased products / services,
- level of spending / shopping expenses.

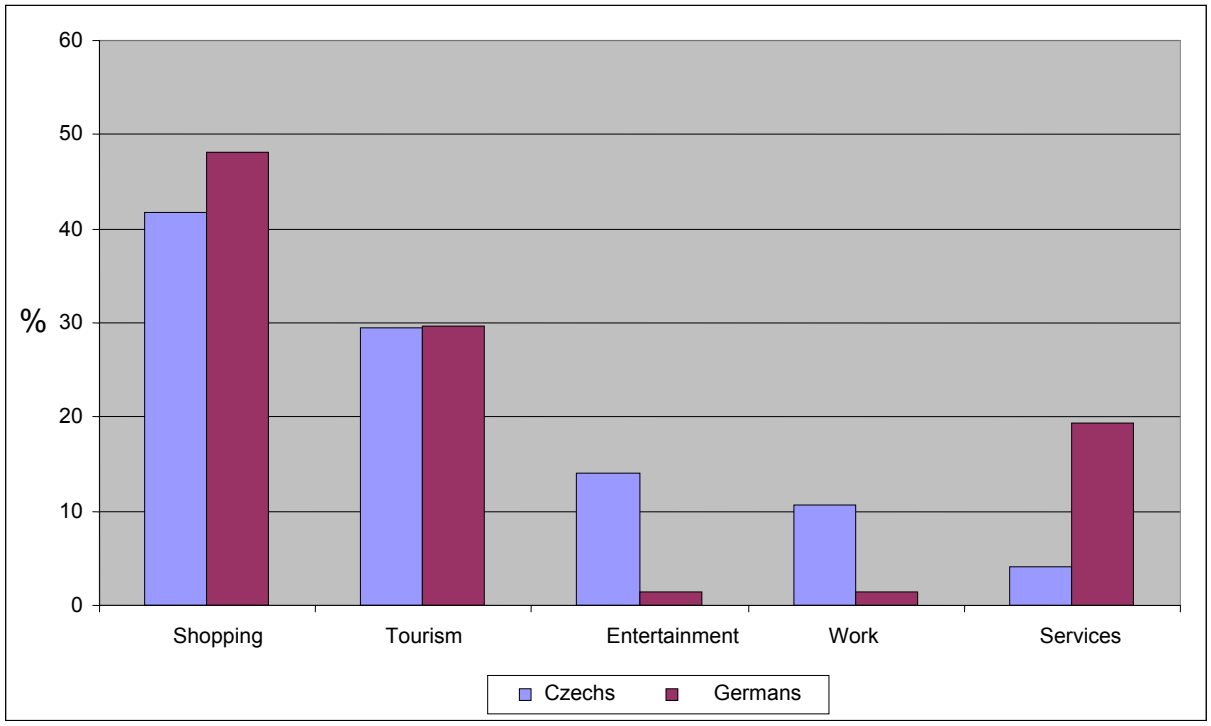
The research took place in the Liberec region and in the German part of the ERN (Zittau area) in 2010. Logical methods, analyses and comparison of the results from both countries were applied for elaboration. The results are presented in the form of graphs and charts.

2 Results and discussion

370 respondents on the Czech side and 201 respondents on the German side of the ERN participated in the marketing research. The above mentioned group can be characterized more closely on the basis of socio-demographic criteria. The sample of 370 Czech respondents included 253 women (68,4 %) and 117 men (31,6 %). The respondents were at the age of 15 and older. The biggest group was between the age of 21 and 30 (38,6%). The largest district of the monitored region (Liberec) is represented by almost half of all respondents, and Šluknovský výběžek - the Šluknov Hook - by 3% of the respondents. In terms of economic activity, over 60 % of economically active respondents participated in the research. 133 women (66,2 %) and 68 men (33,8 %) were questioned on the German side. The structure of the respondents considering other spheres e.g. employment and income, was comparable with the structure of the respondents in the Czech Republic.
The primary objective of the questionnaire was to find out whether the customers use the proximity of the neighbouring border region for their shopping. The partial objectives were to find out what is the main reason for visiting the region, what products and services consumers buy most often and how much they usually spend on their shopping.
The most respondents, who visit the German border region, come from the Šluknov Hook and from the district of Česká Lípa (60 % in total). The second most represented district is Liberec (52% of the respondents from this district visit the German border region), and 27 % of the respondents from the Semily district go to the German border region. In terms of the respondents' age, the category within the range of 31 to 40 years of age dominates.

According to the results of the research, over the past 20 years the frequency of tours to the German as well as the Czech border region has shown an increasing tendency. Approximately 50 % of the respondents stated that they visit Germany more often at the present time than in previous years, only 13 % of the respondents (predominantly age group of 51 and older)

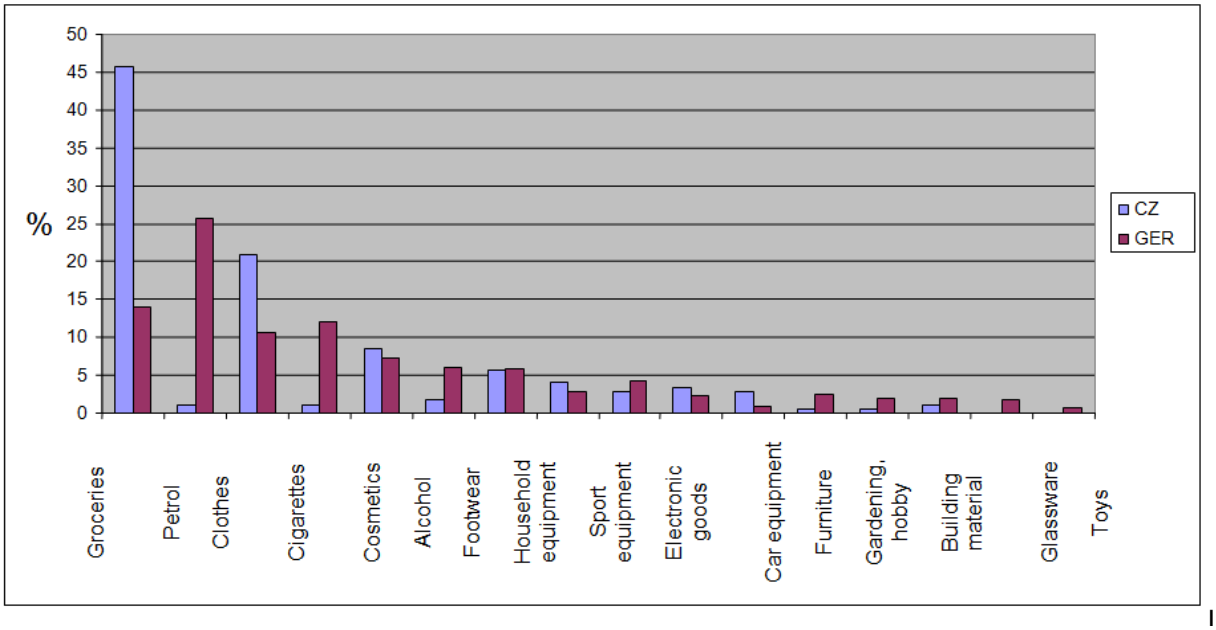
replied that they visited Germany more frequently before 1989. The German respondents also visit the Czech part of the Euroregion more often than before 1989 (according to approx. 60 % of the respondents).
One of the objectives of the research was to define the reason for trips to the neighbouring border region, and the main motive of the respondents to travel to the region. The respondents were asked to specify the main reason of their visit by choosing from the list of five possible answers (shopping, tourism, entertainment, work, services).
The Czech respondents stated shopping as the most frequent reason of their visits (41%), the second most frequent reason was tourism (29,4 %) and the third most frequent reason of their visits was entertainment (14 %). These reasons are summarized in *Fig. 1*. The German respondents specified shopping as the most frequent reason for visiting the Czech border region (48,1 % of respondents), then tourism (29,6 %) and services (19,3 %). The results of the research can show the dissimilarities in the reasons of visits. Services are a more frequent reason for visiting the neighbouring foreign region for the German respondents than for the Czech respondents.



own resources

Fig. 1 Reasons of the Czech and German consumers visiting the Czech-German part of the ERN

Another part of the research considered the most often purchased products and services, in the Czech as well as in the German part of the region. The most popular products to buy in the German border region are groceries. They were stated by 45,8% of the Czech respondents as a reason for travelling to Germany. The second most often purchased goods according to the Czech respondents were clothes, followed by detergents and cosmetics, footwear and household equipment. The research showed that the least interesting goods for the Czech respondents in German border region were petrol, cigarettes, furniture, alcohol etc. The most frequently purchased products are presented in *Fig. 2*.



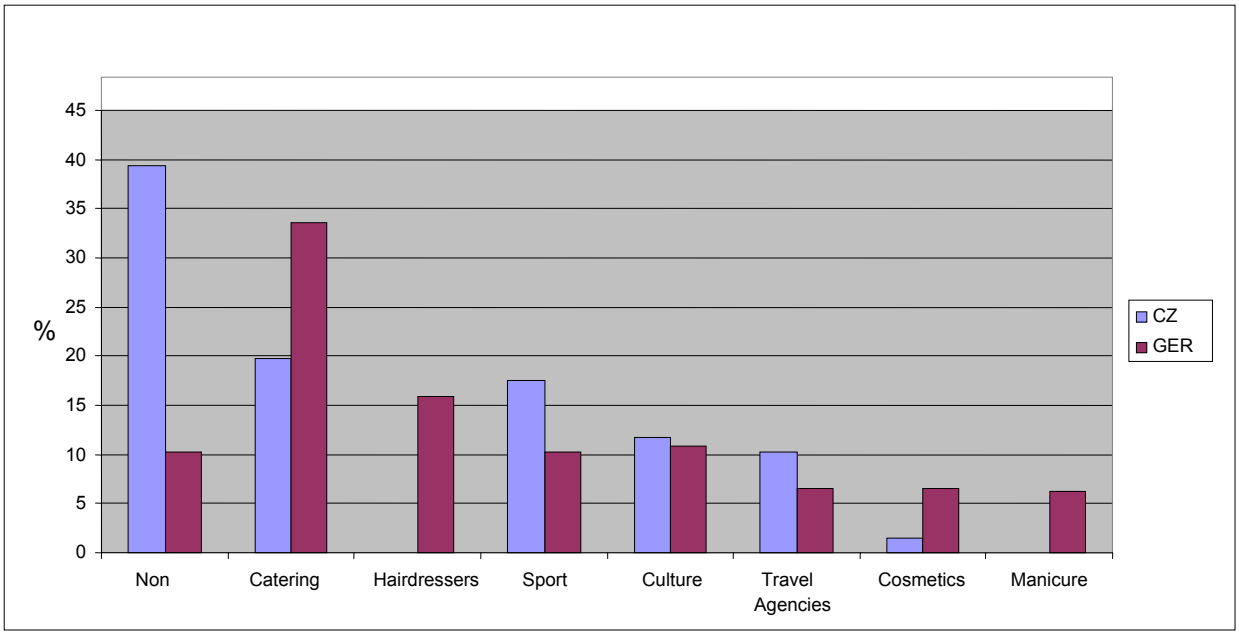
own resources

Fig. 2 The most often purchased products, own resources

The German respondents were, in the Czech part of the ERN, mostly buying petrol, groceries, cigarettes, clothes, cosmetics, alcohol and footwear. The main differences in shopping were spotted between groceries, petrol and cigarettes.

The Czech and the German respondents not only buy products, but also use services offered in the border region. Services are not a common reason for trips of Czech citizens to the German border region, nevertheless the most popular services used by the Czech respondents included catering, sporting activities, cultural events and services of travel agencies. Sporting activities are also intensified by newly built cycle paths from Liberec to Zittau, various nature trails and natural landscapes on the German side of the border region. Cosmetic and hairdressing services in the German border region are the least used services (see *Fig. 3*).

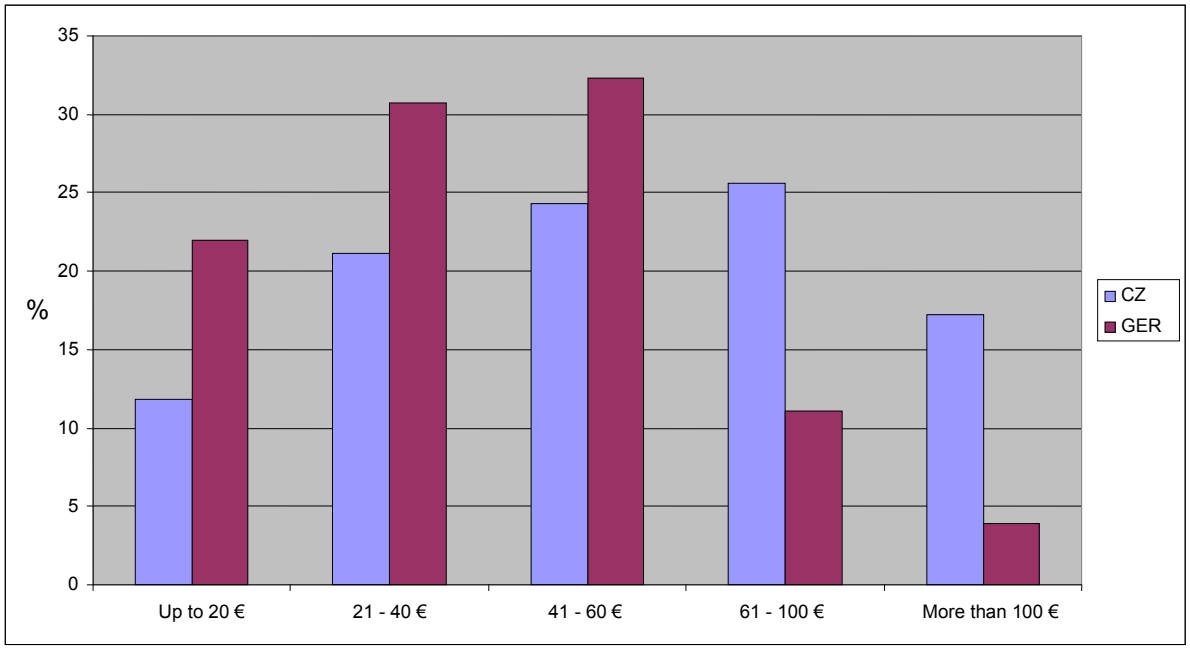
The research in the area of shopping/use of services proved different preferences of Czech and German citizens. The German respondents more often mentioned catering services as the reason of their trips to the Czech border region, followed by visits to the hairdresser's, cosmetics and manicure. One of the significant reasons for visiting the Czech border region (stated by approx. 10 %) is culture and sport.



own resources

Fig. 3 The most frequently used services

Another subject of the research was to ascertain expenses, or the amount of money that the Czech and German visitors usually spend, when they travel to the neighbouring region – see *Fig. 4*. The most Czech respondents stated that they usually spent 61 to 100 Euros during one visit to Germany. The German respondents most often mentioned the amount of 41 to 60 Euros usually spent in the Czech border region. The research confirmed that respondents with higher income spend more.



own resources

Fig. 4 The usual amount of expenses of the Czech and German consumers in the Czech-German part of the ERN

The most visited towns on the Czech side of the ERN are Liberec (34,5 %) and Hrádek nad Nisou (29,9%). Zittau belongs to the most frequently visited towns in the German border region (stated by half of the respondents). Zittau is 30 km from Liberec and less than 10 km from Hrádek nad Nisou. The second most often visited town is Dresden, followed by Gorlitz and Bautzen. The respondents mentioned these towns as destinations of their visits. [2]

The respondents, who visited Germany, mostly appreciated a clean and tidy environment and wider range of goods. The German border region was evaluated positively for its interesting tourist designations, quality products, better cycle paths, lower prices of products, helpfulness and goodwill of businessmen.

Conclusion

The willingness of the addressed group of respondents, from the monitored territory of the Euroregion Neisse – Nisa – Nysa, to travel and buy goods and services (e.g. groceries, clothing and durable goods), differs significantly in particular parts of the Euroregion. Less than half of the Czech respondents stated that they visited the German border region because of shopping or tourism. The most purchased products in Germany are groceries, clothing and footwear.

More than half of the German respondents also go to the Czech border region because of shopping and tourism, but unlike the Czech respondents, their reason is to use the services more often, e.g. mainly catering and hairdresser's. The most purchased products are petrol, cigarettes and clothing.

The most frequent reason for visiting the Czech part of the ERN was shopping. Therefore, any further research could deal with attractiveness of shopping centres, study the profile behaviour of the visitors in connection with the growing popularity of using services and analyse the ways of spending spare time in Liberec. The information could considerably contribute to targeted communication with the tourists in order to increase the number of visitors in the Czech part of the ERN.

Literature

[1] HORSKÁ, E. a KOL. *Európsky spotrebiteľ a spotrebiteľské správanie*.1.vyd. Nitra, SPU Nitra, 2009, ISBN 978-80-552-0318-8

[2] DĚDKOVÁ, J. a kol. *Analýza nákupního chování v česko-německé části Euroregionu Neisse-Nisa-Nysa*, 2010, Liberec:IKA, ISBN 978-80-7372-593-8

[3] SCHIFFMAN, L. G., KANUK, LAZAR, L. *Nákupní chování*. 1.vyd. Brno: Computer Press, 2004, ISBN 80-251-0094-4.

[4] VYSEKALOVÁ, J. *Psychologie spotřebitele, Jak zákazníci nakupují*, Grada Publishing, Praha, 2004, ISBN 80-247-0393-9

[5] KOUDELKA, J. *Spotřební chování a marketing*, ISBN 80-7169-372-3, 1.vyd. Praha: Grada Publishing, 1997, ISBN 80-7169-372-3

[6] BUDAJ, P. *The Management Cycle and Quality in Social Services*. In: SRAGA, M.: La science et la formation du troisiéme millénaire. Fribourg - Suisse: Association Internationale Sciences, Éducation, Cultures, Traditions, 2010. ISBN 978-2-9700716-8-6

[7] ŠRONĚK, I. *Kultura v mezinárodním podnikání*. 1.vyd. Praha: Grada, 2001, ISBN 80-247-0012-3

[8] POLIAČIKOVÁ, E. - MUSOVÁ, Z. 2010. Environmental and Social impacts of the entry and the working of distribution chains on the business net., ARAD - RUMUNSKO, pp.56-60, ISBN 1584-2339

[9] STARZYCZNÁ, H.*Vybrané aspekty internacionalizace vnitřního obchodu v teoretických přístupech a v empirických zkoumání v české republice v období transformace*, E+M, pp.115-130. 1/2010, ISSN 1212-3609

[10] LUKAČOVIČOVÁ, Zuzana - MIKLOŠÍK, Andrej. Možnosti budovania vzťahov so zákazníkmi v malej firme. In Aktuálne výzvy marketingu a ich uplatnenie v praxi : vedecké state z medzinárodné vedecké podujatie, Bratislava : Vydavateľstvo EKONÓM EU v Bratislave, 2010. ISBN 978-80-225-3037-8

[11] HES, A. a KOL. *Chování spotřebitele při nákupu potravin*, Praha: Alfa Nakladatelství, 2009, ISBN 978-8087197-20-2

[12] MORGENSTEIN, M., STRONGIN, H. *Modern retailing*, Management Principles and Practices, Regents, Prentice Hall, 1992, ISBN 0-13-588120-X

[13] BENEŠ, O. a KOL. *Okresy* v *Euroregionu Neisse-Nisa-Nysa- grafy, kartogramy.*1.vyd. Euroregion Nisa regionální sdružení. 2009.Dostupné z: http://www.liberec.czso.cz/xl/redakce.nsf/i/okresy_euroregionu_neisse_nisa_nysa_grafy_kartogramy/$File/EUROREGION.pdf

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PhDr. Ing. Jaroslava Dědková, Ph.D, Ing. Iveta Honzáková, Ing. Světlana Myslivcová

CHOVÁNÍ SPOTŘEBITELŮ V ČESKO-NĚMECKÉ ČÁSTI EUROREGIONU NEISSE- NISA – NYSA

Ekonomická pozice Libereckého kraje je silně ovlivněna geografickou blízkostí sousedních států (SRN a Polsko). To se dotýká ne jenom možností spolupráce firem na obou stranách hranic, ale i nákupní turistiky. V rámci pohraničního regionu lze denně pozorovat návštěvníky ze sousedních zemí. Tyto návštěvníky lze potkat v nákupních střediscích, rekreačních zónách, zábavních podnicích, při sportovních událostech apod. Článek popisuje dílčí výsledky primárního výzkumu chování zákazníků v česko-německé části Euroregionu Neisse- Nisa – Nysa. Hlavním cílem výzkumu bylo poznat nákupní chování v česko – německé části ERN a analyzovat případné odlišnosti. Tento příspěvek se věnuje dílčímu cíli – zjištění důvodů návštěvy česko-německého pohraničí a hlavního motivu cesty respondentů do zahraničí.

ERGEBNISSE DER FORSCHUNG - DAS VERHALTEN DER VERBRAUCHER IM TSCHECHISCH-DEUTSCHEN TEIL DER EUROREGION NEISSE- NISA – NYSA

Die wirtschaftliche Situation des Bezirks Liberec wird stark durch die Nähe der Nachbarländer BRD und Polen beeinflusst. Das betrifft nicht nur die Möglichkeiten der Zusammenarbeit der Unternehmen beiderseits der Grenze, sondern auch die Einkaufstouristik. Im Rahmen der Grenzregion kann man Vielzahl der Besucher aus den Nachbarländern beobachten. Diesen Besuchern kann man in Einkaufszentren, Erholungs- und Vergnügungseinrichtungen, bei Sportveranstaltungen usw. begegnen. Sie tragen wesentlich zur regionalen Wirtschaft bei, deshalb ist es nötig, ihnen höhere Aufmerksamkeit zu widmen. Der Artikel beschreibt die Teilergebnisse der Primärforschung, die auf das Kundenverhalten im Tschechisch-Deutschen Teil der Euroregion Neiße-Nisa-Nysa ausgerichtet wurde, d.h. "auf die Feststellung des Zwecks der Besuche des tschechisch-deutschen Grenzgebiets".

ZACHOWANIE KONSUMENTÓW W CZESKO-NIEMIECKIEJ CZĘŚCI EUROREGIONU NEISSE-NISA –NYSA

Na ekonomiczną pozycję Kraju Libereckiego ma mocny wpływ geograficzna bliskość sąsiednich państw (Republiki Federalnej Niemiec i Polski). Dotyczy to nie tylko możliwości współpracy przedsiębiorstw po obu stronach granicy, ale również tzw. turystyki zakupowej. W ramach regionu przygranicznego każdego dnia obserwuje się znaczącą liczbę odwiedzających z krajów sąsiednich. Osoby te można spotkać w galeriach handlowych, ośrodkach rekreacyjnych i rozrywkowych, na imprezach sportowych itp. Artykuł przedstawia częściowe wyniki badań zachowań klientów w czesko – niemieckiej części Euroregionu Neisse – Nisa – Nysa. Głównym celem badań było poznanie zachowań zakupowych w czesko – niemieckiej części euroregionu oraz analiza istniejących różnic. Niniejszy artykuł poświęcony jest jednemu z celów prowadzonych badań – zidentyfikowaniu powodów odwiedzin w czesko – niemieckim pograniczu i głównych motywów wyjazdów respondentów za granicę.

INTEGRATION OF EUROPEAN MORTGAGE CREDIT MARKETS

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Abstract

The European Commission has been seeking to gradually integrate the European mortgage credit markets for several years; the Commission considers this activity as a priority for more efficient functioning of the European Union (EU) financial system. The reason is a relatively high volume of not repaid balances of mortgage loans on housing in the EU member countries, which represents approximately 50 % of the EU GDP. The result of these efforts was a publication of so called White Paper on the Integration of the EU Mortgage Credit Markets in 2007. This document summarizes the measures for improving efficiency and competitiveness of the EU mortgage credit markets. However, the document was discussed and consequently accepted at the time when nobody assumed the critical development in the area of mortgage credit financing and the subsequent reaction of financial markets.

Introduction

Housing construction is an important part of economic activities and investments have significance in this segment of economy from a short-term point of view and also from a perspective of a long-term economic growth. There are various possibilities of how to finance investments in housing construction and their usage differs depending on a region and specifications of the local housing policy. A mortgage credit is one of the liabilities of which characteristics suit the best to financing investments in housing construction.

Although there is a continuing gradual process of national mortgage credit markets integration into the European Union (EU), the European Commission (Commission) has been preparing an intervention on European mortgage credit market for several years which should lead to faster and more perfect integration.

The European Central Bank defines the fully integrated market of financial instruments or services as a market where all of the potential market parties

- "are subject to a single set of rules when deciding to buy or sell those financial instruments or services,
- have equal access to this set of financial instruments or services, and
- are treated equally when they operate in the market." [2], [6]

Furthermore, the National Bureau of Economic Research defines the integrated financial market with the following definition:

"In integrated financial markets, domestic investors can buy foreign assets and foreign investors can buy domestic assets. Among countries that are fully integrated into world financial markets, assets with identical risk should command the same expected return, regardless of location. "[10]

Given the above definitions, it is possible to characterize, in relation to mortgage credits, an optimal integrated mortgage credit market where there is a narrow range of interest rates,

highly competitive environment, zero entry barriers and a wide scale of product supplies. The benefit of integration can be seen especially in the increase of individual consumption in the housing segment as well as in the field of other products and, further, in the increase of the total GDP.

The study of European Mortgage Federation and Mercer Oliver Wyman mention three possible ways of future European mortgage credit market integration:

- cross-border clients mortgage crediting as a basic form of mortgage creditor entry to foreign market;
- mergers and acquisitions as a form of mortgage creditor entry to a foreign market by the medium of already existing institutions;
- asset transactions e.g. in the framework of mortgage credits securitization. [11]

The Commission in its published deliberations considers combining all of the above mentioned principles with the dominance of the cross-border clients mortgage crediting.

There has been used an interdisciplinary approach; there have been used logical and systematic methods, documentary observing, comparison, and deduction and induction.

1 The History of European Mortgage Credit Markets Integration

The European Commission has been seeking to gradually integrate European mortgage credit market for several years (especially those mortgages which serve as an instrument for financing housing needs); the Commission considers this activity as a priority for the more efficient functioning of the European Union (EU) financial system and also for the EU economy itself. The reason is a relatively high volume of not repaid balances of mortgage loans on housing in the EU member countries which represents approximately 50 % of the EU GDP. [5]

In 2005 the Commission published a document called Green Paper on Mortgage Credit. The Green Paper was a summary of topics intended for consultation which were related to the possible future integration of the mortgage credit market and Commission's mission in this area [3]. The topics arose from the study of the Forum Group on Mortgage Credit[1] issued in 2004 under the title "The Integration of the EU Mortgage Credit Markets" and referred particularly to the following sections: consumer protection, legal aspects of mortgage crediting, mortgage business securitization, mortgage credit financing.

Simultaneously in 2005, the European Commission settled the Mortgage Funding Expert Group to analyse what could be done to facilitate the development of secondary mortgage markets at the European level.

The culmination of the consultation process which had begun in 2005 was the publication of so called White Paper on Mortgage Credit in December 2007. The White Paper summarizes results of the above mentioned process of the consultations and sets up a complex of measures to improve the efficiency and competitiveness of the EU mortgage credit market focused on housing. These aims should be reached by:

- the facilitation of the cross-border supply and also cross-border financing of mortgage credits. The existence of different legal frameworks and statutes on consumer protection, heterogeneous infrastructure (e.g. in the field of credit registers), as well as a lack of suitable legal regulations generating legal and economic obstacles that bound cross-

[1] The Forum Group on Mortgage Credit was established by The Internal Market Directorate General in 2003 to identify obstacles of further mortgage credit market integration in the EU and to analyze impacts of these barriers on inner EU market functioning.

border credit providing and prevent a development of efficient financing strategies used in the whole Europe.

- increasing the diversity of mortgage banking products.
  However, there is available a whole scale of products in the EU, and it isn't possible to say about a single local market that it offers all of the mortgage credit alternatives, concerning product characteristics or a target borrower. In some detail it is a consequence of factors such as consumers' preferences or different business strategies of mortgage creditors. There though exist economic and legal barriers, too.
- the facilitation of consumer confidence and consumer mobility.
  The Commission supposes that there cannot exist an efficient market without consumers who have confidence and sufficient information and who are able to find out and choose the best mortgage product for their needs regardless of mortgage creditor localization. For the right choice, consumers need clear, correct, complete and comparable information about different mortgage products. [4]

However, the document was discussed and consequently accepted at the time when nobody assumed the critical development in the area of mortgage credit financing and the subsequent reaction of financial markets. Affairs from the years 2008 and 2009 then led the Commission partly to put off many objectives, which the Commission had defined within the White Paper, partly to their modification and amendments. Still in 2009 the Commission published a summary of the measures about responsible credit lending and borrowing including their intermediation which are related to areas such as: Fairness, transparency and professionalism, Fair advertising and marketing, Professional distribution channels, Competent start, Informed prospective borrower, Information on the offer's period of validity, etc. The Commission thus partially shifted its policy orientation from the process of the integration to the responsible mortgage credit lending.

In addition to the efforts of the European Commission, there operate several institutions that also strive for overcoming barriers, bigger transparency and more perfect competition in the field of mortgage banking on the all-Europe basis. One of the most important institutions in the mortgage-banking area is the European Mortgage Federation established in 1967 which connects national bank associations from all of the EU member states, Norway and Switzerland, and which represents over 75 % of the EU mortgage industry. Its most important objective is to represent the interests of its members at the European level.

2 The Integration Barriers of National Mortgage Credit Markets

As it was mentioned above, the interpretation and comparison of data gained from the mortgage banking institutions acting at the national level seem to be very difficult and complicated especially because of the existing differences in the particular countries.

Among the most important differences, it is possible to sort out the following areas:

- traditions and customs of housing,
- a level of housing and a level of living as a whole,
- actual economic a political situation,
- geographical and climate conditions.

There exist considerable differences among the particular EU member states in the structure of mortgage banking and also in the usage of the terms. The features of mortgage banking are always bound up with the structure of national mortgage credit markets as well as with social customs and historical traditions and also with the terms of regulation and subvention of mortgage banking.

However, the most severe factor is the insufficient data harmonization within the EU that seriously limits the possibilities of comparing the particular countries and setting up a complex view on the European mortgage credit market as well as on the housing market. Nevertheless, on the basis of the official data obtained from the national sources and other records it is possible to design estimations of maturity and a structure of interest rates on the EU mortgage credit market.

Mortgages with the end of the mortgage term longer than twenty years and with the initial fixed interest rate period of 10 years contain a significant role in mortgage contracts. These loans are popular e.g. in Belgium, Germany, France, and in the Netherlands. According to the data from 2004, the share of mortgages with at least a ten-year fixed rate represented circa 50 % of the total amount of the unpaid debt in the EU [7]. This general trend in the EU indeed still prevails, though there can be seen a reverse trend on several national markets in the last years, i.e. a preference for variable interest rates rather than for fixed rates. This anomaly is caused by the applied monetary policy of the national central banks, especially by a significant fall of basic interest rates within the context of the economic recession. This situation also concerns countries with the traditionally significant share of mortgages with a fixed rate such as e. g. Belgium where the share of newly closed mortgages with a fixed rate decreased from 82.7 % in the 4th quarter of 2008 to 32.8 % in the 4th quarter of 2009.

The ways of mortgage refinancing really differ in particular areas. According to the estimation of the European Mortgage Federation, there are two thirds of mortgages set to housing refinanced by Retail Deposits (this rate is even bigger in countries like e. g. Great Britain), followed by Covered Bonds with the share of 20 % (this method of refinancing is common, especially, in Germany, Denmark, but also in Spain, France, Sweden and the Netherlands) and with the share of 5 % on mortgage refinancing Mortgage Backed Securities. However, the share of this - in Europe a relatively new way of mortgage refinancing - rather drops due to recent affairs on the US mortgage market and the consequent economic recession.

The variety of the European mortgage market also concerns a structure of creditors. Mortgage credits in relation to the region are provided by banks (Belgium, the Netherlands, and Portugal), savings banks (Germany, Spain, and the Czech Republic), cooperative banks (the Netherlands, France, and Germany), state banks (Greece, Portugal), and specialized mortgage banks (Germany, Denmark). [9]

Broad differences also appear in state subvention systems, whereas the most sophisticated systems of state subvention of this kind can be found in states of Northern Europe, namely in Finland where the housing fund, which covers these activities, was established in 1993. The advantages of this system of state subvention are especially: simplicity, transparency and a lower demand on administration in contrast to the case in which state subventions are realized via several organizations.

3 Estimated Benefits and Costs of National Mortgage Markets Integration

The key factor in a decision making process of the Commission was the study “The Costs and Benefits of Integration of EU Mortgage Markets” published in August 2005 [1]. The group of experts based their study on the comparison of the future European mortgage market development in the case if the Commission acts (i.e. approach of fast integration) and in the case if the Commission does not make any serious intervention (i.e. likely a path of particular and slow integration). The integration of the European mortgage market is defined for the purpose of this study as an ideal state in which there are identical products of mortgage banking accessible in all of the member states for the same prices.

In order to reach the ideal state of full European mortgage market integration, in the study there were designed these subtargets: reduction of national restrictions on mortgage products supply, creation of terms for mortgage credits securitization and functioning of secondary mortgage market, improvement of real estate registers, assessment of unified European measures within estate evaluation, terms unification of business activities of home and cross-border creditor institutions in the particular countries etc.

The costs of integration are, according to the above mentioned study, primarily represented by the costs of creditor institutions of a new system implementation (implementation of new software, new products, advertising materials etc.) and costs incurred by unrealized contracts (there can decrease an interest by certain types of products in several countries).

The benefit of the integration is thought to be an increase of individual consumption both in the housing area and in the area of other products, and further in an increase of GDP.

Above mentioned costs and benefits of the integration - represented by increased individual consumption - were estimated by a group of experts with the help of the application of earlier elaborated implementation costs studies of regulatory measures on the mortgage market in Great Britain. These costs and benefits are listed in *Tab. 1* [1].

Tab. 1 Comparison of costs and benefits through time € Millions in 2005 prices

Year	Cost	Benefit (Gain in Consumption)
2005	2 398,5	0,0
2006	2 478,4	-9 646,0
2007	2 478,4	-7 939,0
2008	2 478,4	-2 163,1
2009	2 478,4	7 304,4
2010	2 478,4	15 831,2
2011	2 478,4	21 893,4
2012	2 478,4	27 475,1
2013	2 478,4	31 813,6
2014	2 478,4	34 817,2
2015	2 478,4	38 725,3
Discount rate (%)	Net present value of net benefit through 2015	NPV of net benefit as % of EU GDP in 2005
3,0	99 067,1	0,93
3,5	94 567,1	0,89
4,0	90 268,2	0,85

Note: the value of EU GDP in 2005 used in a Eurostat projection.

Source: The Costs and Benefits of Integration of EU Mortgage Markets, Report for European Commission, DG-Internal Market and Services [online]. London: London Economics, p. 106.

Even if most of the subtargets, which the Commission set to realize in the White Paper, have not been fulfilled yet, and the realization of these targets has been temporarily suspended due to the persisting economic recession, it is possible to assume that costs and benefits defined in the mentioned study will probably be noticed in the future after the intervention of the Commission on the mortgage market in the EU.

There can be seen an obvious assumption of great loses in the *Tab. 1* represented by the decrease of individual consumption in the first few years after the intervention of the Commission on the mortgage market in comparison to the situation if the market developed

without the intervention of the Commission. But there is also a rapid increase of this ratio in the following years which highly exceeds assumed costs of the integration. This development seems likely to be influenced by the assumption of the increased activity in the investment area on the housing market in the first years. With the use of the discount rate of 3.5 % is the net present value of benefits of the fast integration reduced by the costs estimated at 94,567 million EUR within 10 years. This value is not final though because there might be realized benefits of the integration in the future.

It is necessary to judge these mentioned estimations very carefully because the study contains a variety of simplifying assumptions; e.g. it does not reflect the influence of different taxation on mortgage markets in the particular countries, and it operates with unfamiliarity with the tools that the Commission may employ. It will also be very difficult to achieve the ideal fully integrated European mortgage credit market. Furthermore, it is essential to take into account the partial innovation of the Commission's subtargets listed in the White Paper and, as already mentioned, the enhanced accent on responsible lending. However, the European Commission has not published concrete measures in this area considering the present complicated economic and political situation yet.

Conclusion

Despite above mentioned local differences, it is possible to characterize the European mortgage credit market as a stable and developed market which grows from region to region faster or slower.

The main advantages that the integration of mortgage markets in Europe may bring to clients of financial institutions consist of the extension of the product supply and the supply of services; further advantages are:, mortgage prices reduction especially in the field of fees, and, namely, accessible mortgages for a wider range of clients.

In terms of creditor institutions, there shall be considered the benefits of the integration due to a possible reduction of costs that are needed for refunding as the consequence of secondary mortgage market establishment which is also accompanied by the mortgage financing risk reduction. Another positive aspect of the integration lies in the lowering costs of distribution thanks to an establishment of large transnational creditor institutions. Likewise, the increase of the efficiency of used capital can be considered thanks to the possibility of relocating this capital from less to more profitable markets.

Despite the fact that at present the Commission has partly shifted its political orientation from the integration process to the responsible lending and postponed the fulfilling of the subtargets in the field of national mortgage markets integration within the EU, it is possible to assume that the integration process will be fully restored in the closest future, so that all the benefits of the optimal integrated mortgage market could be realized.

Literature

[1] *The Costs and Benefits of Integration of EU Mortgage Markets, Report for European Commission, DG-Internal Market and Services [online]*. London: London Economics. [cit. 2010-09-01]. Available from WWW: <http://europa.eu.int/comm/internal_market/finservices-retail>

[2] ECB. *Financial Integration in Europe. [online]*. 2011. [cit. 2011-03-26]. Available from WWW: <http://www.ecb.int/pub/pdf/other/financialintegrationineurope200804en.pdf>

[3] European Commission. *Green Paper on Mortgage Credit [online]*. 2005. [cit. 2009-11-08]. Available from WWW: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2005:0327:FIN:CS:PDF>

[4] European Commission. *White Paper on the Integration of EU Mortgage Credit Markets [online]*. 2007. [cit. 2010-09-25]. Available from WWW: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2007:0807:FIN:CS:PDF>

[5] *European Mortgage Federation [online]*. 2011. [cit. 2011-03-26]. Available from WWW: <http://www.hypo.org/Content/Default.asp?PageID=452>

[6] European Mortgage Federation. *HYPOSTAT 2009 A review of europe's mortgage and housing markets. [online]*. 2010. [cit. 2011-03-28]. Available from WWW: <http://www.hypo.org/Objects/6/Files/Hypostat%202008%20-%20light%20version.pdf>

[7] *Features of mortgage contracts in the Euro Area. Monthly Bulletin ECB [online]*. November, 2004. [cit. 2011-03-22]. Available from WWW: <http://www.ecb.int>

[8] *The Integration of the EU Mortgage Credit Markets, Report by the Forum Group on Mortgage Credit [online]*. Brusel: The Forum Group on Mortgage Credit, 2004. [cit. 2010-08-30]. Available from WWW: <http://europa.eu.int/comm/internal_market/finservices-retail>

[9] MÚČKOVÁ, V. *Hypotéky v Európe [online]*. Bratislava: Národná banka Slovenska, Inštitút menových a finančných štúdií, 2000. [cit. 2005-05-10]. Available from WWW: <http://www.nbs.sk>

[10] *National Burelu of Economic Research. [online]*. 2011. [cit. 2011-03-26]. Available from WWW: <http://www.nber.org>

[11] *Study on the Financial Integration of European Mortgage Markets [online]*. London, Brussel: European Mortgage Federation, Mercer Oliver Wyman, 2003. [cit. 2009-05-02]. Available from WWW: <http://www.hypo.org>

[12] SUNEGA, P., MIKESZOVÁ, M., LUX M. Příčiny regionálních nerovností ve finanční dostupnosti bydlení v ČR. *E+M Ekonomie a Management*, 2009, Vol. 12, Iss. 2, p. 55-75. ISSN 1212-3609

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INTEGRACE EVROPSKÉHO TRHU HYPOTEČNÍCH ÚVĚRŮ

Evropská komise se již několik let snaží o postupnou integraci evropských trhů s hypotečními úvěry; tuto aktivitu spatřuje jako prioritní pro efektivnější fungování finančního systému Evropské unie i pro hospodářství EU jako takové. Důvodem je relativně vysoký objem neuhrazených zůstatků hypotečních úvěrů na bydlení v zemích EU, který představuje cca 50 % HDP EU. Výsledkem integračních snah bylo v roce 2007 zveřejnění tzv. White Paper on the Integration of EU Mortgage Credit Markets. Tento dokument shrnuje opatření ke zlepšení efektivnosti a konkurenceschopnosti trhů EU s hypotečními úvěry na bydlení. Dokument byl však diskutován a následně schválen v době, kdy nikdo nepředpokládal krizový vývoj v oblasti hypotečního úvěrování a následnou reakci finančních trhů.

INTEGRATION DES EUPOPÄISCHEN HYPOTHEKARKREDITMARKTES

Die Europäische Kommission bemüht sich seit einigen Jahren um eine schrittweise Integration des Europäischen Hypothekarkreditmarktes; diese Aktivität wird als Priorität für eine größere Effizienz des EU-Finanzsystems und auch für die EU-Gesamtwirtschaft betrachtet. Der Grund dafür besteht in einem relativ hohen Volumen der ausstehenden Hypothekarkredite für private Wohnbauten in den EU-Ländern, das fast 50 % des BIP der EU beträgt. Aufgrund dieser Bemühungen wurde das sog. Weißbuch über die Integration der EU-Hypothekarkreditmärkte veröffentlicht. Dieses Dokument fasst die Maßnahmen für Verbesserung der Effizienz und Wettbewerbes der EU-Hypothekarkreditmärkte zusammen. Das Dokument wurde jedoch diskutiert und nachstehend zu einer Zeit verabschiedet, als die Krisenentwicklung im Bereich der Hypothekarkredite und nachfolgende Reaktion der Finanzmärkte nicht zu erwarten war.

INTEGRACJA EUROPEJSKIEGO RYNKU KREDYTÓW HIPOTECZNYCH

Komisja Europejska od kilku lat podejmuje proby stopniowej integracji europejskiego rynku kredytów hipotecznych; uważa tę działalność za priorytet efektywniejszego funkcjonowania systemu finansowego Unii Europejskiej, a tym samym i gospodarki UE. Przyczyną jest wielkość niespłaconych kredytów hipotecznych na zakup mieszkań w krajach UE, które stanowią około 50 % PKB UE. Wynikiem tych działań było opublikowanie w roku 2007 tzw. White Paper on the Integration of EU Mortgage Credit Markets. Dokument ten zawiera propozycje środków wspierających poprawę efektywności i zdolności konkurencyjnej rynków UE w dziedzinie kredytów hipotecznych na zakup mieszkań. Dokument ten był omawiany i zatwierdzony w czasie, kiedy nikt nie oczekiwał kryzysu na rynku kredytów hipotecznych i następnej reakcji rynku finansowego.

DETERMINATION OF REGIONAL DISPARITIES IN THE CZECH REPUBLIC AND IN THE EUROPEAN UNION

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Abstract

The article deals with the issue of comparing the approaches to the measurement of disparities in the European Union and in the Czech Republic. Some methods applied to determine the disparities are common both in the European Union and in the Czech Republic, where regional disparities are measured at the national level (Czech Statistical Office) and the regional level as well, whereas the results are mainly used by the regional management. At the level of municipalities no measurement of disparities could have been carried out so far. Within the scope of the research program of the Ministry for Regional Development of the Czech Republic, a new methodology for the identification of the dynamics of economic development of municipalities was developed. This methodology was certified under the registration number 03-ÚÚR-259-2011/01-WD-30-07-1 and it allows for the measurement of disparities even at the level of particular municipalities.

JEL classification: R11, R58

Introduction

The territory of particular European countries is divided into so called regions. Regions may be characterized as geographically bordered territories with certain typical signs and characteristics. Natural-geographic conditions of particular areas allow for various economic activities which are distributed across the regions unevenly. This leads to a considerable inequality in the economic, social and civilization development of particular regions. The sustainable development of each society requires that the already existing and emerging disparities do not exceed a certain limit acceptable for the relevant society.

Despite the fact that the European Union is one of the wealthiest regions of the world, there are quite significant differences amongst the particular member countries as well as among areas in the countries themselves. There are multiple reasons for these differences. They may include long-term disadvantages existing due to the geographical remoteness of the relevant region, because of recent social and economic changes or as a result of a combination of these factors. These disadvantages are often displayed as a social decline, schools of poor quality, higher unemployment rate and insufficient infrastructure. As for some EU member countries,

one of the reasons for the disparities amongst the regions is the legacy of the former system of centrally planned economy.

The aim of the EU regional policy is to modernize the stagnant regions in order to level them with the rest of the EU. By means of the regional policy the EU transfers financial means from rich regions to the poorer ones.

The twenty poorest regions of the European Union are situated in Bulgaria, Romania, Poland and Hungary. On the other hand the twenty richest regions are in Germany, Netherlands, Great Britain and Denmark. There are sixty-six EU regions that are below the level of 75% of the average GDP in the EU; from that fifteen are located in Poland, nine in Hungary, seven in Romania, seven in Greece, six in the Czech Republic and six in Bulgaria.

1 Regional setup and methodologies used for the determination of disparities in the European Union

In a long-term perspective the development of the European Union is determined by two fundamental goals - competitiveness and cohesion. The EU Cohesion Policy results from the existence of disparities amongst countries, regions and social groups, and its principal aim is to reduce the disparities. The disparities that reflect the level of cohesion are classified as economic, social and territorial.

1.1 EU regional setup

The territorial composition of the European Union is not only represented by individual EU member countries (currently 27) but regions as well. A region is defined as a territory with more or less strictly determined borders; it often serves as an administration unit of a lower rank than the country itself. Regions are determined on the basis of various criteria (e.g. economic, ecologic, ethnical and/ or natural-geographical attributes). A specific criterion is the determination of the administrative-management regions for the purposes and for the needs of application of the European Union regional policy tools. In this case we mean the so called artificially created regions, as nomenclature territorial statistical units (NUTS) divided further into six NUTS levels. NUTS 0 represents the territory of the whole country. NUTS I to NUTS III levels represent the regional level, whereas NUTS IV and NUTS V represent the local level. In order to designate the regions at the levels NUTS I to NUTS III, uniform principles were adopted and they are equally applied in all the EU member countries. These principles consider the existing institutional borders, the current state of the territorial-administrative arrangement of the relevant area, and the population - minimum and maximum limits. At lower levels such as NUTS IV and NUTS V there may exist districts and municipalities that are referred to as the self-governing units (Local Administrative Units-LAU). [7]

NUTS classification is also used for the statistical monitoring and analyses of social and economic situation in particular regions as well as for the purposes of preparation, implementation and evaluation of a regional policy. Moreover, it is used for the tasks associated with the drawing of financial means from the EU structural funds.

According to the statistical data published by Eurostat, as of 1 January 2011, there were 97 NUTS I regions, 271 NUTS II regions and 1,303 NUTS III regions in the European Union.

1.2 Disparities and methodology applied in the European Union

One of the important documents, the regional policy of the European Union is based on, is the "European Regional/Spatial Planning Charter". This strategic document unified the classification and typology of regions for all the member states which adopted it. In the European Union regions are divided into rural, municipal, border, mountain and structurally weak ones. [10]

The European Commission makes use of another classification, recognizing six types of regions. This classification identifies the territories that seek for an urgent attention and financial support. These six types of regions cover the stagnant regions (typified by an insufficient infrastructure, poorly qualified labor force and the prevailing agricultural production), regions affected by industrial decline and recession (of specific branches), periphery regions (their weak aspect is their location at the borders of the country, geographical isolation and insufficient availability of access/ exit routes), border regions (situated at the outer borders of the European Union), regions affected by urban issues (such as negative social impacts of large agglomerations, negative impacts on environment, transport problems, etc.), rural regions (focused on agricultural production determined by climatic conditions and the changes thereof). [10]

In the European Union, multiple methods exist for the evaluation of regional disparities. Among the most often used ones is the "Inter-regional Comparative Method". With this method, particular regions and processes within these regions are compared on the basis of the results of the analysis; this is done to find out similarities and differences in the development of the regions. Another method for the evaluation of disparities is the "Method Using the Geographical Information System" involving the use of computer systems oriented on the processing of geographical data. The resulting data are transferred and presented in the form of maps. Quite a favourite method for the evaluation of disparities is the "Cluster Analysis" representing a rather wide group of methods used for the sorting of a specific set of objects into few relatively homogenous families, which are usually identified as "clusters". The statistical method called "Factor Analysis" allows for the evaluation of disparities by means of the development of particular indicators designated for the determination of the regional disparities. [6]

In the European Union, where numerous other methods are used, the regional disparities are evaluated at the national level. The so called "structural indicators" are based on the three pillars of the Lisbon economic, social and environmental process. Currently there are 79 indicators divided into six basic areas (environment - 18 indicators, employment - 11 indicators, social cohesion - 10 indicators, general economic environment - 9 indicators, innovation and research - 16 indicators, economic reform - 15 indicators. To facilitate the evaluation of the regional disparities, the list of structural indicators has been reduced, being currently referred to as the short list. [8]

2 The Czech Republic regional setup

Historically the Czech Republic was divided into regions that corresponded to the current level NUTS III. Before joining the European Union, so called cohesion regions were established as basic statistical units of the regional policy; they were used for various calculations within the European Union. The territory of the Czech Republic is divided into NUTS I through NUTS V territorial units. NUTS I is a unit covering the whole Czech Republic. NUTS II is a lower rank unit corresponding to the middle level of the administration arrangement of the Czech Republic. The middle level is characterized by the so called cohesion regions. There are eight cohesion regions in total (North-West, North-East,

Central Bohemia, South-West, South-East, Moravian-Silesian, Central Moravia and Prague). NUTS III corresponds to the lowest rank of the territorial - administration arrangement of the country. These are the so called administrative regions (self-government territories) - in total there are 14 administrative regions (Central Bohemian, South Bohemian, Plzeň Region, Karlovy Vary region, Ústí nad Labem region, Hradec Králové region, Pardubice region, Vysočina, South Moravian Region and the Capital City of Prague). NUTS IV represents the level of districts. In the Czech Republic we have 77 districts. NUTS V is represented by 6,250 municipalities.

2.1 Reasons for disparities amongst particular regions

Factors affecting the emergence of disparities amongst particular regions may be classified as primary and secondary. [4]

The category of primary factors covers the relatively low mobility of labor force, the relatively low mobility of capital, geographical factors and the economic structure of regions. In the Czech Republic the mobility of labor force is quite limited. People are not willing to move to get a job as the real estate market is not working efficiently. Also the sufficient transport serviceability is missing, making the mobility of the labor force even worse. The relatively low mobility of capital in the Czech economy is a consequence of a rather undeveloped capital market. Geographic factors cover the limited access to sufficiently big town centers, the low quality of transport connections, poor and insufficient natural resources (e.g. the mountain resorts offer soil of a poor quality only), etc. The economic structure of the regions was one-sidedly oriented. The current decline of the traditional branches leads to the economic recession in the regions (e.g. textile manufacture, glassmaking industry, etc.).

The category of secondary factors covers external economy, the demographic situation, the region environment and other factors. The inflow of new companies into the region is especially affected by external economy that is closely interconnected with the technical and financial infrastructure. The demographic situation of regions is mainly associated with a low level of education in rural areas. For the demographic development of rural areas a higher percentage of seniors living there is typical. The environment, representing an important local factor, may be deteriorated due to various reasons, thus loosing its attractiveness not only for the local population and tourists, but also for potential foreign investors. Other factors including, for instance, the social environment represented by accessibility of health facilities, the number of day-care and senior houses, etc., are also perceived by the population quite sensitively and they may lead to the departure of population from the region.

2.2 Disparities and the methods for their determination in the Czech Republic

As stated by Hasprová, Jáčová and Syrovátková [5, page 22], "regional disparities mean a deviation from an explicit, already determined and measurable indicator".

One of the main goals of the regional policy is to reduce the regional disparities. In order to meet the goal, it is necessary to determine the territorial level the disparities will be determined at (cohesion regions, regions, districts, municipalities). Also, it is necessary to come up with a methodology and to determine indicators for the measurement and comparison of disparities. While selecting the methodology and indicators, availability of official data must be taken into consideration. However, at the level of districts and municipalities, the level of availability of the official data is quite poor, as the coverage of the current statistical monitoring is not wide enough. [2]

The methods used for the measurement of disparities are developed at the national level, by a statistical authority, regional authorities as well as within the scope of the research projects of universities.

2.2.1 Methods for the assessment of regional disparities at the national level

As stated by Alois Kutschereauer et al. [6, page 101], "the recent Czech regional practice evaluates the regional disparities either by means of methods based on inter-regional comparisons, comparing the regions on the basis of experience and knowledge, or by means of statistical methods; the practical use of that, at the level of particular institutes engaged in the issues of territorial disparities, is rather limited. "

In the Czech Republic the most frequently used methods cover the method of inter-regional comparison, methods using the geographic information system, degree of variability, multivariate statistical methods, cluster analysis, factor analysis, simplicity model, method of real convergence, adjusted territorial Gini index, and the method of artificial neuron neural networks. These methods are mainly used at the national level. [6]

At this level the country is represented by the Ministry for Regional Development. It strives, by means of the available methodologies, to balance the uneven development of particular regions. During the years 2000, 2003, 2007 and 2010 the Ministry for Regional Development prepared methodologies for the evaluation of the development of regions. In 2000, in accordance with the Act No. 248/2000 Coll., on the Support of Regional Development, the Ministry for Regional Development presented a new methodology in the document titled "The Czech Republic Regional Development Strategy". This methodology divided the regions seeking for a concentrated support of the government to structurally-impaired regions, economically weak regions, rural regions and other regions. [13]

In the structurally-impaired regions the negative effects of structural changes are concentrated. We can see there decline of traditional branches, disappearance of manufacturing companies and the subsequent growth of the unemployment rate. They are determined by means of the following indicators: share of industrial employment in the relevant year in the total employment rate; development of the employment rate in industries in the relevant year compared to the base year 1990; summarized evaluation of the unemployment rate as of 31.12. in the relevant year; number of private enterprisers per 1,000 citizens in the relevant year (the level of significance was determined for particular indicators). [3]

Rural regions are characterized by a low density of inhabitation, decline of population and a higher rate of employment in agriculture. For the determination of rural regions, the indicators such as those that characterize the development of population are used (the structure of employment of citizens living in the relevant region and the share of population in rural municipalities).

Economically weak regions show a considerably lower level of development than is the average level in the Czech Republic. To define the economically weak regions the following indicators are used: summarized evaluation of the unemployment rate as of 31.12. in the given year; tax revenues per one citizen in the given year; the average wage in the district in the given year; the share of employment in agriculture, forestry and fishing in the total employment in the given year; development of employment in agriculture, forestry and fishing in the given year compared to the base year 1990; the density of habitation in the given year, i.e. the population per square meter. Levels of significance (weights) were determined for each indicator. Economically weak regions are territories characterized by a

low standard of living (the measured average wage), a high share of employment in the primary sector, a low density of habitation and the above-average unemployment rate. [3]

In other regions such comparisons are required for the government due to other reasons, e.g. the border regions, former military areas, regions affected by natural disasters, regions with the significantly impaired environment, regions with less favorable conditions for the development of agricultural production, regions with the higher-than-average unemployment rate, etc.

In 2003 the Czech Republic Regional Development Strategy document was updated. Within the scope of this update some indicators for the determination of the structurally impaired regions were adjusted: the share of employment in industries in 1995 in the total employment; the development of employment in industries in 1999, 2000, 2001 compared to the base year 1995; the summarized evaluation of the unemployment rate as of 31 December in the year 1999, 2000 and 2001; the number of private enterprisers per 1,000 citizens in 1999, 2000, 2001. The years were newly determined for particular indicators the data for calculation shall be taken from.

In 2007, the document titled "The Czech Republic Regional Development Strategy for 2007-2013" was used as a basis for a new common methodology. It was developed for the determination of regions that require a concentrated support from the government, and also for the designation of the economically weak regions. On the basis of this methodology, four indicators were determined. The first indicator is a summarized evaluation of the situation in the labour market (the unemployment rate) with a significance of 0.4, covering the unemployment rate, the long-term unemployment and the number of job-applicants per a single unoccupied job position. The second indicator is the tax revenues per 1 citizen with a significance of 0.15. The third indicator is the number of enterprisers per 1,000 citizens with a significance of 0.15 and the last indicator is the buying power of population with a significance of 0.30. [3]

In 2010 the methodology for the determination of regions seeking the concentrated support from the government was updated once again. Particular regions were evaluated on the bases of the unemployment rate, the number of job applicants for each unoccupied job position, the tax revenues of municipalities generated by undertaking physical persons, the number of enterprisers per 1,000 citizens, and the purchasing power of population.

2.2.2 Methods for the evaluation of regional disparities developed by the Czech Statistical Office

Besides the Ministry for Regional Development, also the Czech Statistical Office was engaged in the development of the methodology for the determination of indicators for measurement of regional disparities. The Czech Statistical Office came with four basic groups of regional disparities. For each group of disparities, a set of indicators was determined. The first group is aimed at the issue of the demographic environment and the settlement structure. It covers 13 indicators. The second group deals with the issue of the social environment and it covers 15 indicators. The third group is dedicated to the issues of the economic environment and it covers 14 indicators. The last, fourth, group is aimed at the issue of infrastructure, location, availability and environment. It covers 10 indicators. The results of the analyses by the Czech Statistical Office are used by state administration bodies and regional authorities for the development of strategic and program documents. [3]

2.2.3 Methods for the evaluation of regional disparities developed at regional level

Suitable methods for the measurement of regional disparities, as mentioned by Alois Kutschereauer et al. [6, page 106], are the following five: "method based on scaling techniques; traffic lights method; average deviation method; spot method; standard variable method". Particular regional authorities created their own methodology for the determination of the economically weaker areas. The following indicators were involved most frequently: the unemployment rate; density of habitation; tax revenues respectively the tax yield; the number of enterprisers; the share of employment in the primary sector; the state of technical and water-management infrastructure.

2.2.4 Methods developed by universities

Academic staff of certain Czech universities has been also dealing with the issue of regional disparities. One of them is also the project team at the Faculty of Economics, Technical University of Liberec. The goal this project team set is to develop a procedure for the evaluation of the regional disparities in a different way.

For this purpose, the team carried out an analysis of the indicators used by the Ministry for Regional Development, the Czech Statistical Office and the regional authorities. At first, the team compiled the list of 30 indicators used for the evaluation of the regional disparities so far. The Czech Statistical Office was requested to create a database for particular indicators in the period 2001 – 2006; yet the number of indicators had to be reduced in the end as the Czech Statistical Office did not have data available for certain indicators.

A database with calculated indicators for the period 2001-2006 was developed, covering all municipalities of the Czech Republic. Factor analysis was used to distribute these indicators amongst 8 factors (F1 - F8). These factors are newly used for the determination of a low dynamics of municipality development or - on the contrary - its sustainable development. The factor F1, i.e. unemployment, makes use of three indicators: the registered unemployment rate; the long-term unemployment rate and the level of interest in unoccupied job positions. The factor F2, i.e. migration, works with four indicators: the intensity of housing development; population development growth; the average annual increase/ decrease of population per 1,000 citizens of the medium rank; migration index. For factor F3, i.e. settlement, four indicators were determined: the share of employment in the tertiary sector in the total employment rate; the density of habitation (settlement); the education index; the share of employment in agriculture, forestry and fishing in the total employment - the inverse proportion. The factor F4, i.e. age structure, makes use of four indicators: the economic stress index; the average age of a citizen; the age index; the share of economically active population in the total population - the inverse proportion. For the factor F5, i.e. civic and technical facilities, the following two indicators were selected: the number of medical facilities per 1,000 citizens; the number of elementary schools per 1,000 citizens. For the factor F6, i.e. economy structure, two indicators were determined: the share of employment in the tertiary sector in the total employment; the share of employment in industry and civil engineering in the total employment - the inverse proportion. For factor F7, i.e. sustainable development, two indicators were determined: the number of enterprisers per 1,000 citizens; the coefficient of ecological stability. The last factor F8, i.e. economic activity, covers two indicators: tax revenues per one citizen; the number of job opportunities. [3, 11]

On the website of the Faculty of Economics, Technical University of Liberec, in the section dedicated to science and research - research projects - there is information on the project titled "An Innovation Approach to the Solution of Disparities on the Regional Level". It provides a database of towns and municipalities of the Czech Republic. For each municipality, the above

mentioned eight factors were published with the values of particular indicators for the period 2000-2007. Using the factor analysis, the researchers determined a limit for each factor to define a municipality with the low dynamics of development. The database may be used for a quick information search for particular towns and municipalities in the Czech Republic, with a rough determination of outcome, i.e. the dynamics of the development (the green subtext means a positive value, the red subtext means a negative value). This classification allowed for preparation of cartograms for particular regions as well as the whole territory of the Czech Republic, showing the dynamics of development of particular municipalities.

A newly developed methodology titled "the methodology for the identification of the dynamics of economic development of municipalities" was registered under the reg. No.: 03-ÚÚR-259-2011/01-WD-07-1. This methodology was prepared within the framework of the research program of the Ministry for Regional Development of the Czech Republic (WD - Research for solutions of regional disparities), particularly the project No. WD-30-07-1. As stated by Petra Rydvalová and Miroslav Žižka, this methodology [13, 7] allows for the evaluation of dynamics of the economic development of all municipalities in the Czech Republic at the level of the so called hard data available from the central source of the Czech Statistical Office.

Summary and comparison of methodologies used for the assessment of disparities in the European Union and in the Czech Republic

In the Czech Republic as well as in the European Union multiple methodologies are used for the assessment of regional disparities. The methodologies are mainly developed at national levels, for instance in the Czech Republic they are determined by Czech Statistical Office, whereas in the European Union so called "structural indicators" are used, based on the three pillars of the "Lisbon process". Amongst the most frequently used methodologies, both in the Czech Republic and in the European Union, we count the "Inter-regional Comparative Method" that compares, based on the previous analysis, particular regions and processes running across the regions. Also there is the "Method using the Geographical Information System" and the "Cluster Analysis" and "Factor Analysis" methods. In the Czech Republic the methods for the assessment of regional disparities are - besides the national level - also developed by particular regions and even some universities.

Conclusion

In analytical studies of the European Union, a significant accent has been recently put on less visible, hardly quantifiable factors, especially in terms of efficiency. These factors cover the efficient operation of public administration, the scope and efficiency of production services, availability of social facilities, the dominant business culture and other aspects of the institutional structure creating a favorable environment for changes of the measurable factors. In the Czech Republic the issue of regional disparities has recently become a frequent topic of discussions amongst citizens, politicians and experts. This concern is a result of permanently increasing differences amongst particular regions. Therefore, the aim of the regional policy is to balance these disparities, especially in cases when smaller regions are not able to deal with their problems by themselves.

In future more attention should be paid to the structurally- impaired, economically weak, rural and other regions, in order not to split the territory to the economically stagnant regions and those developing quickly. The solution of this situation is a task not only for the municipalities and regional authorities themselves, but also for the government and the particular ministries (state departments).

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Literature

[1] JÁČ, I., PRSKAVCOVÁ, M., ŘEHOŘOVÁ, P., ŠVIHOVSKÝ, J. *Komplexní pohled na problematiku regionálních disparit z hlediska municipalit.* Issue 1; Liberec: Technical University of Liberec, 2009. Page 23. ISBN 978-80-7372-559-4.

[2] JÁČ, I. et al. *Jedinečnost obce v regionu*. Issue 1; Prague: Professional Publishing, 2010. ISBN 978-80-7431-038-6.

[3] JÁČOVÁ, H.; SYROVÁTKOVÁ, J. Determination of regional differences through selected ratios and proposals of municipal authorities for their reduction. In *III. International Science Conference „Knowledge Society" 2. – 4. 9. 2010*. Issue 1; Bulgaria – Sofia: Knowledge Society Institute, Bulgaria, 2010, page 86 - 90. ISSN 1313-4787.

[4] HUČKA, M. *Vznik a příčiny územních nerovností.* Working papers N1./2007 – Regionální disparity (http://disparity.vsb.cz)

[5] HASPROVÁ, O., JÁČOVÁ, H., SYROVÁTKOVÁ, J. *Ekonomické činnosti obcí jako faktor regionálních rozdílů.* Issue 1; Liberec: Technical University of Liberec, 2009. Page 22. ISBN 978-80-7372-555-6.

[6] KUTCHERAUER, A. et al. *Regionální disparity. Disparity v regionálním rozvoji země, jejich pojetí, identifikace a hodnocení*. Issue 1; Ostrava: Mining University - Technical University of Ostrava, 2010. ISBN 978-80-248-2335-5.

[7] NUTS [online]. ABC o Evropskéj únii [cit. 2011-03-28]. Available on the website: <http://www.europskaunia.sk/nuts>.

[8] SKOKAN, K. PS1 *Komparace regionálních disparit ve vybraných zemích střední Evropy.* [Případová studie]. WD-55-07-1 Regionální disparity v územním rozvoji ČR – jejich vznik, identifikace a eliminace [online]. Ostrava: Mining University - Technical University of Ostrava, 2009. [cit.2011-21-05]. Available on the website: <http://disparity.vsb.cz/vysledky/13_PS1_Komparace%20disparit_V4.pdf>.

[9] SKOKAN, K. *Regionální disparity a soudržnost v zemích V4 [online]*. Ostrava: Mining University - Technical University of Ostrava, 2010 [cit. 2011-21-05]. Available on the website: <http://disparity.vsb.cz/regdis_2010/pdf/07_regdis_%202010.pdf>.

[10] Regional Policy [online]. European Union Portal [cit. 2011-03-28]. Available on the website: <http://europa.eu/pol/reg/index_cs.htm>.

[11] RYDVALOVÁ, P., ŽIŽKA, M. *Konkurenceschopnost a jedinečnost obce.* Issue 1; Liberec: Technical University of Liberec, 2008. page 11. ISBN 978-80-7372- 423-8.

[12] RYDVALOVÁ, P., ŽIŽKA, M. *Metodika identifikace dynamiky hospodářského rozvoje obcí.* Issue 1; Liberec: Technical University of Liberec, 2011. Page 24. ISBN 978-80-7372- 761-1.

[13] Act No. 248/2000 Coll., on the Support of Regional Development.

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URČOVÁNÍ REGIONÁLNÍCH ROZDÍLŮ V ČESKÉ REPUBLICE A V EVROPSKÉ UNII

Článek se zabývá porovnáváním přístupů k měření disparit v Evropské unii a v České republice. Některé způsoby určování disparit jsou společné jak v Evropské unii, tak i v České republice, kde se regionální disparity měří na národní úrovni, Českým statistickým úřadem a na krajské úrovni, kde jsou využívány především regionálním managementem. Na úrovni obcí se v České republice dosud disparity nemohly měřit. V rámci výzkumného programu Ministerstva pro místní rozvoj ČR byla vytvořena nová Metodika identifikace dynamiky hospodářského rozvoje obcí, která získala osvědčení č. 03-ÚÚR-259-2011/01-WD-30-07-1 a která umožňuje, aby mohly být disparity měřeny i na úrovni jednotlivých obcí.

DIE BESTIMMUNG DER REGIONALEN UNTERSCHIEDE IN DER TSCHECHISCHEN REPUBLIK UND IN DER EUROPÄISCHEN UNION

Der Artikel befasst sich mit dem Vergleich einzelner Messverfahren von Disparitäten in der Europäischen Union und in der Tschechischen Republik. Einige Bestimmungsverfahren von Disparitäten haben sowohl die Europäische Union als auch die Tschechische Republik gemeinsam, wo die regionalen Disparitäten auf dem Nationalniveau und von der Tschechischen statistischen Behörde auf dem Bezirksniveau gemessen werden; die Ergebnisse werden dann vor allem vom regionalen Management genutzt. Auf dem Gemeindeniveau konnten die Disparitäten in der Tschechischen Republik bis jetzt nicht gemessen werden. Im Rahmen des Forschungsprogramms des Ministeriums für Regionalentwicklung in der ČR wurde eine neue Methodik für die Identifizierung der Dynamik der wirtschaftlichen Gemeindeentwicklung geschaffen, die über das Zertifikat Nr. 03-ÚÚR-259-2011/01-WD-30-07-1 verfügt. Diese Methodik ermöglicht die Messung von Disparitäten auch auf dem Niveau einzelner Gemeinden.

OKREŚLANIE DYSPROPORCJI REGIONALNYCH W REPUBLICE CZESKIEJ I UNII EUROPEJSKIEJ

Artykuł przedstawia porównanie podejść do pomiaru dysproporcji w Unii Europejskiej i Republice Czeskiej. Niektóre sposoby określenia dysproporcji są takie same zarówno w Unii Europejskiej, jak również w Republice Czeskiej. W RCz dysproporcje regionalne mierzone są na poziomie krajowym przez Czeski Urząd Statystyczny oraz na poziomie krajskim (wojewódzkim), gdzie są wykorzystywane przede wszystkim przez władze regionu. Do tej pory w Republice Czeskiej nie istniały możliwości pomiaru dysproporcji na poziomie gmin. W ramach programu badawczego Ministerstwa Rozwoju Regionalnego Republiki Czeskiej opracowano nową metodykę identyfikacji dynamiki rozwoju gospodarczego gmin, która otrzymała świadectwo nr 03-ÚÚR-259-2011/01-WD-30-07-1. Pozwala ona na pomiar dysproporcji również na poziomie poszczególnych gmin.

EFFICIENCY MANAGEMENT OF THE CZECH HEALTH CARE

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Abstract

This paper concentrates on the assessment of health care efficiency in the Czech Republic. The health care sector is a special industry. For that reason, efficiency measurement calls for special approaches and methods. Drawing partially from international experience this paper presents two approaches of efficiency measurement illustrated by two university hospitals in the Czech Republic. In our study to lay some common ground we firstly compare the funding system and then we apply financial measures for measuring effectiveness and subsequently we employ non-financial indicators. The case studies illustrate that both kinds of measures are necessary to capture the complex environment and diverse activities in the health care system. Moreover, combination of both methods provides better outcome for efficiency measurement.

Introduction

This paper concentrates on assessment of efficiency of health care in the Czech Republic. The health care sector is a special industry. For that reason, efficiency measurement calls for special approaches and methods. The first problem of health care management is the measurability of results and therefore finding the real price of outputs.

Cost controlling and efficiency measures were not the main worry of the day when the health care developed in the post-war era. The prices of health care were not important. What was important was the capacity. The premise of previous era was to provide a good health care to broad population. Even though the market system did not operate well, some of the specialities were on a top world level e.g. neonatal care, treatment of tuberculosis and other highly infectious diseases combated by compulsory vaccination.

In the Czech Republic the healthcare program is based on a model of a welfare state. This concept is a heritage given by the historical development after the Second World War that was maintained and developed for several decades until the Velvet Revolution in 1989.

After the 1989 the system has changed. There was not a steady flow of financial resources directly from the state budget but hospitals and other medical facilities started to be

reimbursed for health care provided by newly established health insurance companies. Stream of revenues that goes to health care institution is a combination of direct payments and payments in form of reimbursement by the Ministry of Health established by legislation.

The structure of our paper is as follows: After the introduction and motivation the paper presents brief characteristics of health-care funding in the Czech Republic. To gain more international perspective the second part introduces a summary of approaches to health care funding in Germany. The third part characterises methods of health care efficiency management using financial measures and non-financial indicators. The fourth part introduces the case study of efficiency management of two university hospitals the UH Motol and the UH Brno. The last part provides conclusion and recommendations.

1 Description of Funding of the Health Care System in the Czech Republic

The health care legislation in the Czech Republic is regulated mainly by the Act No 48/1997, on Public Health Insurance. This law gives an opportunity to every Czech citizen to use any medical institution supplying urgent care (emergency and ambulance) or to institution with a valid contract with Insurance Agency to provide medical treatment. There is an element of solidarity and equity in the Czech health care. In the Czech Republic the healthcare program is based on a model of a welfare state. This concept has been inhereited from the historical political development after the Second World War. This system developed for several decades until the Velvet Revolution in 1989. Both funding and budgeting systems in medical care are specific due to particularities of the sector. This means that a patient does not pay directly for medical services provided.

The health care system is set up for the public provision of treatment. Therefore, it has been very difficult to implement private medical facilities that could by the scope of provided services be similar to the established public hospitals.

The impossibility to compete basically gradually divided the market into services which are almost exclusively provided by the private clinics (e.g., laser eye surgery, aesthetic surgeries, assisted reproduction, etc.) and the overwhelming majority of the rest of medical services provided by public hospitals. Private clinics provide particular medical services, because the level of reimbursement is making them profitable and these services are almost solely provided by them. Private medical facilities mostly provide services for direct cash payments. This system of funding makes them independent on the insurance companies, and thus leaves them the space for standard non-regulated way of competition. The public hospitals cover all other types of medical treatments.

Even though the standard of supplied services differs vastly among the public facilities across the Czech Republic, the providers are basically not allowed to compete. The reimbursement for particular treatment is specified by the Ministry of Health and it is the same for everybody. In other words, hospitals always get the same contribution, no matter the quality provided. This aspect is recently changing with new reforms that bring more concentration in the sector and closures of regional medical facilities. This is very different from the approach of private commercial entity and it also partially explains why at the same market there is usually no space for both public and private medical facilities.

In the Czech Republic the health care expenditures represented about 7.2 – 7.1 per cent of total GDP expenditures in the period from 2004 to 2008. This is comparable to European standard, as it can be seen in Chart 1. As it concerns the budgeting of individual hospitals and health care institutions the current reimbursement system in the Czech health care is unfavourable to the private medical facilities in the sense that the amendments to the contracts with insurance companies are signed retroactively for the given year.

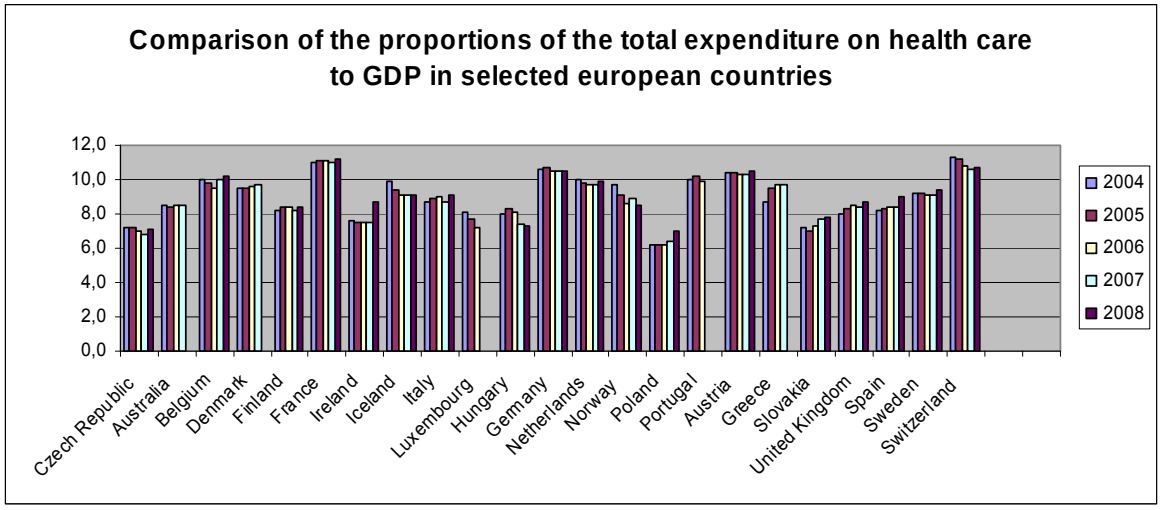

Fig. 1 Proportions of health care expenditures on country GDP (Europe in years 2004-2008)[1]

An important feature of the Czech health-care expenditures is that despite the general economic crisis there was a growth of expenditures on health care funding. To illustrate, in 2009 the GDP declined by 1.7 per cent in standard prices and the proportion of health care expenditures on total GDP increased to 7.9 per cent.

In the Czech Republic the direct and indirect sources of funding are distinguished. Indirect funds are represented by public budgets (both state and municipal ones), the compulsory insurance, the voluntary insurance, the employee insurance, the charity and the international help. Direct funds from health service recipients are assembled by direct funds of health care. The proportion of main sources can be seen in Chart.2.

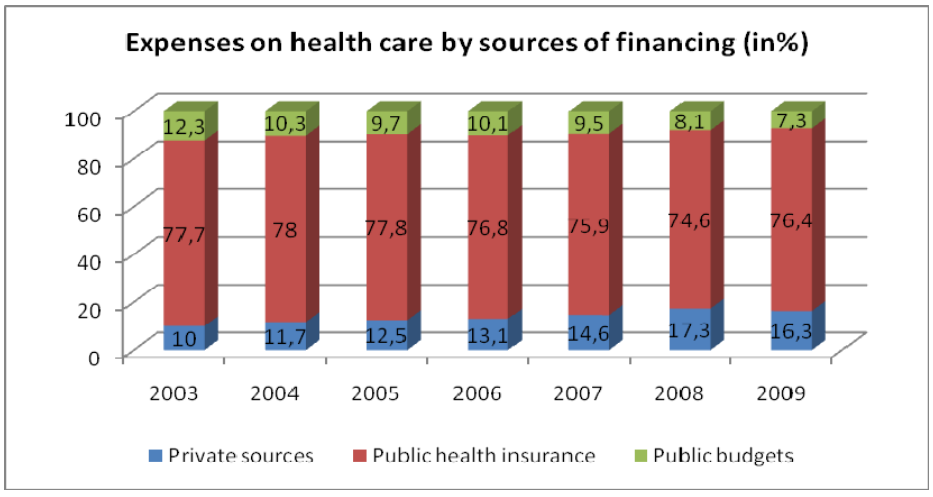

Fig. 2 Proportions of main health care funding sources in the Czech Republic in the period from[2] *2003 to 2009*

[1] Economic Information on Health Care 2009; http://uzis.cz [consulted on 20.2.2011]

[2] Economic Information on Health Care 2009; http://uzis.cz [consulted on 20.2.2011]

2 General Approach to Health Care Funding in Germany

To get the international perspective we have decided to compare the funding of our country health care system to other countries. For this reason we have chosen Germany for its geographical nearness and numerous historical analogies. Broader research on funding in Europe was undertaken by the Health Policy Consensus Group funded by British HNS. This research compared and examined 11 healthcare funding systems. Related research has appraised the systems by asking about eight key features by which the important relations between individuals as potential patients, third-party payers and healthcare providers were assessed.

In Germany a combined funding system is used, where the social health insurance is paid both by the employer and the employee, whilst insurers are competing.[3] German statutory healthcare system is not universal. Rather, the funding is divided into three parts: 74 per cent of the population are mandatory insured under the statutory system (in 2010 it was about 65 to 70 per of population), a small number including most of self employed citizens and certain civil servants are excluded and usually choose to purchase private insurance, and a third group earning above an income threshold may choose between statutory insurance and private health insurance.

Tab. 1 Contributions to statutory Health care in Germany

Monthly contributions to statutory health care insurance (based on gross salary of the employee)	**2010**	**2011**
With entitlement to sickness payments during the sickness leave	14,9 %	15,5 %
Without entitlement to sickness payments during the sickness leave	14,3 %	14,9 %
Pension insurance	19,9 %	19,9 %
Unemployment insurance	2,8 %	3,0 %
Contribution for child care insurance premium (the beneficiary has at least one child)	1,95 %	1,95 %
Contribution to health care insurance (the beneficiary does not have any children)	2,20 %	2,20 %

Source: Health Policy Consensus Group (2003) Options for Healthcare Funding. http://www.civitas.org.uk/pdf/hpcgSystems.pdf pp. 11-12. [consulted on 22.2.2011]

Approximately equal parts of the above contributions are paid by employer and employee, e.g. employer pays 7,5% and employee contributes 8% of the salary.

2.1 Lessons from the German funding system

We can find similarities and differences between the systems in the Czech Republic and Germany. Important features that characterise the German system are:

1. Price consciousness: In Germany, the health care cost is also expressed as a percentage of income and employers and employees pay about half each. The average cost represents 13.5 per cent of income. The money does not go to the government budget, but to independent sickness funds "c.450", which pay for the care chosen by their members. There is some

[3] Source: Health Policy Consensus Group (2003) Options for Healthcare Funding. http://www.civitas.org.uk/pdf/hpcgSystems.pdf pp. 11-12. [consulted on 22.2.2011]

concern that social insurance patients consume too much health care. Exceptions are: pharmaceuticals that are subject to partial direct payment ranging from € 5.00 to € 10.0 per pharmaceutical and majority of dental care, where patient must pay € 10.00 each 3 month in case of dentists visit. Patients are not aware of the real cost of medical treatment.

2. Social solidarity: The poor are very well cared for. In most cases the unemployed have their insurance premium paid for by the government. However, in what is an openly two or three tiers system, there is a concern in some quarters regarding stigmatization of the poor.

3. Consumer empowerment and patient satisfaction: Patients may choose providers and have a particularly wide range of health care specialists. The gate-keeping function is weak in Germany, though it is likely to be strengthened. Patient's satisfaction was high, but it has decreased in recent years and it is currently less then before reorganization in 2009. One of the causes may be a rise in insurance premiums.

4. Quality of care: Germans provide and receive one of the highest quality of medical care in the world. This is obviously higher than in several non EU countries, USA etc. However, there is better quality care in Switzerland, France, Sweden, Norway, UAE, Japan and Hong Kong. Competing providers usually treat all patients but they have an incentive to attract the high paying privately insured patients, which has a 'leveling up' effect on the quality of care available to all citizens.

5. Clinical autonomy: Key features of corporatism and subsidiarity dominate the German health care. Accordingly, regional physicians' associations and sickness fund associations determine the level of treatment budgets. A series of Federal Acts have focused on cost containment since 1977. Pricing of pharmaceuticals is controlled by a short-list and reference prices, but the spending cap was abolished in 2002. There is an increasing concern that new medical technologies are not being made available to those who may benefit from them. There is a geographical restriction over the freedom to set up a medical practice, coming from local authorities.

6. Conflicts of interest with the third party payer: Most of the independent sickness funds are run by boards representing employers and employees. However, the major weakness of the German system is that sickness funds have to sign a contract with all physicians and hospitals. That means,that they have to pay 'all willing providers' (AWPs) which prevents them from selecting approved lists of cost-effective, safe, or consumer-friendly practitioners or hospitals. This is likely to change with a shift towards greater freedom to contract. Insurers must also offer the same extensive package of benefits to all needed citizens, which is further weakening their position.

7. Responsiveness: The supply of physicians is high, and waiting lists are almost unheard of. Hospital treatment capacity is high, partly because German regional governments provide for capital investments. There are concerns, however, that current cost control measures will limit the capacity of the system to adapt to future needs.

3 Health-Care Efficiency Management

Health carte institutions are not excluded from the general rules of financial management. Planning budgeting and control are part of their financial management. The starting point of planning is the goal setting and choice of appropriate strategy. The medical institution must analyse the market where it operates. When setting up a budget the organisation has to consider economic and legal rules as well as recent internal development in the company. Medical institutions should be able to identify the scope and range of medical services they are providing using own resources and care which is provided by suppliers. Furthermore there needs to be a specification of research and educational activities including allocation of

relevant resources.[4] Financial planning needs to focus on long term issues, whilst budgeting deals with short term issues. To set up a good budget one needs to use the financial information containing data from recent past and partially enables to predict further development. Organisations need to establish, which sources they need – (both material and medical). Number of personnel is determined by insurance companies on the basis of registration sheets of medical outputs per department. Research activity and new technology development is usually financed from grants. Education of new physicians and nurses is coordinated with medical faculties and secondary medical schools and it is financed from the sources of ministry of education.

We can speak about the efficiency of the Health care system in relation to introducing so called DRG (Diagnosis-related-group). This is a classification system that creates limited number of clinically and economically homogeneous groups of cases of acute hospitalisation and thus it enables to compare the relative demand for sources in cases that are classified in these groups.[5]

The diagnostic related group can be used for:

- Funding acute bed care
- Tool for hospital management
- Tool for communication between the doctors and economic management both inside and outsider the hospital
- Tool for measuring the medical production
- Tool for measuring quality of health care.

3.1 Financial Measures

Even though the public healthcare providers are predominantly funded by public resources some standard measures of financial health are useful indicators of their overall economic standing. In our study we use three basic financial measures looking into liquidity of financial means.

Net Working Capital

An important measure of corporate financial health is the size of net working capital. The greater the net working capital, the better the liquidity of the company in concern. Liquidity measures the firm's ability to pay its financial obligations as needed. If the indicator is negative, the company displays unsecured short term debt and thus the long-term resources are lower than fixed assets. The implication is that a part of long term assets is financed by short-term funds.

Receivables turnover

This financial ratio shows how long it takes to collect receivables, or how long it takes to convert receivables into cash, that can be used elsewhere in the company. The recommended values are determined by payment terms on company's invoices. If the receivables turnover is longer, it indicates a poor payment discipline of clients.

Payables turnover

This financial ratio shows how long it takes to pay-off the short term debts of the firm. To maintain a comfortable financial balance in the firm the payables turnover period should be a

[4] Robert A. Vraciu: Programming, Budgeting, and Control in Health Care Organizations: The State of the Art, 1979, Health Services Research [p.128 and follows]

[5] http://www.nrc.cz/cs/drg; [cit. 30-03-2011]

bit longer than the receivables period examined above, however this depends on payment conditions provided by company suppliers.

With the use of the data employed above we can perform liquidity analysis and assess the short term financial stability by analyzing the trade deficit, which is a comparison between terms of payment of receivables and payables. This is practically illustrated in part 4 where we provide a comparison of two important hospitals in the Czech Republic.

3.2 Non Financial Instruments and Indicators

Quality is essentially a subjective concept. It is perceived differently by the practitioner and by his client. The quality has two dimensions – subjective, i.e. how satisfied the client is, and objective, keeping up to exact criteria - outputs of measurement are so called ISO 9001 metrics.

Hospitals can apply two systems of quality measurement: either ISO norms or Czech norms. There are several certification authorities of ISO, whilst there is only one accreditation agency providing accreditation for the whole hospital in the Czech Republic.

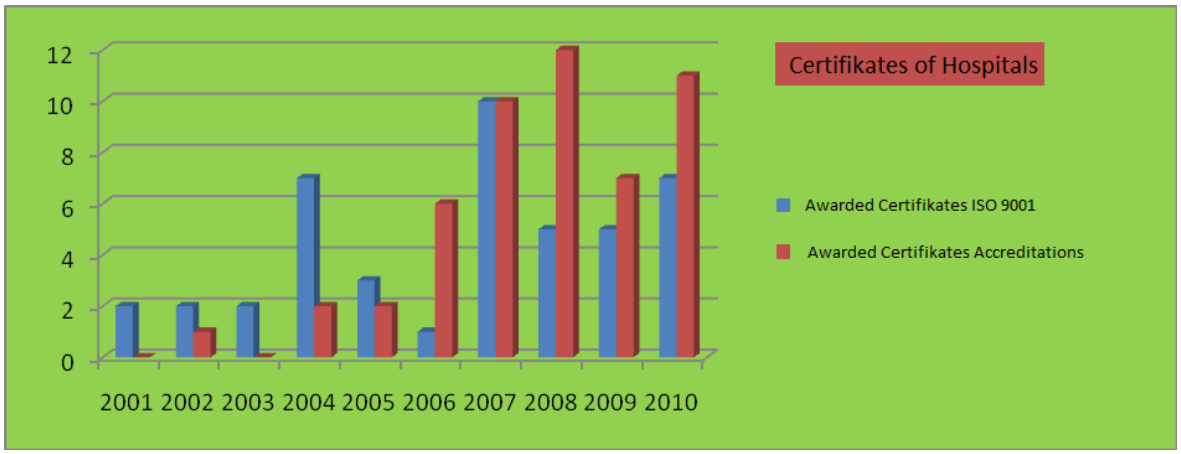

Fig. 3 Awarded Certificates and Accreditations in the Czech Republic[6]

3.3 Further measures of quality management in hospitals and health care organisations

Quality management systems are being introduced in health-care institutions; this increases efficiency and improves economic results in health care institutions. It improves the organisation of process management in order to improve the satisfaction of patients. This results in improved competitiveness of health care institution and prestige of the hospital. Systems of quality management are adopted in public and private institutions. Quality management systems are voluntary, and they asses from the external point of view whether the activity of individual health care institutions is in accordance with preset standards of duality and safety. The goal of certification is to ascertain permanent improvement of healthcare. At the start of every year health insurance companies require accreditation before signing agreement with hospitals.

Accreditation standards are defined by International Association of Quality (ISQua) in health care in cooperation with the world healthcare organisation. (WHO). In accordance with accreditation principles of ISQua and WHO there is also international organisation Joint Commission International (JCI), certifying health care institutions outside the USA.

[6] http://www.howtogermany.com [consulted on 15.1.2011]

In the Czech Republic the accreditation programme for health care provides Joint accreditation committee (Spojená akreditační komise, o.p.s. - SAK), National authorisation centre for clinical laboratories (Národní autorizační středisko pro klinické laboratoře - NASKL), Czech institute for accreditation of clinical calibration laboratories and further activities.

The international accreditation JCI was awarded to several Czech medical institutions, e.g. the Central Military Hospital Prague (Ústřední vojenská nemocnice) The Institute of Hematology and Blood Transfusion (Ústav hematologie a krevní transfuse), Na Homolce Hospital (Nemocnice na Homolce), Masaryk Memorial Cancer Institute (Masarykův onkologický ústav), University Hospital in Ostrava (Fakultní nemocnice Ostrava).

Individual medical institutions can be accredited according to the above listed international standards JCI, or individual parts of institutions can be accredited according to norm ISO 9001:2008, which helps to organise and systemize processes focussing on their management and improvement.

University hospitals and joint stock companies and other organisations funded by contributions are accredited in accordance with standards of Joint accreditation committee (SAK ČR).

Quality improvement concentrates on the needs and safety of patients. It assesses measurable quality indicators and assures patient's satisfaction. By gaining the information on quality the organisation manages the quality of processes and procedures and human resources. Quality indicators are following the requirements of international standards JCI and national quality standards in management of processes in medical institutions (SAK CR).

Accreditation process enables institutions to improve the organisation and management of processes, to increase clients' satisfaction and improve economic results of performed care. Last but not least it improves the competition and prestige of medical institution in the eyes of patients and enables reactions to patients' requirements with the use of internal audits.

4 Comparative Case Study of the UH Motol and the UH Brno

4.1 Financial Measures

Net working capital (hereinafter NWC) is one of traditionally used differential indicators. The substance of this measure is that it represents a part of company's current assets that is financed with long-term capital sources. The development of net working capital at the University Hospital Motol is satisfactory.

In comparison, our analysis of net working capital at the University Hospital Brno shows that this hospital does not have a sufficient amount of current assets, which could be used by the hospital management to implement its short term plans. The main cause of the negative net working capital in the University Hospital Brno is an unsecured suppliers' debt that is effectively used as a long-term resource. In general, in Brno the long term financial resources are lower than fixed assets employed, therefore, some long term assets must be funded from current resources. In such circumstances there is a danger that due to the repayment obligations part of the corresponding fixed assets would have to be sold off.[7]

[7] Funková I. (2010) Financial analysis of University Hospital Motol and prediction of future development. Bachelor Dissertation, VŠEM 2010

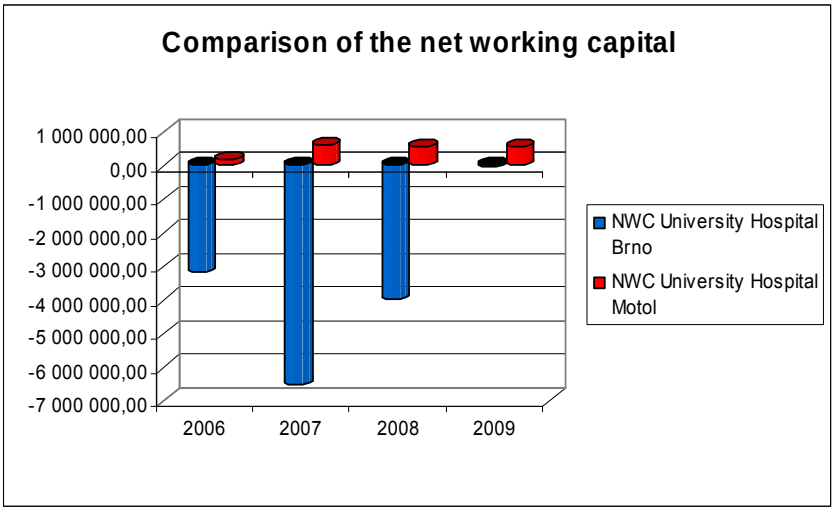

Fig. 4 Comparison of the net working capital

Short term activity ratios

When comparing the selected indicators of activity of both hospitals we come to the conclusion that the University Hospital Motol is in a better position concering receivables and payables turnovers in the period under review. In UH Motol the set term are 60 days for receivables and 90 days for payables as agreed with customers and suppliers respectively. For University Hospital Brno we have calculated the actual values in 2006 as 310 days, in 2007 538 days and in 2008 297 days and up until 2009 when the results improve to 71 days. Fore more details see *Tab. 2* and *3*.

Tab. 2 Key Activity Ratios in UH Brno

Key Activity Ratios	2006	2007	2008	2009
Asset turnover	1	2	2	1
Inventory turnover	8	6	8	7
Receivables turnover	8	6	6	50
Payables turnover	310	538	297	71
Trade deficit	-302	-531	-291	-20

Source: Funková I. (2010) Financial analysis of University Hospital Motol and prediction of future development. Bachelor Dissertation, VŠEM 2010, p. 51

Tab. 3 Key Activity Ratios in UH Motol

Key Activity Ratios	2006	2007	2008	2009
Asset turnover	1	1	1	1
Inventory turnover	7	8	8	6
Receivables turnover	29	10	12	29
Payables turnover	68	37	39	38
Trade deficit	-39	-28	-27	-9

Source: Funková I. (2010) Financial analysis of University Hospital Motol and prediction of future development. Bachelor Dissertation, VŠEM 2010, p. 40

4.2 Non-financial measures: quality management in the University Hospital Motol and the University Hospital Brno

The presented hospitals are certified according to different norms and methods. Faculty hospital Motol is accredited in accordance with standards published by SAK ČR. Part of the University Hospital Motol - the Institute of Biology and Clinical Genetics - is certified in accordance with the norm ČSN EN ISO 15189:2007 and the Institute of Biochemistry and Clinical Batobiochemistry is certified in accordance with the norm ČSN EN ISO 9001:2009 in the area of providing laboratory services for development of new methods in biochemistry. The remaining laboratory departments are undergoing accreditation process according to NASKL.

In the University Hospital Brno all medical and non-medical institutes are independently certified (that is more than 150 institutes). The University Hospital Brno as a complex unit is also accredited in accordance with the norm ČSN EN ISO 9001:2008. This means that Faculty Hospital Brno is the only medical institution that obtained such accreditation since 2007. Further accreditation of Faculty Hospital Brno is ĆSN EN ISO 14001:2004. This is a certificate of the technical department.

Conclusion

This paper concentrates on health care efficiency management and funding in the Czech Republic. Providing health care is not only a budgeting question, but it is related to many ethical issues. Up to now, the Czech state and municipal hospitals were not really forced to be cost effective and to be responsible for their results.

It can be seen from our short comparative case study how the financial and non-financial indicators operate in two important Czech hospitals. The general recommendations for efficiency improvements in health care sector in the Czech Republic are as follows: Hospitals could significantly reduce their costs, with use of outsourcing. The cost of medical materials can be reduced with the use of electronic auctions for procurement of medical materials. Further measure can be a decrease of the headcount, this, however, requires a change of regulations provided by insurance companies. Good information system is indispensable in medical organisations and it helps efficiency management. The system must be able to respond to generating information that helps better planning and more efficient use of resources. The system of control, which is used in organisations, contributes to reducing inefficiencies and improves quality of provided medical services and also efficient use and allocation of financial resources. The system of control can be used as a non-financial indicator, which can serve to evaluation of medical institutions.

On a more general level, patients in the Czech Republic need to be aware of the costs of medical care they receive. As we have learned in the case of Germany, patients receive a bill summarizing the cost of their treatment. Therefore they have an opportunity to become cost conscious. The case studies of selected hospitals illustrate that both kinds of measures - financial and non-financial - are necessary to capture the complex environment and diverse the nature of activities in the health care system.

Literature

[1] FUNKOVÁ, Ivana. *"Finanční analýza Fakultní nemocnice v Motole s predikcí budoucího vývoje"*. Bakalářská práce VŠEM 2010

[2] Health care options for Europe http://www.euro.who.int/__data/assets/pdf_file/0003/98310/E74485.pdfFunding

[3] Health Policy Consensus Group (2003) Options for Healthcare Funding. http://www.civitas.org.uk/pdf/hpcgSystems.pdf

[4] Options for Healthcare Funding Health Policy Consensus Group on www.civitas.org.uk/pdf/hpcgSystems.pdf

[5] Economic Information on Health Care 2009; http://uzis.cz [consulted on 20.2.2011]

[6] MORAN, MICHAEL Governing the Health Care State: a Comparative Study of the United Kingdom, the United States and Germany. Manchester [etc: Manchester UP, 1999. Print.

[7] KAPLAN, ROBERT S., NORTON DAVID P. *Balanced scorecard – Strategický systém měření výkonnosti podniku*, Praha, 5. vydání, Management Press, s.r.o., 2000, ISBN 978-80-7261-177-5

[8] PARIS Valérie, DOCTEUR Elizabeth „Pharmaceutical Pricing and Reimbursement Policies in Germany", OECD Health Working Papers NO. 39, 2008, Web. http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1320147,

[9] VRACIU, ROBERT A. "Programming, Budgeting, and Control in Health Care Organization: the State of the Art." *Health Services Research*. 1979. Pp 126-149, Web. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1072109/>.

[10] WÖRZ, M, BUSSE, R. "Analysing the impact of health-care system change in the EU member states – Germany". *Health Economics* Special Issue: Analysing the Impact of Health System Changes in the EU Member States Volume 14, Issue S1, pages 133–149, September 2005

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MANAGEMENT VÝKONNOSTI ČESKÉHO ZDRAVOTNICTVÍ

Tento článek se zabývá hodnocením efektivnosti specifické části českého zdravotnictví. Zdravotnictví je specifický obor. Proto jsou nástroje a přístupy k měření jeho efektivnosti rovněž speciální. Tento článek částečně čerpá ze zahraničních zkušeností a představuje dva přístupy k měření efektivnosti na příkladě komparace dvou českých fakultních nemocnic. Článek se nejprve zabývá systémem financování, posléze finančními ukazateli měření efektivnosti a nakonec také nefinančními indikátory. Uvedené případové studie ukazují, že oba způsoby měření jsou nezbytné k postižení komplexního prostředí a různorodých aktivit zdravotnického systému. Navíc je kombinace obou metod užitečná, protože poskytuje detailnější obrázek o měření efektivnosti.

MANAGEMENT DER LEISTUNGFÄHIGKEIT DES TSCHECHISCHEN GESUNDHEITSWESENS

Dieser Artikel befasst sich mit der Bewertung der Effektivität von spezifischen Teilen des tschechischen Gesundheitswesens. Das Gesundheitswesen ist eine besondere Disziplin. Deshalb sind die Instrumente und Ansätze zum Messen ihrer Wirksamkeit auch etwas Besonderes. Dieser Artikel basiert teilweise auf internationaler Erfahrung und stellt zwei Arten der Messungen der Wirksamkeit anhand des Vergleichs von zwei tschechischen Kliniken vor. Der Artikel beschreibt zuerst das Finanzierungssystem, dann Messung der Wirksamkeit mit finanziellen Indikatoren und schließlich auch mit nicht-finanziellen Indikatoren. Diese Beispielstudien zeigen, dass beide Messmethoden zum Erfassen des komplexen Umfeldes und vielfältigen Aktivitäten des Gesundheitssystems notwendig sind. Darüber hinaus erweist sich die Kombination der beiden Methoden als nützlich, da sie ein detaillierteres Bild der Messung der Effektivität an bietet.

ZARZĄDZANIE WYDAJNOŚCIĄ CZESKIEJ SŁUŻBY ZDROWIA

Niniejszy artykuł poświęcony jest ocenie efektywności specyficznej części czeskiej służby zdrowia. Służba zdrowia to branża specyficzna. Stąd też narzędzia i podejścia do pomiaru jej efektywności są szczególne. Niniejszy artykuł korzysta częściowo z doświadczeń zagranicznych i przedstawia dwa podejścia do pomiaru efektywności na przykładzie porównania dwóch czeskich szpitali klinicznych. W pierwszej części artykułu poświęcono uwagę systemowi finansowania, następnie wskaźnikom finansowym pomiaru efektywności a pod koniec również wskaźnikom niefinansowym. Przedstawione studia przypadków pokazują, że oba sposoby pomiaru są niezbędne w celu ujęcia kompleksowych uwarunkowań oraz różnorodnych działań podejmowanych w systemie służby zdrowia. Ponadto połączenie obu metod jest korzystne, ponieważ pokazuje szczegółowy obraz pomiaru efektywności.

REGIONAL DISPARITIES ACROSS EUROPE: FUTURE PERSPECTIVES OF REGIONAL DEVELOPMENT IN ENGLAND

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Abstract

The paper introduces experience with regional disparities in the EU and focuses mainly on regional development in England. Based on information from the EU, there is no complex methodology to classify the indicators of regional disparities across Europe. European Statistical Office (Eurostat) generally uses twelve main groups of indicators (demography, GDP, income, labour market, labour productivity, urban statistics, science and technology, structure of entrepreneurship, transport, tourism, education and agriculture). As an example of the evaluation of regional development in the EU, ESPON regional classification of Europe can be used. Each EU member applies a different regional policy and methods to eliminate differences between regions within a state. The second part of the contribution briefly introduces an approach to the regional disparities in the Czech Republic and its regional policy. The last part of the paper is focused on the regional policy in England and its future perspectives connected with the establishment of the Local Enterprise Partnerships (LEPs).

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Introduction

A regional policy and disparities can be understood and classified from two different perspectives: at European and regional levels. To compare regional differences at the international level, it is necessary to use a unified methodology to differentiate regional levels. In the EU the NUTS (LAU) classification is used. The NUTS classification is used within the EU for regional statistics for many decades, and it has always formed the basis for the regional funding. The EU methodology of the regional development is usually based on a comparison of regions at NUTS 2 level; disparities at the national level identify differences of the micro regions of LAU 1 or LAU 2 level. Regional statistical data are an important tool for understanding and quantifying the impact of political decisions on citizens in a specific territory or area.

In the European Union several documents have recently been published about an approach to the regional disparities in the EU (Eurostat Regional Yearbook 2010, Growing Region, Growing Europe 2008, the 6th report on economic and social cohesion, Statistical Requirements Compendium 2010, European Regional and Urban Statistics – Reference Guide

2009). Nevertheless, there has been no complex approach to or methodology for this topic. Examples of the structure of indicators are introduced below.

1 Regional disparities in the EU

Individual indicators or some synthetic indicators (indexes) formed from some partial indicators are the main ones which are usually used. GDP (converted according to the parity of the purchasing power) is used very often as a key factor. One of the options is to compound a synthetic index where three groups of indicators classifying economic, social and territorial cohesion can be included.

1.1 Economic cohesion

The main indicators can be identified as GDP, GDP per capita (head).

The aggregate indicator is dependent on:

- labour productivity;
- level of employment;
- people activity.

The economic development of a region is, as a rule, expressed in terms of its gross domestic product (GDP). This indicator is also frequently used as a basis for comparisons between regions. Regions of different sizes achieve different levels of the regional GDP. However, a real comparison can be made only by comparing the regional GDP with the population of the region in question. (Eurostat regional yearbook, 2010)

1.2 Social cohesion

In general, factors evaluating the balance between social groups in a society are included. For example, the following ones can be mentioned: the level of unemployment, its quality and availability, labour qualification, the level of education, but also the ability of immigrants to integrate in the Schengen area. In comparison with economic cohesion indicators it is not possible to construct an aggregate one.

1.3 Territorial cohesion

Territorial differences are often termed as a territorial imbalance. Territorial differences are typically deep between metropolitan areas and the rest of the country. On a regional level territorial differences can be classified by the level of pollution, social exclusion, decrease of the number of inhabitants. Regional disparities often show a large imbalance in physical and human capital. (Farrugia, Gallina 2008)

2 Indications of regional differences in the Czech Republic

Regional disparities mean the disparities in the level of economic, environmental and social development of the regions to the extent which is acknowledged by the society as undesirable. For instance, disparities result from diverse conditions of individual regions and the differences in the quality of life resulting from these conditions. (Ministry for Regional Development of the Czech Republic, 2006)

2.1 Strategy for regional development in the Czech Republic

The regional development strategy is based on the "Czech Republic Strategy for Sustainable Development" (Government Resolution No. 1242/2004), which represents a long-term framework for maintaining the fundamental civic values, quality of life of the society and also the basis for the preparation of other conceptual documents. The objectives and tools of the Sustainable Development Strategy are directed at the reduction of imbalance in mutual relations between the economic, environmental and social pillars of sustainability.

The basic levels of the regional development and the implementation of the regional policy of the Czech Republic are as follows:

- the cohesion regions (NUTS 2) – statistical areas,
- self-governing regions (districts) (NUTS 3) – higher-level local administration units,
- districts – regional units for the specification of regions with concentrated state aid,
- administrative districts of municipalities with extended powers – administrative areas,
- municipalities – municipal and city authorities.

In the Czech Republic the regional development aid follows two main streams:

a) regions with the concentrated state aid, which are divided, in accordance with the nature of their stagnation, into structurally affected regions, economically weak regions and rural regions,

b) the other regions, whose support by the state is desirable for other reasons: e.g. cross border regions, former military areas, regions affected by natural disasters, regions with heavily affected or damaged environment, regions with less favourable conditions for the agricultural development, regions with the unemployment rate exceeding the average rate in the Czech Republic. (Ministry for Regional Development of the Czech Republic, 2006)

Focusing the support in structurally affected regions

These regions are characterized by deep structural changes and massive increase in unemployment, which is caused by the inadequate structure of skills in the labour market, which corresponds to the past economic structure, in terms of inadequate technical and business infrastructure, etc..

Focusing the support in economically weak regions

Economically weak regions are characterized by their low economic performance, connected with low wages, weak economic activity, high unemployment rate, unfavourable geographic location and undeveloped technical infrastructure.

3 Regional Development: case of the United Kingdom

The United Kingdom occupies a very specific position among the EU member countries in many different regards. The U. K., being an island in Northwest Europe, possesses several specifics. They have resulted from its relatively isolated location, which has been reflected in its historical and/or political background with its corresponding ramifications for the regional development. Not only is the UK noted for its specific regional structure, but it has also implemented a rather original approach to the promotion of the regional growth and/or reduction of regional disparities.

The analysis focuses primarily on England because Scotland, Wales and Northern Ireland have freedom over their policy design in support of the regional development. It is to be highlighted that the regional development issues have currently gone through essential changes at both legislation and practical levels. As one system is phasing out another, one is

being phasing in, which makes it a bit difficult to give full details about the existing system of the regional development.

3.1 The regional aid scheme

The pursuance of a meaningful regional policy requires a fundamental question to be answered: how to identify eligible areas in need of support in order to ensure the most efficient way of utilise public expenditures. Thus construction of a reliable economic indicator for the evaluation of the general socio-economic position of the region among others is normally considered as a pre-condition for the establishment of a regional aid scheme.

Currently, considerable effort is made to create indicators that would embrace not only the economic progress, but also social and environmental conditions of certain areas. Alternative concepts of measuring the regional well-being in the UK were created in 2008 by the new economic foundation (nef). Such attempts try to identify relative strengths and weaknesses in securing sustainable economic well-being for their communities. Then this information is used to share successful strategies or to formulate a coordinated policy to support weaker areas in their catch-up effort.

Nevertheless, as for the regional aid scheme both at national and European levels; measures of purely economic progress prevail. Across the EU, a common methodology has been implemented to identify regions in need of development support from the ERDF. It has been based on two criteria: GDP per capita (in PPS) and the unemployment rate.

The national regional aid drawn up in the member countries has to be in compliance with the common market under the Article 87(3) (a and c) of the EC Treaty. In October 2006, the UK notified the Commission of its regional aid map for the period 2007 -2013. In total 23.9% of the population was proposed to be eligible to receive the regional investment aid, out of which 4.6 % represent eligible regions based on Article 87(3)(a)[1] (means having less than 75% of the community average and one region which has a GDP per capita of more than 75% of the EU-25 average, but less than 75% of the EU-15 average) and the other 19.3% under the derogation set out in Article 87(3)(c)[2] of the Treaty. An overview of the regional aid coverage in the UK is shown in the *Tab. 1* (see below). In the UK two regions were proposed for eligibility for the regional investment aid.

Tab. 1 Regional aid coverage in the UK, 2007-2013

United Kingdom	Regions	GDP/capita	Population covered
Article 87(3)(a)	Cornwall and Isles of Scilly	70.16	
	West Wales and the Valleys	73.98	
			4.0 %
Statistical effect	Highlands and Islands	77.71	0.6 %
Article 87(3)(c)			19.3 %
Total population coverage 2007-2013			23.9 %

Source: Official Journal of the EU, 2006, Annex V

[1] aid to promote the economic development of areas where the standard of living is abnormally low or where there is serious underemployment;

[2] aid to facilitate the development of certain economic activities or of certain economic areas, where such aid does not adversely affect trading conditions to an extent contrary to the common interest;

The UK authorities created the UK regional aid map to prioritize areas for selection based on four indicators (EC, 2006, p. 2):

- employment rate,
- adult skills at Level 2 or above,
- incapacity benefit claimants,
- manufacturing share of employment.

"To be eligible for coverage, the situation must be worse by either one standard deviation than the Great Britain average on any one of these indicators, or by half a standard deviation than the Great Britain average on at least two of these indicators" (EC, 2006, p. 3).

To sum up, there are regions proposed for receiving the regional aid for the whole period 2007-2013 by virtue of their respective GDP per capita (Cornwall and West Wales); then there are so called "statistical effect" regions which lost their eligibility for a full time support as a result of the EU enlargement (Highlands and Islands); and finally, there are so called economic development regions with the GDP per capita of less than the EU-25 average or with the unemployment rate higher than 115% of the national average.

A link between public expenditure and prosperity of individual regions in the U.K. is illustrated in the following *Fig. 1*.

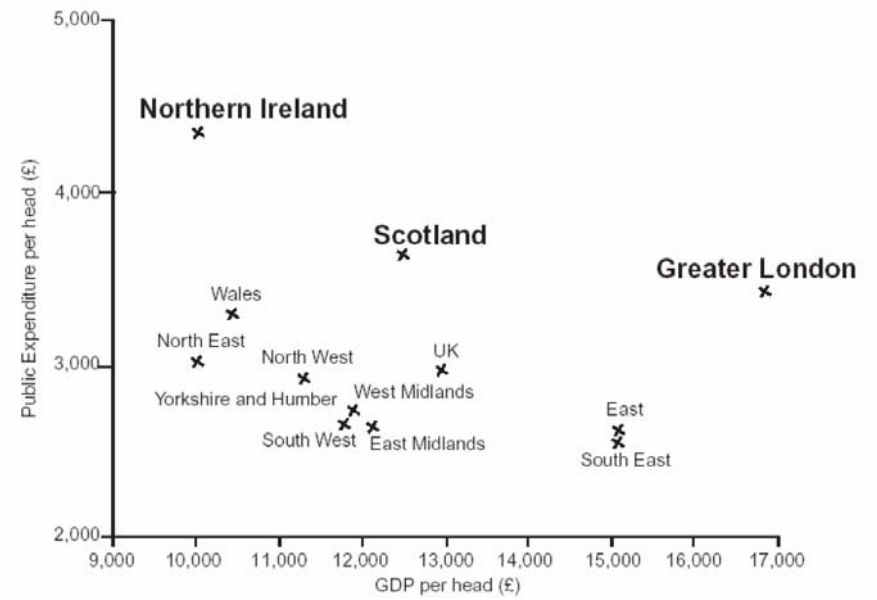

Fig. 1 A scatter plot of per capita public expenditure and the GDP: UK Regions and Territories, 1999 - 2000

Source: ODPM, 2003, p. 27

Apparently, a fairly strong inverse correlation between the GDP per capita and the public spending per capita exists in England (excluding Northern Ireland, Scotland and London). In comparison to Scotland, the six least prosperous regions exhibited lower GDP per head as well as a lower public expenditure per head in 1999-2000 (ODPM, 2003, p. 27).

3.2 The historical background of the regional policy in the UK

The regional policy has represented an important component of the British government's economic policy since its foundation in the 1930s. During its existence, the regional policy has been noted for swings between economic and social objectives. |Nevertheless, what has mostly remained is the virtual monopoly of the national government in the regional policy.

Since the very beginning, the main objective of the regional policy was to reduce regional disparities in unemployment. This approach changed slightly in the 1960s when a regional policy was seen as helping to achieve a faster rate of the national growth (Armstrong, H. and Taylor, J., 2000, p. 216). After a short period of strengthening of the regional policy in the 1970s, a radical cutback in the areas eligible for assistance and correspondingly in the regional policy spending followed during the periods of the Thatcher government in the 1980s. The regional policy was focused on encouraging self-help, regional development 'from within' and especially a commitment to enterprises. That period may in many ways remind of what has been proposed recently for the future direction of regional policy (see below). The regional policy was noted for another shift in the early 1990s; its aim then was to strengthen the competitiveness of the British industry and thus, the regional policy became firmly entrenched as a component of the nation's industrial policy (Armstrong, H. and Taylor, J., 2000, p. 219-220). Social objectives slowly prevailed again in the late 1990s, known as social exclusion.

A turning point for the British regional policy was represented by the Britain's accession to the EU in 1973. Since then, new agents involved in regional issues have appeared distict from national government: regional-level agencies, local-level organizations and particularly the EU.

3.3 The current situation and regional development reform

In the last ten years, the institutional framework for the regional development consisted of a system of made up of a devolved administration and elected bodies at different regional levels. The government provided has spent mainly on programmes which assist the regional development, but without any special regard to the economically deprived areas. At the regional level, each devolved administration developed its own policies and priorities. According to the Government's proposal 2002, elected assemblies were to be established with a significant autonomy in those regions that voted in a referendum to have one. In reality, only one referendum was held in the north east of England resulting in rejection of an elected assembly for this region. Moreover, in all English regions the Regional Chamber, Regional Development Agencies (RDAs) and the Government Offices (GOs) operated.

Government Offices

GOs were the key representatives of the central government in the regions, and as such, they managed government programmes and expenditures. The 2010 Comprehensive Spending Review confirmed that the Government Offices for the Regions closed in March 2011. Responsibilities for the remit of the Government Offices have been transferred to a number of different government departments.

Regional Development Agencies

Nine Regional Development Agencies have represented a major influence in the field of the regional development since 1999. The responsibility for sponsorship of the RDAs was held by the Department for Trade and Industry (DTI); more recently, as a result of the department restructuring, the liability was transferred to the Department for Business, Innovation and Skills (BIS). The main purposes of the RDAs were compiled in the Regional Development Agencies Act 1998 as follows (Regional Development Agency Act, 1998, p. 2):

- promotion of economic development and regeneration,
- business efficiency, investment and competitiveness,
- promotion of employment,
- enhancement of development and application of skill relevant to employment,

- contribution to sustainable development.

Regional agencies were given the same power through government legislation, but they have had some autonomy in application. They were all non-elected organizations, which were financed from many different sources, yet the largest source of income for the RDAs was represented by the central government grants. RDAs have been a key element of the government economic policy and significant sums of money have been invested in their regions each year.

Due to strong criticism of the RDAs activities as well as budget constrains as a result of the financial crisis, the national government decided to introduce a new approach to the regional development. As the first step, the abolition of the nine Regional Development Agencies in England was announced in June 2010. They are supposed to cease their operation by March 2012.

In November 2010, a new document relevant for the new direction of the regional development in England was presented by the Secretary of State for Business, Innovation and Skills, titled "Local growth: realizing every place's potential". This document is supposed to give a totally new dimension to the solution of the regional issues. It claims to end the top down approach ignoring varying needs of different areas and proclaims to grant local communities both more power and finance. That means that the overall responsibility for the regional policy is assumed to be transferred to communities and the local government. Another major change is represented by the establishment of local enterprise partnerships (LEPs) that should reflect the natural economic areas of England.

Local Enterprise Partnerships (LEPs)

The idea of a new concept of LEPs is to rebalance the economy, and to drive sustainable growth by focusing on three key themes:

- shifting power to local communities and businesses
- by establishing dynamic local enterprise partnerships of local business and civic leaders, operating within an area that makes economic sense, which can provide the vision, knowledge and strategic leadership to set local priorities and empower communities to fulfil their potential,
- increasing confidence to invest - by creating the right conditions for growth through a consistent and efficient framework for investment, an effective planning framework and new incentives to make sure local communities benefit from development,
- focused investment - by tackling barriers to growth that the market will not address itself, and by supporting investment that will have a long term impact on growth.

Devolution of functions to the local level should happen only where it is reasonable. On the other hand, at national level remains just a coordination of functions where there are significant economies of scale; where there are national or international market failures; or where consistent national delivery is important. (BIS, 2010, p. 16). One rather interesting fact is that the local enterprise partnerships are not specified in legislation. It may differ across the country in both form and functions, and constitution and legal status of each partnership depends utterly on the partners' agreement. Hand in hand with the shift of responsibilities from top to lower level agents, the government promised to strengthen the tools that local areas have for promotion of growth. According to some experts, this new approach is reminiscent in several aspects the business-led strategy adopted during the 1980s.

With the aim of rebalancing the economy from public sector dependency to a sustainable private sector led growth, the Regional Growth Fund will be operating across England from 2011 to 2014. Its main objectives are to stimulate enterprises with a potential for the economic growth and creation of the private sector employment as well as to support

particularly those areas that have been lately heavily dependent on the public sector. All areas of England are eligible to bid for the £ 1.4 bil. fund (even though some parts of the country may hardly meet the second objective). The local enterprise partnerships can also submit bids to the Regional Growth Fund but without any preferential treatment.

Conclusion

The regional economic policy has become a key component of the government's economic and social strategy changes. The main objectives have turned from the social issues to the economic competitiveness in the past. The key representatives of the regional development since 90´s till now have been the nine Regional Development Agencies. As entities responsible for the delivery of the national regional development, objectives and redistribution of financial support from the national and European sources, they have placed an emphasis on the specific local level needs from the many perspectives explained in the text above. It is to be pointed out that the concept of the regional development policy and its practical application through the RDA did not primarily focus on the deprived or economically weak areas; on the contrary, it searched for some potential even in such classified places. In contrast to, e.g. the Czech Republic methodology classification of the economically deprived areas, England does not have any system of criteria to identify these places. The Regional Agencies used an elaborate system of targeted objectives financed by many different programmes drawing on national or European funds. In this respect, only criteria to evaluate regions implementing financial sources from individual funds can be found. For more than one decade of the RDAs represented many successful projects supporting urban or rural areas. Despite apparent achievements, the economic crisis´ demand for budget cuts as well as criticism of the RDAs led to the introduction of a reform in 2010, which terminates RDAs activities in 2012 and launches a new agent of the regional development - local enterprise partnerships (LEPs). The existence of the LEPs should shift power in the regional development to local communities and business and help them create a long-term strategy for sustainable economic growth. It is difficult to assess whether the LEPs will meet the high expectations that are associated with their establishment. In comparison with the RDAs, the LEPs seem to be both understaffed and underfinanced and thus, their power to affect local planning and development may be limited, not to mention their role in reducing disparities in the regional performance. Nevertheless, the idea of economic growth reliant mainly on the private sector activity and/or funding, and being driven by local stakeholders, had enormous potential. Only in hindsight will we be able to evaluate their contribution to the regional economic growth fully.

Literature

[1] DALY, H. and COOB, J. *For the common good: redirecting the economy toward community, the environment, and a sustainable future*. 2nd edition. Boston: Beacon Press, 1989. 534 pages. ISBN-13: 978-0807047057.

[2] Department for Business, Innovation and Skills (BIS). *Local growth: realising every place's potential.* [online]. London: BIS, 2010. [cit. 2001-03-05]. Available from: <http://www.bis.gov.uk/assets/biscore/economic-development/docs/l/cm7961-local-growth-white-paper.pdf> ISBN 9780101796125.

[3] Department for Business, Innovation and Skills (BIS). [cit. 2001-06-17]. Available from: http://www.bis.gov.uk/policies/economic-development/englands-regional-development-agencies/rda-finance-and-governance

[4] Department for Communities and Local Government (DCL). *PSA Target 2 – Regional Economic Performance*. [online]. London: Department for Communities and Local Government, 2006. [cit. 2011-03-13]. Available from: www.communities.gov.uk

[5] Department of Trade and Industry (DTI). *A modern regional policy for the United Kingdom.* [online]. London: DTI, 2003. [cit. 2011-03-28]. Available from:< http://www.berr.gov.uk/files/file12012.pdf>

[6] ESPON. ESPON 3.1 *Integrated Tools for European Spatial Development*. Final Report A.Bonn: Bundesamt für Bauwesen und Raumordnung, 2004.

[7] Eurostat regional yearbook. 2010. [online]. [cit. 2011-08-53] Available from WWW: <http://epp.eurostat.ec.europa.eu/cache/ITY_OFFPUB/KS-HA-10-001/EN/KS-HA-10-001-EN.PDF>

[8] European Commission letter approving the UK Assisted Areas Map 2007 to 2013. [online]. [cit. 2011-03-03]. London: 2006. Available from WWW: <http://ec.europa.eu/competition/state_aid/regional_aid/2007_2013/n673_06_united_kingdom_en.pdf>

[9] FARRUGIA, N., GALLINA, A. *Developing Indicators of Territorial Cohesion*. Federico Caffé Centre Research Reports Nr. 1/2008

[10] JACKSON, T., MCBRIDE, N., ABDALLAH S. AND MARKS, N. *Measuring regional progress: Regional index of sustainable economic well-being (R-ISEW) for all the English regions.* [online]. London: The new economics foundation, 2008. [cit. 2011-03-05]. Available from WWW: <http://www.advantagewm.co.uk/Images/Regional%20index%20of%20sustainable%20economic%20well-being_tcm9-23608.pdf>

[11] Ministry for Regional Development of the Czech Republic. *Regional Development Strategy of the Czech Republic*. Available from WWW: <http://www.mmr.cz/CMSPages/GetFile.aspx?guid=cdafbfcb-f89c-4c88-b876-0313593c67b0>

[12] ODPM. *Housing, Planning, Local Government and the Regions Committee. Reducing Regional Disparities in Prosperity*. [online]. London: House of Commons, 2003.[cit. 2011-03-15]. Available from WWW: <http://www.publications.parliament.uk/pa/cm200203/cmselect/cmodpm/492/492.pdf>

[13] Office for National Statistics (ONS). [online]. [cit. 2011-03-10]. Available from WWW: <http://www.statistics.gov.uk/about/default.asp>

[14] Official Journal of the European Union. Guidelines of National Regional Aid for 2007-2013. [online]. EUR-Lex: 2006. [cit. 2011-03-03]. Available from WWW: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2006:054:0013:0044:EN:PDF

[15] AMSTRONG, H., TAYLOR, J. *Regional Economics and Policy*. 3. ed. Oxford: 2000. Blackwell Publishers Ltd, 429 pages, ISBN 0-631-21657-X.

[16] Regional Development Agency Yorkshire Forward [online]. [cit. 2011-06-12]. Available from WWW: <http://www.yorkshire-forward.com/improving-places/rural-areas/market-towns>

[17] Regional Development Agency Act 1998. [online]. [cit. 2011-06-12]. Available from WWW: <http://www.legislation.gov.uk/ukpga/1998/45/pdfs/ukpga_19980045_en.pdf>

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REGIONÁLNÍ DISPARITY V EVROPĚ: PERSPEKTIVY REGIONÁLNÍHO ROZVOJE V ANGLII

Příspěvek seznamuje s pohledem na regionální disparity v evropském kontextu s důrazem na podmínky regionálního rozvoje v Anglii. Obecný pohled na problematiku regionálního rozvoje přináší tři skupiny indikátorů, ekonomické, sociální a územní (teritoriální) soudržnosti. Jako příklad ukazatelů pro hodnocení územního je představena tzv. regionální klasifikace Evropy zpracovaná v rámci programu ESPON. Hlavní část příspěvku seznamuje s přístupem k regionální politice a k řešení rozdílů mezi region v Anglii a hodnotí budoucí perspektivu vývoje v souvislosti se zrušením regionálních rozvojových agentur a založením uskupení tzv. Místní podnikatelské spolupráce (partnerství). V závěru jsou shrnuty poznatky vyplývající z analýzy přístupů k otázce řešení regionálních disparit na mezinárodní i národní úrovni. Příspěvek vznikl za podpory projektu zaměřeného na problematiku regionálních disparit „Inovační přístup k řešení disparit na úrovni regionů“ pod akronymem InoReDis (Reg. č. WD-30-07-1).

REGIONALE DISPARITÄTEN IN EUROPA: KÜNFTIGE PERSPEKTIVEN DER REGIONALEN ENTWICKLUNG IN ENGLAND

Der Beitrag macht den Leser mit der Sicht auf die regionalen Disparitäten im europäischen Kontext unter Betonung der Bedingungen der regionalen Entwicklung in England bekannt. Die allgemeine Betrachtung der Problematik der regionalen Entwicklung verweist auf drei Gruppen von Indikatoren, d. h. wirtschaftliche, soziale und territoriale Kohäsionen. Als Beispiel der Kennziffern für die Bewertung des territorialen Faktors wird die sog. regionale Klassifizierung Europas vorgestellt, die im Rahmen des Programms ESPON erstellt wurde. Der Hauptteil des Beitrages stellt die Herangehensweise an die Regionalpolitik und an die Lösung der Unterschiede zwischen den Regionen in England und die Gründung einer Gruppierung, der sog. Örtlichen unternehmerischen Zusammenarbeit (Partnerschaft), vor. Abschließend werden die Erkenntnisse zusammengefasst, die aus der Analyse der Lösungsverfahren bezüglich der regionalen Disparitäten auf internationalem und nationalem Niveau resultieren.

DYSPROPORCJE REGIONALNE W EUROPIE: PERSPEKTYWY ROZWOJU REGIONALNEGO W ANGLII

Artykuł przedstawia dysproporcje regionalne w kontekście europejskim z naciskiem na warunki rozwoju regionalnego w Anglii. Ogólne spojrzenie na zagadnienie rozwoju regionalnego obejmuje trzy grupy wskaźników, spójności ekonomicznej, społecznej i terytorialnej. Jako przykład wskaźników służących do oceny terytorialnej przedstawiono tzw. klasyfikację regionalną Europy opracowaną w ramach programu ESPON. Główna część artykułu przedstawia podejście do polityki regionalnej i do rozwiązywania różnic pomiędzy regionami w Anglii oraz poddaje ocenie przyszłą perspektywę rozwoju w związku z likwidacją agencji rozwoju regionalnego i założeniem ugrupowania tzw. Lokalnej Współpracy Gospodarczej (partnerstwa). W zakończeniu podsumowano wyniki analizy podejść do rozwiązywania dysproporcji regionalnych na poziomie międzynarodowym i krajowym. Artykuł opracowano przy wsparciu projektu dotyczącego dysproporcji regionalnych pn. "Innowacyjne podejście do rozwiązywania dysproporcji na poziomie regionów" pod akronimem InoReDis (nr rej. WD-30-07-1).

COMPONENTS OF REGIONAL INNOVATION SYSTEM

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Abstract

Regional innovation systems (RIS) are a relatively new instrument in regional policy. It was developed from the National Innovation System in 1990s according to the fact that innovation was the most important instrument for regional development. There is huge literature about RIS and many studies about its application or operation. There are also many definitions of RIS and many approaches to its proper use. However, there could be some problems with its successful application in the region. Because of that this paper will provide summarization of the basic information on RIS.

The paper will summarize the useful information about the definition of RIS and about approaches to dividing RIS into categories according to the development of each region where this tool is used. The core information of this paper will be in the definition of the components of RIS, which provide us the methodology, which can be used to identification of successful RIS in regions.

Introduction

These days,the role of innovation and knowledge in economy in general is very important and during the last ten years is has been even more so in regional economy. We could say that innovation is the foundation stone of economic development. There are many authors who are interested in innovations. We can say according to them that innovation may be understood as an interactive learning process, which is socially and territorially embedded and culturally and institutionally contextualized. [2]

Every region tries to support innovation by some tools. But there are not any universal solutions of how to create the effective "innovation friendly" nature. The first researcher who dealt with production of innovation was Porter, who was looking for links between firms and research institutions which could lead to innovation. He claimed that the best form of this link could be in clusters.

The idea of clusters led to the creation of innovation systems. The first step was founding the national system of innovation (NIS), which has been used since 1980s. There is no clear definition of this approach. The most suitable definition is by Freeman (1987): "NIS is the network of institutions in the public and private sectors whose activities and interactions initiate, import, modify and diffuse new technologies." [13] and Lundvall (1992) adds that "this interactions are located within or rooted inside the borders of a nation state." [13]

However, there is one problem with the frame of the nation state. Because the nation state can be divided into several regions, and each of them needs different tools to support the innovation process, because each of them is on the different level of innovation and in each region there are different geographical and economic conditions. Thus we cannot use the same regional policy tools in each region.

Aaccording to this problem, the Regional system of innovation (RIS) was developed and a region became the central point in the innovation process. It is so as on the regional level innovation is produced through regional networks of innovators, local clusters and the cross-fertilizing effects of research institutions [4]. And as Cooke [5] adds the "regional innovation interaction among firms and other innovation organizations has been regarded as playing an important role in fostering regional innovation potential".

This paper will inform about the latest trends and facts about the Regional system of innovation. In the first part there is a definition of RIS. In the second part there are definitions of the components of RIS, which is the focus of this paper. What follows is a comparison of RIS and clusters. In the final part, there is conclusion and recommendations.

1 Regional System of Innovation

At the beginning we have to explain the term of region. There are two proposed definitions of a region. In the first definition, a region is described as a geographically defined, administratively supported arrangement of innovative networks and institutions that interact heavily and on a regular basis with the innovative output from regional firms. In the second definition, emphasis is placed in the cultural aspects of the region. It means that a region does not need to have a determinate size; it can be distinguished from bordering areas by a particular kind of association or related features, and it possesses some type of internal cohesion [9].

According to the above mentioned definitions of the region, we can state that a region is a dimension with a key importance. There are some reasons which were summarized by Tödtling and Trippl [16]: First, regions differ with respect to their industrial specialization patterns and their innovation performance (Breschi 2000, Howells 1999, Paci and Usai 2000). Second, it was shown that knowledge spillovers, which play a key role in the innovation process, are often spatially bounded (Anselin et al. 1997, Audretsch and Feldman 1996; Bottazzi and Peri 2003). Third, the ongoing importance of tacit knowledge (Polanyi 1966) for successful innovation has to be considered (Gertker 2003, Howells 2002). Finally, policy competences and institutions are partly bound to subnational territories (Cooke et al. 2000).

If we accept the fact that a region is the most important area for innovation, then we need some framework or tool for supporting the innovation process in the region. For this reason the Regional system of Innovation (RIS) was founded in 1990s. Since this time there have been many researchers who are interested in RIS and who have been trying to define RIS. All of them finally agreed with the definition of RIS by Cooke [5] which says that RIS is useful for studying economic and innovative performance; there are also functional tools to enhance the innovation processes of firms. This is accomplished by knitting together knowledge flows and the systems, by building trust and confidence in institutional reliability; and above all, by generating institutional self-knowledge and a certain kind of collective dissatisfaction with the status quo. RIS comprises a set of institutions, both public and private, which produce pervasive and systemic effects that encourage firms in the region to adopt common norms, expectations, values, attitudes and practices, where a culture of innovation is nurtured and knowledge-transfer processes are enhanced.

We should try to imagine RIS as a framework which includes, according to Cooke [7], two sub-systems:

- the knowledge application and exploitation sub-system,
- the knowledge generation and diffusion sub-system.

The first is principally concerned with firms, while the second is mainly concerned with public organizations like universities, research institutes, technology transfer agencies, and

regional and local governance bodies responsible for innovation support practices and policies. In reality there may be some overlaps since firms conduct knowledge creation activities, especially where they have formalized R&D laboratories, and universities and public or private research institutes conduct knowledge application activities.

Tödtling, Trippl [16] add another subsystem to those mentioned above. The third is the regional policy dimension because policy actors on this level can play a powerful role in shaping the regional innovation processes, provided that that there is a sufficient regional autonomy to formulate and implement innovation policies. [16]. Tödtling, Tripple [16] further add that in the ideal case, there are intensive interactive relationships within and between these subsystems facilitating a continuous flow or exchange of knowledge, resources and human capital. On the other hand, there are several types of RIS problems and failures, such as deficits with respect to organizations and institutions and a lack of relations within and between subsystems.

1.1 Components of RIS

As you can see at the *Fig. 1* the RIS is not a homogenous system. RIS consists of many components and there are linkages among them, which may be more important than the components themselves.

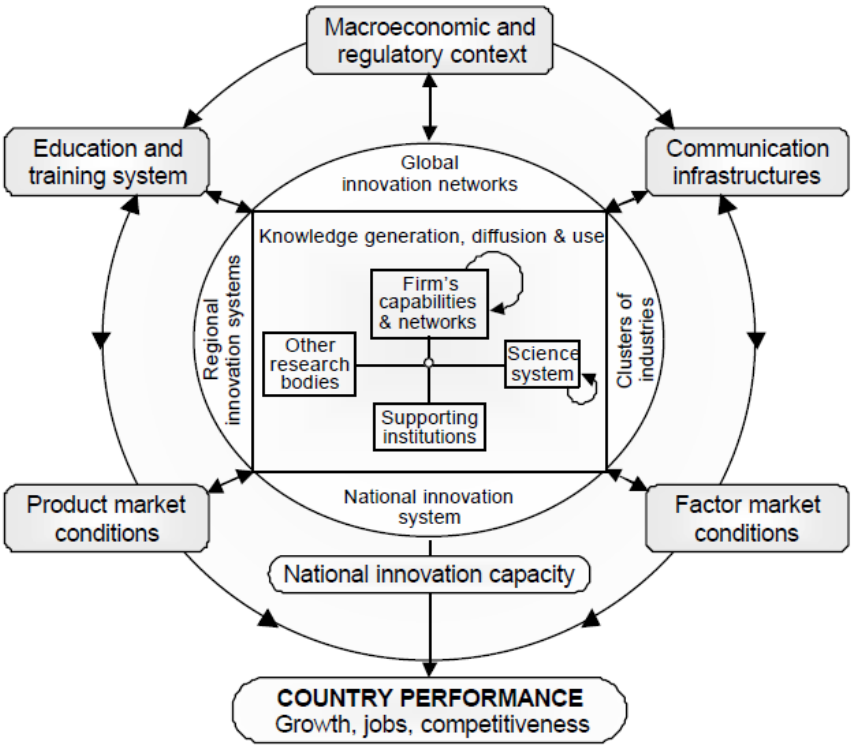

Fig. 1 Components of RIS and linkages among them

This figure captures the components which are common to the regional and national innovation systems. It is obvious that the regional innovation system was developed from the national innovation system and the core of this system is formed by firm's capabilities and networks, science system, supporting institutions and other research bodies. There are linkages among core institutions and other important factors which interact with these institutions. And all the mentioned parts together create the successfully working regional innovation system.

In my opinion the core institutions are the most important ones, and we can say that these institutions are the foundation stones of the regional innovation system. Because the linkages among them bring very important spillover effects and provide the background for innovations.

Let us focus now on core institutions of RIS. The first of the institutions are firm's capabilities and networks which are important for the innovation process. Namely the networks among firms are important for successful cooperation and for the innovation formation process.

Next strategic component of RIS is the science system. In this system we may include universities, R&D organizations or techno parks, etc. It is obvious that these institutions contribute to the creation of the environment for innovation formation. A particularly important link is between these institutions and private companies. Jointly they develop new technologies and create innovations for a particular company. This company should provide financial support to R&D institutions or universities. This cooperation contributes to the effectiveness of linkages among firms and the science system.

Another part of RIS is represented by supporting institutions. These institutions play a very important role, because these organisations provide information to the two above mentioned parts. Supporting organisations inform about grant possibilities and about cooperation possibilities. These organisations support developing innovations in the region and therefore they are indispensable.

The last of the core institutions to mention are other research bodies. We can include in this category R&D institutions which are paid from private funds. These institutions complement the science system which is, on the other hand, paid from public finance.

From *Fig. 1* it is clear that the core institution of RIS is connected with the "external environment", which consists of the country performance, product market conditions, education and the training system, the macroeconomic and regulatory context, communication infrastructures and factor market conditions. These components which are in the external ring represent the environment in which we explore RIS.

We can compare the core institutions of RIS with organizations in a cluster. For clarity we can use the *Fig. 2*.

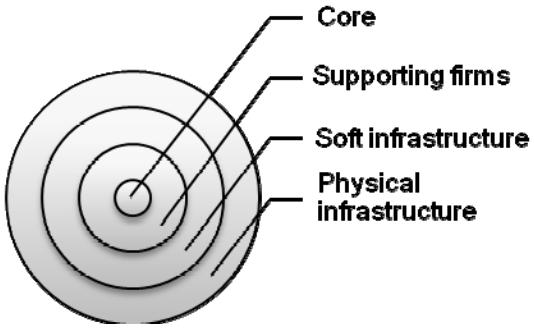

Fig. 2 Components of cluster

The *Fig. 2* shows components like the core, supporting firms, soft infrastructure and the physical infrastructure. In the core of the industrial cluster there are, for example, manufacturing companies. Along the core there are supporting firms like the subcontractors which cooperate with the core firms. The soft infrastructure in the cluster is similar to the science system in RIS. In the soft infrastructure there is the public sector which has the supporting role in the cluster, and there are also universities, R&D institutions and techno

parks, etc. The last part of the industrial cluster is the physical infrastructure, which means the connections among firms like roads of computer networks or telecommunication. So as we can see the industrial cluster could be in the core of the regional innovation system.

2 RIS in practice

At the beginning of thinking about successfully working RIS is very important to summarize the knowledge about this question. This case was very well summarized by Uyarra, who provided the comparison of meanings about successful RIS this way:

Cooke claims that the existence of a RSI is a special case, a rare event. Evangelista et al. in their study of Italian regions based on CIS data, similarly conclude that it is very rare to find the necessary ingredients to identify a regional system of innovation. The European Commission funded REGIS project identified only four regions out of 11—Wales, Baden-Württemberg, Basque country and Styria—that could fit the characteristics of RSI. A strict reading of the literature would, however, suggest that the only three regions that could be considered true regional innovation systems are Silicon Valley, Emilia-Romagna, and Baden-Württemberg [16].

According to this we can say that is very difficult to decide if there is a successfully working RIS in the region. The situation in the Czech Republic is similar to above mentioned regions. On the one hand there are some regions which can be called the regions of good practice of Regional innovation systems in the Czech Republic. The most successful region of them is the South Moravian Region. This region was the first one which began with implementation of Regional innovation strategy and building Regional innovation system. There are well established the innovative infrastructure, the system of supporting organizations as a South Moravian center of innovation which is responsible of implementation of regional innovation strategy. In the South Moravian region there are very good linkages among the universities, research and development centers and private corporations. The result of these linkages is the production of innovations and new technologies, which is goal of Regional innovation systems.

On the other hand there are many regions in the Czech Republic where Regional innovation system was not established. There are mostly bad conditions for successful RIS. These regions try to build regional innovation system and they try to use the experiences from the regions of good practice. But there is the problem, that each region has its unique conditions and specifications. In each region is for example different industrial structure, different level of educational system, somewhere is no university or research and development institutions. This type of regions cannot only apply the strategy from above mentioned regions, but at first they have to make the analysis of its strong and strategic industrial branches. After this analysis they should start with building Regional innovation system.

There is one big problem with making the clear decision if there is the successfully working RIS in the region. Because we need clearly defined characteristic, which should be find in the region and then we can positively say that RIS is existing and working in the region. If we did not have this we cannot judge this problem. I will try to solve this problem during processing of my dissertation.

Conclusion

The paper summarizes the fundamental information on the regional innovation system. There is a huge literature about RIS, and according to it there are many RIS definitions. Most authors agree with the definition by Cooke, which is mentioned in chapter No.2. The

definition itself is very general. We have to define the components of RIS to decide if RIS in a particular region works successfully.

The components of RIS could be divided into two main groups. The first group of the components consists of the components in the core of RIS. The second group of components includes those which determine the condition and level of the regional development. These components could be called positive (external) entrepreneur environment.

However, the components themselves do not play the key role in the innovation process in RIS. The linkages play the most important role among components. If these linkages do not exist, we cannot talk about RIS. The main objective of RIS is the innovation process and the improvement of the status of the region or the regional competitiveness, and it does not work without linkages.

The objective of RIS is very similar to the objective of industrial clusters. Therefore the similarity among components of RIS and the components of cluster exists. Simply we can say that the network of clusters could be the core of successfully working RIS.

According to the properly defined components of RIS we could make an analysis about the existence of RIS in a proper region, or we can rate the effectiveness of RIS. Or we can make predictions to the future about regional economic indicators. We have to implement the components of RIS into practice to ensure the effectiveness of RIS in a region. There are 12 RIS in the Czech Republic. Some of them can be called the region of good practice of applying RIS and some of them have no functional RIS. How can we find if RIS are functional? We must clearly define the components and try to find all of them in the proper region including the linkages among each of them. If we do not find all of the components which we defined or we do not find working linkages, we have to improve the RIS with a better definition of the main components or we could change the regional policy to support the missing components and we will have an effective RIS.

Literature

[1] ANDERSSON, Martin; KARLSSON, Charlie. Regional Innovation Systems in Small & Medium-Sized Regions: A Critical Review & Assessment. *CESIS*. 2004, 10, s. 2-25.

[2] ASHEIM, Bjorn T.; COENEN, Lars. Knowledge bases and regional innovation systems: Comparing Nordic clusters. *Research policy*. 2005, 34, s. 1173-1190.

[3] ASHEIM, Bjorn T., et al. Regional Innovation System Policy: a Knowledge-based Approach. *Circle*. 2005, 13, s. 1-23. ISSN 1654-3149.

[4] ASHEIM, Bjorn T.; ISAKSEN, Arne. Regional Innovation Systems: The Integration of Local "Sticky" and Global "Ubiquitous" Knowledge. *Journal of Technology Transfer*. 2002, 27, s. 77-86.

[5] COOKE, Phil. *Regional innovation Systems as Public Goods*. Vienna: United Nations Industrial Development Organization, 2006. 33 s.

[6] COOKE, Philip; URANGA, Mike Gomez; ETXEBARRIA, Goio. Regional Innovation System: Instituional and organizational dimensions. *Research policy*. 1997, 26, s. 475-491.

[7] COOKE, Philip. Regional Innovation Systems: General Findings and Some New Evidence from Biotechnology Clusters. *Journal of Technology Transfer*. 2002, 27, s. 133-145.

[8] COOKE, Philip. Regional Innovation Systems, Clusters, and the Knowledge Economy. *Industrial ans Corporate Change*. 2001, 10, 4, s. 945-974.

[9] DOLOREUX, David; PARTO, Saeed. Regional innovation systems: Current discourse and unresolved issues. *Technology in Society*. 2005, 27, s. 133-153.

[10] DOLOREUX, David. What we should know about regional systems of innovation. *Technology in Society*. 2002, 24, s. 243-263.

[11] FEINSON, Stephen. Nattiionall IInnovattiion Sysstemss Overviiew and Counttry Cassess. *Knowlege Flows, Innovation, and Learning in Developing Countries* [online]. 1999, 1, [cit. 2011-03-05]. Dostupný z WWW: <www.cspo.org/products/rocky/Rock-Vol1-1.PDF >.

[12] FRITSCH, Michael. Measuring the Quality of Regional Innovation Systems: A Knowledge Production Function Approach. *International Regional Science Review*. 2002, 25, 1, s. 86-101.

[13] National Innovation System. In *National Innovation System* [online]. Paris : OECD, 1997 [cit. 2011-03-07]. Dostupné z WWW: <http://www.oecd.org/dataoecd/35/56/2101733.pdf>.

[14] OUGHTON, Christine; LANDABASO, Mikel; MORGAN, Kevin. The Regional Innovation Paradox: Innovation Policy and Industrial Policy. *Journal of Technology Transfer*. 2002, 27, s. 97-110.

[15] TÖDTLING, Franz; TRIPPL, Michaela. One size fits all? Towards a differentiated regional innovation policy approach. *Research policy*. 2005, 34, s. 1203-1219.

[16] UYARRA, Elvira. What is evolutionaty about "regional systems of innovation"? Implication for regional policy. *Springer-Verlag*. 2009, 20, s. 115-137.

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KOMPONENTY REGIONÁLNÍHO INOVAČNÍHO SYTÉMU

Regionální inovační systémy (RIS) jsou relativně novým nástrojem regionální politiky. V návaznosti na Národní inovační systémy jsou RIS využívány od 90. let 20. století, kdy se nejdůležitějším nástrojem rozvoje regionů staly inovace. Existuje velmi obsáhlá literatura a mnoho studií zabývající se RIS, jejich aplikací a fungováním. V této souvislosti je publikována celá řada definic RIS a mnoho přístupů ke správnému využití RIS, čímž může docházet k problémům s jejich úspěšnou aplikací v rámci regionu. Proto je v tomto příspěvku uveden souhrn základních informací týkajících se RIS.

Příspěvek jsou shrnuty jednotlivé definice RIS a přístupy k jejich členění do jednotlivých kategorií dle stupně rozvinutosti regionů. Hlavním přínosem tohoto příspěvku je definování jednotlivých komponentů RIS, které poskytují základ metodologie, jež lze použít k identifikaci úspěšně fungujícího RIS v daném regionu.

KOMPONENTEN DES REGIONALINFORMATIONSSYSTEMS

Die Regionalinformationssysteme (RIS) stellen ein relativ neues Instrument der Regionalpolitik dar. In Verbindung mit nationalen Informationssystemen werden RIS seit den Neunzigerjahren des 20. Jahrhunderts genutzt, als die Innovationen als wichtigstes Instrument der regionalen Entwicklung eingestuft wurden. Es stehen eine umfangreiche theoretische Grundlage und viele Studien zum Thema RIS sowie deren Applikation und Funktionsfähigkeit zur Verfügung. In diesem Zusammenhang existiert eine Reihe von Definitionen von RIS und viele Ansätze zur richtigen Anwendung von RIS, was jedoch auch Probleme mit ihrem erfolgreichen Ansatz auf regionaler Ebene verursachen kann. Deshalb ist in diesem Artikel eine Auflistung grundlegender Informationen zum Thema RIS durchgeführt worden.

Der Beitrag beinhaltet eine Zusammenfassung einzelner Definitionen von RIS sowie Ansätze zu ihrer Kategorisierung je nach der Entwicklungsstufe der Regionen. Der Hauptbeitrag dieses Artikels ist die Definition einzelner RIS-Komponenten, die die Grundlage der Methodologie zur Definierung des erfolgreich funktionierenden RIS bestimmter Regionen bieten.

ELEMENTY REGIONALNEGO SYSTEMU INNOWACJI

Regionalne Systemy Innowacji (RIS) są stosunkowo nowym instrumentem polityki regionalnej. W ramach Krajowych Systemów Innowacji są one stosowane od lat 90. XX wieku, gdy za najważniejsze narzędzie rozwoju regionów zaczęto uważać innowacje. Istnieje bardzo obszerna literatura oraz wiele badań dotyczących RIS, ich stosowania i funkcjonowania. W tym kontekście opublikowano wiele definicji RIS i wiele podejść do ich właściwego stosowania, co może utrudniać ich skuteczne wykorzystanie w ramach regionu. Dlatego w niniejszym artykule przedstawiono kompendium podstawowych informacji na temat RIS.

W artykule zawarto poszczególne definicje RIS i sposoby ich klasyfikowania do różnych kategorii według stopnia rozwoju regionów. Podstawową zaletą niniejszego opracowania jest określenie poszczególnych elementów RIS, które stanowią podstawę metodologii, która może być wykorzystana do identyfikacji dobrze funkcjonującego RIS w regionie.

K DÍLČÍM VÝSLEDKŮM DOTAZNÍKOVÉHO ŠETŘENÍ - JAZYKOVÉ KOMPETENCE DOKTORANDŮ V NĚMECKÉ ČÁSTI ERN

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Abstrakt

Problematika přechodu ze studií do zaměstnání se řadí mezi klíčová témata současného sociálního výzkumu a společenského zájmu. Výzkumy ukazují, že ekonomický a společenský úspěch jedince je stále více determinován kvalitou vzdělání a sociálními kompetencemi získanými v průběhu studia. S ohledem na specifické podmínky Euroregionu Nisa je zde řešen problém z euroregionálního hlediska. Dílčí výsledky dotazníkového šetření a analýz poskytují materiál a statistické údaje, které budou součástí dalších šetření autorky. Poskytují ale důležité informace i pro výzkumy dalších zainteresovaných institucí a tím se podílejí na zlepšení společenských a ekonomických podmínek mladých lidí při vstupu na euroregionální trh pracovních příležitostí.

Úvod

V oblasti monitorování studijních výsledků studentů vysokých škol je situace zcela odlišná od základního a středního stupně českého školství. Vzhledem k autonomnímu postavení vysokých škol a jisté nezávislosti na centrálním řízení ministerstvem školství není k dispozici dostatečné množství průkazných respektive ověřitelných výsledků analýzy stavu vědomostí studentů. Jediným společným, měřitelným výstupem, jsou výsledky akreditačních komisí, které svým rozhodnutím udělují oprávnění k otevření studia a udělují vysokým školám pravomoci k otevření studijních oborů – za předpokladu, že vysoké školy splňují kritéria daná Ministerstvem školství ČR. Jedním z rozhodujících faktorů pro splnění požadavků akreditační komise je zajištění kvality v personálním obsazení výuky, splnění podmínek struktury a výstupů studia a dodržení návaznosti studijních oborů v souladu s modulárním systémem (Vašutová 1999).

Hodnocení znalostí studentů v průběhu studia na vysoké škole a případně evaluaci znalostí absolventů, má v kompetenci každá jednotlivá fakulta. Záleží jenom na managementu vysoké školy, zda se rozhodne monitorovat analýzu znalostí svých studentů jako odraz kvality vzdělávacího procesu na své instituci a zda výsledky takové analýzy použije pro další zpracování a v důsledku toho přijme opatření ke zkvalitnění vzdělávacího procesu. Výsledky takových šetření jsou interní záležitostí školy a zpravidla nebývají zveřejňovány. Pokud taková šetření jsou prováděna, je předmětem zkoumání např. aktuální stav znalostí studentů, klima školy, klima třídy, analýza učebních metod, rozšíření nabídky studijního oboru, efektivita sylabů a tak podobně.

1 Dotazníkové šetření

Dotazníky vycházející z potřeb vedení vysoké školy, tedy vytvořené za účelem monitorování kvality jejích absolventů, kvality struktury studia, konkurenceschopnosti vysoké školy vůči ostatním vysokým školám stejného zaměření a tak podobně, nejsou k dispozici. Jak již bylo zmíněno, pokud byla taková šetření provedena, neexistuje k jejich výsledkům dostatek přístupných informací. Pokud byly nalezeny zdroje dotazníkového šetření, byly tyto zpracovány v rámci konkrétního studijního předmětu nebo kurzu s určitým speciálním zaměřením pro určitou cílovou skupinu.

Následující výsledky jsou dílčími výstupy zkoumání uskutečněného v roce 2010 v rámci projektu „Síť vysokoškolského studia v ERN“. Cílem šetření bylo pomocí dotazníků zjistit, do jaké míry jsou relevantní jazykové kompetence vysokoškoláků ve vztahu k očekávání budoucích zaměstnavatelů, tedy firem, podniků, institucí. Šetření u firem se uskutečnilo v příhraničních oblastech německé části ERN, dotazník pro studenty vyplnili studenti Hochschule Zittau/Görlitz (HS Zi/Gr) a studenti Internationales Hochschulinstitut Zittau (IHI).

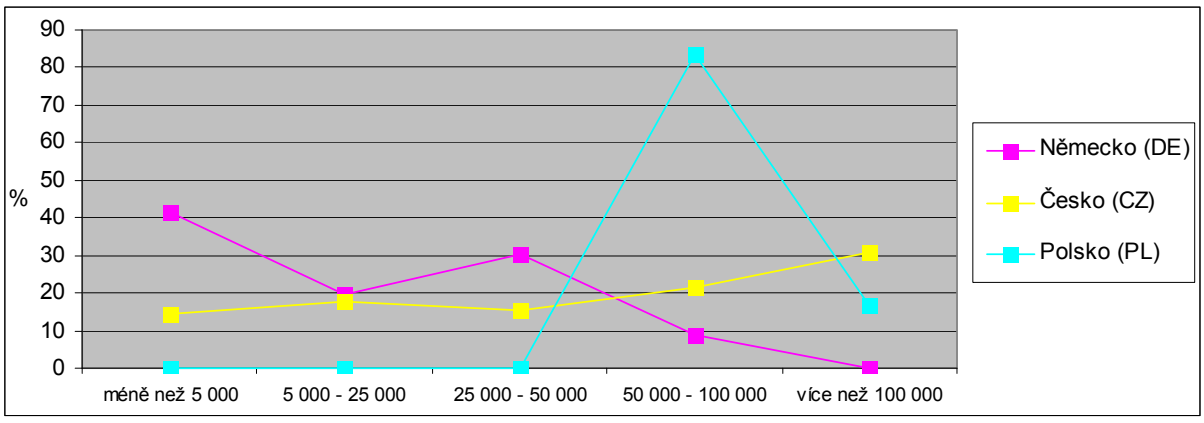
1.1 Dotazníkové šetření u firem v ERN

Dotazníkového šetření pro zaměstnavatele (firmy) v německé části Euroregionu Nisa se zúčastnilo cca 300 firem, vyplněný dotazník se vrátil pouze od 46 firem, návratnost tedy byla 15 %. Obsahoval celkem 26 otázek, z nichž bylo možné na základě nabídky zvolit pouze vždy jednu možnou odpověď.

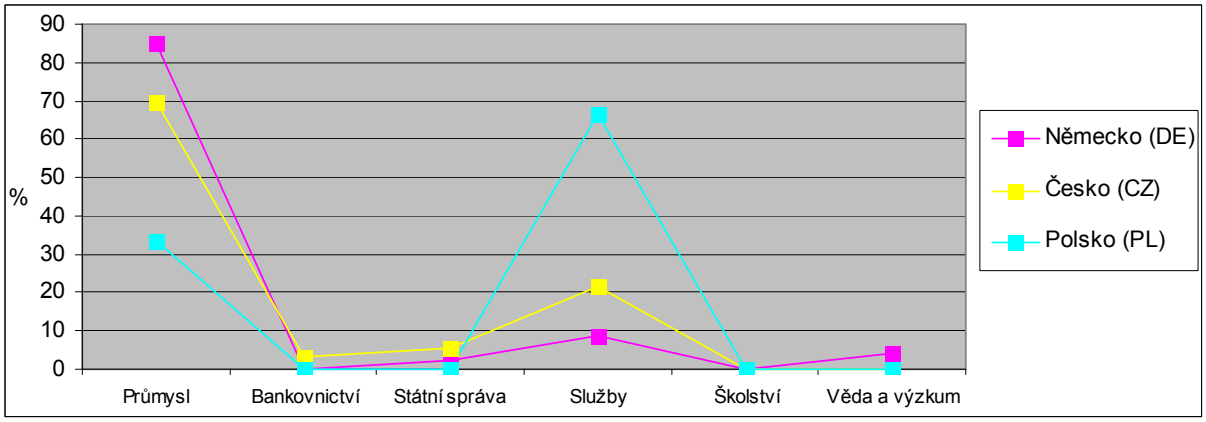
Protože tomuto projektu předcházel projekt „Absolventi doktorského studia a jejich šance na pracovním trhu v ERN“ realizovaný v roce 2009, který zkoumal českou a polskou část Euroregionu Nisa, bude všech shodných otázkách uváděn výsledek za německou, českou a polskou část Euroregionu Nisa. Níže jsou uváděny dílčí výstupy z dotazníkového šetření.

Tab. 1

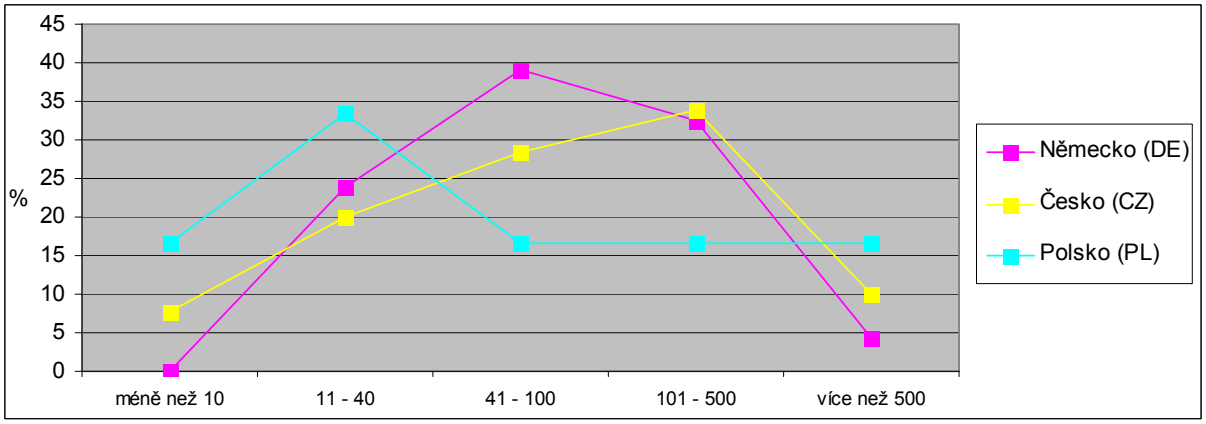
Dotazník	Německý	Český	Polský
Počet respondentů z řad firem	46	136	6



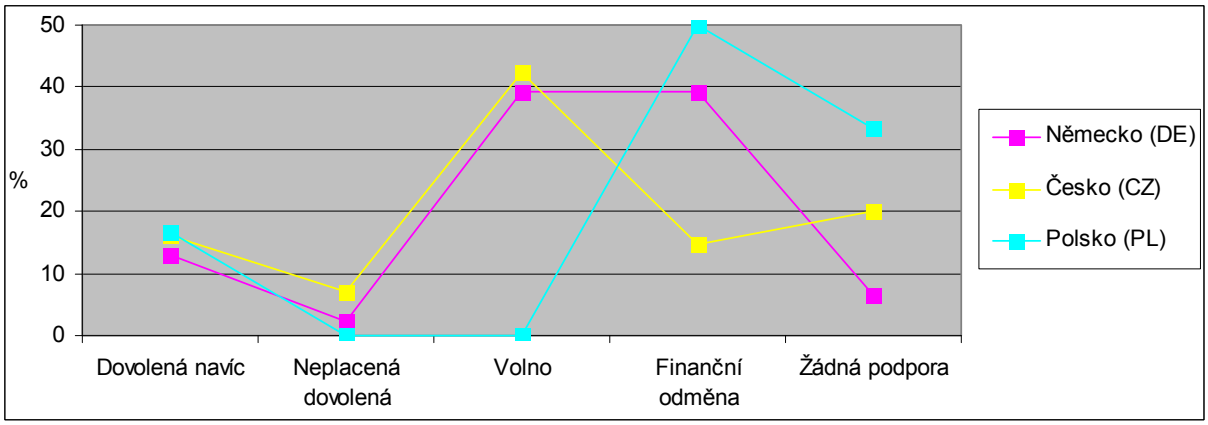
Obr. 1 Velikost města, kde firma sídlí



Obr. 2 Odvětví/Oblast, ve které firma působí



Obr. 3 Celkový počet zaměstnanců firmy



Obr. 4 Podpora zaměstnanců (benefity) při dalším studiu při zaměstnání

Z evaluace dalších dotazníků pro firmy vyplývá, že doktorské studium u zaměstnanců jejich specializované odborné znalosti především prohloubí a podpoří jejich samostatnost v rozhodování. Za důležitou kompetenci je považována především kreativita a schopnost rychle a správně se rozhodnout, což je z hlediska manažerských profesí absolventů jedna z klíčových dovedností.

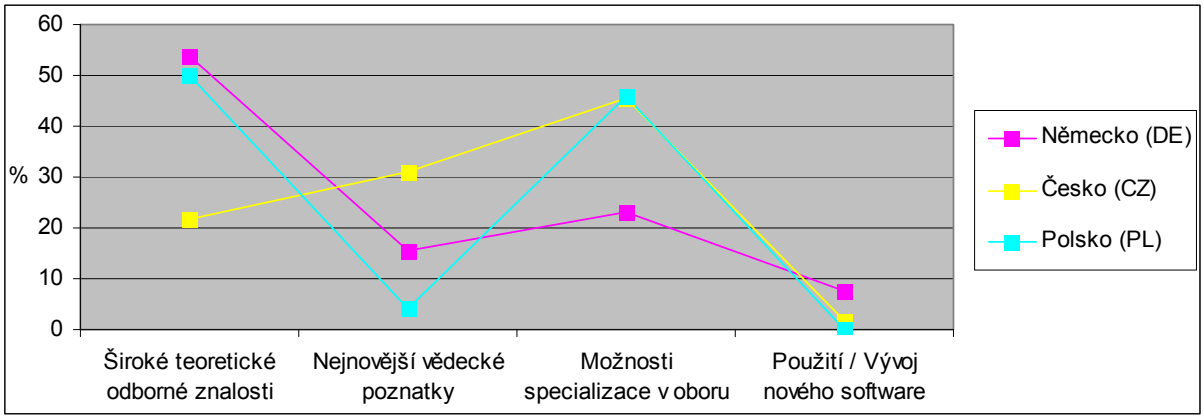
1.2 Dotazníkové šetření u doktorandů VŠ v ERN

Dotazník pro studenty doktorského studia v německé části Euroregionu Nisa obdrželo cca 50 studentů Hochschule Zittau/Görlitz a Internationales Hochschulinstitut (IHI). Byl vyplněn celkem 13 respondenty, z toho 5 muži a 8 ženami, tj. návratnost byla 26 %.

Pro potřeby dotazníku bylo zvoleno 5 druhů znalostí a doktorandi byli požádáni o sebereflexi a zhodnocení kompetencí získaných v průběhu doktorského studia. Každý druh znalosti byl ohodnocen bodovým hodnocením 1 - 5 (1 = nejlepší, 5 = nejhorší).

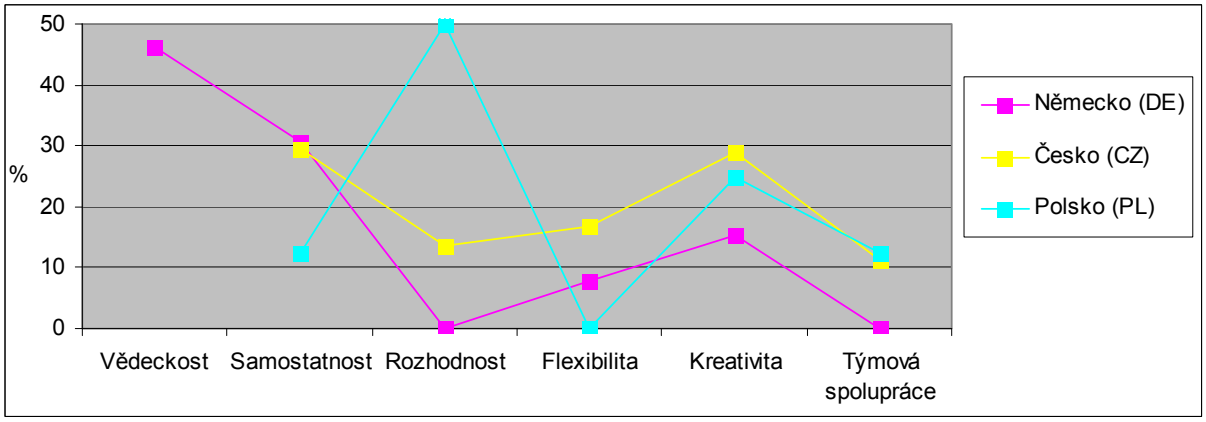
Tab. 2 Délka doktorského studia (roky)

Počet studentů	do 3 let	3 - 5 let	více než 5 let	více než 8 let
13	8	5	0	0



Obr. 5 Poznatky / kompetence, které studenti od studia očekávají - porovnání za německou, českou a polskou část ERN (v%)

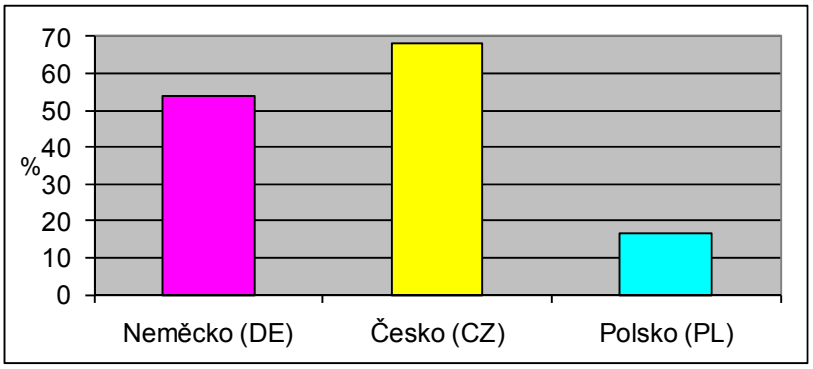
Následující grafy také porovnávají odpovědi studentů za německou, českou a polskou část Euroregionu Nisa. Data však nejsou zcela srovnatelná, neboť dotazník v německé části ERN poskytl navíc volbu možnosti „Vědecká práce“. Tuto novou možnost zvolila ve všech čtyřech grafech vždy většina německých respondentů.



Obr. 6 Které kompetence považujete s ohledem na Vaše budoucí zaměstnání za klíčové?

Ze srovnání grafu 6 vyplývá, že odpovědi z různých částí ERN se shodují v tom, že samostatnost je zároveň považována za klíčovou a rovněž je i procvičována; oproti tomu

kreativita je také považována za klíčovou, v rámci doktorského studia jí však na vysoké škole patrně není dostatečně poskytován prostor.



Obr. 7 Zapojení studentů do vědeckého výzkumu odborné katedry (v%)

Graf 7 porovnává procento studentů podle souvislosti jejich zaměstnání s oborem doktorského studia. Výsledky tohoto grafu potvrzují, že studium německých studentů je zaměřeno více prakticky.

Závěr

Absolventi terciárního vzdělávání mají na trhu pracovních příležitostí nezpochybnitelnou výhodu – daří se jim mnohem snáze najít zaměstnání a míra jejich nezaměstnanosti je výrazně nižší než míra nezaměstnanosti osob s ukončeným nižším vzděláním. Přesto však existují rozdíly v nezaměstnanosti vysokoškolských absolventů různých oborů a různých typů škol a promítají se i různé vlivy, které vzdělávací instituce nemůže ovlivnit; patří mezi ně například odlišná úroveň regionálních trhů práce, na které absolventi vstupují.

Výsledky dílčích výzkumných prací sledují proces zkvalitňování vzdělávání na vysokých školách obecně, ale i proces zkvalitňování studijních programů po obsahové i metodické stránce. Umožňují zapojení studenta do procesu vzdělávání, jsou příspěvkem i k celoživotnímu učení.

Zkoumání odlišností v nezaměstnanosti absolventů vysokých škol stojí za pozornost, neboť částečně odráží i rozdílnou úroveň a kvalitu škol a vzdělávání, kterým absolventi prošli. Nezaměstnanost tak představuje faktor, který má co říci jak školám samotným, tak uchazečům o studium na vysokých školách, a je rovněž důležitým faktorem pro státní správu, která celý systém terciárního vzdělávání řídí a monitoruje.

Literatura

[1] HEINEMANN, M.: Deutsch – Sprache der Euroregion(en). *In Konferenzbeiträge der internationalen Tagung an der Technischen Universität in Liberec*. Liberec, Bor, 2006

[2] HELUS, Z.: *Sociální psychologie pro pedagogy*. Praha, Grada, 2007 <http://aplikace.msmt.cz/PDF/JTNPvyukyCJnaNet.pdf>

[3] <http: http://e-learning.tul.cz>

[4] <http://svp.pedf.cuni.cz/svp/results.php

[5] < http://www.bologna.msmt.cz

[6] <http://www.czso.cz/

[7] <http://www.europass.cz/

[8] <http://www.ms.uky.edu/~rbrown/courses/ma773/notes.pdf >

[9] MATĚJŮ P.; STRAKOVÁ, J.: *Na cestě ke znalostní společnosti*, část 2. Praha, Institut pro sociální a ekonomické analýzy, 2006

[10] NEUMANNOVÁ, H.: Cizí jazyk v kontextu evropské integrace. Komunikace, konkurence nebo kooperace? In*: Význam a obsah výuky cizích jazyků na vysokých školách nefilologického zaměření*. Liberec, Technická univerzita v Liberci, 1999

[11] *Rozvoj národní soustavy kvalifikací*. Praha, MŠMT, 2005

[12] VAŠUTOVÁ, J.: *Vybrané otázky vysokoškolské pedagogiky*. Praha, ÚRVŠ, 1999

PaedDr. Helena Neumannová, Ph.D.

ZU DEN TEILERGEBNISSEN EINER FRAGEBOGENUNTERSUCHUNG - SPRACHKOMPETENZEN DER DOKTORANDEN IM DEUTSCHEN TEIL DER ERN

Die Problematik des Übergangs vom Studium ins Arbeitsleben gehört zu den Schlüsselthemen der gegenwärtigen sozialen Forschung und des gesellschaftlichen Interesses. Die Untersuchungen zeigen, dass wirtschaftlicher und gesellschaftlicher Erfolg des Einzelnen immer mehr von der Qualität der Ausbildung und den im Laufe des Studiums erworbenen sozialen Kompetenzen bestimmt wird. Im Hinblick auf die spezifischen Bedingungen der Euroregion Neiße wird das Problem vom euroregionalen Gesichtspunkt her angegangen. Teilergebnisse der Fragebogenuntersuchungen und der Analysen stellen Material und statistische Angaben bereit, welche zum Bestandteil der weiteren Untersuchungen der Autorin werden. Sie gewähren aber auch wichtige Informationen für die Erforschung weiterer eingebundener Institutionen und beteiligen sich somit an der Verbesserung der gesellschaftlichen und wirtschaftlichen Bedingungen junger Leute beim Eintritt in den euroregionalen Arbeitsmarkt.

CZĘŚCIOWE WYNIKI BADAŃ ANKIETOWYCH - KOMPETENCJE JĘZYKOWE DOKTORANTÓW W NIEMIECKIEJ CZĘŚCI ERN

Kwestia podjęcia pracy po studiach należy do kluczowych zagadnień będących przedmiotem obecnie prowadzonych badań społecznych oraz zainteresowania społecznego. Badania wskazują, że sukces ekonomiczny i społeczny jednostki jest coraz bardziej zależny od jakości wykształcenia i kompetencji społecznych zdobytych w trakcie studiów. Ze względu na specyficzne uwarunkowania Euroregionu Nysa w artykule zagadnienie to omówiono w wymiarze euroregionalnym. W oparciu o cząstkowe wyniki badań ankietowych i analiz pozyskano materiały i dane statystyczne, będące również elementem dalszych badań prowadzonych przez autora. Są to ponadto także informacje ważne dla badań przeprowadzanych przez inne instytucje, przyczyniając się w ten sposób do poprawy warunków społecznych i ekonomicznych młodych osób w momencie ich wejścia na euroregionalny rynek pracy.

PARTIAL RESULTS OF A QUESTIONNAIRE SURVEY - LANGUAGE SKILLS OF PHD STUDENTS IN THE GERMAN PART OF THE ERN

The phenomenon of transition from studies to work belongs to key issues of contemporary social research and social interest. The research shows that economic and social success of individuals has been more and more determined by the quality of education and social competences obtained during their studies. With regard to specific conditions of Nisa Euroregion the problem here is solved from the Euroregional point of view. The partial results of the poll and analysis provide material and statistical data which are to be a part of the author´s further investigation.

However, they also provide important information for the research of other companies involved, e.g. County Council of the Liberec Region, Regional and District Chambers of Commerce in Liberec and Unemployment Office in Liberec, and therefore help to improve the social and economic conditions young people have when entering Euroregional market of job opportunities.

THE INVESTORS IN PEOPLE IN THE CZECH REPUBLIC

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Abstract

The article deals with the Investors in People Standard. This is a standard that comes from the United Kingdom and can be applied for the purposes of making human resources management more efficient in both profit-making and non-profit-making organizations. The first part explains how the Investors in People Standard is linked to Corporate Social Responsibility activities and other standards in this area. The other parts then deal with the Investors in People Standard more specifically. The article introduces the outcome of the questionnaire survey conducted among the organizations in the Czech Republic which have been certified according to this Standard. The survey was carried out by the Technical University of Liberec, Faculty of Economics, in March 2011. The survey addressed 23 organizations successfully certified according to the Investors in People Standard.

Introduction

Human resources are one of the most important components in an organization. They need to be taken care of, developed and invested in accordingly. The organizations which take sufficient care of their employees have a chance to get the best and most talented people, and most importantly, are able to retain them.

This is why the implementation of standards in human resources is a major step towards the success and prosperity of an organization. This is also true now, during the economic crisis, when organizations are cutting their budgets in these aspects, but on the other hand, these expenses on human resources will help them gain and retain the best employees, thus overcoming the crisis more easily and succeeding in the struggle with the competition. And it is high-quality care for human resources that can also be included in Corporate Social Responsibility tools, and in the internal social pillar, in particular. Therefore, the following section briefly explains what is meant by Corporate Social Responsibility. The article will further focus on the Investors in People Standard, which can help to strengthen human resources development within an organization.

1 Corporate Social Responsibility

Corporate Social Responsibility (CSR) involves the integration of positive attitudes, practices or programs into the corporate business strategy at the top management level. It requires shifting the view of our own social role from the "Just Profit" level to the broader view in the current context of the three frequently mentioned "P's": "People, Planet, Profit". This means

functioning with respect to the "Triple-Bottom-Line" when a company focuses not only on the economic growth, but also on the environmental and social aspects of its activity; the company is a natural part of a community, region, and society [1, 2, 3, 7, 9]. In this respect, it is extremely important for the company's activities to be evaluated by its environment, which can significantly influence the company image and eventually its commercial success, as well [11]. *Tab. 1* illustrates the three basic aspects of CSR.

Tab. 1 Aspects of CSR [8]

Economic Aspects of CSR: - good corporate management principles, rejection of corruption, transparency, protection of intellectual property, relations with investors, relations with customers, etc.
Social Aspects of CSR – corporate philanthropy, volunteering, employee policy, corporate social policy, equality of men and women, human work, etc.
Environmental Aspects of CSR – ecological production, protection of life resources, investments in ecological technology, ecological corporate culture, etc.

So, the Investors in People Standard can be included in the social aspects of CSR where it is a voluntary internal tool for improving human resources management in an organization and for making it more efficient. The following part contains a brief list of the standards applicable to CSR which also includes the Investors in People Standard.

2 Corporate Social Responsibility Standards

This chapter will give a brief introduction to selected existing standards dealing with CSR.

These are the following standards:

- International standard SA8000 (Social Responsibility) – the standard for improving working conditions.
- Investors in People – the purpose is to increase corporate performance efficiency via investments in human resources development.
- OHSAS 1800 – the international standard for occupational safety and health protection.
- AA1000 Account Ability – the standard that creates the structure for social responsibility.
- ISO 14001 – the environmental management system.
- ISO 26000 – the social responsibility implementation guideline.
- EMAS – the environmental management [10, 12].

Most of the above-mentioned standards deal mainly with human resources development and protection in a company (SA 8000, Investors in People, OHSAS 1800). In terms of their nature, the ISO 14001 and EMAS standards form chiefly a part of the environmental pillar of CSR; the other standards (ISO 26000 and AA 1000) attempt to deal with social responsibility as a whole.

2.1 Basic Description of the Investors in People Standard

The Investors in People (IIP) is a tool that helps companies learn to work with their employees in an efficient way. It combines all elements of the personnel policy, including education, the evaluation system and mastering internal communication, with the strategic objectives of the organization as a whole. A great advantage of IIP is that it does not order anyone exactly what to do and how. The method of achieving the standard is solely up to the organization.

The Investors in People was established in 1991 in the United Kingdom at the instigation of the then Prime Minister, Margaret Thatcher, since the performance efficiency of British companies had started to lag behind the performance efficiency of comparable countries at the end of the 1980's. The government, therefore, conducted a survey amongst the most successful British industrial companies in order to find out why they were so successful. They found out that these companies, unlike others, paid special attention to their human resources. The Investors in People was compiled based on their well-proven procedures and cooperation with trade unions, leading companies, unions of employees and employers, and with professional human resources management associations. The Standard was supported by all the major political parties. The Standard has been applied internationally since 1998. It was revised in 2000, thanks to which its administration has been simplified significantly [6, 13].

There are more than 50, 000 public and private organizations in the United Kingdom that possess the Investors in People certificate at present, which constitutes almost one third of the United Kingdom workforce. The Standard is currently recognized and respected internationally, and it has already been applied successfully in 27 countries worldwide [13].

The Investors in People is fully universal and flexible. It can be applied to any company, whether a profit-making, non-profit-making or public service organization, regardless of its size or sphere of action, and it can be "tailored" to every organization. The Standard can even be implemented in a company with just 2 employees. In general, we can say that the Investors in People pays off to companies with 10 and more employees. The Standard does not specify any methods, but only what the company is to achieve and it is purely up to the company how it achieves it. The successful certification requires the company to meet 10 criteria which are assessed based on the requisite evidence. One advantage of the Standard is that it does not require any documentation, thus bringing minimum administration, as the compliance with the criteria is verified by interviews with the company management and employees, not by a review of the documentation. The Investors in People implementation process has no time limit either; it usually takes roughly 12-18 months; however, it depends on the starting level of the human resources management and the development system in the given company. Although the implementation of the Standard is a one-time activity, the Investors in People as such assures that the improvement of the company management is a continuous process, which is supported by the need to have the certificate renewed at least once every three years [5, 13, 15].

2.2 The Investors in People in the Czech Republic

The first perceptions of the need to change the management of the human resources development in the Czech Republic appeared in 2002 when CzechInvest (www.czechinvest.org), a governmental agency for business and investment support, evaluated one of its development programs, concluding that companies regarded work with human resources as their weakness. For this reason, CzechInvest became the main organization to champion the implementation of the Standard in the Czech Republic. As part of the implementation of the Investors in People, the participating companies proposed two forms of participation:

- Small and medium-sized companies from the manufacturing sector or related services sector could obtain a financial subsidy for the implementation from the PHARE 2002 funds amounting to 70 % of the total costs of implementing the Standard.
- The other companies were also offered the possibility to obtain the Investors in People Standard; however, this time with no financial subsidy from the CzechInvest agency [13].

Several subsidiaries of international companies have implemented the Standard since then, with TNT Express being the first. The first big integrated project for ten small and medium-sized companies was organized by CzechInvest in 2004 and 2005. Another wave for 30 companies continued from 2006 to 2008. TNT Express became the first company worldwide that managed to demonstrably implement the requirements of the Standard into the everyday life of an organization at a multinational level. The support of the IIP implementation provided by CzechInvest ended in 2008. Since then, the companies which decide to implement IIP have to rely on their own funds. These companies also have to rely on certified consultants or other external or internal associates. There are currently five certified consultants in the Czech Republic who are authorized to provide consultancy in the application of the Investors in People in practice.

2.3 Questionnaire Survey in the Czech Republic – Organizations with the IIP Certificate

There was a questionnaire survey conducted in 2011, the purpose of which was to find out how Czech organizations were satisfied with the Investors in People, having applied it to their company processes. Unfortunately, there is no central register of the companies certified for IIP in the Czech Republic. Therefore, it was impossible to determine precisely how many companies currently possess this certificate. So, for the purposes of the above-mentioned survey we used the CzechInvest lists and, browsing websites, we created a file containing 23 organizations. We are aware that this number may not reflect the actual situation due to the information mentioned above, but we considered this file adequate, anyway. The list of organizations surveyed is provided in *Tab. 2*.

Tab. 2 List of Respondents to the Questionnaire Survey [14]

Name	Sector	Name	Sector
Atlas Copco s. r. o. – divize Lutos	manufacturing company	NWT a. s.	IT, hardware, software
British Embassy in Prague	public services	Proma CZ s. r. o.	mechanical engineering, tooling
Centroprojekt a. s	building industry	Ranger Czech Republic a. s.	telecommunication services
Farmtec a. s.	agriculture	Regionální rada soudržnosti Moravskoslezko	consulting
Gerlach spol. s r. o.	rendition of services, customs	Servisbal Obaly s. r. o.	packaging services
Helika a. s.	Building industry	Solpap s. r. o.	packaging services
HM Partners s. r. o.	rendition of services, personnel	Stormware s. r. o.	IT, software
Hutní projekty Frýdek – Místek a. s.	metallurgy, mechanical engineering	Sulko s. r. o.	plastic and aluminum windows
Hydrosystem Project a. s.	hydraulic systems	Tanex Plasty a. s.	plastics production
ITeuro a. s.	information technology	TNT Express Worldwide s. r. o.	courier services
KeyPlastic s. r. o.	automotive industry	ZKL a. s.	bearing production
Norgren CZ s. r. o.	mechanical engineering		

The questionnaire containing ten questions was then distributed to these organizations. The survey was carried out in March 2011. In the first stage, the organizations were contacted by telephone in order to find out the person responsible for this area, and the questionnaire was e-mailed to that person. We received 15 questionnaires; 8 of the organizations contacted were not interested in participating in the survey. However, some of the 15 questionnaires received were not filled in completely for each question. The reasons for this lack of cooperation or reluctance included, for instance, the company bankruptcy or dissolution, or a change of the management or the person in charge of dealing with this issue. The following part focuses on the evaluation of the questionnaire responses.

The first question focused on the knowledge of IIP. This question was answered by 12 companies, 8 of which knew about the Standard from CzechInvest, 1 from a certified consultant, and the rest from other sources. So, it is apparent that CzechInvest has been the organization that has done the most to promote IIP in the Czech Republic. Ten out of the twelve organizations decided to implement IIP in order to set up the human resources process in the company. One organization implemented the Standard for reasons of market prestige, and one company did so in order to test how the Standard worked in practice; the latter employed a certified consultant whose job was to verify this Standard in practice.

As regards financing, only two out of the eleven organizations, which answered the question, financed the implementation of the Standard completely from their own resources, while nine organizations utilized the possibility of co-financing from the CzechInvest project or from European subsidies. *Fig. 1* below gives an overview of the resources invested by the organizations aimed at obtaining the IIP certificate.

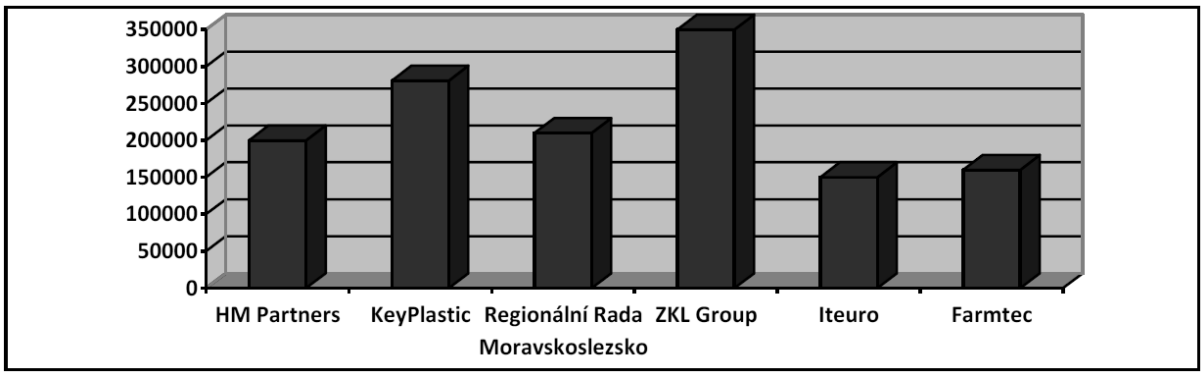

Fig. 1 Funds Spent on the Implementation of IIP [14]

The question concerning financing was answered by just six organizations that were able to determine their own costs, which could be identified in connection with the implementation of IIP. Not all the organizations kept special records solely to track the costs of IIP. For instance, Iteuro invested CZK 150, 000, yet the highest amount of CZK 350, 000 was spent by the ZKL Group. Thus, it is impossible to determine precisely the costs of implementing the Standard for an organization.

The next part of the questionnaire checked whether the organizations made use of the certified consultants. Only one of the organizations surveyed had not used the services of a certified consultant. So, it is apparent that certified consultants are a useful tool that facilitates the implementation of the Standard in practice.

Fig. 2 below indicates how much time the organizations needed to implement the Standard in practice.

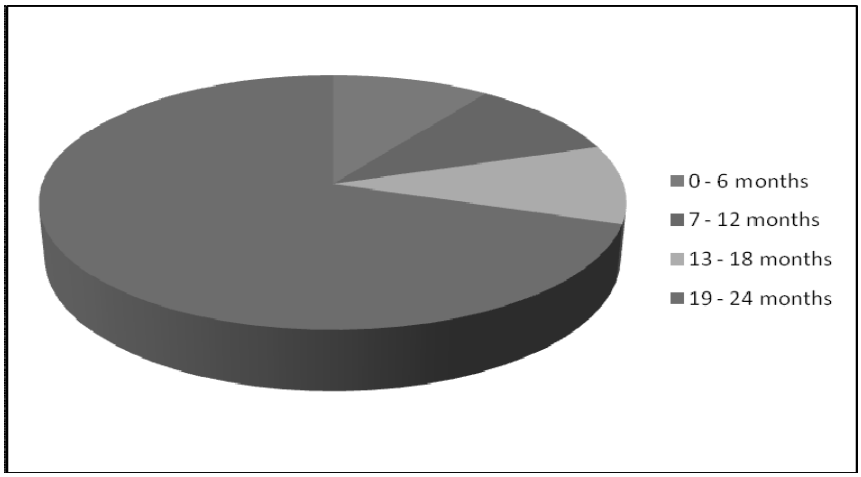

Fig. 2 Time Required for Implementing the Investors in People in Practice [14]

This question was answered by ten respondents, one of which spent more than 19 months implementing IIP. One respondent implemented the Standard within six months; however, most respondents worked on this project for about a year.

The last part of the questionnaire dealt with shortcomings during the implementation process, but also with benefits of the Standard implemented in practice. The biggest benefit of the Standard was clearly an improvement in human resources processes, so the main objective of the Investors in People was fulfilled. The biggest shortcomings are shown in *Fig. 3*.

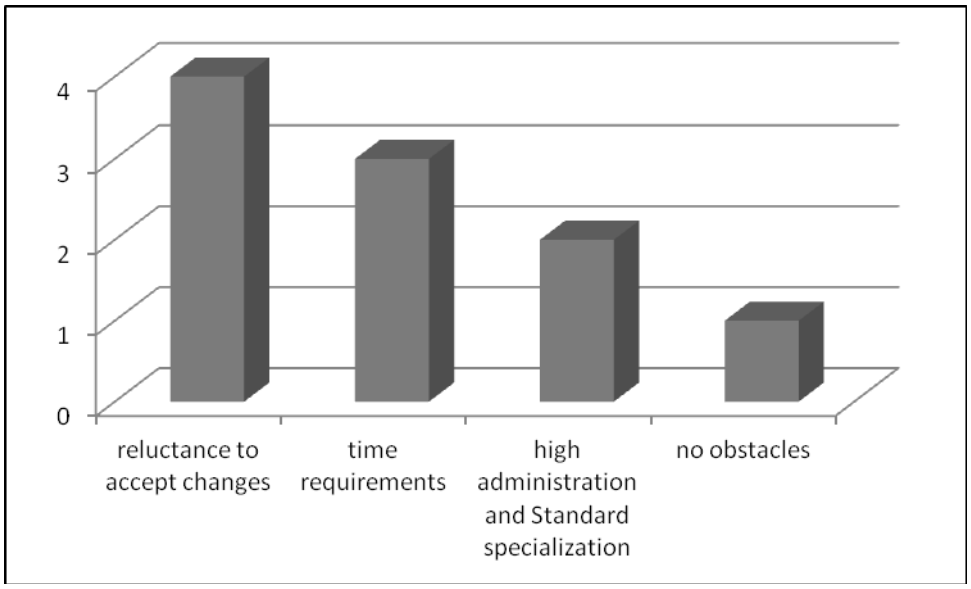

Fig. 3 Shortcomings of Implementing the Investors in People in Practice [14]

An opinion on this question was given by ten respondents while surprisingly one organization did not face any problems or obstacles. The other organizations mostly faced problems such as the demands on time, reluctance to accept changes or high administration associated with IIP. The last question asked whether the organizations possessed the current IIP Standard in 2011. Out of thirteen answers, only 4 organizations no longer had an active certificate, explaining that it had not been renewed for organizational reasons, such as a change of the management or an acquisition by a new owner. The surveyed organizations obtained their certificates in the period of 2004-2005 (2 organizations), in 2008 (9 organizations, with the support of CzechInvest).

The completed questionnaire survey revealed several important facts. An important finding is that there is no register in the Czech Republic that would provide a list of companies which have a valid IIP certificate or which obtained it in the past. The survey also found out that the organizations had utilized the financial support of the CzechInvest projects for implementation; however, they are not 100% certain of IIP recertification. The reasons may include the change of management or owners, but also financing, as the recertification processes must be funded from the organizations' own resources. CzechInvest no longer offers projects for implementing IIP in practice. Therefore, we can state that approaches to the Standard can be very subjective and dependent on the current management of the organization. A positive finding is that if the Standard is really implemented, it fulfils its purpose, which is to strengthen the human resources development in the organization, and this could be the main motivation for the implementation of this Standard in more Czech organizations.

Following is one company's opinion of the implementation of IIP in practice:

Hutní projekt Frýdek Místek a. s.

Hutní projekt Frýdek-Místek was one of the first ten companies in the Czech Republic to meet the conditions for obtaining this Standard. The company adopted the Standard in 2004, thus deciding to invest part of the company's resources in employee development, mainly in the form of supporting various educational activities. The company organizes language courses for its employees, mainly English lessons with a native speaker. The employees attend a wide range of seminars focused on support of their professional growth in their particular professional specialization as well. And, last but not least, the company strives to provide its employees with sufficient information about the company's objectives and to give each employee feedback about his/her expected contribution towards the fulfilment of the objectives. This also leads the company to achieve the strategic objective of improving the standard of the services it provides, thus improving customer satisfaction [4].

Conclusion

IIP has a bigger tradition in the United Kingdom; the number of the certified companies exceeded 50, 000 in 2008 and we can already find the results of various surveys dedicated to the direct impact this Standard has had on the company and its employees. According to these surveys, the implementation of IIP has a positive impact on the company itself as well as on its employees and customers. In the case of the employees, this primarily involves a greater level of satisfaction, a better working environment, bigger corporate citizenship, and, most of all, improved communication between the employer and the employees. The organization gains more loyal and motivated employees and has a lower sickness and fluctuation rate. The greatest benefit for the customer is better care or professional service from the employees of the organization in question.

It is early days for the Investors in People in the Czech Republic. We must state that there is currently no organization in the Czech Republic that would support this certificate and provide targeted promotion or financial funding for it. This function used to be performed by CzechInvest, which, however, stopped promoting this certificate after the project had been completed in 2002–2008. This is why there is no aggregate database of the organizations which possess or have possessed this certificate in the Czech Republic. We should also note that there are only five certified consultants in the Czech Republic who help to implement the Standard in practice.

The development of human resources and care of employees are very important for both Czech and foreign organizations. The implementation of the standards in this area proves that

organizations realize the importance of the investment in human capital, both in terms of their own needs and also in terms of the needs and perception of their environment. It is important for organizations not to overlook this area even in the period of the economic crisis.

In our conditions, when organizations are mostly forced to implement a certified quality management system only at the request of their customers, there is usually no other motivating factor which forces the organization to implement the principles of IIP. Therefore, it is important that the organization's management realizes that the incorporation of the strategy for a systematic approach into human resources in the general strategic concept of the organization is an investment that can become a competitive advantage in the market in the near future in the form of greater human potential and high employee loyalty towards the organization.

Literature

[1] *A Guide to CSR in Europe [online]*. [cit. 2010-04-02]. Available from WWW: <http://www.csreurope.org/data/files/20091012_a_guide_to_csr_in_europe_final.pdf>

[2] ELKINGTON, J: *Cannibals with Forks: The Triple Bottom Line of 21st Century Business*. Environmental Quality Management, 8: 37–51. Doi: 10.1002/tqem.3310080106

[3] HOREHÁJOVÁ, M., MARASOVÁ, J. The institutional factors of the corporate social responsibility development in the central European countries, *E+M Ekonomie a management*, 2008, vol. 11, iss. 2/2008, p. 58-64. ISSN 1212-3609.

[4] *Hutní projekt Frýdek-Místek* 2008 *[online]*. [cit. 2008-06-06]. Available from WWW: <http://www.hpfm.cz/view.php?akce=pece_o_zamestnance>

[5] *Investors In People - nástroj zvyšování výkonnosti organizací [online]*. [cit. 2009-09-09]. Available from WWW: <http://www.becon.cz/index.php/investors-in-people >

[6] *Key Facts – Investors in People [online]*. [cit. 2011-23-09]. Available from WWW: <http://www.investorsinpeople.co.uk/Facts/Pages/default.aspx>

[7] MARREWIJK, M. V.: Concepts and definitions of CSR and corporate sustainability: between agency and communion. *Journal of Business Ethics,* 2003, vol. 44(2), p. 95–105. DOI: 10.1023/A:1023689803906.

[8] *Napříč společenskou odpovědností firem [online]*. Praha: AISIS o. s., 2005. ISBN 80-239-6111-X. [cit. 2010-06-06]. Available from: <http://www.sof.cz/download/Napric-SOF.pdf>, p. 31.

[9] NORMAN, W., MACDONALD, C.: Getting to the bottom of 'Triple Bottom Line'[online]. *Business Ethics Quarterly,* 2003, vol. 14(2), p. 243–262. [cit. 2011-07-08]. Available from <http://www.businessethics.ca/3bl/triple-bottom-line.pdf>

[10] *Normy, které mají vztah k CSR [online]*. [cit. 2011-05-07]. Available from <http://www.csr-online.cz/Page.aspx?normy>

[11] PRSKAVCOVÁ, M.: CSR na podnikové úrovni, vazba na trvale udržitelný rozvoj. In *Svět práce a kvalita života v globalizované ekonomice*. Vysoká škola ekonomická, Praha, 2007. ISBN 978-80-245-1207-5.

[12] PRSKAVCOVÁ M., MARŠÍKOVÁ K., ŘEHOŘOVÁ P., ZBRÁNKOVÁ M. *Normy z oblasti společenské odpovědnosti firem.* Liberec: Technická univerzita v Liberci. ISBN 978-80-7372-558-7.

[13] *Standard rozvoje lidských zdrojů Investors in People, CzechInvest, 2007[online]*. [cit. 2011-03-03]. Available from: <http://www.starlit.cz/filesASP/IIP_detailni_informace.pdf>

[14] ŠPAČKOVÁ, P.: Norma Investors in People v České republice. Liberec, 2011. 88 s. Thesis. Technical University of Liberec.

[15] *Your jorney – Investors in People [online]*. [cit. 2011-24-09]. Available from WWW: <http://www.investorsinpeople.co.uk/Journey/Pages/default.aspx>

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NORMA INVESTORS IN PEOPLE V ČESKÉ REPUBLICE

Článek se zabývá normou Investors in People. Jedná se o normu, která pochází z Velké Británie a lze ji využít pro zefektivnění řízení lidských zdrojů v organizacích a to jak ziskových, tak neziskových. V první části je vysvětlena vazba normy Investors in People k aktivitám společenské odpovědnosti firem (Corporate Social Responsibility) a k ostatním normám z této oblasti. Další části se již věnují normě Investors in People konkrétněji. V článku jsou představeny výsledky dotazníkového šetření mezi organizacemi, které se v České republice nechaly dle této normy certifikovat. Šetření bylo realizováno na Technické univerzitě v Liberci, Ekonomické fakultě v březnu 2011. Bylo osloveno 23 organizací, které prošly úspěšně certifikací dle normy Investors in People

DIE NORM INVESTORS IN PEOPLE IN DER TSCHECHISCHEN REPUBLIK

Der Artikel befasst sich mit der Norm Investors in People, die aus Großbritannien stammt und zum effizienteren Management menschlicher Ressourcen sowohl in gewinnorientierten, als auch gemeinnützigen Organisationen genutzt werden kann. Im ersten Teil wird die Bindung der Norm Investors in People an die Aktivitäten der gesellschaftlichen Verantwortung der Firmen (Corporate Social Responsibility) und an die sonstigen Normen aus diesem Bereich erläutert. Die weiteren Abschnitte widmen sich bereits konkreter der Norm Investors in People. Im Artikel werden die Ergebnisse einer Umfrage unter den Organisationen präsentiert, die sich gemäß dieser Norm zertifizieren ließen. Die Umfrage erfolgte im März 2011 an der Wirtschaftsfakultät der Technischen Universität in Liberec. Angesprochen wurden 23 Organisationen, die die Zertifikation gemäß der Norm Investors in People erfolgreich absolvierten.

NORMA INVESTORS IN PEOPLE W REPUBLICE CZESKIEJ

Artykuł jest poświęcony normie Investors in People. Jest to norma pochodząca z Wielkiej Brytanii, którą można stosować w celu poprawy efektywności zarządzania zasobami ludzkimi w jednostkach nastawionych na osiąganie zysku, jak i non-profit. W pierwszej części wyjaśniono powiązanie normy Investors in People z czynnościami odpowiedzialności społecznej firm (Corporate Social Responsibility) i pozostałymi normami z tej dziedziny. Następne części są już poświęcone normie Investors in People bardziej konkretnie. W artykule przedstawiono wyniki badań ankietowych przeprowadzonych w jednostkach, które w Republice Czeskiej uzyskały certyfikat według tej normy. Badania przeprowadzono na Wydziale Ekonomicznym Uniwersytetu Technicznego w Libercu w marcu 2011. Zwrócono się do 23 jednostek, które otrzymały certyfikat według normy Investors in People.

WEBQUESTS AS A TOOL FOR ENHANCING ACTIVE ENGAGEMENT, THINKING SKILLS AND CROSS-CURRICULAR LINKS

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Abstract

This contribution examines the role of webquests in undergraduate study programmes. When working with webquests, students develop different types of intelligence: intrapersonal, interpersonal, linguistic, logical-mathematical intelligence. They are encouraged to merge their isolated bodies of knowledge gained in discrete disciplines. Students are actively engaged in constructing their knowledge. This modern approach to teaching encourages students to research a vast amount of varied information and helps them to organize problem-solving processes, which adds another layer to the learning process. It transfers the learning situation into a more stimulating and memorable event. By structuring it carefully and leading students from a simple task to more sophisticated ones, teachers offer an enjoyable and meaningful learning adventure that students will also appreciate and utilise in their career.

Introduction

In the 21st century the majority of young people and children are computer literate. They are keen on using social networking and handle a wide range of tools provided by Web2. They are familiar with software applications such as SlideShare, Wiki, PowerPoint and create their own web -pages and blogs. Why not take advantage of these features and adapt them for use in the educational process? Similar thoughts prompted us to embed various elements of computer-assisted learning into our English language study programmes for both undergraduate and postgraduate students at the Faculty of Economics of the Technical University in Liberec. After positive feedback from our pilot projects and very positive learning outcomes, we decided to examine webquest (WQ) as another type of assignment in our repertoire of teaching tools. Although the model of WQs was designed by Professor Bernie Dodge [1] almost 20 years ago, this type of learning was only used at random in the Czech Republic. So there was still a potential for further research. Our main objective was to go far beyond rote learning and often disengaged learners. In contrast, we planned to fully engage learners in applying higher level thinking to authentic problems and thus to further foster the quality of teaching/learning English. Another accompanying objective was to enrich the crosscurricular links in the study programme for future economists.

1 Working with webquests

In this section the definition of a webquest will be provided; then we will proceed to explaining why they should be used, what attributes they have and what types exist. At the end of this section the advantages of webquests will be listed together with potential obstacles to overcome.

1.1 What is a webquest?

A WQ is an inquiry-oriented activity in which most or all of the information used by learners is drawn from the Web. [1] WQs are designed to use learners' time well, to focus on using information rather than looking for it, and to support learners' thinking at the levels of analysis, synthesis, and evaluation. A WQ usually comprises of 5 stages: Introduction, Task, Process, Evaluation, and Conclusion. By providing scaffolding we guide students through the whole process and encourage them to prepare a product which helps to solve a real-life task and forces them to utilise a combination of skills and knowledge types. Students need to use critical thinking skills and seek interdisciplinary links. In doing so, they are forced to develop necessary expertise for solving real-life tasks they will be involved with in their life and work situations. In contrast to some people's belief, WQs are not equal to treasure hunts or scavenger hunts. No simple wandering through the webspace when students are completely adrift is to be interpreted as a WQ though. In the following section we will examine the reasons for using webquests and discuss advantages and disadvantages of applying this method.

1.2 Why should we use a webquest?

The Internet has turned into an incredible source of information. The tools of Web2 add a new dimension to this network and change the role of their users to become autonomous learners. The models provided by Axel Bruns [2] illustrate this change. The concept of the Internet resembles the mode of industrial production, which can be presented by three main stakeholders: a producer, a distributor, and a consumer - all linked in the added value chain. The mass-produced goods (in case of the Internet – a mass of information) should be distributed (via the providers and users) to the consumers (all users of the Internet). Producers, distributors and consumers are separate entities in the production value chain with clearly defined tasks. Later, however, producers responded better to the needs, wishes, and preferences of consumers. Market researchers started to track consumer purchasing behaviour and in this way a kind of feedback from consumers to producers is provided. Anyway, consumers are not involved directly in the production process (cf. *Fig. 1*).

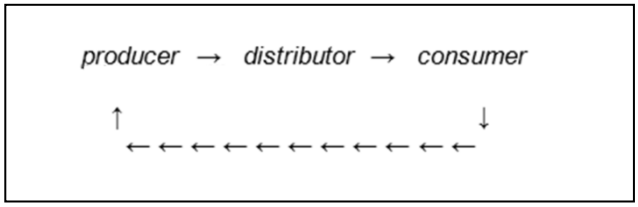

Fig. 1 Feedback from consumers to producers

As far as education is concerned, we can reduce the concept of product to information (goods and services), and in the era of social networking where the Internet is the main mass medium, the traditional distribution of roles changes significantly. The relationship between producers and consumers is no longer based on the dominant role of producers and the typical top-down structure. All users of the network can produce and distribute information; they

communicate on an equal level and, due to digital technologies, content can be shared and modified easily. “In collaborative communities the creation of shared content takes place in a networked, participatory environment which breaks down the boundaries between producers and consumers and instead enables all participants to be users as well as producers of information and knowledge.” [2, p. 21). See the model of this situation in *Fig. 2*.

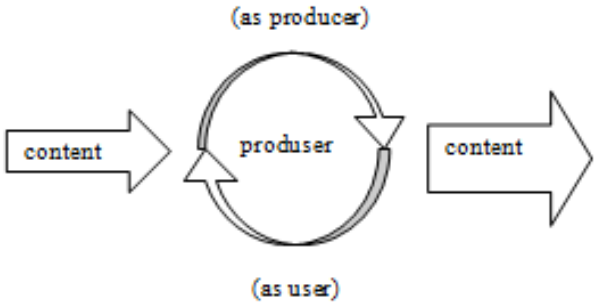

Fig. 2 The model of collaborative communities

Educators must react to the changing milieu and adapt the education process using all the new skills mastered by the younger generation. To be more specific: Let us draw on the possibility of digital technologies to produce pictures, movies and sophisticated presentations. Our students are often much more interested in making their own short spots and presenting these on the Internet than watching traditional movies. They also wait for feedback from the Internet audience and they themselves offer their opinion in different chatrooms. Educators should be aware of this new form of communication and enrich their teaching plans with activities which involve the above mentioned skills – for example, a well-constructed webquest. It is not only the changing environment that advocates the implementation of WQs. The key idea of constructionism emphasises active learning. Knowledge is not simply transferred from teachers to students, “but actively constructed by the mind of the learner. “ [3, p.1]. Learners do not get ideas, they make ideas; and students are highly likely to make new ideas when they are actively engaged in cooperative activities which result in a personally meaningful product/project. Such a project based on design and invention activities represents a challenge where learners become intellectually engaged and work on forming new relationships with the knowledge, and making connections with knowledge approached from different perspectives. It is the building of personal connections that is a key part of learning through WQs.

1.3 Attributes and types of webquests

As the history of webquests is considerably long, teachers can search the web to find numerous examples of use (cf., for example [1]). However, the quality of developed webquests differs and educators need to thoroughly select activities. A good webquest usually follows five guiding principles:

A well-designed WQ is an Internet-powered learning experience during which teachers become genuine facilitators of students´ learning, and students are engaged in dependable learning-centred practice grounded on research-based theories.

A webquest is constructed alongside a practical and interesting task that is ideally complementary to what citizens and workers are truly engaged in. This makes it very motivating for students to be involved. The final outcome then is to be that students independently achieve a more sophisticated understanding of problem-solving.

Webquests require higher order thinking skills, not simply summarizing. These include, for example, synthesis, analysis, problem-solving, creativity and evaluation.

It demands good use of the web. Without having the web at the heart of the activity, it can be interpreted only as an alternative of a simple treasure hunt. Inviting learners to simply study web sites and make a presentation about them is also a valuable task, but not a genuine WQ. It would be of questionable educational benefit if learners were encouraged to surf the net without a clear task in mind.

It is a structured activity containing the five usual parts and it is set within a time limit. The basic types of webquests are short-term and long-term WQs. The goal of a short-term WQ is knowledge acquisition and integration, while in a long-term WQ learners analyze, extend, refine and transform knowledge into something that is understandable by others. It can be undertaken by individual students or it can be designed as a group activity. When solved in groups, cooperation is needed and the result is dependent on partial results of its members. This interaction supports the development of students' ability to take another person's point of view and share ideas. Each member of the group takes different roles in the learning process. They act as collaborators, coaches, audience and co-constructors.

1.4 Advantages of webquests and potential obstacles to overcome

The major advantages of webquests for students have already been mentioned above. Let us add that educators´ attempts to motivate students are furthered by the use of probing, open-ended questions. Students find the frequently unusual task worth learning as they work with up-to-date materials which would otherwise not be accessible for them.

WQs do not have to be limited to the use of the Internet, but other sources such as books or magazines can be included. Another valuable source can also be a person, as the Internet is not just a network of computers, but also of people. There are possibilities to ask a question at ask-an-expert sites, blogs, and authors of videos provided by YouTube. The high expectations of the task focus the students´ attention on outcomes, promote effective and collaborative work and improve their research skills. This means that learners succeed only if they cooperate. They struggle with an authentic task and they complete it successfully while each individual plays an important role in the process. Thus, interpersonal skills are taught and responsibility is experienced.

Studying WQs from the educator's point of view, we appreciate that this tool has been utilised by many teachers and teaching experts; that is why a novice WQ designer can utilise the results and examples available online. One can find a considerable amount of advice for constructing WQs.

Needles to say though that WQs are rather complex and we need to be prepared to face some potential obstacles. First of all, access to computers and to reasonably fast connections to the Internet are crucial. Second, both educators and students must be on a reasonably high level of computer literacy. The sites students search to complete the task should be challenging, up-to-date, accurate and comprehensible. To find and evaluate such sites educators ought to master a search engine by using advanced search techniques. When designing tasks teachers should very carefully select which hyperlinks they introduce as some of these can be broken or become obsolete very fast.

Not surprisingly, the material available on the Internet may be predominantly of American English origin, and teachers who want to keep a balance between more points of view language sources and culture will have to spend time on the careful selection of sources of information to be employed. Moreover, for some of the sources both educators and students may need to register, which might make the task less practical.

2 Webquests contribute to the development of higher order thinking skills

Reflections on our empirical study prove that the less challenging way for educators to start practising this type of a project with students is from introducing the existing templates available on the Internet prior to designing such tasks on their own. We have followed this path to become sufficiently self-confident to be able to introduce our own WQs assignments to classes of undergraduate students. In the following paragraphs we provide some samples to illustrate our approach to webquests.

2.1 Introduction

In the Introduction stage educators set the task and provide basic background information. At the beginning of the enquiry stage students need to articulate personal perspectives about individual issues, ask relevant questions, define problems, practise anticipating, plan and research the topic.

INTRODUCTION

Nowadays in the era of **tough competition** it is really difficult to win a part of the market to place **a new product** there.

The product must be somehow better than the existing assortment and before its real production starts, the future producer needs detailed **information** about

- the current market, the **rival products**
- the possible **future consumers** to define the focus group of customers

Fortunately, the Internet makes our lives easier and we can search the web to find most of the needed information there.

Fig. 3 Example of an Introduction

2.2 Task and information sources

In the following stage a concrete task is defined.

TASK

Your task will be to **design a new Czech product** which will be able to compete with the existing products on the **market in the UK**.
You will **search the Internet** to gather as much information about existing products as possible to be able to differentiate your product.
Each member of the group will **describe one product** available on the market. In your group you will decide which features could be improved or adapted somehow to design a better product.

Then you will **prepare a presentation** where you will inform your classmates about your findings and your product.

Fig. 4 Example of a Task

After the first two stages students start a process of acquiring information to develop a body of knowledge. These two sections are crucial as they provide a common foundation of knowledge before developing expertise from one single perspective.

In the Background section teachers can differentiate content and process in such a way that all students can master required knowledge acquisition and follow to pursue different levels in affective or critical thinking domains. Then the structure of the WQ proceeds to a set of Information sources needed to complete the task.

In the same section often the roles of individual team members are defined.

RESOURCES

First you should look into the offer of some big supermarkets of products sold online:

http://www.waitrose.com/index.aspx
http://www.asda.co.uk/
http://www.freshnfine.com/
http://www.safeway.com/IFL/Grocery/Home
http://www.tesco.com/
http://www.booths.co.uk/
http://www.sainsburys.co.uk/sol/index.jsp

For shopping online in the UK:
http://www.british-shopping.com/

And do some hands-on research in the shops. You can touch original British products in the shops even in the Czech Republic (e.g. Tesco, Marks and Spencer, Robertson, Debenhams).

Fig. 5 Example of a section on Resources

The sources can be of great variety, ranging from web documents to contacting experts via email, to databases and videoconferences, etc. Embedding them in the structure of the WQ makes the whole task more doable and enhances motivation of students to accomplish the given target.

In the next stage educators describe the process the students need to go through by breaking it into small manageable steps.

2.3 Process breakdown

PROCESS

There are four steps you should take to finish the task successfully:

1. **Choose one kind of product** (e.g. a packet of biscuits, a box of chocolate, a lipstick, or any other) you will be designing. This decision should be made in a discussion in the class. Take into account local possibilities (raw materials, workforce, farming, local industry, etc.)

2. **Each member of the group will look for information** on one specific product/ set of products which represents a future competitor of your new product. You will search the Internet, but some research in the shops is possible as well (MARKS & SPENCER). Your description of the product should include the shape, dimensions, packaging, main features, the price, the place where the product can be bought. Take into account that the first impression is important. So, the design of packaging should seduce the customer, be unique and differentiated. Organize your findings into a presentation to be able to inform the other members of the group.

3. **Discussion in class**. Each member of the group gives a short presentation on the product and in the group you will design a new product. Prepare some rough data for a presentation you will prepare through a wiki in Moodle. In your presentation you will not only describe your product but you will also explain how your product is better than that of your competitors.

4. **Tell your classmates** about your new product in a form of a oral presentation.

Fig. 6 Example of a section on Process breakdown

Students start with information processing. They have to locate and collect information, classify it, compare, contrast, identify and articulate similarities and differences, and then classify and group it in relevant sequences and definable categories on the basis of their attributes. The whole process engages students´ creativity. They look for innovative outcomes, generate and extend ideas, suggest hypotheses, and apply their imagination.

2.4 Evaluation and organisation of the information

In the section providing guidance on evaluation and organization of the information, the notes can take the form of guiding questions, or suggestions for organizational frameworks such as timelines, concept maps, or cause-and-effect diagrams as described by [4] [5] and [6]. Students will be guided to use various types of graphic organizers, such as flow charts, Venn diagrams, tree charts, KWL diagrams, etc. This stage is based on reasoning and evaluation skills. Students proceed from developing criteria, building up confidence in their own judgement, to final evaluating of information.

Moreover, the reasoning skills are addressed, from analysing relationships and themes, inferring unknown generalizations or principles from observations or analyses. Students deduct unstated consequences, conclusions and conditions from given principles and generalisations. During the whole process they must analyse general patterns of information, construct a system of proof for their assertions and explain the evidence on which their conclusions are based. Inevitably, they have to identify and formulate errors in their own and others´ thinking.

EVALUATION

	Not there 1	Needs work 2	Good 3	Great! 4	Score
Internet Research	Very little evidence of research on the topic.	Some research was done, but not enough.	Description of main characteristics, good overview of the topic.	Area was well researched and considered. Good display of data.	

Fig. 7 Example of the section Evaluation

2.5 Conclusion of the WQ

Here the WQ is completed and the accomplished learning process is summed up. It may also provide guidelines for further extension of experience.

3 Webquests enhance crosscurricular links

We claim that skills taught in isolation do little more than prepare students for tests of isolated skills. In the WQs we utilised, there were various types of study disciplines overlapping.

3.1 Linguistic skills

Understandably, as teachers of English we primarily focused on developing linguistic skills. Obviously, English grammar and vocabulary were practised; in the written product students had to practise spelling, cohesion and stylistics to be able to prepare a proper piece of written text in correspondence with its purpose, genre, and type of audience. In the spoken presentation they practised pronunciation, but also all the aspects of delivering a presentation.

3.2 Soft skills

These communication skills can be transferred to other languages on demand. They go hand in hand with the development of soft ski3lls in general, such as interpersonal, team building, time management, leadership, decision making, problem solving, negotiation skills, just to

name a few. Succeeding in gaining this competence, graduates have improved their quality of life in general, increase their employability and ensure their professional survival.

3.3 Presentation and academic skills

University graduates and future middle and top managers of companies are expected to be able to utilise good presentation skills. These are to be also developed during the WQ process. Students practise using appropriate communication techniques, paralinguistic features and working with various visual aids. In the written form they master fundamental stylistics and text cohesion principles of academic discourse.

Working continuously with various sources of information, distilling the main patterns and identifying the underlying relationships are crucial skills necessary for any academic research project students are to be engaged in at the end of their studies. Only with continuous guidance introduced from the very beginning of the course can we expect students to succeed in the research project of a wider scope to be completed at the end of the course.

3.4 IT skills

As stated above, without the technology-enhanced feature, the task would not be a WQ. That is why the IT skills and digital literacy were necessary to be involved. This type of literacy refers to the comfort level people have with using computer programmes. Addressing the issue of a potential digital or general knowledge divide is a contribution of educators to take care of in order to develop skills and competence our graduates will need to effectively participate as digital citizens.

Dealing with authentic tasks focused on issues students will meet in their careers and calls upon their expertise gained in the other components of the course, such as accounting, marketing, finance management etc. A real-life task provides a unique opportunity to focus on links between often isolated bits of learning reached in individual subjects.

Conclusion

When working with webquests in our classes we have managed to utilise the principles of motivation theories. Students formulated questions and when they received partial answers to them, they reformulated them. This has contributed to students´ active learning. Sharing the learning process and the end product with others meant that the full effects of constructionist learning took root. Different roles assigned to individual students helped to utilise learner-centred psychological principles and to differentiate learning. Students utilised a wide scope of thinking skills of the higher order and overt metacognitive development materialised. A synthesis of knowledge and learning achieved in various subjects in the study course was dictated by the nature of the tasks, which terminated with a practical end product for which authentic assessment was provided.

Literature

[1] DODGE, B. Homepage of WebQuest.org, San Diego State University, Department of Educational Technology, 2007 [online], [accessed on 2011-03-03]. www.http://edweb.sdsu.edu/webquest/overview.htm

[2] BRUNS, Axel Blogs, Wikipedia, Second Life, and beyond: from production to produsage. New York: Peter Lang Publishing, Inc., 2009. ISBN-13:978-0-8204-8866-0

[3] KAFAI, Yasmin; RESNICK, Mitchel. *Constructionism in Practice*. Reprint. New York: Routledge, 2008. ISBN 0-8058-1985-1

[4] MARZANO, R.J., BRANDT, R.S., HUGHES, C.S., JONES, B.F., PRESSEISEN, B.Z., RANKIN, S.C., & SUHOR, C. *Dimensions of thinking: A framework for curriculum and instruction.* Alexandria VA: Association for Supervision and Curriculum Development, 1988. ISBN 13:978-0871201485

[5] MARZANO, R.J. *A different kind of classroom: Teaching with dimensions of learning*. Alexandria VA: Association for Supervision and Curriculum Development, 1992. ISBN 0-87120-192-5

[6] CLARKE, J.H. *Patterns of thinking: Integrating learning skills in content teaching.* 1. ed. Neefham Height MA: Allyn and Bacon, 1990. ISBN 13:978-0205123612

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WEBQUESTS K PODPOŘE AKTIVNÍ ÚČASTI STUDENTA NA VÝUCE, ROZVOJE MYŠLENÍ A MEZIPŘEDMĚTOVÝCH VAZEB

Příspěvek zkoumá roli webquests v pregraduálním vzdělávání, nastiňuje jejich strukturování a možné problémy. Řešení problému kultivuje různé inteligence: intrapersonální, interpersonální, lingvistickou, matematickou, prostorovou a existenční. Studenti jsou vedeni k propojování znalostí z jednotlivých studijních disciplín. Studenti se aktivně zapojují do spoluvytváření vědomostí. Tento moderní přístup k výuce povzbuzuje studenty k prvním výzkumným pokusům, k zacházení s informacemi a uspořádávání výsledků. Výuková situace je stimulující a lépe zapamatovatelná. Strukturováním a vedením studenta od snazšího problému k složitějšímu učitelé nabízejí smysluplné vzdělávací dobrodružství, které přinese výsledky, jež student ocení a využije ve své budoucí profesi.

WEBQUESTS ZUR UNTERSTÜTZUNG DER AKTIVEN TEILNAHME DES STUDENTEN AM UNTERRICHT; DIE ENTFALTUNG DES DENKENS UND DIE INTERDISZIPLINÄNREN KONTAKTE

Dieser Beitrag erforscht die Rolle von Webquests im prägradualen Ausbildungsprogramm. Er skizziert die grundlegenden Instruktionen für die Strukturierung solcher Aktivitäten und zeigt mögliche Probleme. Die Studenten entwickeln eine intra- und interpersonale sowie eine linguistische und mathematische Intelligenz. Sie werden gezielt dazu geführt, oftmals isolierte Gruppen von in einzelnen Disziplinen des Studienprogramms erlangten Kenntnissen miteinander zu verknüpfen. Studenten lernen mit einer riesigen Menge an im Internet zugänglichen Informationen umzugehen und bei der Lösung des gegebenen Problems erlangte Teillösungen zu ordnen. Durch eine sorgfältig strukturierte Lösung und der Führung des Studenten vom leichteren zum komplizierteren Problem bieten die Lehrer ein interessantes und sinnvolles Bildungsabenteuer, das Ergebnisse bringt, die der Student würdigt und in seinem zukünftigen Beruf anwendet.

WEBQUEST JAKO NARZĘDZIE WSPIERAJĄCE AKTYWNĄ PARTYCYPACJĘ STUDENTA NA LEKCJACH, ROZWÓJ MYŚLENIA ORAZ MIĘDZYPRZEDMIOTOWE POWIĄZANIA

Niniejsza wkładka bada rolę WebQuestów w programach wczesnego nauczania przyszłych ekonomów. Daje podstawowe wytyczne dotyczące strukturowania owych działań oraz wyszczególnia możliwe problemy. Ewaluacja procesów myślenia ukazuje, że studenci muszą myśleć na wyższym poziomie. Studenci rozwijają intrapersonalną i interpersonalną inteligencję, lingwistyczną i matematyczną inteligencję. Studenci są celowo orientowani na izolowane dziedziny wiedzy zdobytej przy poszczególnych dyscyplinach programu nauczania. Studenci sie uczą radzić sobie z ogromną ilością informacji włącznie z organizacją częściowych rezultatów. Dzięki dokładnej strukturze dążenia do rezultatu oraz prowadzeniu studenta od łatwiejszego problemu do cięższego oferują nauczyciele ciekawą i sensowną przygodę edukacyjną, która przyniesie wyniki, które student będzie w stanie docenić oraz wykorzysta je w swojej przyszłej profesji.

DAS ENERGIEKONZEPT DER BUNDESREGIERUNG DEUTSCHLANDS BIS 2050 - EIN VORREITER FÜR NACHHALTIGE ÖKOLOGISCHE ENTWICKLUNG

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Abstrakt

Das von der Bundesregierung Deutschlands beschlossene Energiekonzept bis 2050 sieht eine Steigerung des Bruttoinlandsproduktes gegenüber 2008 real auf 139% vor. Gleichzeitig sollen durch Erhöhung der Energieeffizienz in allen Bereichen der Gesellschaft der Primärenergie-Verbrauch in diesem Zeitraum um 50% und trotz des Auslaufs der Kernenergienutzung die Treibhausgasemissionen um 85% gesenkt werden. Letzteres setzt eine prinzipielle Änderung der Primärenergiestruktur voraus, indem der Anteil der erneuerbaren Energien auf 50% und bei der Stromerzeugung auf 80% bis 2050 steigt. Mit diesen Zielsetzungen stellt das deutsche Energiekonzept weltweit das derzeit ökologisch anspruchsvollste langfristige Konzept dar.

1 Der Weg der Bundesrepublik Deutschland bis zum Atomausstiegsbeschluss

Das Energiekonzept der Bundesregierung Deutschland ist verbunden mit dem endgültigen Ausstieg aus der Kernenergienutzung bis 2022. Wie kam es dazu?

Der Protest gegen die friedliche Nutzung der Kernenergie in Westdeutschland besteht schon seit über 30 Jahren, wie folgende Auswahl an Ereignissen zeigt:

1979 fand ein Protestmarsch mit über 100.000 Teilnehmern von geplanten Brennelemente-Endlager Gorleben nach Hannover statt

1981 demonstrierten über 100.000 Menschen gegen den Bau des Kernkraftwerks (KKW) Brokdorf, wobei 10.000 Polizisten im Einsatz waren

Nach der Wiedervereinigung wurden alle in der ehemaligen DDR in Betrieb befindlichen KKW (2.270 MW) und die im Bau befindlichen (3.320 MW) bis Ende 1990 stillgelegt bzw. nicht mehr weiter gebaut /1/

1998 musste Bundesumweltministerin Merkel (CDU) einen Stopp aller Castortransporte von und nach Deutschland als Reaktion auf die ausufernden Proteste der Kernkraftwerksgegner gegen die Transporte verkünden.

Mit diesen Protesten gegen die Kernenergienutzung, die besonders nach dem Reaktorunfall in Tschernobyl 1986 von großen Teilen der Bevölkerung unterstützt wurden, profilierten sich die Grünen zu einer starken politischen Kraft, was sich durch ihre Teilnahme von 1998 bis 2005 an der rot- grünen Koalitionsregierung (Schröder/Fischer) äußerte.

Im Rahmen dieser Regierungskoalition wurde im Jahr 2000 ein „Atomkonsens“ auf politischen Druck der Regierung mit den führenden Energieversorgern (EVU) Deutschlands vereinbart, der die Laufzeit der bestehenden KKW auf 32 Jahre nach Inbetriebnahme begrenzte, was eine Abschaltung des letzten KKW (Neckarwestheim 2) im Jahr 2021 bedeutete /2/. In dieser Zeit sollte die Kernenergie als Brücke für den Übergang in das Zeitalter der erneuerbaren Energien dienen. Obzwar die EVU den Konsens unterzeichneten, hofften sie auf eine neue Regierungskoalition, die diesen wieder zurücknimmt. Sie wurden

darin bestärkt, als der Bundestagsbeschluss zum Atomausstieg zwar von der Regierungsmehrheit bestätigt, aber von der Opposition geschlossen abgelehnt wurde.

Erst mit der Koalitionsregierung CDU/CSU und FDP von 2009 ergab sich die Möglichkeit, diesen Beschluss zurückzunehmen, indem schon im Koalitionsvertrag eine Laufzeitverlängerung der KKW über den Atomkonsens hinaus vereinbart wurde. Auf der Basis eines von der Bundesregierung in Auftrag gegebenen Energiekonzeptes bis 2050 (siehe später) wurde im Bundestag von der Regierungsmehrheit gegen den Stimmen der Opposition aus SPD, den Grünen und den Linken nunmehr beschlossen, die Laufzeit der KKW um durchschnittlich 12 Jahre zu verlängern /3/. Dieser Beschluss wurde als nicht bundesratspflichtig erklärt, da dort die Koalition keine Mehrheit hatte und damit gescheitert wäre. Das und eine sehr aggressive Öffentlichkeitsarbeit der KKW- Betreiber (Macht der Bosse) führte zu Protesten in breiten Teilen der Bevölkerung, die besonders die Grünen in breitem Umfang politisch stärkten und die Parteien der Regierungskoalition in Befragungen stark einbrechen ließen. Die Regierenden mussten erkennen, dass die beschlossene Laufzeitverlängerung der KKW zu einer Gefahr für ihre Wiederwahl sowohl in den Ländern als auch im Bund geworden war.

In der Reaktorkatastrophe von Fukushima am 6. März dieses Jahres sah die Regierung Merkel eine Gelegenheit, ein Atommoratorium zu beschließen und gleichzeitig die 7 ältesten vor 1980 gebauten Reaktoren sowie das abgeschaltete KKW Krümel zur Sicherheitsüberprüfung sofort stillzulegen, auch alle weiteren Reaktoren einem Sicherheitscheck zu unterziehen und diese Zeit zu nutzen, um über die weitere Nutzung der KKW in Deutschland neu nachzudenken. Dieser Denkprozess führte zu dem Ergebnis, dass nunmehr die Regierungsparteien die Initiative zum beschleunigten Ausstieg aus der Kernenergienutzung in Deutschland übernahmen. Unter Nutzung des 2010 erarbeiteten Energiekonzeptes bis 2050 /4/ wurde ein Ausstiegsplan aus der Kernenergienutzung in Deutschland erarbeitet, der eine Stilllegung aller weiteren 10 KKW bis 2022 in Etappen vorsieht. Einer der stillgelegten KKW- Blöcke darf bis 2013 als kalte Reserve betriebsbereit gehalten werden, um bei Bedarf Netzengpässen entgegenwirken zu können. Damit wird die Kernenergienutzung in Deutschland durch Beschluss des Bundestages vom 30. Juni 2011 im Jahr 2022 beendet und eine Energiewende vollzogen, über die im Folgenden berichtet werden soll. Dem Beschluss haben sowohl die Regierungsparteien CDU/CSU und FDP als auch die Oppositionsparteien SPD und Grüne zugestimmt. Nur die Linken stimmten dagegen. Damit kann davon ausgegangen werden, dass auch bei sich zukünftig verändernden Koalitionen dieser Beschluss keine Änderung erfahren dürfte.

2 Das Energiekonzept bis 2050

Das Energiekonzept basiert auf einer Studie „Energieszenarien für ein Energiekonzept der Bundesrepublik“ /5/. Die Ergebnisse der Studie werden im Folgenden vorgestellt. Die verwendeten Zahlen sind der Studie entnommen oder wurden daraus errechnet.

2.1 Methodische Vorgehensweise

Die 2010 von der Bundesregierung in Auftrag gegebene Studie zur Erarbeitung von Szenarien für ein Energiekonzept der Bundesregierung bis 2050 /5/ unterscheidet sich methodisch von üblichen Konzepten dadurch, dass dafür staatliche Vorgaben formuliert werden, die in jedem Fall zu erfüllen sind. Diese sind:

eine Senkung der Treibhausgasemissionen (THG) gegenüber 1990 um 40% bis 2020 und 85% bis 2050

ein Anteil erneuerbarer Energien am Endenergieverbrauch gegenüber 2008 von mindestens 18% bis 2020 und 50% bis 2050

eine Mindestforderung an die Energieeffizienzsteigerung für ausgewählte Szenarien von 2,3-2,5% pro Jahr

Eine weitere Vorgabe waren unterschiedliche Laufzeitverlängerungen für die Kernkraftwerke, für die 4 Jahre, 12 Jahre, 20 Jahre und 28 Jahre vorgegeben wurden. Diese Vorgabe leitete sich daraus ab, dass zum Zeitpunkt der Aufgabenstellung unklar war, ob und für welchen Zeitraum eine Laufzeitverlängerung der Kernkraftwerke politisch gegenüber dem „Atomkonsens" der Vorgängerregierung (Ende der Kernenergienutzung 2021) durchsetzbar sein würde. Daraus entstanden die genannten vier Jahresvorgaben für die Laufzeitverlängerung, die damit vier verschiedene Szenarien für das Energiekonzept zur Folge hatten. *Tab. 1* zeigt diese Vorgaben /5/.

Tab. 1 Staatliche Vorgaben für das Energiekonzept

	Szenario I	**Szenario II**	**Szenario III**	**Szenario IV**	*Trend-Entwicklung*
Treibhausgas-Emissionen	-40% bis 2020 -85% bis 2050	-40% bis 2020 -85% bis 2050	-40% bis 2020 -85% bis 2050	-40% bis 2020 -85% bis 2050	Vorschlag Gutachter
Kernenergie Laufzeit-Verlängerung.	4 Jahre	12 Jahre	20 Jahre	28 Jahre	Keine LZV
Energieeffizienz-Steigerung	endogen bestimmt	2,3 – 2,5 % p.a.	2,3 – 2,5 % p.a.	endogen bestimmt	Business as usual (1,7-1, 9% p.a.)
Erneuerbare Energien Anteil am Bruttoendenergie-verbrauch 2020	> 18%	> 18%	> 18%	> 18%	> 16%
Anteil am Primärenergiever-brauch 2050	> 50%	> 50%	> 50%	> 50%	Vorschlag Gutachter

Wie erkennbar, wurde ein weiteres Szenario „Trendentwicklung" untersucht, in dem ohne staatliche Vorgaben und damit auf traditionellem Weg (Business as usual) das Energiekonzept entwickelt wurde.

Neben den staatlichen Vorgaben wurden von den Bearbeitern des Energiekonzepts die wesentlichen den Energiebedarf bestimmenden Faktoren in ihrer Entwicklung bis 2050 festgelegt, wie *Tab. 2* zeigt /5/.

Tab. 2 Entwicklung den Bedarf bestimmender Faktoren (2008=100)

	2008	**2020**	**2030**	**2040**	**2050**
Bevölkerung (82,1 Mill.= 100)	100	98	96	94	90
Private Haushalte (39,6 Mill.= 100)	100	103	104	104	100
BIP real (2270 Mrd. € = 100)	100	107	116	126	139
Industrieproduktion real (491 Mrd. = 100)	100	103	108	114	122
PKW Bestand (46,4 Mill. = 100)	100	105	106	104	101
Güterverkehrsleistung (654 Mrd. tkm = 100)	100	119	135	148	163

Ein weiterer wichtiger Faktor für die Entwicklung des Energiebedarfes sind die zu erwartenden Energiepreisentwicklungen während des Zeitraums bis 2050, für die die in der folgenden *Tab. 3* enthaltenen Annahmen getroffen wurden (Preisbasis 2008=100) /5/.

Tab. 3 Erwartete Energiepreisentwicklungen (2008=100)

	2008	**2020**	**2030**	**2040**	**2050**
Ölpreis real	100	104	117	128	138
Preis für CO2 – Zertifikate in € (2008)/t	-	20	38,3	56,7	75,0
Heizöl leicht für Haushalte in Cent (2008)/l	100	106	131	143	182
Erdgas für Haushalte in Cent (2008)/kWh	100	101	113	124	135
Strom für Haushalte in Cent (2008)/kWh	100	97	101	103	99
Benzin in € (2008)/l	100	109	122	137	153

Damit konnte das Energiekonzept erstellt werden.

2.2 Konsequenzen aus dem Energiekonzept für die Energiewirtschaft

Das gemäß *Tab. 1* für vier unterschiedlich lange Laufzeitverlängerungen der Kernkraftwerke entwickelte Energiekonzept bis 2050 kann mit den Erkenntnissen von heute dahingehend präzisiert werden, als das Szenario I (4Jahre Laufzeitverlängerung) der derzeitigen Gesetzeslage am besten entspricht. Es dient deshalb als Basis für die folgende Untersuchung.

Eine einschneidende Konsequenz ist die Entwicklung der Primärenergieträgerstruktur zur Stromerzeugung bei gleichzeitigem Rückgang der erzeugten Strommenge, wie die folgende *Tab. 4* zeigt /5/.

Tab. 4 Erzeugungsstruktur der Elektroenergie 2008 bis 2050 in TWh (Szenario I)

Energieträger	**2008**	**2020**	**2030**	**2040**	**2050**
Kernkraft	148,8	88,3	0	0	0
Steinkohle	124,6	80,2	68,3	48,7	29,8
Braunkohle	150,6	133,0	65,5	17,4	1,9
Erdgas	86,7	40,8	57,7	24,5	0
Heizöl	9,3	0	0	0	0
Pumpspeicher	6,2	7,5	6,7	8,9	7,9
Andere Brennstoffe	18,0	21,1	23,4	25,7	27,9
Erneuerbare Energien	92,3	203,5	245,3	271,4	269,4
Davon: Wasserkraft	20,3	25,1	25,1	25,1	24,5
Wind onshore	40,4	68	73	74	55,6
Wind offshore	0	34	62	83	98
Biomasse	27,2	37	40	41	41
Photovoltaik	4,4	31	36	38	39
Geothermie	0	2	3	4	5
Gesamterzeugung	**636,5**	**574,4**	**466,9**	**396,6**	**336,9**

Daraus wird deutlich, dass sich bis 2050 die inländische Stromerzeugung gegenüber 2008 auf nahezu die Hälfte reduziert. Gleichzeitig verändert sich der Anteil der einzelnen Energieträger dahingehend, dass die Nutzung der Kernenergie im Jahr 2022 und des Heizöls zur Stromerzeugung bis 2020 auslaufen. Die Nutzung der Braunkohle (bis auf eine Restmenge) und des Erdgases zur Stromerzeugung enden bis 2050. Bis zu 80% der Stromerzeugung Deutschlands soll 2050 aus erneuerbaren Energien erfolgen und für die restlichen 20% soll vor allem importierte Steinkohle eingesetzt werden, da nach derzeitigen Planungen die Eigenförderung von Steinkohle aus ökonomischen Gründen beendet wird.

Das führt zu einer gravierenden Änderung der Kapazitätsstruktur der Stromerzeugung, wie *Tab. 5* zeigt /5/.

Tab. 5 Kapazitätsstruktur der Elektroenergieerzeugung 2008 bis 2050 in GW (Szenario I)

Energieträger	**2008**	**2020**	**2030**	**2040**	**2050**
Kernkraft	20,4	8,5	0	0	0
Steinkohle	30,7	24,0	17,9	18,4	15,1
Braunkohle	22,4	21,2	11,8	6,2	0,7
Erdgas	25,7	22,4	36,7	25,7	20,1
Heizöl	6,7	0,7	0,4	0,1	0
Pumpspeicher	7,5	7,7	7,7	7,7	7,7
Andere Brennstoffe	3,2	3,5	3,8	4,1	4,4
Erneuerbare Energien	39,1	90,0	101,2	108,9	113,9
Davon: Wasserkraft	5,2	5,6	5,6	5,6	5,6
Wind onshore	23,9,	33,3	33,7	35,2	36,4
Wind offshore	0	10,1	16,3	21	28,3
Biomasse	3,5	5,7	6	6	6
Photovoltaik	6	33,3	37,5	38,8	39
Geothermie	0	0,3	0,4	0,6	0,7
Gesamtkapazität	**155,7**	**178,0**	**179,5**	**171,1**	**159,9**

Geht man von der gegenwärtigen (winterlichen) Jahreshöchstlast von etwa 80 GW aus, dann kann diese schon im Jahr 2020 unter günstigen Bedingungen (Wind und Sonne) in den

Sonnenstunden allein aus der der installierten Leistung der erneuerbaren Energien gedeckt werden. Die (sommerliche) Jahrestiefstlast von etwa 40 MW ist schon heute mit der vorhandenen installierten Leistung bei voller Auslastung in Sonnenstunden abdeckbar. Dadurch wird die konventionelle Kapazität (Kohle und Erdgas) mit steigendem Anteil erneuerbarer Energien zunehmend zur Systemreserve, für die ein geplanter Einsatz

nicht vorgesehen ist.

Da die Eigenerzeugung an Strom nicht den erwarteten Gesamtbedarf decken kann, ist ein Stromimport, überwiegend aus erneuerbaren Energiequellen aus dem nahen und ferneren Ausland vorgesehen, so aus Norwegen (Wasserkraft) und aus Afrika (Projekt Desertec). Damit wird der bisherige Exportüberschuss (-) zum Importüberschuss (+), wie *Tab. 6* zeigt /5/.

Tab. 6 Entwicklung des Importsaldos für Strom in TWh

	2008	**2020**	**2030**	**2040**	**2050**
Bruttostromverbrauch	614	553	508	475	441
Bruttoerzeugung	637	575	469	399	338
Importsaldo	**-23**	**-22**	**39**	**76**	**103**

Daraus wird sichtbar, dass Deutschland vom Stromexportland nach 2020 zu einem Stromimportland mit stark steigenden Verbrauchsanteilen wird, die 2050 bis zu einem Viertel des Bruttostromverbrauches betragen..

Die vorgesehene Senkung des Bruttostromverbrauchs bis 2050 auf 72% gegenüber 2008 wie auch des Endenergieverbrauchs insgesamt auf 57% ist nur möglich, wenn alle Verbrauchssektoren daran beteiligt werden. Inwieweit das im Szenario I erfolgen soll, zeigt die folgende *Tab. 7* /5/.

Tab. 7 Entwicklungsziele für den Endenergieverbrauch (in PJ) (Szenario I)

Sektor	**2008**	**2020**	**2050**	**2050/2008**
Haushalte	2500	2187	1270	0,51
GHD	1406	1146	781	0,56
Industrie	2647	2323	1668	0,63
Verkehr	2574	2410	1512	0,59
Gesamt	**9127**	**8066**	**5241**	**0,57**

Daraus wird erkennbar, dass alle Sektoren von der Endenergieverbrauchssenkung, wenn auch mit unterschiedlichen Anteilen, betroffen sind.

Damit werden die höchsten Forderungen zur Senkung des Endenergieverbrauchs an die Sektoren Haushalte sowie Gewerbe, Handel, Dienstleistungen (GHD) mit einer Reduzierung auf annähernd die Hälfte (43%) gegenüber dem Verbrauch von 2008 gestellt, niedrigere Forderungen von etwa 40% gegenüber 2008 an die Sektoren Verkehr und Industrie.

In den letzten 15 Jahren wurde der Endenergieverbrauch um 3% gesenkt /6/, das Tempo muss also erheblich beschleunigt werden.

Die Entwicklungsziele für den Stromverbrauch zeigt *Tab. 8* /5/.

Tab. 8 Entwicklungsziele für den Stromverbrauch (in TWh) (Szenario I)

Sektor	2008	2020	2050	2050/2008
Haushalte	*139*	*131*	*85*	*0,61*
GHD	*134*	*126*	*108*	*0,81*
Industrie	*234*	*205*	*144*	*0,62*
Verkehr	*17*	*22*	*65*	*3,82*
Gesamt	**524**	**484**	**402**	**0,77**

Auch hier ist erkennbar, dass –bis auf den Sektor Verkehr (Elektroauto)- alle anderen Sektoren bis 2050 ihren Stromverbrauch gegenüber 2008 zwischen 20% (GHD) und 40% (Haushalte und Industrie) reduzieren müssen, wenn das Energiekonzept erfolgreich umgesetzt werden soll. Für die gesamte Gesellschaft entspricht das einer Senkung des Stromverbrauchs um 23%. Das ist zwar weniger als für die Endenergie insgesamt, aber unter dem Aspekt zu sehen, dass in den letzten 15 Jahren der Stromverbrauch in Deutschland um 13% gestiegen ist /6/, womit eine Trendumkehr erreicht werden muss.

Zusammenfassung

Tab. 9 zeigt die wesentlichen Zielstellungen des deutschen Energiekonzepts bis 2050

Tab. 9 Zielstellungen des deutschen Energiekonzepts (Szenario I) /5/

	2020	2030	2040	2050
Absenkung THG-Emissionen (Basis 1990)	*- 40%*	*- 55%*	*- 70%*	*-85%*
Anteil erneuerbare Energien am Energieverbrauch	*18%*	*30%*	*45%*	*60%*
Anteil erneuerbare Energien am Stromverbrauch	*35%*	*50%*	*65%*	*80%*
Absenkung Primärenergieverbrauch (Basis 2008)	*-17%*	*-33*	*-43*	*-50%*
Absenkung Stromverbrauch (Basis 2008)	*-10%*	*-17*	*-23*	*-30%*

Dieses Energiekonzept stellt gegenwärtig die weltweit anspruchsvollsten Langzeitziele für eine Energiewende durch den Übergang in das Zeitalter der erneuerbaren Energien bei gleichzeitigem Ausstieg aus der Nutzung der Kernenergie dar. Die Hauptwege zur Zielerreichung werden aufgezeigt.

Literatur

[1] RIESNER, WILHELM: *Die Energiewirtschaft in Ostdeutschland- ein Rückblick auf 60 Jahre*.www.eBWK.de/Archiv

[2] Atomausstieg. http://de.wikipedia.org

[3] Laufzeitverlängerung deutscher Kraftwerke. http://de.wikipedia.org

[4] Energiekonzept für eine umweltschonende, zuverlässige und bezahlbare Energieversorgung vom 28. September 2010. www.bmu.de

[5] Studie: Energieszenarien für das Energiekonzept der Bundesregierung. www.bmu.de

[6] www.ag-energiebilanzen.de

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KONCEPCJA ENERGETYCZNA RZĄDU FEDERALNEGO NIEMIEC DO 2050 ROKU - PRZYGOTOWANIE DO TRWAŁEGO ROZWOJU EKOLOGICZNEGO

Koncepcja energetyczna Niemiec do 2050 roku, zatwierdzona przez niemiecki rząd federalny, przewiduje realny wzrost PKB w stosunku do 2008 roku do 139%. W tym okresie, oprócz zwiększonej efektywności energetycznej we wszystkich sferach społecznych, powinno jednocześnie nastąpić zmniejszenie zużycia energii o 50% oraz zmniejszenie substancji emisyjnych w zużyciu energii pierwotnej o 85%, chociaż zakończone będzie wykorzystanie energii wyprodukowanej w elektrowniach jądrowych. To ostatnie zakłada zasadniczą zmianę struktury energii pierwotnej, przy czym udział odnawialnych źródeł energii będzie do 2050 roku zwiększony do 50%, a w przypadku produkcji energii elektrycznej do 80%. Dzięki takim założeniom koncepcja energetyczna Niemiec stanowi najbardziej ekologicznie skomplikowaną koncepcję, zarówno w skali ogólnoświatowej, jak i długofalowej.

ENERGETICKÝ KONCEPT SPOLKOVÉ VLÁDY NĚMECKA DO ROKU 2050 - PŘÍPRAVA PRO TRVALÝ EKOLOGICKÝ ROZVOJ

Energetický koncept Německa do roku 2050, který odsouhlasila německá spolková vláda, počítá s reálným nárůstem HDP oproti roku 2008 na 139 %. Zároveň by v tomto období mělo i přes zvýšenou energetickou efektivitu ve všech společenských oblastech dojít ke snížení spotřeby energie o 50% a snížení emisních látek v primární energetické spotřebě o 85%, přestože bude ukončeno použití energie vyrobené v jaderných elektrárnách. Posledně zmíněné předpokládá principiální změnu struktury primární energie, přičemž podíl obnovitelných energií bude do roku 2050 navýšen na 50% a u výroby elektřiny na 80%. Díky těmto požadavkům představuje energetický koncept Německa celosvětově a dlouhodobě ekologicky nejnáročnější koncept na světě.

THE GERMAN FEDERAL GOVERNMENT'S ENERGY CONCEPT TILL THE YEAR 2050 – PREPARATION FOR SUSTAINABLE ECOLOGICAL DEVELOPMENT

The energy concept of Germany for the period up to the year 2050, which has been approved of by the German federal government, allows for a real increase in GDP to 139% in comparison to the year 2008. At the same time, in this period a reduction in energy consumption by 50 % is expected together with a reduction of emissions in the primary energy consumption by 85 %. This should materialize in spite of increased energy efficiency in all social areas, and despite the termination of using energy produced in nuclear power plants. The last mentioned issue implies a fundamental change in the structure of primary energy, while the share of renewable energies will have been increased to 50% and electricity production to 80% by the year 2050. Due to these requirements the German energy concept is to be understood as the most environmentally demanding long-term concept in the world.

PROBLEMS RELATED TO MAINTAINING AND IMPROVING ISO 9001 QUALITY MANAGEMENT SYSTEM

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Abstract

The article presents the results of the author's own research, performed in the early 2011 and covering a sample of 92 organisations operating in Poland. The research led to identification of the key problems related to maintaining and improving quality management systems. Those include the ISO 9001 requirements on: defining and attaining quality objectives; ensuring adequate levels of staff knowledge, competence and awareness; ensuring proper internal communication, production process, analysis of customer needs and satisfaction levels; as well as process management.

Introduction

The original version of the ISO 9001 standard was published back in 1987. The quality management system (QMS) described therein became widely popular both among the companies and the organisations operating within the broad area of public administration sector. The data of the International Organisation for Standardization show that in 2009 there were already over a million of entities holding the ISO 9001 certificates in various countries and on various continents.[1]

ISO 9001 is a quality system standard and not a product quality standard. It does not substitute but complements the product quality standards. It cannot be guaranteed that product/service quality of ISO 9001 certified organizations would be higher compared to that of non-certified organizations[2].

Numerous surveys and opinions given by practitioners confirmed the usefulness of quality management systems[3]. However, there were also critical opinions indicating the problems or irregularities accompanying their deployment, certification and maintenance.[4] In this context, efforts aimed at improving the quality management systems seem to be of particular importance. The improvement should begin with those areas which on the one hand are most

[1] www.iso.org

[2] A. Kumar Srivastav, *ISO 9000 as an organization development intervention*, "The TQM Journal", 3/2011. p.313.

[3] T. Lee, H. Leung, K. Chan, *Improving quality management on the basis of ISO 9000*, "The TQM Magazine", 2/1999, pp. 88 – 94; A. Casadesus, G. Gimenez, I. Heras, *Benefits of ISO 9000 in Spanish industry*, "European Business Review", 6/2001, pp. 327- 335; Ch. V. Fotopoulos, E. L. Psomas, F. K. Vouzas, *Investigating total quality management practice's inter-relationships in ISO 9001:200 certified organizations*, "The TQM Journal", 5/2010, pp. 503 – 515; L.A. Fons, *Measuring economic effects of quality management systems*, "The TQM Journal", 4/2011, pp. 458 – 474,.

[4] Cf. O. Boiral, N. Amara, *Paradoxes of ISO Performance: A Configurational Approach*, The Quality Management Journal", 3/2009, pp. 36-60, and S. Karapetrovic, M Casadesus Fa, I. Saizarbitoria, *What happened to the ISO 9000 lustre? An eight-year study*, "Total Quality Management & Business Excellence" 3/2010, pp. 245 – 267.

important for the organisation and on the other are most problematic. This article is a description of those areas as identified in the research.

1 Improving of quality management system

Continual improvement is one of the eight principles of quality management. In the ISO 9000 standard it is defined as a recurring activity to increase the ability to fulfil requirements. Actions for improvement should include the following:

- analysing and evaluating the existing situation to identify areas for improvement,
- establishing the objectives for improvement,
- searching for possible solutions to achieve the objectives,
- evaluating these solutions and making a selection,
- implementing the selected solution,
- measuring, verifying, analysing and evaluating results of the implementation to determine that the objectives have been met,
- formalizing changes.

An organisation is also recommended to ensure that continual improvement becomes an established component of its culture. This is achieved through providing the staff with opportunities for engaging in improvement-oriented activities, empowering them for such actions, securing the necessary resources, and establishing a system recognising and rewarding efforts towards improvement and towards continual improvement of the effectiveness and efficiency of the improvement process itself.[5]

The ISO 9004 standard additionally states that applying the principle of continual improvement within an organisation typically leads to:

- employing a consistent organization-wide approach to continual improvement of the organization's performance,
- providing people with training in the methods and tools of continual improvement,
- making continual improvement of products, processes and systems an objective for every individual in the organization,
- establishing goals to guide, and measures to track continual improvement,
- recognising and acknowledging improvements as a standing objective of the whole organization.

Besides, the document identifies three key benefits available for improvements in organisations. The first of them is performance advantages, the second is alignment of improvement activities at all levels to an organization's strategic intent, and the third is increased flexibility to react quickly to opportunities.[6].

The ISO 9001 requirements on quality management systems include solutions which allow organisations to apply the continual improvement principle in practice.[7]

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[5] PN-EN ISO 9000:2006, *Systemy zarządzania jakością. Podstawy i terminologia [Quality management systems – Fundamentals and vocabulary],* PKN, Warszawa 2006, p. 21.

[6] PN-EN ISO 9004:2010, *Zarządzanie ukierunkowane na trwały sukces organizacji. Podejście wykorzystujące zarządzanie jakością [Managing for the sustained success of an organization – A quality management approach]*, PKN, Warszawa 2010, pp. 89-91.

[7] PN-EN ISO 9001:2009, *System zarządzania jakością. Wymagania [Quality management systems – Requirements]*, PKN, Warszawa 2009, p. 39.

2 Research results

Until now there have been a few major studies of quality management. The most detailed one was carried out by M. Urbaniak. They focused on defining the advantages and problems of introducing QMS[8]. Subsequently A.Tabor Smardzewska identified the most significant premises for introducing systems of quality management. They were: improvement of the product quality, gaining wider trust of the customers, strengthening the engagement of employees and enhancing the company's prestige[9]. PB Online company carried out a study to evaluate the impact of introducing ISO 9001 on the firm's competitiveness[10]. However none of those concerned directly the subject of improving the system of quality management. Therefore such studies obviously had to be started.

The research method used for identification of the key problems in maintaining and improving the quality management systems compliant with the ISO 9001 was a survey. At the beginning of 2011 i.e from January until April, the questionnaires were sent out (by post and e-mail) to a varied (in terms of size, business profile and organizational structure) group of organisations holding the ISO 9001 certificates and operating in Poland. Their addresses were collected from the Internet and through the Polish ISO 9000 Forum. The process of receiving responses was closed in June, 2011. The survey resulted in 92 responses – less than 10% of the total number of questionnaires sent. Respondents were organisation managers responsible for QMS. A majority of the responding organisations were companies (74.5%). The other responses came from public administration, mainly town authorities. The responding organisations were much varied in staff size. The most numerous group employed up to 100 people (23.4%). However, the sample also included larger organisations – six of them employ 2,000 people or more.

The questionnaire listed 20 components of quality management systems and the respondents were asked to evaluate their importance related to their maintenance and improvement (*Tab. 1* shows the components). The evaluation was done on a six-grade rising scale (from 0 to 5). Grade 0 meant that a particular component is considered completely unimportant or causes no problems. Conversely, grade 5 meant that a component is of very high importance or there are huge problems with its maintenance or improvement.

Tab. 1. The components of quality management systems

No.	Components	No.	Components	No.	Components
1	Establishing and attaining objectives	8	Internal audits	15	Process management
2	Keeping and checking documentation	9	Monitoring, measurement and data analysis	16	Design and development of product/service
3	Keeping and checking records	10	Corrective actions	17	Procurement
4	Involvement of top management	11	Preventive actions	18	Control of monitoring and measuring equipment
5	Competence, training and awareness of employees	12	Management review	19	Processes for product/service realization
6	Internal communication	13	Analysing customer needs and satisfaction levels	20	Control and management of non-compliant product
7	Assignment of responsibilities and authorities	14	Resource management		

[8] M. Urbaniak, *Kierunki doskonalenia systemów zarządzania jakością*, Uniwersytet Łódzki, Łódź 2010.
[9] A. Tabor – Smardzewska, *Przesłanki wdrażania systemów jakości*, „Problemy jakości", 5/2010, pp.37 – 41.
[10] www.portalbadan.pl (30. 09. 2011)

Source: Own work.

The responses demonstrated that the most serious problems with maintaining quality management systems are related to staff competence, training and awareness (average grade = 2.6) and internal communication (average grade = 2.6). Respondents considered the following components the easiest to maintain: management review (average grade = 2.0), internal audits (average grade = 1.8), and control of monitoring and measuring equipment (average grade = 1.7).

The most serious problems with improving quality management systems are related to analysing customer needs and satisfaction levels (average grade = 2.7), establishing and attaining objectives and process management (average grade = 2.6). The areas most easily improved were believed to include assignment of responsibilities and authorities (average grade = 2.1), management review (average grade = 2.1), control of monitoring and measuring equipment (average grade = 1.7), and internal audits (average grade = 1.8).

Tab. ¨2 summarises the components of quality management systems which in the respondents' opinion are most important to their organisations and those causing most maintenance and improvement problems. The higher the average grade assigned to a QMS component (as shown in brackets), the higher its significance or the level of maintenance or improvement difficulty.

Tab. 2. The most significant and the most problematic components of quality management systems

Significance for organisation	Maintenance difficulty level	Improvement difficulty level
Product realization (4.4)	Competence, training and awareness of employees (2.6)	Analysing customer needs and satisfaction levels (2.7)
Establishing and attaining objectives (4.3)	Internal communication (2.6)	Establishing and attaining objectives (2.6)
Involvement of top management (4.3)	Establishing and attaining objectives (2.5)	Process management (2.6)
Competence, training and awareness of employees (4.3)	Resource management (2.5)	Involvement of top management (2.5)
Internal communication (4.3)	Process management (2.5)	Competence, training and awareness of employees (2.5)
Control and management of non-compliant product (4.2)	Keeping and checking records (2.4)	Internal communication (2.5)
Assignment of responsibilities and authorities (4.1)	Involvement of top management (2.4)	Design and development of product/service (2.5)
Monitoring, measurement and data analysis (4.1)	Corrective actions (2.4)	Product realization (2.5)
Analysing customer needs and satisfaction levels (4.1)	Preventive actions (2.4)	Keeping and checking records (2.4)
Resource management (4.1)	Analysing customer needs and satisfaction levels (2.4)	Monitoring, measurement and data analysis (2.4)
Process management (4.1)	Product realization (2.4)	Resource management (2.4)

Source: Own work based on survey performed.

It should be noted that respondents decided that the components of quality management systems which are of the least significance for their organisations were design and development of product/service and control of monitoring and measuring equipment.

The information provided by the respondents leads to the following conclusions:

Managers responsible for quality management systems evaluate individual components of the system as very important to their organisations. On the 0-5 rising scale, the lowest grade assigned was 3.4 and the highest – 4.4. Thus the grade spread was not large for individual

components, but still visible enough to allow ranking them. It is worth noting that out of the twenty components included in the survey, twelve achieved an average grade of 4.0 or higher.

The perceived difficulty of maintaining individual components is not of a high level – it was graded between 1.7 and 2.6. The perception of component improvement problems is similar – here the grade varied between 1.8 and 2.7. Most of the QMS components typically associated with improvement (i.e. internal audits, corrective actions, preventive actions and management review) were considered to be less important to organisations and were assigned the same average grade of 3.9. This may confirm the hypothesis that improvement of quality management systems is of only secondary importance in business practice. Establishing and attaining objectives constitutes an exception here with its average grade of 4.3 and the second highest rank in the order of significance. The same components were ranked very low as far as problems with their maintenance and improvement are concerned. For instance, internal audits (average grade 1.8) were perceived as the QMS component that is the easiest to improve. Similarly, problems with maintaining and improving management review were ranked as low as 18 out of 20 in the order of magnitude. This may mean that organisations find it easy to deal with these system components, but it is far more likely that managers simply do not pay enough attention to them.

While trying to identify key problem areas it is necessary to account both for the significance and for the difficulty level of maintaining and improving individual QMS components. This can be achieved by looking at the arithmetic result of three values, i.e. the average grade of significance, the average grade of maintenance difficulty level and the average grade of improvement difficulty level. Such a result was calculated for each of the QMS components covered in the survey. In this way it was established that the key problem areas are establishing and attaining objectives, competence, training and awareness of employees, and internal communication. The resulting value of each of the three components was the same. Minimum values were obtained for product realization, analysing customer needs and satisfaction levels and process management.

Conclusion

The main objective of the research was identification of key problem areas related to maintaining and improving ISO 9001 quality management systems. The main outcome was the statement that considering the significance of individual requirements for organisations and the difficulty of meeting them, the areas giving rise to most problems are establishing and attaining quality objectives, competence, training and awareness of employees, and internal communication.

However, identifying the detailed nature of practical problems faced by organisations in this respect will require further research. The scope of such research should include, among others, identification of the problem sources and finding out if those problems are shared by organisations of every type and not, for instance, by large organisations only. This would make a sound basis for planning further actions aimed either at redefining the ISO 9001 requirements or at promoting the solutions (good practices, management tools) to assist organisations in overcoming such problems.

Similar to other studies, in this research there are some limitations. First of all, the research sample is quite small. Therefore we cannot study the differences between certain subgroups of organizations e.g. between a private business and public administration. Another limitation is that the paper does not include other research conducted in Poland. The further article will deal with comparison of the results of different studies.

Literature

[1] BOIRAL O., AMARA N., *Paradoxes of ISO Performance: A Configurational Approach*, "The Quality Management Journal", 3/2009, pp. 36 – 60 .

[2] CASADESUS A., GIMENEZ G., HERAS I., *Benefits of ISO 9000 in Spanish industry*, "European Business Review", 6/2001, pp. 327- 335.

[3] FONS L.A., *Measuring economic effects of quality management systems*, "The TQM Journal", 4/2001, pp. 458 – 474.

[4] FOTOPOULOS CH., V., PSOMAS E. L., VOUZAS F. K., *Investigating total quality management practice's inter-relationships in ISO 9001:200 certified organizations*, "The TQM Journal", 5/2010, pp. 503 – 515

[5] KARAPETROVIC S., CASADESUS FA M., SAIZARBITORIA I., *What happened to the ISO 9000 lustre? An eight-year study*, "Total Quality Management & Business Excellence" 3/2010, pp. 245 – 267.

[6] KUMAR SRIVASTAV A., *ISO 9000 as an organization development intervention*, "The TQM Journal", 3/2011, pp. 313 – 322.

[7] LEE T., LEUNG H., CHAN K., *Improving quality management on the basis of ISO 9000*, "The TQM Magazine", 2/1999, pp. 88 – 94.

[8] PN-EN ISO 9000:2006, *Systemy zarządzania jakością. Podstawy i terminologia,* PKN, Warszawa 2006.

[9] PN-EN ISO 9001:2009, *System zarządzani jakością. Wymagania,* PKN, Warszawa 2009 .

[10] PN-EN ISO 9004:2010, *Zarządzanie ukierunkowane na trwały sukces organizacji. Podejście wykorzystujące zarządzanie jakością,* PKN, Warszawa 2010.

[11] TABOR – SMARDZEWSKA A., *Przesłanki wdrażania systemów jakości*, „Problemy jakości", 5/2010, pp.37 – 41

[12] URBANIAK M., *Kierunki doskonalenia systemów zarządzania jakością*, Uniwersytet Łódzki, Łódź 2010.

[13] www.iso.org

[14] www.portalbadan.pl

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PROBLEMY ZWIĄZANE Z UTRZYMYWANIEM I DOSKONALENIEM SYSTEMU ZARZĄDZANIA JAKOŚCIĄ ISO 9001

W artykule przedstawione zostały wyniki badań przeprowadzonych na początku 2011 roku na próbie 92 funkcjonujących w Polsce organizacji. Na tej podstawie określone zostały kluczowe obszary problemowe związane z utrzymywaniem i doskonaleniem systemu zarządzania jakością. Znalazły się wśród nich wymagania normy ISO 9001 dotyczące: ustanawiania i osiągania celów dotyczących jakości; zapewnienia odpowiednich kompetencji, wyszkolenia i świadomości pracowników; zapewnienia właściwej komunikacji wewnętrznej, wytwarzania wyrobu, badania potrzeb i satysfakcji klientów; a także zarządzanie procesami.

PROBLEMATIKA UDRŽOVÁNÍ A ZDOKONALOVÁNÍ SYSTÉMU ŘÍZENÍ JAKOSTI ISO 9001

V příspěvku jsou prezentovány výsledky průzkumu prováděného začátkem roku 2011 na vzorku 92 organizací působících v Polsku. Na jejich základě byly stanoveny klíčové problémové oblasti spojené s udržováním a zdokonalováním systému řízení jakosti. Jsou mezi nimi požadavky normy ISO 9001 týkající se: stanovování a naplňování cílů týkajících se jakosti; zajištění příslušných kompetencí, vyškolení a uvědomění zaměstnanců; zajištění řádné interní komunikace; výroby produktů, zkoumání potřeb a uspokojení zákazníků a také managementu procesů.

FRAGEN DER ERHALTUNG UND VERVOLLKOMMNUNG DES QUALITÄTSMANAGEMENTSYSTEMS IM RAHMEN DES ISO 9001

Im Beitrag werden die Ergebnisse der Untersuchungen vorgestellt, die man Anfang 2011 unter den 92 in Polen funktionierenden Organisationen durchgeführt hat. Anhand dieser Erkenntnisse wurden Schlüsselproblemkreise bestimmt, die mit Erhaltung und Vervollkommnung des Qualitätsmanagementsystems verbunden sind. Darunter sind folgende Anforderungen für die ISO-Norm 9001 zu finden: Sicherstellen und Erreichen der Qualitätszielen; Sicherung entsprechender Kompetenzen, Qualifizierung und Bewusstseinsgestaltung von Mitarbeitern; Sicherung der richtigen internen Kommunikation, der Warenherstellung, der Untersuchung von Bedürfnissen und Zufriedenheit der Kunden und auch Verfahrenstechnik.

DATA BASE ANALYSIS FOR EXPLORATION OF EU COHESION AND COMPETITIVENESS[1]

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Abstract

The question of EU competitiveness is usually associated with the problems of economic, social and territorial cohesion. In recent few years, the topics about measuring and evaluating competitiveness have generated keen interest among researchers. The problem is mentioned mainly in the context of the lack of a main stream approach to the evaluation of competitiveness measuring. The aim of the paper is to analyse the European Union's data base leading to the identification of convenient indicators for for evaluation of the level of EU cohesion and competitiveness across the EU Member States and regions. When focusing on differences among individual states and regions, evaluation of competitiveness and cohesion should be measured through the complex economic, social and environmental criteria that can identify the areas of countries and regions which cause the main disparities.

Introduction

The European Union (EU) is one of the most developed parts of the world, but nowadays it faces increasing economic, social and territorial disparities in all the EU Member States and especially regions [8, 9]. These significant differences affect the level of the balanced development, economic performance and competitiveness across the EU and have a negative impact on the EU position as a global player in the globalised economy. Strengthening the EU competitiveness and support to the coherent, sustainable and balanced development of the EU Member States and regions are two main objectives which, however, mutually exclusive, but on the contrary, complement each other. Alignment of cohesion and competitiveness as a pair of complementary objectives is thus no simple matter. In last few years, the topics about measuring and evaluation of competitiveness stand in the front of economic research. In most of empirical analysis, we often face the question of database relevancy that would have a

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correspondence with the theoretical definition of competitiveness on both national and regional levels [10].

The theoretical part of the paper is based on the descriptive approach origins from the empirical analysis of the existing and underlying systems. The practical part is based on using the methods of analysis and subsequent synthesis, as well as on using the methods of induction.

1 Database analysis of the European Statistical Office

The primary basis for selection of convenient indicators and subsequent measuring and evaluation of cohesion and competitiveness level is an analysis of the available database containing comparative data on the required level (both national and regional) and in the reference period. The European Statistical Office (Eurostat) provides exact statistical data based on a uniform methodology, both on national and regional levels. The statistics of Eurostat are divided into two sections, namely the EU Policy Indicators and Statistics by Theme [6].

1.1 Database analysis on national and regional levels

- EU Policy Indicators
  The statistics of the EU Policy Indicators include the national data information for indicators in the EU Member States, which are in the EU core interest and primarily relate to the national level. Characteristics and the number of these indicators are shown in Annex 1.
- Statistics by Theme
  Statistics by Theme are divided into 9 thematic categories; primarily regional statistics are separately introduced. The whole thematic statistical database consists of more than 3,600 indicators. Detailed characteristics and the number of these indicators are shown in Annex 2.
- Regional and urban statistics
  Regional and urban statistics are provided separately in the category of General and regional statistics. They are divided into 2 thematic categories - regional statistics and city statistics in the frame of urban audit database. Characteristics and the number of these indicators are shown in Annex 3.

2 Identification of convenient indicators for evaluation of the EU cohesion and competitiveness

Creation of a cohesion and competitiveness evaluation system in terms of the EU is complicated by the heterogeneity of the EU countries and regions, and also because of the lack of a mainstream view of competitiveness evaluation [1]. Therefore, there is space for several different approaches to evaluation of the EU cohesion and competitiveness.

2.1 Approaches to measuring and evaluation of the EU Cohesion policy at national and regional level

Cohesion Reports

Although the reduction of disparities in the development of countries and their regions is a long-term and confirmed objective of the EU [2], there is no comprehensive index measuring the progress in achieving of economic, social and territorial cohesion (contrary of measuring competitiveness). The level of cohesion within the EU and the convergence of the 27 EU

Member States are evaluated by the Reports on economic and social cohesion (Cohesion Reports) published by the European Commission every 3 years [3]. These Reports are supplemented by Progress reports on economic and social cohesion, which are published by the European Commission, usually once a year between the "main" Cohesion reports. The assessment of the level of economic, social and territorial cohesion within Cohesion reports origins from the progress of indicators of disparities on the national or regional level (NUTS 2). The most frequently monitored indicators in the last two Cohesion reports (2007, 2010), reflecting the level of economic, social and territorial cohesion are provided in *Tab. 1*.

Tab. 1 Indicators for evaluation of economic, social and territorial cohesion

Dimension of cohesion	Indicator of disparities
Economic cohesion	Growth of real GDP per head (%)
	GDP per head in PPS (EU-27=100)
	Labour productivity (GDP per person employed, EU-27=100)
	Total expenditure on R&D (% GDP)
	EPO patents applications (applications per inhabitant, EU-27=100)
	Employment by sector (% of total employment)
Social cohesion	Employment rate (% of population 15-64, % of population 55-64, % of female)
	Unemployment rate (% of labour force, % of female labour force, % of youth labour force 15-24)
	Long term unemployment rate (% of total unemployed)
	Risk of poverty (% of men/women)
	Share of young people aged 25–34 with a university degree or equivalent (% of total population aged 25-34)
	Total population change (Per thousand inhabitants - annual average)
Territorial cohesion	Unemployment disparities in inner city areas (Standard deviation of neighbourhood unemployment rates, %)
	Density of motorways (Length of motorways in relation to population and surface area)
	Access to passenger flights (Number of passenger flights per day)
	Hospital beds (Number per 100.000 inhabitants)
	Households with broadband connection (% of all households)
	Urban waste water treatment capacity (Treatment capacity as % of generated load)

Source: Eurostat, 2011; Own elaboration

Structural indicators

An alternative concept for measuring national (regional) disparities, and thus for assessment of the level of cohesion in the EU, is provided by a group of EU Structural indicators, which were used to evaluate the implementation of the Lisbon Strategy in the years 2000-2010. A short list of the EU Structural indicators includes 14 indicators in six thematic areas, of which at least 8 indicators correspond to the most commonly used indicators of the Cohesion reports. The advantage of this database is the availability of indicators on the national level, monitoring data on regional level (NUTS 2) is limited [12].

2.2 Approaches to measuring and evaluation of EU competitiveness

In last few years, competitiveness and its evaluation are issues constantly in the forefront of economic sciences; a mainstream method of competitiveness monitoring and measuring is lacking. Because of the lack of the mainstream view of competitiveness evaluation, there is space for alternative approaches [7].

National level

The EU's Growth Strategies

The European Union makes an effort to restore the foundations of its competitiveness through increasing its growth potential and its productivity and strengthening economic and social cohesion. The last and not very successful attempt to gain world leadership in competitiveness was the EU Lisbon Strategy which has had, since 2010, its successor in the Strategy Europe 2020, the new EU's growth strategy for the coming decade. The progress of the EU Member States towards the goals of the Lisbon strategy was measured by the Short list of Structural indicators. The progress of the EU Member States towards the goals of Strategy Europe 2020 is measured through indicators Europe 2020. A database of these indicators is primarily available on national level.

Lisbon Review Reports

The World Economic Forum (WEF) has published The Lisbon Review reports (LRR) every two years since the EU first articulated the Lisbon Strategy. The LRR compared the performance of the individual EU Member States to provide a sense of which countries are making the most progress and which are lagging behind. The LRR assessed the extent to which the EU Member States were competitive vis-à-vis an international standard. The United States provided one key benchmark, as it was widely seen as the world's most competitive area. The EU's performance was compared to the average performance of five of the most competitive economies in East Asia – Hong Kong SAR, Japan, Republic of Korea, Singapore and Taiwan, China – a highly competitive region attracting increasing attention given the rising importance of Asia in the global economy. The LRR assessed the economic competitiveness of the EU candidates and potential candidate countries, providing a sense of the challenges they currently face. The LRR have broken the Lisbon Strategy into eight dimensions. The overall Lisbon score for each country was calculated as an unweighted average of the individual scores in the eight dimensions. The scores were on a scale from one to seven, with larger values indicating stronger performance [13].

Regional level

Evaluation of regional competitiveness is determined by the chosen territorial region level, especially in terms of the European Union through the Nomenclature of Territorial Units Statistics (NUTS). No less important is the reference period, availability and periodicity of data, and selection of convenient specific factors. For evaluation of regional competitiveness it is necessary to note that the data availability decreases in direct proportion to the lower territorial unit (NUTS) [5, 11].

The EU's Growth Strategies

Regional competitiveness can be evaluated by selected Lisbon structural and Europe 2020 indicators. These indicators measure progress of European regions towards the goals of the Lisbon strategy and nowadays to Strategy Europe 2020. A database of these indicators is primarily available on national level; it covers economic, social and environmental area of interest. Compared to the national level, the database on regional level is different especially in a shorter time period. But not every dimension and database of indicators are available on regional level, especially environmental area and its convenient indicators.

The Regional Lisbon Index

The Lisbon Index is an indicator for measuring how close an EU region is to achieving the main targets for 2010 in the area of employment, education, and research and development, as set out in the EU's Lisbon Strategy. A region scores 100 if it has reached all targets, while the region farthest away from all eight targets scores 0 [4].

Synthetic index (4th Cohesion Report)

To obtain a regional perspective on the Lisbon Agenda, a synthetic index has been created based on six of the short-listed Lisbon indicators relevant on the regional level. Before aggregating, these six indicators were re-scaled relative to the EU 27 average. The composite indicator is the min-max rescaled average of the 6 transformed indicators (all six received the same weight). Hence, it varies between 0 and 1. Although it is intended only to provide a rough indication of how regions are performing in relation to the Lisbon Agenda, it is nevertheless the case that a region which scores high will be well on its way to achieving several of the Lisbon targets, while a region with a low score will be a long way off [3].

Regional Competitiveness Index (5th Cohesion Report)

This index incorporates several indicators of well-being as well such as life expectancy, health perception and gender equality. This measures the institutions, policies and factors that determine the level of productivity of a region and the region's ability to higher and rising incomes and a good quality of life to its residents. A new regional competitiveness index has been created for all NUTS 2 regions. It consists of eleven pillars based on a total of 69 indicators organised into three groups. It ranges from 100 high to 0 low in the EU. Each of the pillars allows the performance of a region to be assessed in relation to all the other EU regions. As a result, they can be seen as indicating the strengths and weaknesses of every NUTS 2 region in an EU perspective [2].

Conclusion

The analysis of indicators suitable for economic, social and territorial cohesion evaluation in the EU reveals significant disparities in terms of (1) indicators availability on the territorial levels (and within the EU Member States), (2) the reference period and (3) the dimension of cohesion. The evaluation of the EU cohesion is mostly based on the Cohesion reports, which monitor the development of indicators of economic, social and territorial disparities reflecting the level of cohesion within the EU. In the Cohesion reports, there is no exact and strict segmentation of these indicators which reflect all three dimensions of cohesion. Instead, the Cohesion reports monitor such of selected indicators, which naturally and with regard to the concept of cohesion can be identified and designated as suitable for assessing the level of economic, social and territorial cohesion. The most frequently observed indicators in the Cohesion reports, which are also available in the Eurostat database, can be, in terms of data availability on national level, evaluated as appropriate for measurement of the economic, social and territorial cohesion, although in the terms of the reference period, the availability of data is not comparable. As a suitable database for cohesion evaluation on the national level the EU Structural indicators can be considered. Evaluation of cohesion on regional level is, in comparison with national statistics database, limited by 13 selected regional categories with quite restricted availability on NUTS 2 and mainly NUTS 3 level. The most available amount of regional indicators reflects the level of economic and social cohesion, but with a time delay.

Comparing the instruments for measuring and evaluation of competitiveness in terms of the EU is no simply matter. There are linkages among instruments for measuring the EU competitiveness on both national and regional levels. There are different time period series on

both levels, overlap of indicators of the EU's Growth Strategies on national and regional levels. Further there is a continuity between the approach of the World Economic Forum and approach of the EU to measuring and evaluation of the EU competitiveness. Between the EU Competitiveness and Cohesion policies a link exists in terms of the Cohesion reports – 4th and 5th reports articulated a special indices for measuring and evaluation of competitiveness of the European regions. Indicators and indices cover a broad area of economic, social and environmental interests, but coverage and reference period decrease in direct proportion to the lower territorial unit (NUTS). Because of these clear and close links among the instruments (indicators and indices) for measuring of competitiveness it is difficult to choose just the best approach to evaluation. Possibilities of measuring both national and regional levels of the EU competitiveness are characterized by high coverage in the monitored areas, which can indicate the similar informative ability of the indicators and indices.

Literature

[1] ABRHÁM, J. *Komparativní ekonomika EU*. 1. vyd. Praha: MAC, 2008. 239 s. ISBN 978-80-86783-34-5.

[2] EUROPEAN COMMISSION. *Fifth Report on Economic, Social and Territorial Cohesion. Investing in Europe's future*. Luxembourg: Publications Office of the European Union, 2010. 286 pp. ISBN 978-92-79-16978.

[3] EUROPEAN COMMISSION. *Growing Regions, Growing Europe. Forth Report on Economic and Social Cohesion*. Luxembourg: Office for Official Publications of the European Communities, 2007. 222 p. ISBN 92-79-05704-5222.

[4] EUROPEAN COMMISSION (2010b). *Regional Focus – the Regional Lisbon index [online]*. 2010. [cit. 9. 3. 2011]. Available on WWW: <http://ec.europa.eu/regional_policy/sources/docgener/focus/2010_03_lisbon_index.pdf>.

[5] EUROPEAN COMMISSION. *Sixth Periodic Report on the Social and Economic Situation of Regions in the EU [online]*. 1999. [cit. 1. 3. 2011]. Available on WWW: <http://ec.europa.eu/regional_policy/document/pdf/document/radi/en/pr6_complete_en.pdf>.

[6] *Eurostat [online]*. Statistics. 2011. [cit. 5. 3. 2011]. Available on WWW: <http://epp.eurostat.ec.europa.eu/portal/page/portal/statistics/themes>.

[7] KRUGMAN, P. Competitiveness: A Dangerous Obsession. In *Foreign Affairs March/April*: pp. 28-44, 1994.

[8] LEONARDI, R. *Cohesion Policy in the European Union: The Building Europe.* Palgrave Macmillan, 2005. 232 p. ISBN 1403949557.

[9] MOLLE, W. *European Cohesion Policy*. London: Routledge, 2007. 342 p. ISBN 978-0-415-43812-4.

[10] PORTER, M. E. The Economic Performance of Regions. In *Regional Studies*, 37, 6/7, pp. 549-578, 2003.

[11] SKOKAN, K. *Územní soudržnost v Evropě*. Disputationes Scientificae Universitatis Catholicae in Ružomberok. Roč. VIII, 2008, číslo 1. s. 85-95. ISSN 1335-9185.

[12] STANÍČKOVÁ, M., MELECKÝ, L. Hodnocení regionální konkurenceschopnosti České republiky v kontextu Lisabonské strategie, In *13th International Conference MEKON 2011*. Ostrava: VŠB-TU Ostrava, 1-20, CD ROM.

[13] WORLD ECONOMIC FORUM. *The Lisbon Review 2010 – Towards More Competitive Europe? [online]*. 2010. [cit. 23. 2. 2011]. Available on WWW: <http://www3.weforum.org/docs/WEF_LisbonReview_Report_2010.pdf>.

Annex 1: Database of Eurostat indicators – EU Policy Indicators

Database	Breakdown of database			Dimension*	Database Period**	Number of indicators
	Number of categories	Title of categories	Number of subcategories			
1. Indicators of EU's Growth Strategies	9	Smart Growth; Sustainable Growth; Inclusive Growth General Economic Background; Employment; Innovation and Research; Economic Reform; Social Cohesion; Environment	/	Ec, En, S	2000-2009	25
1. a) Europe 2020 Indicators	3	Smart Growth; Sustainable Growth; Inclusive Growth	/	Ec, En, S	2000-2009	11
1. b) Structural Indicators	6	General Economic Background; Employment; Innovation and Research; Economic Reform; Social Cohesion; Environment	/	Ec, En, S	2000-2009	14
2. Euro Indicators (PEEIs)	8	Balance of Payments; Business; Consumer Prices; External Trade; Industry, Commerce and Services; Labour Market; Monetary and Financial Indicators; National Accounts	31	Ec, M	2008-2011***	135
3. Sustainable Development Indicators	10	Socio-economic Development; Sustainable Consumption and Production; Demographic Changes; Public health; Climate Change and Energy; Sustainable Transport; Natural Resources; Global Partnership; Good Governance	28	Ec, En, M, S, T	1995-2008/2009	126
4. Employment and Social Policy and Equality Indicators	4	Employment; Education and Training; i2010; Gender equality	10	S	2000/2005-2009	151+45***
5. Globalisation Indicators	5	Persons; Technology; Goods and Services; Global Responsibility; Business and Capital	/	M	2005-2009	25
Total	**36**	/	**69**	/	/	**507**

*Note: * Ec – Economic, En – Environmental, S – Social, T – Territorial, M – Miscellaneous*
*** Average period corresponding to the most frequent availability rate across indicators*
**** Monthly or quarterly data available*
***** Under preparation*
Source: Eurostat, 2011; Own elaboration

Annex 2: Database of Eurostat indicators – Statistics by Theme

Database	Breakdown of database			Dimension *	Database Period**	Number of indicators
	Number of categories	Title of categories	Number of subcategories			
General and regional statistics	4	Regions and cities; International cooperation; Cooperation with Mediterranean countries; Candidate and potential candidate countries	31	Ec, En, S, T, M	1997- 2009	348
Economy and finance	10	National accounts (including GDP); ESA 95 Input-Output tables; European sector accounts; Government finance statistics; Exchange rates; Interest rates; Monetary and other financial statistics; Harmonized Indices of Consumer Prices (HICP); Purchasing power parities (PPPs); Balance of payments	58	Ec, S, T, M	2001-2009	290****
Population and social conditions	9	Population; Health (Public health/ Health and saefety at work); Education and training; Labour market (including LFS - Labour Force Survey); Income, Social Inclusion and Living conditions; Social protection; Household Budget Surveys; Crime and criminal justice; Culture	55	Ec, S, M	1999-2009	1 230
Industry, trade and services	5	Structural business statistics; Short-term business statistics; Tourism; Manufactured goods; Information society	29	Ec, En, M	1996-2007	618
Agriculture and fisheries	6	Agriculture; Forestry; Fisheries; Food; Agri-Environmental Indicators; Land cover/use statistics	24	Ec, S, M	1998-2009	395
External trade	1	External trade	2	Ec	1999-2009	36
Transport	1	Transport	8	T	1998-2009	359
Environment and energy	2	Environment; Energy	11	Ec, En, T	1997-2008***	99
Science and technology	1	Science, technology and innovation	5	Ec, M	1996; 2008; 1998-2008	260
Total	**39**	/	**227**	/	/	**3 635**

*Note: * Ec – Economic, En – Environmental, S – Social, T – Territorial, M – Miscellaneous*
*** Average period corresponding to the most frequent availability rate across indicators*
**** Monthly data available*
***** Indicators of category ESA 95 Input-Output tables under construction*
Source: Eurostat, 2011; Own elaboration

Annex 3: Database of Eurostat indicators – Regions and cities

Database	Breakdown of database			Dimension*	Database Period**	Number of indicators
	Number of categories	Title of categories	Number of subcategories			
Regional statistics	13	Regional agriculture statistics; Regional demographic statistics; Regional economic accounts - ESA95; Regional education statistics; Regional science and technology statistics; Regional structural business statistics; Regional health statistics; Regional tourism statistics; Regional transport statistics; Regional labour market statistics; Regional labour costs statistics; Regional information society statistics; Regional migration statistics	25	Ec, En, S, T, M	1997-2008	208
City statistics – Urban audit	1	Urban audit data collection	9	Ec, En, S, T, M	1989-1993; 1994-1998; 1999-2002; 2003-2006; 2007-2010	20

*Note: * Ec – Economic, En – Environmental, S – Social, T – Territorial, M – Miscellaneous*
*** Average period corresponding to the most frequent availability rate across indicators*
Source: Eurostat, 2011; Own elaboration

ANALÝZA DATOVÉ ZÁKLADNY PRO ZKOUMÁNÍ SOUDRŽNOSTI A KONKURENCESCHOPNOSTI V PODMÍNKÁCH EU

V Evropské unii jsou otázky konkurenceschopnosti obvykle spojovány s problematikou hospodářské, sociální a územní soudržnosti. V posledních letech se problematika měření konkurenceschopnosti dostává do popředí zájmu řady ekonomických analýz, především s ohledem na neexistenci hlavního proudu názorů na její hodnocení. Cílem příspěvku je analýza datové základny Evropské unie, jež vede k identifikaci vhodných indikátorů pro hodnocení úrovně soudržnosti a konkurenceschopnosti členských států EU a jejich regionů. Hodnocení konkurenceschopnosti a soudržnosti z hlediska diferencí mezi jednotlivými státy a regiony je třeba sledovat v širokém komplexu ekonomických, sociálních a environmentálních kritérií, na jejichž základě lze vymezit problémové oblasti zemí a regionů, které způsobují tyto rozdíly.

DIE ANALYSE DER DATENBASIS FÜR DIE UNTERSUCHUNG VON KOHÄSION UND WETTBEWERBSFÄHIGKEIT IN DER EU-BEDINGUNGEN

In der Europäischen Union werden Fragen der Wettbewerbsfähigkeit in der Regel mit den Problemen der wirtschaftlichen, sozialen und territorialen Kohäsion verbunden. Die Frage der Messung der Wettbewerbsfähigkeit ist in den letzten Jahren Gegenstand des Interesses in einer Reihe ökonomischer Analysen, hauptsächlich wegen des Mangels an Mainstream-Ansichten über die Bewertung der Wettbewerbsfähigkeit. Das Ziel des Beitrags ist die Analyse der Datenbank der Europäischen Union, die zur Identifizierung geeigneter Indikatoren für die Bewertung des Niveaus der Kohäsion und Wettbewerbsfähigkeit in den EU-Mitgliedstaaten und ihren Regionen führt. Die Bewertung der Wettbewerbsfähigkeit und der Kohäsion in Bezug auf die Unterschiede zwischen den Ländern und Regionen sind in einem großen Komplex von wirtschaftlichen, sozialen und ökologischen Kriterien zu untersuchen. Auf der Grundlage dieser Indikatoren können Problembereiche der Länder und Regionen abgegrenzt werden, die diese Unterschiede verursachen.

ANALIZA BAZY DANYCH DO BADANIA SPÓJNOŚCI I KONKURENCYJNOŚCI W WARUNKACH UE

W Unii Europejskiej kwestie konkurencyjności zazwyczaj łączone są z zagadnieniami spójności gospodarczej, społecznej i terytorialnej. W ostatnich latach pomiar konkurencyjności stanowi główny przedmiot wielu analiz ekonomicznych, przede wszystkim z powodu braku istnienia głównego nurtu poglądów na jej ocenę. Celem niniejszego opracowania jest analiza danych Unii Europejskiej, której celem jest identyfikacja odpowiednich wskaźników służących do oceny poziomu spójności i konkurencyjności państw członkowskich UE i ich regionów. Ocenę konkurencyjności i spójności z punktu widzenia różnic między poszczególnymi państwami i regionami należy prowadzić w szerokim kontekście kryteriów ekonomicznych, społecznych i środowiskowych, na których podstawie można określić problemowe obszary krajów i regionów, będące przyczyną tych różnic.

THE USE OF ARTICLES IN ACADEMIC WRITING

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Abstract

Writing academic texts in English is an inevitable part of work of all academics and researchers. It is, however, often the case that scientifically excellent contributions are not published because of their lack of accuracy. Moreover, mistakes seem to be universal, articles being among the most frequent ones. This paper pursues the following aims: 1) systematically describe and categorize the use of articles in academic texts, 2) determine the most common mistakes in the use of articles made by L1 Czech writers, and 3) delimitate the problem areas and possible remedial steps. Four thousand and forty eight articles have been excerpted from six scientific texts in American English, classified and analyzed. Mistakes have been studied on scientific articles written by Ph.D. students with the conclusion that they can generally be classified into three areas. These areas should then logically represent the focus of instruction.

Introduction

Academic writing is a distinct register which can be distinguished from other registers by a number of typical features. One such feature is a high number of noun phrases. According to Biber and Gray, "academic writing is structurally "compressed", with phrasal (non-clausal) modifiers embedded in noun phrases" (Biber and Gray 2010: 12). In a different article they claim that "in particular, the distinctive communicative characteristics of academic writing (informational prose) have led to the development of a discourse style that relies heavily on nominal structures, with extensive phrasal modification and a relative absence of verbs" (Biber and Gray 2009: 128). Nominalizations are useful in academic writing because they convey an objective, impersonal tone. Nominalizations can also make the text more concise because they can pack a great deal of information in a few words. Noun phrases refer to the linguistic or situational context. The kind of reference of a particular noun phrase is related to context and expressed by means of determiners which occur in front of a head noun or its pre-modifiers. The most frequent central determiners are articles.

The high frequency of noun phrases logically results in a high number of articles in academic texts, and thus a demand on writers to be able to use them. The correct use of articles however represents one of the biggest challenges for learners of English as a second language. It is even more significant in the case of L1 Czech learners since Czech does not have articles, and learners therefore cannot draw on their experience and beneficial aspect of L1 transfer when acquiring the use of articles.

The present study targets at the following three aims:

- to study and classify the use of articles in English academic texts;
- to study and describe the most common mistakes Czech writers of academic texts make;
- to suggest simple and straightforward strategies that could help Czech academics and scientists to use articles correctly.

1 Articles in academic texts

In order to be able to use articles correctly, one first needs to know what the standard is. In other words, it is crucial first to see in what way native academic and scientific writers use articles. Therefore a deep insight into this matter has been conducted.

1.1 Methodology

In phase one of the study, a quantitative analysis has been carried out. For this purpose six different scientific articles written by native English authors have been selected and four thousand and forty eight articles (including zero article) have been excerpted. It proved rather complicated to find texts clearly written by native speakers since in the world of science the majority of research is team work, and moreover the teams are often multinational. Therefore the background of each author has been carefully checked and also authors having lived in the US for more than ten years have been considered native speakers. Since it has been assumed that there were going to be substantial differences in the use of articles with regard to the part of a text, only texts with a structure typical for scientific writing, which means texts consisting of an abstract, introduction, experimental part and discussion of results/conclusion, were included.

Once excerpted, the articles have been classified into categories according to reference they expressed. Frequencies with which the individual articles and the individual reference categories appeared in the texts as a whole and in their respective parts have been counted, expressed in percentages, and illustrated by means of graphs and tables.

1.2 Classification of reference

For the purpose of this article the classification of reference presented by Quirk(1985: 265 – 287) was used as a starting point which has been adapted and extended in order to better reflect the goals of the present study. The excerpted articles were thus classified into the following categories:

The definite article the:

- anaphoric reference
- cataphoric reference – "of phrase"
- cataphoric reference – other cases
- theory
- quantity
- other terminology (apart form quantity)
- situational
- generic

The indefinite article a/an:

- generic
- specific
- non-referring
- theory
- quantity
- other terminology (apart form quantity)

The zero article:

- generic
- specific
- non-referring
- theory
- quantity
- other terminology (apart form quantity)
- definite

Some of the categories above are going to be described in bigger detail, the rest strictly follows from Quirk (1985: 265 – 287). Generic reference represents reference to all members/representatives of a certain noun or to a typical representative of a noun. Definite cataphoric reference has been split into two categories, one including only cases of the postmodification by an "of phrase", and the second category all the other cases. Non-referring function of articles is according to Quirk (1985: 273) connected with "noun phrases in copular relationship. Here it has a descriptive role, rather than a referring role". The category called "theory" refers to the names of theories, such as the Theory of Relativity. In a similar way the category called "quantity" refers to the names of quantities, such as electric current, force, velocity and the category titled "other terminology" to all other words which could be considered specific for a certain field and therefore considered terms, such as quark, hyperbola. The last three categories have been added to Quirk's treatment of reference since they are almost exclusively scientific/academic writing specific and they are expected to be rather frequent in the studied texts.

1.3 Presentation and discussion of the results

Although there were some differences in the use of articles between the individual texts, we believe that it is possible to observe certain regularities in article distribution throughout a scientific article. Five out of the six pieces of text examined showed comparable results and the conclusions below are based on average values gained from the five articles. The sixth text provided values substantially different from the other ones and was not included in the final results. A qualitative analysis will be carried out in the future to try to explain the causes of the difference. The average results are as follows:

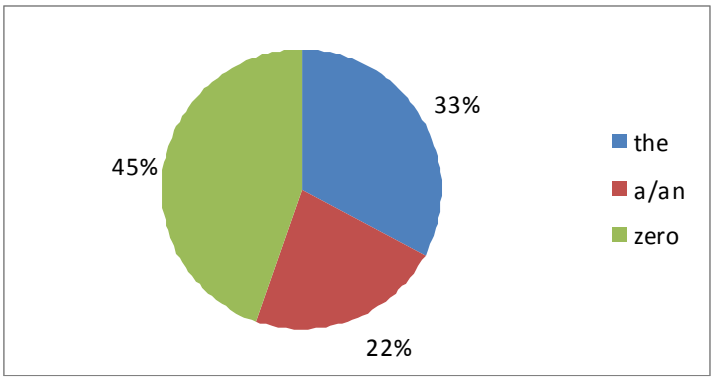

Fig. 1: The distribution of articles

Fig. 1 illustrates the general distribution of the individual articles in the texts, expressed in percent.

Tab. 1: Articles in the individual parts

article/part of the text	the	a	zero
Abstract	31	18	51
Introduction	18	30	52
Experiment	49	12	39
Conclusion	19	32	49

Tab. 1 shows the distribution of individual articles in the four basic parts of scientific texts: abstract, introduction, experiment and conclusion. The values are in percent and they mean that, for example, in the abstracts the majority of nouns were used with the zero article (61 %), the second most frequent was the definite article (30 %), and the least frequent was the indefinite article (9 %). The following data illustrate the distribution of the set kinds of reference for each article in the individual parts of a scientific text. The data for the abstracts, for example, can be interpreted in the following way: out of the nouns used with the zero article (which represented 51 % of all the articles used in the abstracts – see *Tab. 1*) 26 % expressed generic reference, 14 % specific indefinite reference and 40 % were terminology expressions. Regarding the distribution of reference within the nouns used with the definite article (in the abstract there were 30 % of these nouns), 21 % represented definite anaphoric reference, 29 % definite cataphoric reference with of phrase, 7 % were other cataphoric cases and 43 % were examples of terminology. As far as the indefinite article is concerned, it was used with generic reference in 25 % of its occurrence, 25 % with specific indefinite reference, 25 % in non-refering function and 25 % represented its use with terms.

ABSTRACT					
	the		**a**		**zero**
anapho	21	gener	25	gener	26
catapho of	29	specif	25	spec	14
catapho other	7	non ref	25	non-ref	
theory		theory		theory	
quantity		quant		quant	
other term	43	other term	25	other term	60
situational				def ref	

INTRODUCTION					
	the		**a**		**zero**
anapho	14	gener	16	gener	22
catapho of	27	specif	52	spec	35
catapho other	5	non ref	8	non-ref	1
theory		theory		theory	
quantity		quant		Quant	
other term	36	other term	24	other term	42
situational	18			def ref	

EXPERIMENT					
	the		**a**		**zero**
anapho	41	gener	8	gener	16
catapho of	15	specif	80	spec	42
catapho other	9	non ref	25	non-ref	
theory		theory		theory	
quantity		quant		quant	1
other term	17	other term	12	other term	41
situational	18			def ref	

CONCLUSION					
	the		**a**		**zero**
anapho	37	gener	60	gener	26
catapho of	21	specif	40	spec	22
catapho other	3	non ref		non-ref	
theory		theory		theory	
quantity		quant		quant	
other term	17	other term		other term	52
situational	22			def ref	

As can be expected from the general distribution, the zero article is the most numerous in the three out of the four typical parts of a scientific article. The only exception is the experimental part where the definite article prevails. In this part the definite article also most frequently (out of the four parts) expresses definite anaphoric reference. It is quite understandable since in this part a sequence of activities, processes, etc. is usually described where the same nouns or concepts are used repeatedly. The definite article is also frequent in the abstracts which often present the concrete outputs of the research. In absolute values it is however the most frequent with terminology. This unfortunately does not make the use of articles any easier because also the other two articles are used with terms. The high percentage of terminology is clearly connected with the nature of the texts, and it can at least be stated that when the occurrence of a certain article together with a term is studied, its proportion is the smallest in the case of the indefinite article.

Regarding the indefinite article, it is frequent in the introduction and conclusion. Nevertheless, it is worth noticing that in each case different kind of reference prevails. While in the introduction the indefinite article is the most frequent with specific reference, in the conclusion it is generic reference. The possible reason for the difference might reside in the fact that while in the introduction concrete and therefore specific circumstances of research are described, the concluding part attempts to overcome the boundaries of a particular study and present outcomes within more general context and with further reaching significance. A similar tendency, although not so significant, since the zero article unlike the indefinite article also plays a significant role in the area of terminology, can be observed in the case of zero article which is more frequent with specific reference in the introduction and experimental part and more frequent with generic reference in the abstract and conclusion.

2 Common mistakes of Czech authors of scientific texts

This part of the study represents just an initial brief insight into the problem. Based on the studies carried out on Finnish, Korean, Russian, and Japanese L1 speakers of English by researchers abroad (Haan 1997, Ionin 2007, Crompton 2011), areas of article use likely to cause the biggest difficulties were determined. The studies on respective L1 speakers were chosen since in all the cases the L1s do not use articles as all. In all the mentioned studies it has been concluded that learners of English whose L1 does not have articles use articles less often than native speakers: " The Finnish learners use fewer articles which may reflect the absence of articles in their mother tongue" (Haan 1997: 52). In all the studies two areas were delimitated where the mistakes in the use of articles with these learners seem to be most frequent. "It was found that while these learners made many errors of article (mis)use in English, their errors were not random. Rather, errors came in two types: overuse of *the* with specific indefinites and overuse of *a* with non-specific definites. Article use on specific definites and non-specific indefinites was accurate" (Ionin 2007: 563). These mistakes are supposed to be due to insufficient awareness of the notion of definiteness on the one hand, and specificity on the other. Snape (2005) believes that there is an Article Choice Parameter determining the distribution of articles, and claims that L2-learners possibly pick the wrong value, or fluctuate between definiteness and specificity when they are learning an L2 that has the features [+definite] and [+specific] (Snape 2005: 3).

The above mentioned conclusions were compared to the analysis of three scientific articles written by three different Ph.D. students at the Czech Technical University in Prague. The results of our brief study so far are generally consistent with the results discussed above. There were basically two visible differences. While in the studies mentioned the authors generally claim that the mistakes in the two main areas were of almost the same frequency, in our study the overuse of the definite article significantly prevailed. Moreover in our study one more area of frequent mistakes appeared and it was the overuse of *the* with generic reference. This was the second most frequent mistake. Similar findings were also reported in Crompton (2011: 78).

Conclusion

In the small scale research presented here we first categorized and analyzed the ways in which native speakers of American English use articles. The most frequently used article was the zero article followed by the definite article, and significantly the least frequent was the indefinite article. Certain differences can be observed between individual parts of a scientific text, the biggest difference being the frequency of the indefinite article in an introduction and conclusion on the one hand, and an abstract and experiment on the other, and the fact that in an introduction it prevails with specific reference while in conclusion with generic reference. The distribution of the zero article is to a certain extent similar, the differences however not being so significant. Although the zero article is. in general. the most frequently used, it is the definite article which prevails in an experimental part and in this part it moreover occurs most frequently with the definite anaphoric reference.

In the second part of the study the most common mistakes L1 Czech users of English make in scientific writing were studied, which resulted in the delimitation of three areas: overuse of the definite article with specific indefinites, overuse of the definite article with generic reference, and overuse of the indefinite article with non-specific definites.

As an intersection of the two studies we get the areas of potential problems. The first one is the potential overuse of the definite article in an introduction and conclusion where specific indefinite and generic reference can be expected to be frequent, and thus representing the

ground for the overuse of the definite article. Secondly it is important to draw attention of scientists writing in English to the difference between definiteness and specificity. It is necessary for them to realize that it is not uncommon that a noun can be non-specific but definite, and thus needs to be used not with the indefinite, but the definite article. This problem is most likely to be connected with an experimental part of a scientific text where from the context clearly identifiable but not necessarily specific entities, notions or events are described.

Literature

[1] BIBER, D.; GRAY, B.: *Challenging Stereotypes about Academic Writing: Complexity, Elaboration, Explicitness in Journal of English for Academic Purposes*. Vol. 9. 2-20. Orlando: Elsevier, 2010.

[2] BIBER, D.; GRAY, B.: *Grammatical change in the noun phrase: the influence of written language use in English Language linguistics*. Vol. 15, Issue 2. CUP 2009.

[3] CARTER, R.; MCCARTY, M.: *Cambridge Grammar of English*. CUP, 2006. ISBN 0-521-58846-4

[4] CROMPTON, P.: *Article Errors in the English Writing of Advanced L1 Arabic Learners: The Role of Transfer in Asian EFL Journal.* Vol 50. February 2011.

[5] HAAN, P.: *An experiment in English learner data analysis in Jan Arts (ed) Studies in English Language Research*. Amsterdam: Rodopi, 2011.

[6] IONIN, T.; MONTRUL, S.: *Article use and generic reference: parallels between L1 and L2 acquisition in M. P. García Mayo and R Hawkins (eds), Second Language Acquisition od Articles: Empirical Findings and Theoretical Implications*. John Benjamins, 2009.

[7] MASTER, P.: *The English article system: Acquisition, function, and pedagogy*. System 2 (2), 215 – 232. 1997.

[8] QUIRK at al.: *A Comprehensive Grammar of the English language*. Lomgman, 1985. ISBN 0-582-51734-6

[9] SMALLEY, L.S.; REUTTEN, M.K.: *Refining Composition Skills*. Boston: Heinle & Heinle, 2001.

[10] SNAPE, N. at al.. Spanish, Turkish, Japanese and Chinese L2. Learners' Acquisition of Generic Reference. *In Proceedings of the 10th Generative Approaches to Second Language Acquisition Conference (GASLA 2009)*, ed. Melissa Bowles et al., 1-8. Somerville, MA: Cascadilla. 2009 Proceedings Project. www.lingref.com document #2251

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Mgr. Renata Šimůnková, Ph.D.

ČLENY V ODBORNÝCH TEXTECH

Psaní odborných textů v angličtině je nedílnou součástí výzkumné práce. Nezřídka se ovšem stává, že po vědecké stránce vynikající příspěvky nejsou publikovány kvůli špatné jazykové úrovni. Nejčastější chyby jsou navíc univerzální a určitě mezi ně patří používání členů. Následující článek prezentuje výstupy výzkumu v této oblasti s cíli: 1) systematicky popsat a kategorizovat způsoby použití členů v akademických textech psaných rodilými mluvčími americké angličtiny, 2) určit nejčastější chyby, kterých se dopouští v anglicky psaných odborných textech rodilí mluvčí češtiny a 3) na základě zjištění získaných v bodech 1 a 2 vymezit problémové oblasti použití členů a možné způsoby nápravy. Čtyři tisíce čtyřicet osm členů obsažených v šesti odborných textech je klasifikováno a pak analyzováno. Chyby jsou studovány na základě tří odborných článků studentů doktorského studia. Získané dílčí závěry ukazují, že nejčastější chyby, ačkoli do určité míry individuální, mohou být rozděleny do třech oblastí. Tyto oblasti by pak logicky měli představovat těžiště zájmu při výuce členů.

ARTIKELWÖRTER IN AKADEMISCHEN TEXTEN

Das Schreiben von Fachartikeln in Englisch ist ein untrennbarer Bestandteil der Forschungsarbeit. Es kommt nicht selten vor, dass die von wissenschaftlicher Seite herausragenden Beiträge wegen des schlechten Sprachniveaus nicht publiziert werden. Außerdem sind die häufigsten Fehler universale Fehler und zu diesen zählt man gewiss die Verwendung der Artikelwörter. Der Beitrag präsentiert Forschungsergebnisse in diesem Bereich mit den nachstehenden Zielen: 1) die Verwendung der Artikelwörter in akademischen Texten von Muttersprachlern des amerikanischen Englisch systematisch zu beschreiben und zu kategorisieren, 2) die häufigsten Fehler zu bestimmen und 3) aufgrund der Feststellungen im Punkt 1 und 2 die Problembereiche bei der Verwendung der Artikelwörter und die entsprechenden Abhilfemöglichkeiten abzugrenzen. Viertausendachtundvierzig Artikelwörter in sechs Fachartikeln werden klassifiziert und dann analysiert. Als Basis der Fehleranalyse gelten drei Fachartikel. Die gewonnenen Teilergebnisse zeigen, dass die meisten Fehler in drei Bereiche geteilt werden können.

RODZAJNIKI W TEKSTACH SPECJALISTYCZNYCH

Pisanie tekstów specjalistycznych w języku angielskim stanowi nieodłączną część pracy badawczej. Nierzadko znakomite teksty naukowe nie są publikowane z powodu niskiego poziomu językowego. Najczęściej spotykane błędy mają charakter uniwersalny, i na pewno należy do nich używanie rodzajników. W artykule przedstawiono wyniki badań przeprowadzonych w tej dziedzinie w celu: 1) systemowego opisania i skategoryzowania sposobów stosowania rodzajników w tekstach akademickich, które zostały napisane przez native speakerów używających amerykańskiej odmiany języka angielskiego, 2) określenia najczęściej spotykanych błędów, jakie popełniają czescy native speakerzy podczas pisania angielskich tekstów specjalistycznych, oraz 3) ustalenia, w oparciu o wnioski z punktu 1 i 2, obszarów problemowych dotyczących używania rodzajników i ustalenia możliwych sposobów poprawy. Cztery tysiące czterdzieści osiem rodzajników zastosowanych w sześciu tekstach specjalistycznych poddano klasyfikacji i późniejszej analizie. Błędy są badane na podstawie trzech artykułów specjalistycznych studentów studiów doktoranckich. Uzyskane wyniki wskazują, że najczęstsze błędy, choć do pewnego stopnia indywidualne, można podzielić na trzy grupy. Te grupy powinny więc w sposób logiczny stanowić punkt ciężkości w nauce rodzajników.

THE INFLUENCE OF INNOVATION POTENTIAL ON ECONOMIC PERFORMANCE IN CZECH REGIONS

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Abstract

This contribution looks at the influence which the level of economic performance has on the level of innovation potential in the Czech Republic. One of more ways is described on how to approach the resolved problem, which is either verification or rejection of this assumption: "The weak regional potential for innovation is the cause of the regional economic backwardness". A few methodologies have been developed by some subjects and used for the evaluation of the regional innovation potential level in the Czech Republic, but the availability of their outputs differs, which causes difficulties in further processing. Next, many methodologies are used by different subjects in the Czech Republic for the evaluation of the regional economic performance level. It was verified that Czech regions with strong innovation potential are better performing economically and are wealthier than those with low innovation potential.

Introduction

This article focuses on questions of the relationship between economic performance and innovation potential in the Czech Republic, specifically in Czech regions. The aim is to verify the assumption that weak regional innovation potential causes regional economic backwardness. In other words, it is expected that regions with very strong innovation potential should be better performing economically, more competitive, or wealthier, than regions with low innovation potential.

What does the term "regional innovation potential" mean? Innovation potential can be defined differently depending on analyzed data. It can be discussed in relation to human resources, a number of small and medium-sized enterprises, education and research capacity structure in a region, or in dependence on the innovation infrastructure conditions. "*Regional innovation potential can generally be expressed as the ability of a region, in given conditions, to take advantage of its own internal resources effectively, to react flexibly to external development incentives, to produce and develop activities with higher value-added and thus to take new, hierarchically higher qualities*." [7, pp. 16]

The paper is divided into two main parts. In the first part, regional economic performance and innovation potential in the Czech Republic are analyzed. There are five methodologies described which are applied for the evaluation of regional economic performance in the Czech Republic. Three approaches are listed for the evaluation of regional innovation potential. The second part of this paper focuses on an investigation of the statistical dependency between some selected indicators.

1 Methodology

This part contents a review of methodologies used for the evaluation of regional economic performance and regional innovation potential in the Czech Republic.

1.1 Economic performance evaluation

More methodologies are presently used by some subjects in the Czech Republic for the evaluation of the regional economic performance level. Under the supervision of the Ministry for Regional Development of the Czech Republic, the Regional Development Strategy of the Czech Republic was elaborated and adopted by the Government in July 2000. It was updated in the years 2003 and 2006. In this document, regions with focused state support are identified and classed into three groups: structurally affected regions, economically weak regions, and regions with a well above average unemployment rate [1]. Indicators used for this identification have been analyzed completely in a monograph [2]. Regional methodologies are described in Regional Development Programs. Their analysis was also included in the monograph [2] and the authors revealed that various regional methodologies are incomparable.

The Czech Statistical Office elaborated the publication "Regional differences in the demographic, social and economic development of the Czech Republic in the years 2000–2005". It looks at the differences in the demographic, social and economic rankink of administrative districts of municipalities with extended powers within the Czech Republic and within Czech regions. For each administrative district of a municipality with extended powers, these synthetic indices relevant to four basic spheres were calculated: D – demographic background, S - social environment, E - economic environment, I – infrastructure, location, availability, human living environment. [3]

At the University of West Bohemia, there was developed a methodology enabling the comparison of regional indicators concerning three basic spheres (macroeconomic efficiency, growth potential, quality of life), which can be illustrated as an 18-angle. [4] With the help of this methodology, it is possible to compare the position of regions in relation to each other, with an average level for the entire Czech Republic, and the development of each region over a time period.

A research team from the Technical University in Liberec designed a methodology built around the argument that there does not exist any globally economically weak region. The procedure, results and recommendations were presented in the monograph [5]. For the identification of low-dynamic (respectively sustainable) economic development of municipalities, eight significant factors must be checked individually: unemployment, attractive living, settlement, age structure, civic amenities, economic pattern, sustainable development, and economic activity.

The economic power of a country (region) is measured by the indicator of (regional) real gross domestic product (GDP). As defined by CZSO, "*GDP is the key indicator of economic development and it represents the sum of values added by all branches of activities which are considered productive in the system of national accounts (including market and non-market services*)". [6] The values of GDP (and regional GDP) are listed in the National (pertinently Regional) Accounts of the Czech Republic and published periodically by the Czech Statistical Office.

The economic level of a country (region) is measured by the indicator of (regional) gross domestic product per capita. GDP per capita is GDP divided by the population and is sometimes used as an indicator of standard of living. For the purposes of this contribution, the

economic performance of all fourteen Czech regions at level NUTS 3 was measured by regional GDP per capita.

1.2 Evaluation of regional innovation potential

Under the aegis of the Technology centre AS CR, a publication entitled "*Innovation Potential of the Czech Regions"* was published in 2008, which included the methodology and results of the innovation potential analysis of fourteen Czech regions at level NUTS 3. Its authors were inspired by the methodology proposed for the European Trend Chart on Innovation and geared it to conditions in the Czech Republic. So, the indicators were sorted into two main groups: inputs and outputs. The factor analysis and calculation of the weighted average led to results in the form of one synthetic index for each region in the Czech Republic. There are fourteen Czech regions classed in a scale with five categories according to the innovation potential level: well below average, below average, average, above average, and well above average. However, no concrete numerical values on innovation potential were presented in the document [7], only the ranking of the regions.

The methodology proposed for the European Trend Chart is applied in the European Innovation Scoreboard and was updated for the last time in 2005, while in 2002 and 2003 two Regional Innovation Scoreboards (RIS) were published. Building upon the methodology used in the 2003 RIS, two indexes are calculated from which a weighted mean is taken for the Revealed Regional Summary Innovation Index (RRSII): the RNSII or Regional National Summary Innovation Index, which takes the average of the re-scaled relative to the country mean indicator values, and the REUSII or the Regional European Summary Innovation Index which takes the average of the re-scaled relative to the EU25 mean indicator values. Both composite indicators are only calculated when data are available for at least 6 indicators. [8, pp. 28-29] The values of RRSII were calculated for regions at level NUTS 2.

In their contribution "Analysis of the Czech Participation in Projects Financed from European Framework Programs", Rydvalová and Pittnerová compared some special indicators related to the innovation performance of the regions. 1,635 project teams from Czech economic subjects were characterized and statistically described in the regional structuring, and they received grants for research and/or innovation projects within the 5th and 6th Framework Programme (FP) supporting research activities of the European Union in the years 1998-2008. The unique database was created through the analysis of development strategies, databases and documents of the Ministry of Finance, the Czech Statistical Office, and the Community Research and Development Information Service. The methodology and results were presented in the above-mentioned contribution [12]. Indicators related to the innovation performance could be, for example, the intensity of regional involvement in the 5^{th} and 6^{th} FP converted to an average FTE (FTE = average number of employees recalculated to full time work devoted to R&D activities).

2 Results

In this part, data processing, statistical tests and an investigation of the statistical dependency of economic performance on innovation potential are described.

2.1 Review of the indicators applied in the analysis

The goal of this contribution is to verify that regional innovation potential significantly influences regional economic performance in the Czech Republic. For the purposes of this

contribution, the economic performance of all fourteen Czech regions at level NUTS 3 was measured by regional GDP per capita in CZK in the years 2006 and 2008.

The data about innovation potential were extracted from the European Innovation Scoreboard 2006 (below as "RRSII 2006", a dimensionless numerical variable) and from the publications of the Technology centre AS CR (below as indicator "IP 2008" – an ordinal variable).

Values of the four indicators mentioned above for each Czech region at level NUTS 3 are listed in *Tab. 1*.

Tab. 1 Regional GDP per capita and regional innovation potential – values

	Economic performance indicators		Innovation potential indicators		
Region (NUTS 3)	**GDP p. c. 2006 (in CZK)**	**GDP p. c. 2008 (in CZK)**	**RRSII 2006**	**IP 2008**	**IP 2008 code**
Hl. město Praha	659756	756883	0.7	extremely strong	5
Středočeský	296556	325996	0.43	average	3
Jihočeský	281664	298052	0.34	average	3
Plzeňský	296510	300594	0.34	average	3
Karlovarský	225263	243860	0.12	weak	1
Ústecký	255100	283933	0.12	below average	2
Liberecký	255133	257638	0.34	below average	2
Královéhradecký	266319	295834	0.34	above average	4
Pardubický	263436	294153	0.34	average	3
Vysočina	264423	277913	0.43	weak	1
Jihomoravský	287472	344098	0.43	above average	4
Olomoucký	232639	266339	0.31	average	3
Zlínský	255695	299589	0.31	below average	2
Moravskoslezský	261316	305458	0.24	average	3

Source: CZSO, [7], [8], authors elaboration.

Notes to Tab. 1:

The data about GDP p. c. 2006 and 2008 were related to 31. 12.; their validity was verified on 20. 8. 2011.

The value of RRSII 2006 of each Czech region at level NUTS 3 was taken as equal to RRSII of the respective high-level region NUTS 2.

The last column, headed "IP 2008 code", includes numerical expression of the "IP 2008" level, which is important for computing the Spearman Rank Correlation Coefficient, but has no influence on the results of the ANOVA test mentioned below.

2.2 Data processing

All data were entered into the statistical analysis software Statgraphics Centurion XVI (SGP). First of all, the strength of the associations between regional GDP per capita and innovation potential was measured through the Spearman Rank Correlation Coefficient. This correlation coefficient ranges between -1 and +1 and measures the strength of the association between the

variables. The Spearman Coefficient is computed from the ranking of the data values rather than from the values themselves. Consequently, it can be applied when data do not come from a normal frequency distribution and it is less sensitive to outliers. An outlier is an observation that lies outside the overall pattern of a distribution [13]. Outliers can occur among others when comparing associations between two sets of data.

Two variables, GDP p. c. 2006 and RRSII 2006, were compared and the Spearman Rank Correlation Coefficient was computed as equal to 0.8329. This signals a strong positive ranking association.

The comparison of GDP p. c. 2008 with IP 2008 code led to a Spearman Rank Correlation Coefficient equal to 0.7143. This signals a relatively strong positive ranking association.

Also the *P-values* were computed, which verified that both estimated correlations are statistically significant at the 95 % confidence level. (For a better understanding of the *P-value*, look at the statistical hypothesis testing below.)

What can be said about the two results above? Both computed values indicate a relatively strong association between the ranking of regional GDP p. c. and the ranking of regional innovation potential in the Czech Republic. This means the higher the innovation potential is, the higher the economic performance is, too.

The next step in the investigation of the statistical dependency of economic performance on innovation potential is further statistical hypothesis testing, specifically the statistical test Analysis of Variance.

2.3 Statistical hypothesis testing

Generally, hypothesis testing is the use of statistics to determine the probability that a given hypothesis is true or not. The process of hypothesis testing consists of four steps:

- Formulate the null hypothesis H_0 and the alternative hypothesis H_1.
- Identify a test statistic that can be used to assess the truth of the null hypothesis.
- Compute the *P-value*, which is the probability that a test statistic at least as significant as the one observed would be obtained assuming that the null hypothesis were true. The smaller the *P-value*, the stronger the evidence against the null hypothesis.
- Compare the *P-value* to an acceptable significance value α. If $P \leq \alpha$, that the observed effect is statistically significant, the null hypothesis is ruled out, and the alternative hypothesis is valid. [10]

To make the decision about the rejection of the null hypothesis, the statistical test Analysis of Variance was used (ANOVA). To apply the test, these assumptions are specified: numerical dependent variable and numerical/ordinal/nominal independent variable; independence of cases, data from a normal probability distribution, and homogeneity of variances [11].

Resolving the independence of the cases is pointless here, as the 14 Czech regions are a population, not only a selection. With the assumption above, normality was tested for all data. Therefore, two tests were applied to determine whether variables GDP p. c. 2006 and 2008, RRSII 2006 and IP 2008 code can be suitably modeled by a normal distribution: Kolmogorov-Smirnov and Shapiro-Wilkov W. Both tests led to the results that the data about GDP p. c. do not come from a normal distribution, but they did not reject the fact that the data about the IP 2008 code met the criterion of normality at the 95 % confidence level. As to the variable IP 2006, the tests outcomes were different. Referring to the robust approach, the condition of normality is the only one which can be waived [14]. But the homogeneity of variances is considered to be important. Using Variance Check in SGP, namely Bartlett's test, the hypothesis about the equality of variances was verified (not rejected) at the 95.0 %

confidence level for both pairs of variables compared. (This requirement was also tested for other indicators on innovation potential or performance, but it was not met.)

2.4 Statistical dependency of GDP per capita 2006 on RRSII 2006

The analysis of the variance started with the formulation of the null hypothesis H_0: "Regional gross domestic product per capita in the Czech Republic 2006 is not dependent on the Revealed Regional Summary Innovation Index 2006." The alternative hypothesis H_1 was: "H_0 is not true".

The null hypothesis was verified at the 95 % confidence level. The population is 14 Czech regions. (Although the region Hl. město Praha appears to be an outlier, it is part and parcel of the small population and may not be removed.) RRSII 2006 here is an independent variable (factor X), and GDP p. c. 2006 is the dependent variable Y. Further, a test statistic was identified that could be used to assess the truth of the null hypothesis. In this case, it was the *F-Ratio*, the test statistic with Fisher's probability distribution and two degrees of freedom - see (1).

$$F = \frac{\frac{Q_M}{k-1}}{\frac{Q_R}{n-k}}; F\left[(k-1);(n-k)\right] \tag{1}$$

The numerator and denominator are designated mean squares and are computed in *Tab. 2*.

Entering data into SGP and choosing the function One-way ANOVA, the ANOVA table was generated (*Tab. 2*).

Tab. 2 ANOVA table A

Source	Sum of Squares	Df	Mean Square	*F-Ratio*	*P-Value*
Between Groups	1.48252E11	5	2.96504E10	101.28	**0.0000**
Within Groups	2.34205E9	8	2.92756E8		
Total (Corr.)	1.50594E11	13			

Source: Author's elaboration, SGP.

The ANOVA table A decomposes the variance of the dependent variable Y values into two components: a between-group component and a within-group component. The F-test in the ANOVA table tests whether there are any significant differences amongst the means. The *F-Ratio*, which in this case equals 101.28, is a ratio of the between-group estimate to the within-group estimate. Since the *P-value* of the F-test is less than 0.05, there is a statistically significant difference between the mean Y from one level of X to another at the 95 % confidence level. This leads to the rejection of the hypothesis of equal means. The alternative hypothesis was verified that regional GDP per capita in the Czech Republic is dependent on the Revealed Regional Summary Innovation Index.

To determinate the degree of the dependence of variable Y on factor X, the Pearson Correlation Coefficient is the right instrument to use. In this case, it equals 0.7979 indicating a strong positive linear relationship between the variables. However, the subsequently used Simple Regression Analysis leads to the ascertainment that the linear model is not adequate to describe the observed data even though the computed R-Squared statistic indicates that the linear model explains only 63.7 % of the variability in GDP per capita 2006. In other words,

stronger innovation potential causes higher economic performance of Czech regions, although the increase is not proportional.

2.5 Statistical dependency of GDP per capita 2008 on IP 2008 code

The procedure is identical as in the previous case. The IP 2008 code is factor X, GDP p. c. 2008 is dependent variable Y. Firstly, H_0 and the alternative hypothesis H_1 were formulated:

H_0: Regional GDP per capita 2008 in the Czech Republic is not dependent on IP 2008 code.

H_1: H_0 is not true.

The steps noted above led to ANOVA table B (*Tab. 3*).

Tab. 3 ANOVA table B

Source	Sum of Squares	Df	Mean Square	F-Ratio	P-Value
Between Groups	2.05001E11	4	5.12502E10	102.37	**0.0000**
Within Groups	4.50555E9	9	5.00616E8		
Total (Corr.)	2.09506E11	13			

Source: Author's elaboration, SGP.

Since the *P-value* of the F-test is less than 0.05, the alternative hypothesis was verified which means that regional GDP per capita in the year 2008 in the Czech Republic is dependent on the IP 2008 code.

How strong is the dependence of GDP per capita on the IP 2008 code? In this case, the Pearson Correlation Coefficient equals 0.6720 and signals a relatively strong positive linear relationship. However, the application of the Simple Regression Analysis leads to the finding that the linear model is not suitable to describe the observed data and the computed R-Squared statistic indicates that the linear model would explain only 45.2 % of the variability in GDP per capita 2008. As above, it is possible to say that stronger innovation potential causes higher economic performance of Czech regions, but the increase is not proportional.

2.6 IP 2006 vs IP 2008

An additional investigation of the statistical relationship between innovation potential measured by two different methodologies (IP 2008 by Technology centre AS CR and IP 2006 by European Trend Chart) led to the value of Pearson Correlation Coefficient equalling 0.6402. Although this indicates a positive relationship between innovation potential measured by two special subjects, the value is too low considering that both methodologies measured the same thing, i.e. the innovation potential of Czech regions. The question is: which methodology is the most accurate? It is not simple to decide, and so it could be a subject of further research.

Conclusion

The aim of this article was to investigate the relationships between the economic performance and innovation potential of Czech regions. Specifically, two statistical dependencies were examined: the dependence of regional GDP per capita on innovation potential in accordance with methodology proposed for the European Trend Chart (ETC), and the dependence of regional GDP per capita on innovation potential in accordance with methodology proposed for the Technology centre AS CR. The dependencies measured by the correlation coefficient

were relatively strong and positive in both cases. Pursuant to the first result, it can be said that, according to the ETC methodology, the higher the innovation potential 2006 is, the higher the GDP per capita is. The second result would be interpreted so that the higher innovation potential in 2008 (according to methodology proposed for the Technology centre AS CR) led to the higher GDP per capita. These results were expected by the author. The regions with strong innovation potential are better performing economically, wealthier and more economically powerful than the regions with low innovation potential. The target was met and the assumption that weak innovation potential causes economic backwardness of a region was verified.

Literature

[1] Ministry for Regional Development of the CR. *Regional Development Strategy of the Czech Republic (summary)* [online]. Prague: MRDCR, 2006 [cit. 2011-08-03]. 37 p. Available from WWW: < http://www.mmr.cz/CMSPages/GetFile.aspx?guid=cdafbfcb-f89c-4c88-b876-0313593c67b0>.

[2] RYDVALOVÁ, P.; ŽIŽKA, M.: *Konkurenceschopnost a jedinečnost obce.* 1st ed. Liberec: Technická univerzita v Liberci, 2008. ISBN 978-80-7372-423-8.

[3] CZSO. *Regionální rozdíly v demografickém, sociálním a ekonomickém vývoji v letech 2000 až 2005* [online]. Prague: CZSO, 15. 11. 2007 [cit. 2011-08-03]. Available from WWW: <http://www.czso.cz/csu/2007edicniplan.nsf/p/1379-07>.

[4] MARTINČÍK, D.: Ekonomicko-sociální úroveň krajů – komplexní srovnávací analýza. *E+M Ekonomie a Management,* 2008, vol. 11, c. 1, pp. 14-25. ISSN 1212-3609.

[5] RYDVALOVÁ, P.; ŽIŽKA, M.: *Klíčové faktory problematického vývoje regionů v České republice.* 1. vyd. Liberec: VÚTS, 2007, 54 s. ISBN 978-80-903865-5-6.

[6] CZSO. *Gross domestic product* [online]. [Cit. 2011-09-14]. Available from WWW: <http://www.czso.cz/eng/redakce.nsf/i/gross_domestic_product_%28gdp%29>.

[7] POKORNÝ, O.; KOSTIČ, M.: and others. *Analýza inovačního potenciálu krajů České republiky*. 1. ed. Prague: SLON, 2008, 147 p. ISBN 978-80-86429-90-8.

[8] *EUROPEAN INNOVATION SCOREBOARD 2006* [online]. [Cit. 2011-08-28]. Available from WWW: <http://www.proinno-europe.eu/doc/EIS2006_final.pdf>.

[9] CZSO. *Regional accounts 2008. The main regional indicators* [online]. [Cit. 2011-08-20]. Available from WWW: <http://apl.czso.cz/pll/rocenka/rocenka.indexnu_reg>.

[10] WEISSTEIN, E. W.: Hypothesis Testing. *MathWorld. A Wolfram Web Resource* [online]. 1999-2009 [cit. 2011-08-12]. Available from WWW: <http://mathworld.wolfram.com/HypothesisTesting.html>.

[11] WEISSTEIN, E. W.: ANOVA. *MathWorld. A Wolfram Web Resource* [online]. 1999-2009 [cit. 2011-08-02]. Available from WWW: <http://mathworld.wolfram.com/ANOVA.html>.

[12] RYDVALOVÁ, P.; PITTNEROVÁ, R.: Analýza účasti českých subjektů v projektech RP EU pro výzkum a technologický vývoj. In *Sborník příspěvků z mezinárodní konference Finance a výkonnost firem ve vědě, výuce a praxi.* 1. vyd. Zlín: UTB, 2009. ISBN 9788073187989.

[13] MOORE, D. S.; McCABE, G. P.: *Introduction to the Practice of Statistics,* 3rd ed. New York: W. H. Freeman, 1999.

[14] KUKAL, J.: Robustnost. *Automatizace*[online], 2008, vol. 51, no. 9 , pp. 570-572. ISSN 0005-125X. [Cit. 2011-08-20]. Available from WWW: <http://www.automatizace.cz/article.php?a=2285>.

[15] Statistical analysis software Statgraphics Centurion XVI.

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Ing. Eva Štichhauerová

VLIV INOVAČNÍHO POTENCIÁLU NA HOSPODÁŘSKOU VÝKONNOST REGIONŮ V ČESKÉ REPUBLICE

Příspěvek věnuje pozornost tomu, jak úroveň inovačního potenciálu regionu ovlivňuje jeho hospodářskou výkonnost, přičemž se zaměřuje na kraje v České republice. Je zde popsán jeden ze způsobů, jak lze přistupovat k řešenému problému, jímž je potvrzení či vyvrácení předpokladu: Slabý inovační potenciál regionu je příčinou jeho hospodářské zaostalosti“. Různými subjekty bylo vyvinuto jen málo metodik sloužících k ohodnocení úrovně inovačního potenciálu regionů v České republice, avšak dostupnost jejich výsledků se liší, což komplikuje další zpracování. Dále, více metodik je používáno českými subjekty pro ohodnocení hospodářské výkonnosti krajů. Bylo ověřeno, že kraje se silným inovačním potenciálem jsou hospodářsky výkonnější a bohatší než kraje s nízkou úrovní inovačního potenciálu.

DER EINFLUSS DES INNOVATIONSPOTENZIALS AUF DIE WIRTSCHAFTLICHE LEISTUNGSFÄHIGKEIT DER REGIONEN IN DER TSCHECHISCHEN REPUBLIK

Der Beitrag widmet sich dem Thema, welchen Einfluss das Niveau des Innovationspotenzials einer Region auf ihre wirtschaftliche Leistungsfähigkeit hat, wobei er sich auf die Regionen in der Tschechischen Republik konzentriert. Hier wird eine der Möglichkeiten des Herangehens an das zu lösende Problem beschrieben, das in der Bestätigung oder Widerlegung folgender Prämisse besteht: „Ein schwaches Innovationspotenzial der Region ist die Ursache ihrer wirtschaftlichen Rückständigkeit“. Seitens verschiedener Subjekte wurden nur wenige Methodiken entwickelt, die der Bewertung des Niveaus des Innovationspotenzials der tschechischen Regionen dienen, wobei sich die Verfügbarkeit ihrer Ergebnisse unterscheidet. Darüber hinaus werden durch tschechische Subjekte mehr Methodiken für die Bewertung der wirtschaftlichen Leistungsfähigkeit der Regionen im Sinne der Selbstverwaltungseinheiten angewendet. Es wurde festgestellt, dass Regionen mit einem stärkeren Innovationspotenzial wirtschaftlich leistungsfähiger und reicher sind als Regionen mit einem geringen Niveau des Innovationspotenzials.

WPŁYW POTENCJAŁU INNOWACYJNEGO NA KONDYCJĘ GOSPODARCZĄ REGIONÓW W REPUBLICE CZESKIEJ

Artykuł poświęcony jest wpływowi potencjału innowacyjnego regionu na jego wyniki gospodarcze. Uwaga skoncentrowana jest na regionach (krajach) w Republice Czeskiej. Opisano jeden ze sposobów podejścia do tego tematu, jakim jest potwierdzenie lub obalenie założenia: "Słaby potencjał innowacyjny regionu jest przyczyną jego zacofania gospodarczego“. Różne podmioty opracowały kilka metodyk służących do analizy poziomu potencjału innowacyjnego regionów w Republice Czeskiej, ale dostępność ich wyników jest zróżnicowana, co utrudnia ich dalsze wykorzystanie. Ponadto, większa liczba metodyk jest stosowana przez czeskie podmioty do celów analizy kondycji gospodarczej regionów. Stwierdzono, że regiony (kraje) o silnym potencjale innowacyjnym są silniejsze gospodarczo i bogatsze od regionów (krajów) o niskim poziomie potencjału innowacyjnego.

EXPECTED NET PRESENT VALUE – INSTRUMENT FOR PROFITABLE INVESTMENT

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Abstract

Each business entity competing for its competitive advantage on the market is currently aware of the importance of research, development and innovation. The hypothesis states: "The companies knowing methods for technologies´ evaluation are profitable". This paper is focused mainly on the area of the economy of renewable energy sources, resp. on the valuation of selected technology in this area. First the process of industrial research and development is mentioned in the introduction; the list of possible methods that can be used for various technologies evaluation follows; and in the final part of the paper the specific real case study of the small Hydroelectric Power Plant project valuation is demonstrated. The method of ENPV (including the decision tree, probabilities and net present value) was chosen; four possible scenarios are presented in the paper. Finally the best scenario has been selected and the hypothesis confirmed.

Introduction

Technologies are moving with world! Each business entity competing for its competitive advantage on the market is currently aware of the importance of research, development and innovation. J. A. Schumpeter´s motto "Who don´t innovate – will die" was worthful in the past and is worthful also in the present. Very important is the connection of the technical aspects of the research and development with its economic aspects. According to Boer [2] the technology is a concept that can be defined, for example, as follows: "Using the knowledge for profitable objectives".

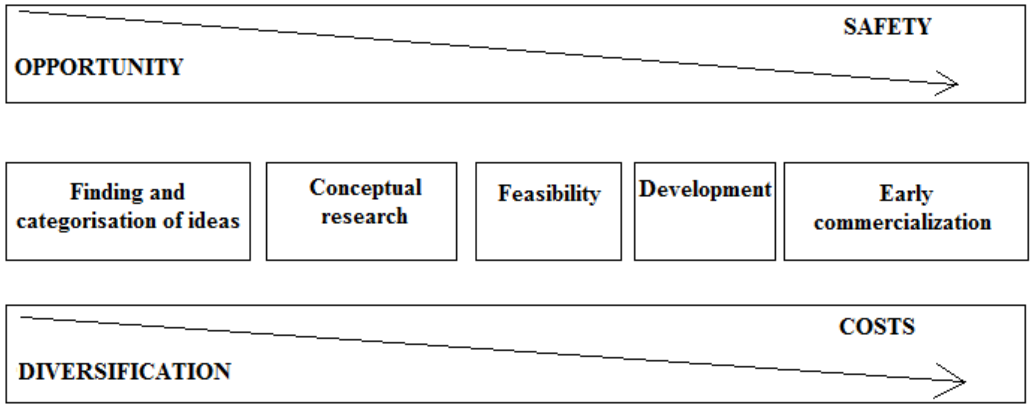
This paper is focused mainly on the area of the economy of hydroelectric energy, resp. on the valuation of this technology. First the general process of industrial research and development is mentioned in the introduction. The next part is devoted to the possible methods that can be used for technologies evaluation. In the third main part of the paper there is referred to the specific case study of the small hydroelectric power plant project valuation (by Expected Net Present Value). Four possible scenarios are presented here. Finally the best scenario is selected.

The exhaustibility of non-renewable mineral resources has been for a long time a recurrent topic of many discussions; number of professional essays by authors headed by J. Simon [10] or B. Lomborg [7], proclaim that. Slavík [11] also says that the often neglected indicator of scarcity of raw materials on the market is their price, which plays a vital role not only in the case of primary raw materials, but also of other goods and services. The question (the hypothesis) states: "The companies knowing methods for technologies´evaluation are profitable and may help their regions to achieve any competitive advantage and to strengthen their economic position". In the framework of this paper one of the possible methods of alternative technology valuation for the production of electrical energy is demonstrated (on

the example of case study of small hydroelectric power plant project), since this issue is particularly topical today.

1 Process of Industrial Research and Development

If the company wants to evaluate its technology, first it is necessary to understand the process, on the basis of which its value is formed. This process is divided into five successive phases, each is represented by the degree of risk, opportunity, diversification, and the volume of costs. *Fig. 1* illustrates this situation:



Source: [2], p. 65

Fig. 1 Key relationships in the process of research and development

The size of the opportunities and diversification is the minimum for the initial phase, as well as the costs, and also the security that the technology will be successful and profitable. The opposite is the status of early commercialization, where diversification and an opportunity are at a low level, but it is offset by a high level of certainty. The costs are at this stage very high. Summarization follows in *Tab. 1*.

Tab. 1 Characterization of process phases of research and development

	Phase 0	*Phase 1*	*Phase 2*	*Phase 3*	*Phase 4*
	Finding and categorisation of new ideas	**Conceptual research**	**Feasibility searching**	**Development and construction**	**Early commercialization**
Committed persons	researchers technicians	technicians, lawyers, firm top management	engineers, consultants, researchers, marqueters, responsible manager	marketing specialists, sale, production, operating	micro firm - manager, sale department, production equipment, accounting
Financial and commercial aspects	low, cca 10 % of budget (short-time horizon)	higher costs on capital and time	high costst on market research	finding of the real future economic value	reduction of financial risks by final market penetration

Source:Own construction

This paper is focused on hydroelectric energy, resp. on valuation of this technology. We can conclude that hydroelectric energy is situated in the 4th phase, resp. in the phase of advancing commercialization.

2 Process of Industrial Research and Development

The valuation of technologies is a complex process. First, it is necessary to define the specific technology which we will assess. If we are talking about the valuation of technologies, we refer to the "hard" technologies. Further we have to realize for what purpose the evaluation will be used - whether it should calculate the present value of the technology, or to quantify its future value.

We can choose, for example, the simplest method of the purchase price, however, suitable only for certain types of technologies (e.g. valuation of technologies for the car production).

Further, the method of market comparison (i. e. benchmarking). First we have to determine whether this method is feasible (feasibility analysis), then collect and analyze the data, approximately evaluate it (using "benchmarking cluster") and at the conclusion more specify the valuation (e.g. evaluation of the parameters by the different (higher/lower) weight, so we may cause an increase or reduction of the final price of the technology).

Third, let's say the most qualified group of methods, are methods based on the cash flows. In the framework of these methods Dvořák [4] calculates net present value and expected net present value of the technologies. This paper is focused just on these valuation methods, resp. one selected method: expected net present value - ENPV (see below).

2.1 Expected Net Present Value (ENPV)

The expected net present value method is based on the concept of structured transfer of know-how and it takes into account the risk that certain payments are not realized. The procedure for the valuation of this technology with this method according to Valach [14] is following:

1. Creation of the decision tree with possible options for future development and determination of the scenarios probability (probability = pn), see *Fig. 2*:

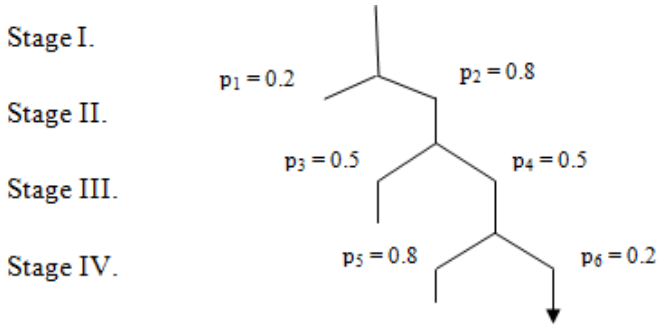


Fig. 2 Decision tree

2. Determination of the financial flows Jn for each branch of the decision tree. The calculation procedure of Jn is the same as for the methods of NPV.

3. Calculation of the NPVs for all financial flows Jn for each decision tree branch, according to the formula (1).

$$NPV_s = \sum_{n=1}^{N} \frac{J_n}{(1+D)^n} \qquad (1)$$

where:

N number of stages,

D discount factor.

4. Calculation of the probability of each branch of the decision tree (known also as the "scenario"). The probability of each branch shall be equal to the arithmetic product of the probabilities of each event within the branches.

5. ENPV is calculated by the sum of the individual NPVs weighted by the probabilities of each branch according to the formula (2), where "p" means "probability" (see *Fig. 2*).

$$ENPV = \sum_{s} p_s * NPV_s \tag{2}$$

3 Case Study (ENPV) - Small Hydroelectric Power Plant Project Evaluation

General Information

We assume that the construction of the power plants will be realized in a place where some water scheme already exists, i.g. a weir. For this reason, the investments for construction work will be smaller than if it were the construction of completely new water work.

The building costs are estimated at 5 mil. CZK, and the costs of the machinery and the connection to supply network are established in the amount of 7 mil. CZK. These costs will be invested in Stage I, they are the same for all the cash flow scenarios described below. The lifetime of the device is expected at least 30 years, without other major investments. The discount rate, or yield of alternative investment, has been calculated at a rate of 7 % (it is an average profitability of chosen financially secure funds of first half year 2011). The optimal installed power on the basis of the characteristics of the water flow and water scheme will be 20 kW. The redemption price of the electricity produced we assume for all scenarios in the amount of 2.40 CZK/kWh [13]. Each scenario varies in the estimated annual supply of electrical energy to the network and in the annual costs of the operation as a percentage of initial investment at individual stages.

3.1 Decision Tree

The valuation method ENPV starts with the frame of the decision tree of possible scenarios. *Fig. 3* shows that in our case the tree has a total of four branches of financial flows, where J = financial flows, p = probability that there is a foreseeable development of the cash flow.

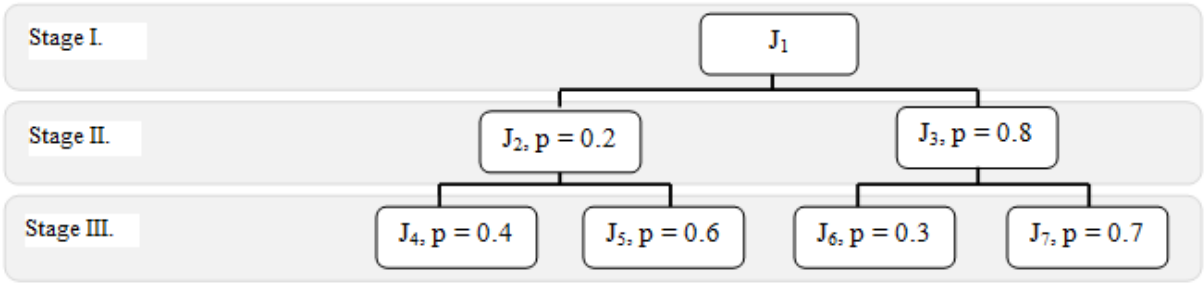


Fig. 3 Case Study - Decision tree

For each decision tree branch the cash flow was compiled. Cash flow J1 remains the same for all four scenarios. For the better predicative facility of the individual scenarios also with ENPV another three additional parameters were calculated:

- Net Present Value (NPV),
- Discounted Payback Period (DPP),
- Internal Rate of Return (IRR).

3.2 Scenarios of ENPV Calculation

- Scenario I

Tab. 2 shows the ENPV calculation for the scenario I. It assumes that, in the regular period (i.e. in Stage III), there will be the annual delivery to the network of 800 MWh, in the testing period it will be about 100 MWh per year fewer, i.e. 700 MWh per year. The costs for annual operations of the power plants in Stage II are expected at the amount of 3.5 % of total initial investment, in Stage III then only 3 % of the initial investment.

The expected net present value (ENPV) at 7 % of the discount rate is calculated at 1,514,738 CZK. The results of the other indicators resulting from *Tab. 2* are: NPV = 2,704,889 CZK, DPP = 19 years, IRR = 9 %.

Tab. 2 Scenario I – ENPV

	Stage I	Stage II - Testing period			Stage III - Regular period				
year	1	2	3	4	5	6	...	30	31
year of discount	0	1	2	3	4	5	...	29	30
A) Revenues									
revenues from energy supply	0	1,400,000	1,400,000	1,400,000	1,600,000	1,600,000	...	1,600,000	1,600,000
Total	***0***	***1,400,000***	***1,400,000***	***1,400,000***	***1,600,000***	***1,600,000***	...	***1,600,000***	***1,600,000***
B) Costs									
costs for annual operations	0	420,000	420,000	420,000	360,000	360,000	...	360,000	360,000
building works	5,000,000	x	x	x	x	x	...	x	x
machinery and connection to supply network	7,000,000	x	x	x	x	x	...	x	x
Total	***12,000,000***	***420,000***	***420,000***	***420,000***	***360,000***	***360,000***	...	***360,000***	***360,000***
Net Cash Flow (J_n)	-12,000,000	980,000	980,000	980,000	1,240,000	1,240,000	...	1,240,000	1,240,000
PVJ_n	-12,000,000	915,888	799,972	945,990	884,103	826,264	...	174,298	162,895
NPV	-12,000,000	-11,084,112	-9,428,170	-8,482,180	-7,598,077	-6,771,813	...	2,541,994	**2,704,889**
DPP = 19 years		IRR = 9 %		probability = 0.8 * 0.7 = 0.56				**ENPV**	**1,514,738**

- Scenario II

In the same way as in *Tab. 2* ENPV was observed in scenarios II, III and IV.

After the completion of the testing period in which we supply to the network of 700 MWh, the plant will supply annually to the network of 850 MWh in regular period. The annual costs in the testing period have been estimated in the amount of 3.5 % of the initial investment. After the completion of testing, we estimate that the annual costs would fall to 396,000 CZK, i.e. 3.2 % of the initial investment in the technology.

The expected net present value (ENPV) is 827,647 CZK. The results of additional calculated parameters are the following: NPV = 3,448,528 CZK, DPP = 18 years, IRR = 10 %.

- Scenario III

The third decision tree branch was calculated on the basis of the following criteria: in Stage II we expect the supply of electricity to the network of 600 MWh per year, in Stage III of 700 MWh per year. The annual costs in the testing period have been expected at 4.2 % of the initial investment. In the regular period we assume their decline to 2.9 % of the initial investment.

The expected net present value (ENPV) is 9,604 CZK. The results of the other indicators: NPV = 120,055 CZK, DPP = 30 years, IRR = 7 %.

- Scenario IV

The fourth branch of the decision tree summarizes this paragraph of this paper. In the testing period we expect the supply of electricity to the network of 600 MWh per year. In the regular/standard period then the delivery increases by 300 MWh per year, i.e. to 900 MWh per year. The annual costs for the testing period are 4.2 %, for the regular period 3.3 % of the initial investment.

The expected net present value (ENPV) in this scenario is calculated in the amount of 427,713 CZK. The results of the other indicators are: NPV = 3,564,278 CZK, DPP = 18 years, IRR = 10 %.

The aim of this case study is to evaluate the technology in the field of the environment. The selected technology is the production of energy from renewable resources by means of small hydroelectric power plants. The method of "Expected Net Present Value" – ENPV was chosen for the evaluation. Theoretical calculation was described in the previous part of this paper.

4 Discussion

From the above mentioned it is evident that the most optimistic scenario for our investment is scenario No I. Within its course in 30 years we gain cash flows at a rate of 1,514,738 CZK, while the original amount of the investment was 12 mil. CZK. The calculation using the simpler NPV method is even more optimistic because according to the net present value in 30 years we acquire the amount of 2,704,889 CZK; the discounted payback period is then 19 years. The internal rate of return is higher than the discount rate, about 2 %. You can see the total comparison of all scenarios in the following *Tab. 3*.

Tab. 3 Scenarios I, II, III and IV

Indicator	Scenario I	Scenario II	Scenario III	Scenario IV
ENPV [CZK]	1,514,738	827,647	9,604	427,713
NPV [CZK]	2,704,889	3,448,528	120,055	3,564,278
DPP [years]	19	18	30	18
IRR [%]	9	10	7	10

In contrast, the least advantageous option represents the scenario No III. In a period of 30 years it will bring us only 9,604 CZK, which is, with the initial investment and chosen lifetime period, a very low amount. In case this scenario occurs, we should raise the supply of electricity to the network in Stage II and III. At the same time, there should be a pressure to reduce the annual costs in the testing period. Also the other indicators (NPV = 120,055 CZK, DPP = 30 years and IRR = 7 %) consider this scenario as the worst, the least profitable one.

However, we have to mention that the final results depend on many factors, particularly in the annual supplies of electricity to the network, redemption price, discount rate and probabilities. According to Synek [12] the decision tree and its structure are the most important factors in ENPV method. In certain sectors its structure has already been fixed (based on several years of experience), in the new sectors and technologies its structure is far from stable so far.

Conclusion

Technologies are moving the world! Very important is the connection of the technical conceptions of R&D with its economic aspects. This paper was focused mainly on the area of technologies valuation. First the general process of industrial research and development was mentioned; the list of possible methods for technologies evaluation followed. In the final part the specific real case study of the small hydroelectric power plant project valuation by ENPV was demonstrated. Four possible scenarios were presented here and the best scenario No I was selected. We can claim here that the hypothesis was verified: "The companies knowing methods for technologies´evaluation are profitable and may help their regions to achieve any competitive advantage and to strengthen their economic position". In other words, if the firms are able to evaluate their technologies by appropriate methods, they become profitable. It may attract other investors to the region, so the economic position of the region could be strengthen.

Literature

[1] AGUILAR ČIHÁKOVÁ, S.; ČERNÍKOVÁ, M.: Evaluation of Clean-Up Processes: An Economic Perspective. ACC Journal, Issue B. 2010, Vol. XVI, No. 2, 30-39. ISSN 1803-9782

[2] BOER, P. F.: Oceňování technologií. Podnikatelské a finanční aspekty výzkumu a vývoje. 1. vyd. Brno: ZONER software, s.r.o., 2007, 429 p. ISBN 978-80-86815-66-4

[3] DVOŘÁK, I.: Oceňování technologií [online] [cit. 2010-12-21] Available from WWW: <http://ilex.kin.tul.cz/…technologii/Ocenovani_technologii__zkracena_verze__I.ppt>

[4] DVOŘÁK, I.: Oceňování technologií [online] [cit. 2010-12-21] Available from WWW: <http://ilex.kin.tul.cz/…technologii/Ocenovani_technologii__zkracena_verze__II. ppt>

[5] KNÁPEK, J.; VAŠÍČEK, J.; ŽÍDEK, O.: Ekonomická analýza projektů OZE. Praha: ČVUT, 2003

[6] LODR, J.: Systémy podpory obnovitelných zdrojů energie v Evropské unii a České republice. In Sborník z mezinárodní konference Ekonomické a právní aspekty podnikávní v EU a ochrana lidských práv. Praha: UK v Praze, Soukromá vysoká škola ekonomických studií, 2007, 92-100. ISBN 978-80-85889-91-8

[7] LOMBORG, B.: Skeptický ekolog. 1. vyd. Praha: Liberální institut, 2006. ISBN 80-86389-42-4

[8] ŘEHOŘOVÁ, P.; PÁNKOVÁ, M.; HAMELOVÁ, L.: Issues of Economic Development - Intellectual Property Rights Protection. In 4th Proceedings of International Borneo Business Conference (IBBC) 2010, Vol. 1. Miri: Universiti Malaysia Sarawak (UNIMAS), 2010, p. 703 - 715. ISBN 978-967-5418-15-0

[9] ŘEHOŘOVÁ, P.; DUBOVÁ, M.: Assessment of Alternative Energy Sources Efficiency – Economic Model of a Project Using Reed Canary Grass. In Proceedings of the Global Conference of Business and Finance. The Institute for Business and Finance Research, IBFR: San José, 2009, p. 71-87. ISSN 1931-0285

[10] SIMON, J. L.: Největší bohatství. 1. vyd. Brno: Centrum pro studium demokracie a kultury, 2006. ISBN 80-7325-082-9

[11] SLAVÍK, J.: Vyčerpatelnost surovinových zdrojů, recyklace a krize na trhu druhotných surovin. Acta Oeconomica Pragensia, č. 6/2009. Praha: Vysoká škola ekonomická, 2009, s. 37-51. ISSN 0572-3043

[12] SYNEK, M. at all.: Podniková ekonomika. 3 přepracované a doplněné vydání. Jihlava: EKON, 2002, 479 s. ISBN 80-7179-736-7

[13] Svaz podnikatelů pro využití energetických zdrojů. Výkupní ceny [online] [2011-04-29] Available from WWW: <http://www.spvez.cz/pages/podpory.htm>

[14] VALACH, J.: Investiční rozhodování a dlouhodobé financování. Praha: EKOPRESS, 2001, s. 156. ISBN 80 86119-38-6

[15] VOLFOVÁ, J.; ŘEHOŘOVÁ, P.: Innovations in the Czech Republic and New Technologies Risks. In Proceedings of the 16th Annual Conference on PBFEAM. Queensland University of Technology: Brisbane, 2008, p. 13. ISBN 978-1-74107-242-6

[16] Zákon č. 330/2010 Sb., o podpoře výroby elektřiny z obnovitelných zdrojů [online] [cit. 2011-04-29] Available from WWW: <http://www.tzb-info.cz/pravni-predpisy/zakon-c-180-2005-sb-a-souvisejici-predpisy>

[17] Zákon č. 235/2004 Sb., o dani z přidané hodnoty [online] [cit. 2011-04-27] Available from WWW: <http://business.center.cz/business/pravo/zakony/dph/>

[18] Zákon č. 458/2000 Sb., energetický zákon [online] [cit. 2011-04-20] Available from WWW: <http://www.tzb-info.cz/pravni-predpisy/zakon-c-458-2000-sb-a-souvisejici-predpisy>

[19] Zákon č. 586/1992 Sb., o daních z příjmů [online] [cit. 2011-03-15] Available from WWW: <http://business.center.cz/business/pravo/zakony/dprij/>

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Ing. Pavla Švermová (roz. Řehořová), Ph.D.

OČEKÁVANÁ ČISTÁ SOUČASNÁ HODNOTA - NÁSTROJ EFEKTIVNÍCH INVESTIC

Význam výzkumu, vývoje a inovací si uvědomuje v současné době každý podnikatelský subjekt soupeřící na trhu o konkurenční výhodu. Zde stojí hypotéza: "Společnosti znající metody pro oceňování technologií mají pozitivní ekonomické výsledky". Tento příspěvek je zaměřen především na oblast ekonomiky obnovitelných zdrojů energie, resp. na ocenění vybrané technologie v této oblasti. Nejprve je v úvodu zmíněn proces průmyslového výzkumu a vývoje; následuje výčet možných metod, pomocí kterých lze ocenit různé technologie a v závěrečné části je naznačen konkrétní reálný příklad ocenění projektu malé hydraulické vodní elektrárny. Byla zvolena metoda ENPV (zahrnující rozhodovací strom, pravděpodobnost a čistou současnou hodnotu); v příspěvku jsou uvedeny čtyři možné scénáře. V závěru byl vybrán ekonomicky nejvýhodnější scénář a hypotéza byla potvrzena.

DER ERWARTETE REINE NETTOWERT - INSTRUMENT DER EFFEKTIVEN INVESTITIONEN

Jedes Unternehmersubjekt, das auf dem Markt einen Konkurrenzvorteil anstrebt, kennt die Bedeutung der Forschung, Entwicklung und Innovationen. Hier gilt die Hypothese: "Die Gesellschaften, die die Methoden für die Bewertung der Technologien kennen, haben positive ökonomische Ergebnisse“. Dieser Beitrag konzentriert sich vor allem auf das Wirtschaftsgebiet der erneuerbaren Energiequellen bzw. auf eine Bewertung bestimmter Technologien auf diesem Gebiet. In der Einleitung wird ein Prozess der Forschung und Entwicklung in der Industrie erwähnt. Dann folgt eine Übersicht über die Methoden, mit Hilfe derer verschiedene Technologien bewertet werden können, und abschließend ein konkretes Bewertungsbeispiel des Projektes eines kleinen Wasserkraftwerkes. Es wurde die Methode des „erwarteten reinen Nettowerts“ ausgewählt. Sie enthält Entscheidungsstruktur, Wahrscheinlichkeit und reinen Nettowert. Im Beispiel werden vier mögliche Szenarien angeführt, dann das ökonomisch vorteilhafteste Szenario ausgewählt und die Hypothese bestätigt.

OCZEKIWANA AKTUALNA WARTOŚĆ NETTO - NARZĘDZIE EFEKTYWNYCH INWESTYCJI

Znaczenie badań, rozwoju i innowacji uświadamia sobie obecnie każdy podmiot gospodarczy walczący na rynku o przewagę konkurencyjną. Tu pojawia się hipoteza: "Spółki znające metody wyceny technologii osiągają pozytywne wyniki ekonomiczne". Niniejszy artykuł koncentruje się przede wszystkim na ekonomice odnawialnych źródeł energii, czyli na wycenie wybranej technologii w tej dziedzinie. Najpierw we wstępie omówiono proces badań przemysłowych i rozwoju, po czym przedstawiono metody, przy pomocy których można wycenić różne technologie a w zakończeniu pokazano konkretny realny przykład wyceny projektu małej elektrowni wodnej. Wybrano metodę oczekiwanej aktualnej wartości netto (obejmującej drzewo decyzyjne, prawdopodobieństwo i aktualną wartość netto). W artykule przedstawiono cztery możliwe scenariusze. W części końcowej wybrany został scenariusz najkorzystniejszy pod względem ekonomicznym, potwierdzający postawioną hipotezę.

BUSINESS GERMAN ONLINE

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Abstract

The paper deals with the role of e-learning in foreign language teaching. For the use of the Internet in online teaching it is necessary that teachers had certain media competences that are becoming an integral and important part of the teacher's qualification. In order to produce electronic teaching materials, the teacher is forced to use the computer unlike a common user does. Further professional training towards media competences has been offered to teachers of foreign languages within two projects financed from the European funds (ESF). In years 2006-2008 there was realized the project called "Electronic Media in Teaching" which was supported from the ESF money and the budget of the Czech Republic. The teachers orientate in the use of so called social networks in their teaching and learn the concepts: forum, blog, wiki, podcast, web quest and others.

Introduction

Teachers are more and more confronted with the e-learning teaching method. Therefore, media competences are becoming an important part of the teacher's qualification because the teacher is forced to use a computer for producing electronic teaching materials in a way different from a common user.

There are two projects at TUL dealing with professional educating teachers towards media competences. The aim is increasing expert skills, supporting the individualization and differentiation of the study and raising the effectiveness of the teaching process.

The project called "The Electronic Media in Teaching" (2006-2008), which was supported by the finances from the ESF and the state budget of the Czech Republic, was to educate teachers in computer skills so that they were able to use the MS Office program, graphical programs and some others from the obtainable author programs for the production of electronic teaching materials.

The project called "The Joint Production of Multimedia Teaching and Study Materials" is in progress at present (2009-2012). This project is co-financed by the European Fund for the Regional Development, the state budget of the Czech Republic and TUL. The partner's institution that promised to provide the electronic teaching know-how is the Technical University in Dresden. The objective of this project is also professional education of foreign language teachers, but this time the emphasis has shifted to the use of the potential of so called web2, which means social networks. In the first phase of this project the teachers had an opportunity to participate in six educational courses that were established to mediate possibilities of the social networks use in their teaching. In the second phase of the project the Czech teachers are preparing online materials for e-learning teaching in co-operation with their German colleagues. In the last, third, phase of the project these materials are tested in teaching (Vlčková, 2008)

1 Contents of the Contribution

The virtual learning environment (VLE) is a system that enables e-learning teaching (Wikipedia).
"A VLE will normally work over the Internet and provide a collection of tools such as those for assessment (particularly of types that can be marked automatically, such as multiple choice), communication, uploading of content, return of students' work, peer assessment, administration of student groups, collecting and organizing student grades, questionnaires, tracking tools, etc. New features in these systems include wikis, blogs, RSS and 3D virtual learning spaces. VLEs are often used in schools and other educational establishments in order to make the learning experience more interactive." (Wikipedia)

The VLE supports these teaching and learning activities:

- It facilitates publication of an online course
- It disposes teaching materials
- It enables teachers to assess and mark in the online environment
- It enables students to collect materials for given topics
- It connects parts of the courses or the whole courses
- It enables synchronous communication
- It gives an overview on work and achievements of individual students in the online environment
- It keeps a contact of students with teachers and vice versa
- It gives students an overview on current materials that the teacher has put in the online environment etc.

We differentiate the VLE according to:

- the time structure (synchronous versus asynchronous – Chat, E-mail)
- the function (communication or information)
- the use (in teaching, at conferences, at presentations)

The following social network tools are mainly used in foreign language teaching: forums, blogs, wiki, podcasts, web-quests, VoIP, videoconferences etc.

1.1 Forums

Under the concept of 'forum' we understand a communication means that controls the communication among an unlimited amount of users. The use of the forum in teaching can vary.

Students and teachers or students among themselves together:

- discuss contents
- exchange opinions
- think over a preparation of a common action
- discuss the accomplishment of objectives

1.2 Blogs

A blog (or Web log) is an online collection of personal findings, conclusions, and contacts which are ordered chronologically. The topical item is always at the top of the web page. At first, blogs were used as diaries that a user wanted to share with the public. In a short time their popularity increased very quickly, and nowadays they are used successfully in politics, culture, and economics. A lot of users have found out that blogs are a very cheap and advantageous possibility to publicize in the internet environment. The content of the blog is

edited and checked only by the blog author and is not under the control of experts, which has led to the origin of an informal and frequently very personal style.

1.3 Wikis

Wikis are visited on the web similarly as other web pages. The wiki itself consists of a lot of pages that often refer to each other. The user can create these pages without any knowledge of web pages designing. After its creation the wiki is available to other Internet users.

The wiki concept is based on two essential ideas:

- every visitor can change every wiki page
- the change of pages and the production of wiki pages is very simple (Richardson, 2006)

1.4 Podcasts

This is a combination of two technologies: the database of audio records which are publicized on the net and RSS channels. RSS enables its users to be informed about the current content of a relevant web page. The user simply subscribes for the page and downloads topical references. RSS sends automatically news from all pages that the user puts into their RSS reader right at the moment of their publication.

The assets of podcasts in foreign language teaching lie in the use of topical and authentic audio and video databases that the Internet offers. These texts are always of immediate use to advanced language users. The one who wants to learn a foreign language also outside the classroom can store topical news in their computer or MP3 player and use it as listening exercises every day. Beginners can use this possibility as well. On the Internet they find adapted interviews, news, read poetry, fairy tales, and stories. At the same time podcasts offer text transcripts of audio recordings.

A teacher can also use podcasts for their teaching preparation. With the help of audio and video texts and their transcripts the teacher can prepare tasks relevant to current topics. Here the teacher finds more examples for practicing listening comprehension than in the classical textbook.

Besides listening, this system can be used for the practice of speaking skills. A good example of language tasks using podcasts is essays or grammar exercises. Students who do not have enough opportunities for speaking in traditional classes have a possibility to communicate with their teacher online, they get feedback from them, they set their own pace and they listen to audio texts in their environment repeatedly. They can, at the same time, assess their own oral performance and they can, eventually, correct it before sending it to the teacher.

1.5 Web Quests

Web Quest is a kind of teaching that is based on research while the student draws essential information on the Internet sources (Dodge, 1995). Everything reminds of project work in traditional teaching.

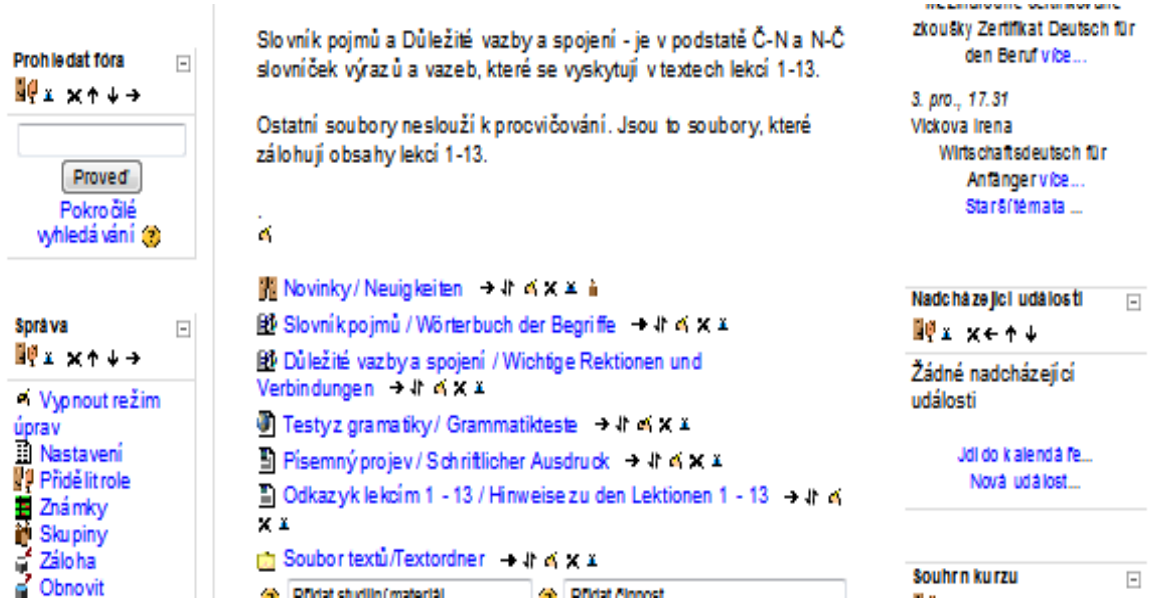
The important parts of Web Quest are:

- an introduction
- a task
- a procedure - this usually means setting sources and references
- assessment
- feedback / result

2 Examples of electronic study materials at the Department of Foreign Languages at the Technical University of Liberec (KCJ TUL)University of Liberec (KCJ TUL)

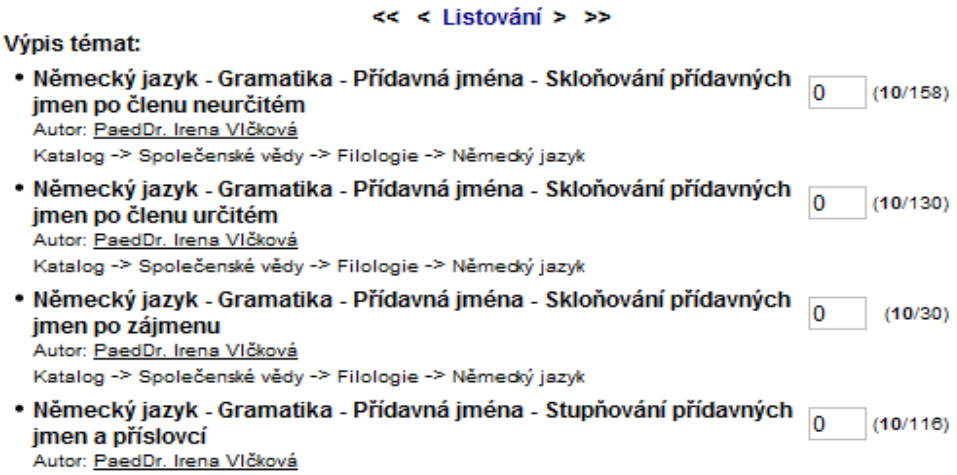
The selected examples are taken from the electronic course that is designed for the TUL students. This course prepares them for the international Goethe-Institute examinations in the area of Business German at levels B2 and C1 of the Common European Framework of Reference for Languages. Students can practice grammar, vocabulary and all four language skills (reading and listening comprehension, speaking and writing) in the electronic environment.

Some demonstrations from the course:



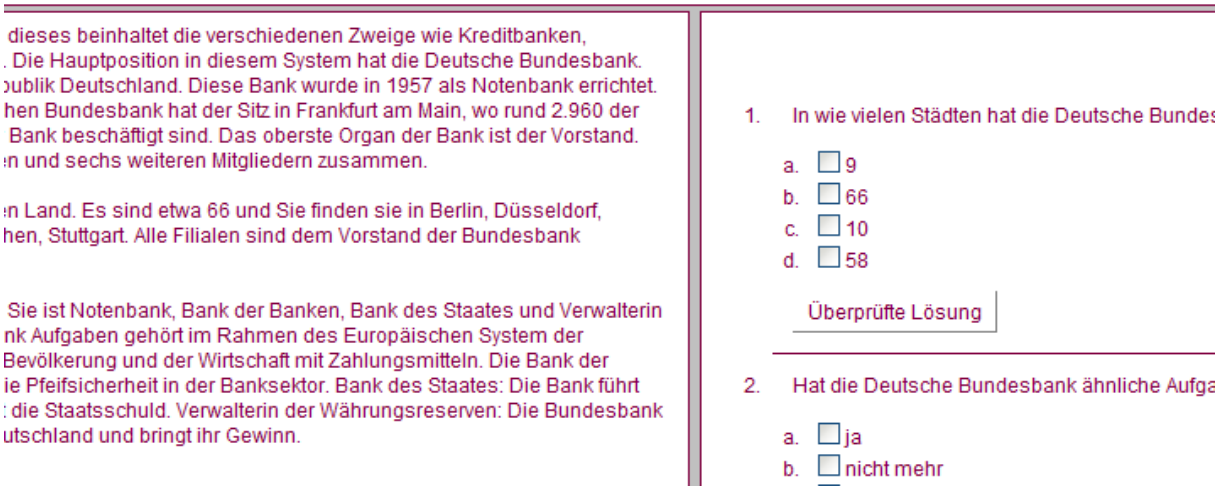
Source: http://turbo.cdv.tul.cz

Fig. 1 Busines German Online in the VLE (Moodle), TU of Liberec



Source: http://turbo.cdv.tul.cz

Fig. 2 Grammatical exercises

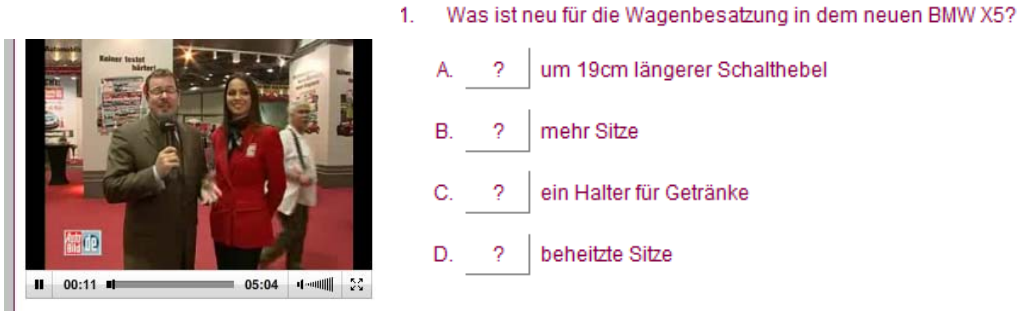


Source: http://turbo.cdv.tul.cz

Fig. 3 Reading

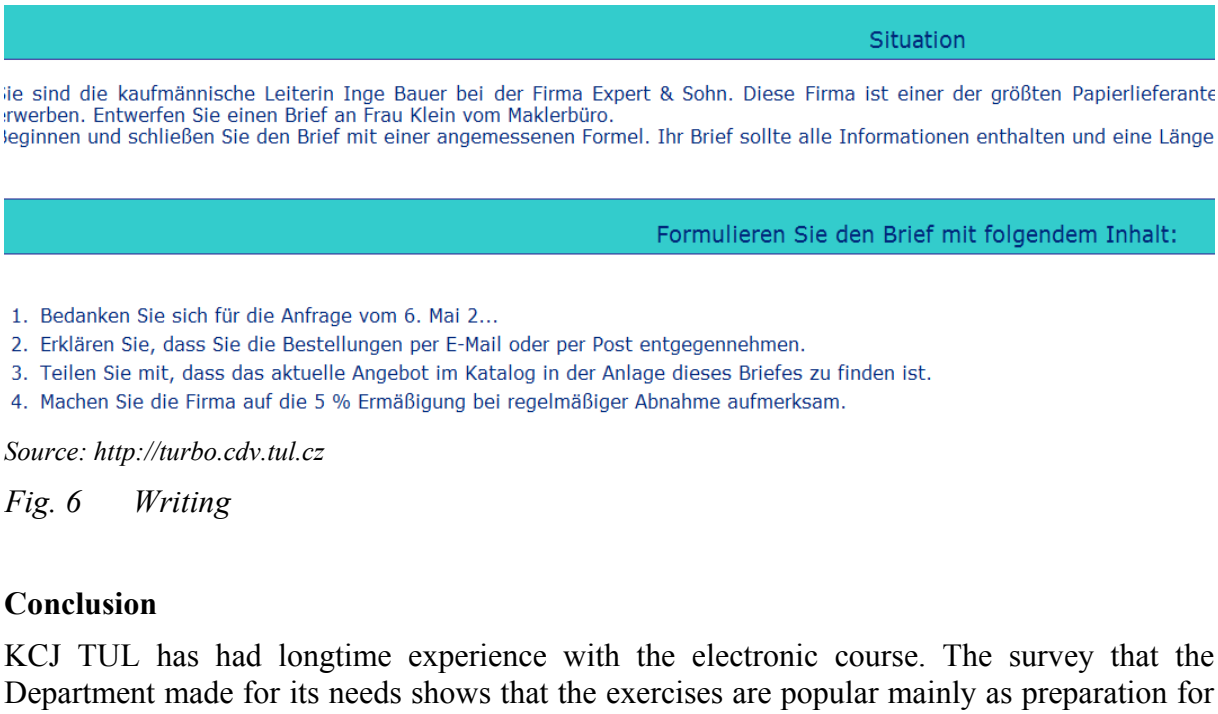
Source: http://turbo.cdv.tul.cz

Fig. 4 Listening



Source: http://turbo.cdv.tul.cz

Fig. 5 Listening with Video



Source: http://turbo.cdv.tul.cz

Fig. 6 Writing

Conclusion

KCJ TUL has had longtime experience with the electronic course. The survey that the Department made for its needs shows that the exercises are popular mainly as preparation for international exams, but they serve in everyday practice in teaching or preparation for credit tests. The teachers use these exercises as a very good help that tests their students and they like referring to these pages as to additional teaching material. Electronic materials have become an indispensable supplement of traditional conventional teaching.

Literature

[1] DODGE, B. *Some thought about WebQuests*, Educational Technology Department, San Diego State University, 1995, Dostupný z WWW: <http://edweb.sdsu.edu/courses/edtec596/about_webQuests.html>

[2] RICHARDSON, WILL. Blogs, Wikis, Podcasts.Thousand Oaks: Sage Publications, 2006.

[3] Testovací server [online]. Dostupný z WWW: <http://turbo.cdv.tul.cz/course/view.php?id=7>

[4] The free Encyklopedia. Dostupný z WWW: <http://www.wikipedia.org>

[5] VLČKOVÁ, I. Weiterbilding für die Hochschullehrer: *In ACC JOURNAL. Vědecká pojednání/Wissenschaftliche Abhandlungen/Prace naukowe, XIV/2008*, Liberec: Technická univerzita v Liberci, 2008

PaedDr. Irena Vlčková, Ph.D.

HOSPODÁŘSKÁ NĚMČINA ONLINE

Příspěvek se zabývá úlohou e-learningu ve výuce cizích jazyků. K využívání internetu pro online výuku je třeba, aby pedagogové měli určité mediální kompetence, které se v současné době stávají nedílnou a důležitou součástí kvalifikace pedagoga. K produkci elektronických výukových materiálů je učitel nucen využívat počítače jinak, než jen jako běžný uživatel. Další profesní vzdělávání k mediálním kompetencím bylo učitelům cizích jazyků nabídnuto v rámci dvou projektů financovaných z evropských zdrojů. V letech 2006-2008 byl realizován projekt „Elektronická média ve výuce“, který byl podpořen z prostředků ESF a státního rozpočtu České republiky. Učitelé se orientují ve využívání tzv. sociálních sítích pro svou výuku a orientují se v pojmech: fórum, blog, wiki, podcasty, webquesty a další.

EKONOMICZNY JĘZYK NIEMIECKI ON-LINE

Artykuł poświęcony jest roli e-learningu w nauczaniu języków obcych. W celu wykorzystywania internetu do nauczania on-line konieczne jest, aby dydaktycy posiadali określone kompetencje medialne, które w obecnych czasach stają się nieodłącznym i ważnym elementem kwalifikacji nauczyciela. Aby opracować elektroniczne materiały dydaktyczne, nauczyciel zmuszony jest do innego wykorzystywania komputera aniżeli zwykły użytkownik. W ramach dwóch projektów dofinansowanych ze środków unijnych dla nauczycieli języków obcych stworzono ofertę dotyczącą doskonalenia zawodowego w zakresie kompetencji medialnych. W latach 2006-2008 realizowano projekt pn. "Media elektroniczne w nauczaniu", który był dofinansowany ze środków EFS i budżetu państwa Republiki Czeskiej. Nauczyciele posiadają umiejętności dotyczące korzystania z tzw. sieci społecznych do celów nauczania, jak również znają pojęcia: forum, blog, wiki, podkasty, WebQuesty i inne.

WIRTSCHAFTSDEUTSCH ONLINE

Der Beitrag befasst sich mit der Aufgabe des E-Learnings im Fremdsprachenunterricht. Für die Nützung des Internets im Online-Unterricht ist es notwendig, dass die Pädagogen über eine gewisse Kompetenz im Umgang mit den Medien verfügen. Eine solche Kompetenz erweist sich heutzutage als unteilbarer Bestandteil der Qualifikation des Pädagogen. Zur Erstellung elektronischer Lehrmaterialien ist der Lehrer genötigt, den Computer auf andere Weise zu einzusetzen denn als gewöhnlicher Benutzer. Eine professionelle Weiterbildung zur medialen Kompetenz wurde Fremdsprachenlehrern im Rahmen zweier aus europäischen Quellen finanzierten Projekten angeboten. In den Jahren 2006 – 2008 wurde das Projekt „Elektronische Medien im Unterricht“ durchgeführt, das aus Mitteln des Europäischen Sozialfonds und des Staatsbudgets der Tschechischen Republik gefördert wurde. Die Lehrer werden dabei in der Einbindung so genannter sozialer Netzwerke in ihren Unterricht sowie im Hinblick auf Begriffe wie Forum, Blog, Wiki, Padcast, Webquest usw. geschult.

ROBERT GLIŃSKI JAKO PORTRECISTA PROSTYTUCJI NIELETNICH. „ŚWINKI" NA GRANICY

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Streszczenie

Prostytucja na ekranach kin gości od długiego już czasu. Polska kinematografia nie podejmuje jednak tematu prostytucji homoseksualnej. W swoim opracowaniu autorka stara się zaprezentować jeden ze najnowszych punktów widzenia tego procederu z udziałem nieletnich dzięki oku kamery, z problematyką pogranicza w tle. Film *Świnki* to kunsztownie zrealizowana historia o bolesnym aspekcie życia i dorastania młodzieży we współczesnym świecie – zdominowanym przez konsumpcję, brak ograniczeń moralnych, wolnym od ograniczeń (granic). Przedstawiona tu analiza ma na celu przybliżenie problematyki dziecięcej prostytucji uprawianej na obszarach przygranicznych i skonfrontowanie jej z obrazem filmowym wyreżyserowanym przez jednego z najbardziej wybitnych twórców kina polskiego. Niniejszy tekst pozwoli poznać motywy podejmowania płatnych usług seksualnych, sposoby prewencji oraz walki z takim postępowaniem, być może uzmysłowi skalę nierządu z udziałem dzieci.

Wstęp

Przypadki prostytucji dziecięcej od dawna były opisywane, a przede wszystkim praktykowane w krajach Wschodu, Afryki oraz Ameryki Południowej. Już czteroletnie dziewczynki oddawano do domów publicznych, by tam pobierały naukę od starszej prostytutki o odpowiednim statusie. Nierząd w wydaniu aktywnym następował, gdy dziewczynki osiągały wiek 15 lat. Mniej więcej w takim wieku są „świnki" z otoczenia Tomka.

Warstwa narracyjna filmu opisuje zjawisko prostytucji nieletnich chłopców, która ma miejsce na terenie pogranicza polsko-niemieckiego. Warstwa znaczeniowa prezentuje zanik granic terytorialnych, ale także upadek moralności, zmianę człowieka. *Świnki* przedstawiają zatem problemy społeczne, które dotknęły ludzi po transformacji ustrojowej, po 1989 roku. Wcześniej prostytuowanie się małoletnich nie stanowiło obszaru zainteresowania dla badaczy kultury. Za pomocą metod badań strukturalno-semiotycznych, socjologicznych oraz antropologicznych będzie można prześledzić na materiale filmowym odrzucenie płachty tabuizacji z tego wstrząsającego procederu, wskazując na liczne czynniki – niekiedy zupełnie niepozorne – skłaniające dzieci do uczestniczenia w handlu obejmującym sferę seksualną.

Pierwszy krok ku nierządowi

Pogranicze polsko-niemieckie, niewielkie miasteczko. Jeden z jego mieszkańców, Tomek, to zwyczajny nastolatek. Żyje w blokowisku, chodzi do szkoły, doświadcza pierwszej miłości. W jego rodzinie się nie przelewa. Tomek nie jest jednak skupiony na dobrach materialnych.

Ma pasję, chce rozwijać wszechstronnie zamiłowanie do astronomii. Można rzec, że dobrze rokuje na przyszłość – chcąc wybić się z poszarzałej i praktycznie pozbawionej perspektyw teraźniejszości. Ale nadchodzi miłość, chociaż młodzieńczą fascynację trudno określać tak patetycznie. Dla filmowego bohatera rozpoczyna się czas wyrzeczeń, czas upodlenia, rezygnacji z ideałów. Tomek zostaje prostytutką, „świnką".

Film *Świnki* (2009) w reżyserii Roberta Glińskiego opowiada o brutalnych realiach wolnorynkowej Polski, w której marzenia o materialnym posiadaniu czegokolwiek pękają jak bańka mydlana. Jedynie nieuczciwość, brudny handel, przestępczy światek, sprzedaż własnego ciała może zagwarantować byt. Pasja, marzenia, samorozwój, praca nie; autodestrukcja, demoralizacja, szybki zarobek – tak. Taką drogę otwiera prostytucja. Świadczenie płatnych usług seksualnych jest nieakceptowalne. Początkowo budzi zdumienie. Działaniami, którym poddają się młodzi ludzie, traktowane są przez nich jako rodzaj przygody, jako chwilowe rozwiązanie. Szybko jednak przekonują się do nowej możliwości zarabiania prawdziwych pieniędzy. O tym, jaki stosunek do „płatnej miłości" mają nastolatkowie, świadczy przytoczony poniżej opis przypadku Mariusza P. (lat 15): *Seksu nauczyli go kumple z internatu (...) Śpi na sali z pięcioma innymi, którzy często robią to między sobą. Dla niego jest to dziwne, ale nie wzbrania się i robi to z nimi. Teraz zarabia, pozwalając, by robili to z nim różni faceci. Ma taki swój sposób, jeździ pociągami, i tam się „puszcza"*[1].

Młodzież, „świnki", przekraczając granice polsko-niemiecką, przekracza tym samym granicę moralną (wybiera zło), filozoficzną (decyzja o sprzedawaniu ciała zapada na skutek niekorzystnych warunków społecznych, ekonomicznych) i psychologiczną (skłania się ku postępowaniu sprzecznym z systemem wartości). Nastolatkowie gubią bezpowrotnie okres dzieciństwa, forsują pewną barierę, kpią z ograniczeń. Wkraczają na ściśle wytyczony i zamknięty obszar. Czy z możliwością powrotu do tego, co zostawili...?

Prostytucja w świetle badań

Usługi seksualne świadczone przez osoby małoletnie wobec dorosłych za pieniądze lub korzyści materialne to nie problem z marginesu społecznego. Najczęściej bezpośrednio dotyczy wychowanków placówek opiekuńczych oraz młodocianych cudzoziemców pozostawionych samych sobie. Czyn ten nie jest karany, lecz traktowany jako objaw demoralizacji. Karze podlega wyłącznie nakłanianie bądź czerpanie zysków z prostytucji osób uczestniczących w procederze (w polskim prawie to kara pozbawienia wolności od roku do 10 lat, bez względu na wiek nakłanianych osób). *Dane Komendy Głównej Policji za rok 1996 wskazują wzrost czynów lubieżnych względem osób poniżej 15. roku życia, z 1 492 w roku 1994, 1 477 w roku 1995 do 1 737 w roku 1996*[2]. Inne źródło podaje: *Policja odnotowuje, że do procederu przystępują coraz młodsi. Jedna trzecia spośród 46 przypadków ujawnionych w województwie dolnośląskim to dzieci, które nie ukończyły 13 lat*[3]. Zjawisko to wymaga monitorowania obejmującego wczesną identyfikację problemu, procederów służących zapobieganiu oraz fachowej pomocy dla jego ofiar. Raport w tym zakresie został sporządzony przez Fundację Helsińską, a jego treść można odnaleźć na stronach internetowych tejże. Raport zwraca uwagę, że problem prostytucji dziecięcej dotyka małoletnich cudzoziemców. *Zdaniem Fundacji brak granic wewnętrznych w UE i stosowanie*

[1] J. Kurzępa: *Młodzież pogranicza – „świnki", czyli o prostytucji nieletnich.* Kraków, 2005, s. 147.

[2] Ibidem, s. 187.

[3] B. Pietkiewicz: *Dziecięca prostytucja. Młodszy przedmiot pożądania.* „Polityka", 2002, nr 40 (2370) z dn. 05-10-2002 r., s. 26.

uproszczonej procedury kontroli na przejściach granicznych sprzyja sprawcom handlu. Fundacja podkreśla także, że większość małoletnich cudzoziemców bez opieki, którzy trafiają do placówek interwencyjnych, ucieka z nich po krótkim czasie, na ogół z pomocą stręczycieli[4]. Filmowe „świnki" uczestniczą w tranzycie, który organizuje niejaki Borys. Jego działanie przypomina – zapewne zabrzmi to zaskakująco – działalność biura podróży. Oferty typu *last minute* okazują się najlepsze. Chłopcy i ich klienci dowiadują się o miejscach spotkań niemal chwilę przed umówionym terminem. Ceny są konkurencyjne, jakość usług najlepsza, a to skutkuje pełnym zadowoleniem klienteli (eleganckiej

i niewiarygodnie bogatej). Taki to przygraniczno-sutenerski kapitalizm... Przykład z filmu doskonale może sprawdzać się w rzeczywistości. Działalność tego typu niemal zawsze zakłada istnienie osoby stojącej na czele. Czas to pieniądz, więc zarówno klientom, jak i usługodawcom, zależy na sprawnie przeprowadzonych transakcjach, o których informują organy ścigania oraz media.

Kolejnym dokumentem, który porusza kwestię tego niechlubnego procederu nieletnich, przedstawionego w produkcji filmowej, w jakimś stopniu o charakterze dokumentalnym, jest materiał zgromadzony przez UNICEF. Według badań przeprowadzonych na niemiecko-czeskim pograniczu (dane z 2003 r.), liczba dzieci oferująca usługi seksualne niemieckim turystom niepokojąco rośnie[5]. W przeważającej części są to dzieci z rodzin biednych i wielodzietnych, głównie z obszaru Słowacji i Moraw. Co godne uwagi – i zdumiewające – około 50 procent młodzieży poddanej badaniu postrzegania zjawiska prostytucji, nie uważa jej za przejaw braku moralności, postępowanie wstydliwe, a tym bardziej za problem. Wprost przeciwnie. Coraz powszechniejsze staje się postrzeganie nierządu jako alternatywnego sposobu zarabiania pieniędzy. Powoli zaczyna brakować zahamowań, a to budzi przerażenie. Natomiast według zapisów pochodzących z dokumentacji ONZ, prostytucja dziecięca to zaangażowanie dziecka w oferowanie seksualnych usług świadczonych w zamian za korzyści materialne, co w prawie polskim uważane jest za przejaw demoralizacji. Jednym z poważniejszych problemów okazuje się prostytucja wyjazdowa, której trzon stanowią chłopcy mieszkający w województwach przygranicznych.

Oblicza „płatnej miłości"

Prostytucja jest zjawiskiem istniejącym w różnych kulturach. Jest to trwała instytucja społeczna występująca we wszystkich warstwach społecznych[6]. Granice i zasięg prostytucji są niemożliwe do precyzyjnego określenia. Według lokalnie przeprowadzanych badań, w rejonie pogranicza – co jest istotnym czynnikiem wpływającym na koncentrację prostytucji na danym obszarze – odpłatne usługi seksualne świadczy około tysiąca kobiet wielu narodowości (gł. Polki, Rosjanki, Ukrainki). Większość prostytuujących się kobieto to grupa w wieku 35-39 i 40-44 lat. Wśród mężczyzn są to osoby w wieku ok. 25 lat[7]. Prostytucja jawi się jako pewien model życia zaczerpnięty z cywilizacji Zachodu, jako sposób na szybkie osiągnięcie środków do życia, a więc forma zarobkowania. W powszechnej opinii ten proceder rozwija się głównie w miejskich aglomeracjach, w miastach o statusie największy pod względem gospodarczym. Niestety przypadki uprawiania nierządu w mniejszych

[4] *Prostytucja dziecięca to nie marginalny problem* [17.08.2011].
Dostęp z WWW: http://kobieta.wp.pl/kat,62594,page,2,title,Prostytucja-dziecieca-to-nie-marginalny problem,wid,11470106,wiadomosc.html

[5] *UNICEF: Rośnie dziecięca prostytucja na niemiecko-czeskim pograniczu* [17.08.2011]. Dostęp z WWW: http://wyborcza.pl/1,75248,1750064.html [dostęp: 17.08.2011 r.].

[6] K. Imieliński: *Manowce seksu – prostytucja.* Łódź, 1990, s. 9.

[7] B. Karwat, A. Skrzypiec: *Prostytucja jako zjawisko społeczne i problem niedostosowania społecznego. Raport o środowisku osób pracujących w seksbiznesie na przykładzie miasta Szczecina.* Szczecin, 2001, s. 3.

ośrodkach na ogół bywają przemilczane, nie są traktowane jako problem społeczny w skali kraju. Jednak taki sposób deprawacji obejmuje swoim zasięgiem zamieszkałą tam ludność. Pogranicze to podłoże sprzyjające rozwojowi prostytucji, odznaczające się kłopotami z jej zwalczaniem.

Choć dominującym rodzajem prostytucji jest płatna miłość o charakterze heteroseksualnym, coraz częściej mamy do czynienia – tak jak w filmie Glińskiego – z sytuacjami utrzymywania kontaktów seksualnych z przedstawicielami tej samej płci. *Badania wykazały, że prostytucję homoseksualną uprawiają przede wszystkim mężczyźni, a w minimalnym stopniu kobiety. Wśród mężczyzn uprawiających prostytucję przeważają młodzi w wieku 17-20 lat. Większość z nich pochodziła ze środowiska robotniczego, chłopskiego, a tylko niewielka grupa z rodzin inteligenckich*[8]. W przypadku regionów pogranicza klientela to najczęściej mężczyźni niemieccy, panowie wieku 30-40 lat, o sporych dochodach. *Prostytucja męska w Polsce nie jest bardzo rozpowszechniona, niewiele jest agencji towarzyskich, które zatrudniają mężczyzn, toteż ta kategoria prostytucji związana jest najczęściej z marginesem życia społecznego*[9]. Motywami podejmowania takich działań są w przypadku prostytuujących się dzieci, chłopców i mężczyzn pobudki ekonomiczne. Na ogół dziecięca prostytucja to proces dobrowolny, dlatego przypadki takie bardzo rzadko są ujawniane. To z kolei wpływa na poczucie bezkarności osób pośredniczących w rozwijaniu tej gałęzi prostytucji. Wraz z szerzeniem się nierządu i brakiem stosowania zabezpieczeń, co dotyczy seksu męsko-męskiego, wzrasta ryzyko zarażenia wirusem HIV i chorobami wenerycznymi. Samym klientom stosunek seksualny z udziałem dziecka daje poczucie kontroli, poczucie władzy nad samym sobą i nad małoletnim. Młody człowiek – chłopiec – nie wykpi, nie urazi, nie będzie żądał obietnic, nie powije potomstwa.

Prostytucja jako przejaw niedostosowania społecznego – przyczyny i skutki uprawiania nierządu

Prostytucja jest uwarunkowana splotem czynników rozmaitej natury. Wraz z upływem czasu koncepcje dotyczące pobudek podejmowania nierządu zmieniały się. Początkowo przyczyn doszukiwano się w teoriach biologicznych, m.in. Hevelecka, Ellisa, Hirschfelda, Lombrosa, łączących seksualność kobiet – nadmierną oziębłość bądź zmysłowość – ze skłonnościami do oddawania się za pieniądze. Engels i Bebels łączyli prostytucję z brakiem pieniędzy, bezrobociem i nędzą[10]. Współcześnie przeważa pogląd patologicznego środowiska wychowawczego[11]. Antoniszyn i Marek wskazują na stereotypowe postrzeganie zjawiska, szukając determinant w nieszczęśliwym dzieciństwie, przytaczając chociażby przykłady dzieci z tzw. „dobrych domów", które uczestniczą w procederze nierządu[12]. Materiał filmowy Glińskiego w pewien sposób potwierdza zdanie obu teoretyków. Świat głównego bohatera *Świnek* do pewnego momentu przypomina realia jego rówieśników. Większość rodzin z tego obszaru żyje skromnie, a pieniędzy od miesiąca do miesiąca ledwie wystarcza. Dzieci z tych rodzin wydają się być pogodzone z taką jakością życia, a przynajmniej zdecydowana ich większość. Ale zły los nie oszczędza szesnastoletniego chłopaka – pozwala mu spotkać Martę, dziewczynę równie egoistyczną i bezwzględną, jak próżną, mało wartościową, interesowną. Ona także jest dzieckiem z biednego domu, lecz nie chce przyjąć życia jakim ono jest. Pragnie modnych ubrań, kosmetyków, podwyższonego standardu codzienności.

[8] K. Imieliński: *Seksuologia społeczna.* Warszawa, 1974.
[9] B. Karwat, A. Skrzypiec, op. cit., s. 9.
[10] B. Karwat, A. Skrzypiec, op. cit., s. 12.
[11] Ibidem, s. 13-14.
[12] Ibidem.

Satysfakcję przynosi jej patologiczny konsumpcjonizm. Podobnie jak pozostałe „świnki", zadowolenie dostarcza wyłącznie to, co namacalne. W imię tych dóbr także i Marta jest w stanie poświęcić (albo użyczyć) własne ciało i ciało Tomka. Ten z kolei, pragnąc dać Marcie wszystko, o czym marzy, co jest jej potrzebne do szczęśliwego z nim bycia, sprzedaje swoją dumę, czystość, niewinność i obrzydliwie obsługuje niemieckich pedofilów.

Niektórzy krytycy nazywają produkcję Glińskiego przesadzonym moralitetem. Przypomnijmy jakie znamiona nosi tenże. Wśród jego cechy wymienia się zatem takie przymioty: dydaktyzm, alegorię, uniwersalność – zwłaszcza prawideł kierujących ludzkim życiem, antropocentryzm. W tym wypadku ukazywanie wewnętrznego rozdarcia Tomka, okrucieństwa prostytucji, pewnej „uniwersalności" problematyki nierządu, po części klasyfikują produkcję Roberta Glińskiego do merytorycznego obszaru moralitetu. Jednakże możemy odnaleźć kilka słabych stron dydaktycznego przesłania tego twórcy. Twórca, zamiast obalać stereotypy, raczej je potwierdza. Antagonistami są Niemcy. Pozytywnymi lub negatywnymi bohaterami, posiadającymi szansę na przemianę, są tylko Polacy. Ojciec Tomka wyraża swoją dezaprobatę wobec niemieckich sąsiadów. Jest nieprzyjemny w rozmowie z zaniepokojonym niemieckim nauczycielem, który pragnie pomóc Tomkowi. Nie zgadza się, by nauczyciel wszedł do mieszkania. Wmawia „gościowi", że polska rodzina jest traktowana przez Niemców jak złodzieje. Ojcu nie przeszkadza natomiast, że syn wplątał się w kłopoty. Przynosi do domu pieniądze, cała reszta wydaje się mniej istotna. Uprzedzając się do człowieka (bo przecież bez znaczenia jest jego narodowość), rodzic ignoruje rzeczywisty problem. Miasto, w którym toczy się akcja filmu, podzielone jest na część polską i niemiecką. Pierwsza z nich to synonim biedy, depresji, nijakości. Druga oznacza luksus, podwyższony standard życia, jego pełnię. Zdjęcia nakręcono w Gubinie (niemiecka część: Guben). *Z tego miasta pochodzi też autorka scenariusza, której obserwacje oraz znajomość tamtejszych realiów sprowokowały do napisania obecnego skryptu, a ekipę do zrealizowania obrazu w niemal wprost "naturalnym" środowisku*[13]. Podejmowane pod wpływem grupy rówieśniczej działania, pochopne decyzje, prowadzą młodzież do wkroczenia w role ofiar. Wraz z podziałami administracyjnymi zanikają podziały etyczne. Stosunek seksualny staje się przedmiotowy – prowadzi wszak do nabycia przedmiotów albo usług (korzyści) pożądanych. Rozwiązłość seksualna dzieci w wieku poniżej 15. roku życia jest zatrważająca. Funkcjonowanie w świecie zostaje przewartościowane. Dzieci pełnią role rodziców: pomagają finansowo, przejmują na siebie emocjonalne problemy dorosłych, ponoszą rozmaite konsekwencje obranych przez siebie dróg. Dorośli są wyraźnie zagubieni: nie zdają sobie sprawy z sytuacji, w jakiej znajdują się ich dzieci (albo dla wygody i własnego spokoju) sprawiają wrażenie nieświadomych, krzywdzą zamiast socjalizować, nie dostarczają wzorców, popierają „kombinowanie".

Prostytucja jest przykładem niedostosowania społecznego. Chociaż młodzi ludzie nie zawsze realizują schemat „kariery" prostytuujących się homoseksualnie (tzw. kariery szaletu), zachodzi ryzyko, że w miarę trwania tego procederu, mogą osiągnąć poszczególne fazy upodlenia. Dla osób prostytuujących się z własnej woli (także dla głównego bohatera filmu i jego rówieśników), wartością jest wyłącznie pieniądz. Moralność odchodzi w zapomnienie, mimo że proceder nierządu staje się piętnem, zwłaszcza dla społeczeństwa z pogranicza. Główny bohater *Świnek* spostrzega wątpliwą z punktu widzenia zdroworozsądkowego atrakcyjność środowiska koleżeńskiego, które umożliwia mu zaspokojenie jak największej ilości potrzeb (także skosztowanie rozmaitych używek), a to prowadzi do uzależnienia od grupy. W tym wypadku liberalizm rówieśniczy i wzajemne nakłanianie do uprawiania

[13] A. Cichmiński, *Robert Gliński o prostytuujących się nastolatkach* [18.08.2011]. Dostęp z WWW: http://www.stopklatka.pl/wydarzenia/wydarzenie.asp?wi=32173. Autorką scenariusza jest Joanna Didik, jedna ze studentek Glińskiego.

nierządu skutkują postrzeganiem prostytucji jako mało wymagającego sposobu na posiadanie pieniędzy i materialnych dóbr. Chłopak zostaje „wchłonięty" do grupy poszukiwaczy przygód, organizatorów „draki", młodzieży ciekawej świata, lecz w wymiarze negatywnym. Rodzi się w nim agresja, zawziętość. Gaśnie samoakceptacja – głównie na skutek dylematu odnoszącego się do orientacji seksualnej (heteroseksualny, bo zakochany w dziewczynie i pożądający jej; homoseksualny, bo uprawia seks z mężczyznami).

Dzięki realistycznym zabiegom Glińskiego wkraczamy w mroczny światek, którym rządzą przemyt, nielegalny handel i prostytucja. Oglądamy psychologiczną sylwetkę młodego chłopaka z rejonu przygranicznego, który to pragnie zaspokoić „wyższe potrzeby" swojej ukochanej. Tomek pochodzi z normalnej[14] rodziny. Brak mu bliskości, rodzinnego ciepła, których nie jest w stanie zapewnić ani ojciec, żyjący w świecie telewizyjnym, ani matka, która pracuje nieustannie. Więzi emocjonalne pomiędzy członkami rodziny wyraźnie osłabły, cytując Jacka Kurzępę można nazwać je formalnymi[15]. Więzi łączące Tomka i jego ojca cechuje swoista obojętność, neutralny stosunek ojca do syna i syna do ojca. Jest jednak troska, opieka (ta ostatnia w postaci nieco zniekształconej), serdeczność. To dlatego Tomek stara się pomóc materialnie rodzinie. Oprócz obowiązku szkolnego, przejmuje po części zobowiązanie ekonomiczne – pracuje dorywczo. Szybko dorasta, adaptuje się do zaistniałych warunków, bowiem w takich właśnie realiach to jedyna możliwość, by przeżyć. Szarość dnia nie jest jednak zupełna – chłopak ma pasję, której przeznacza resztki wolnego czasu. W miarę upływu czasu pasja astronomiczna przeradza się w „pasję" przebywania w „Zodiaku", który jednak nie ma nic wspólnego z gwiazdami. To miejscowa dyskoteka, ulubione chyba miejsce Marty.

Reżyser filmu *Świnki* dotknął tematu istotnego, szokującego. Prostytucja nieletnich jest procesem demoralizacji młodego człowieka. Wybory, jakich dokonują nastolatkowie wraz z poszczególnymi etapami wrastania w proceder sponsoringu, zupełnie nie pasują do wizerunku pełnych marzeń dzieci. Dziecięca naiwność ulatuje. Jej miejsce zastępuje cynizm, bezwzględność, nastawienie na zysk. Ale nie nagle W życiu tak szybkie przeobrażenie poczwarki nie następuje. Osobowość, która dąży do degradacji, nie topnieje stopniowo i nie jest od razu jednoznacznie zła. Różnorodność negatywnych doświadczeń wraz z brakiem zainteresowania losem prostytuujących się nieletnich niesie zgubne dla ich podmiotowości skutki. Słuszne więc wydaje się stwierdzenie, że pierwszym krokiem przeciwdziałania jest brak bierności i cichego przyzwolenia, płynących ze strony środowiska dorastania

Jak zapobiegać?

Najbardziej lukratywnym rejonem gałęzi seks-biznesu jest Azja Południowo-Wschodnia. Udział nieletnich stanowi coraz wyższy jej odsetek[16]. *Przemysł dziecięcych usług seksualnych bardzo dynamicznie rozwija się głównie przy samych granicach państwowych – zwłaszcza tych, które oddzielają państwa o nierównym statusie ekonomicznym (np. granica amerykańsko-meksykańska czy polsko-niemiecka). Motywem do przekraczania granicy przez dzieci i młodzież jest chęć znalezienia „pracy", a pomagają im w tym zorganizowane grupy*

[14] Przymiotnik „normalna" ma tu znaczenie: pozbawionej relacji patologicznych, bez dysfunkcji, demoralizacji.

[15] J. Kurzępa, op. cit., s. 129. Autor określa je jako takie, w których rodzic przejawia zainteresowanie wobec dziecka, jednak przez pryzmat pewnej konieczności, np. „Jesteś moim dzieckiem i mieszkasz ze mną…" lub „Dopóki nie skończysz 18 lat, jesteś pod moją opieką…". To przykład więzi niedoskonałej, niepożądanej.

[16] Autorka ma tu na myśli wykorzystywanie seksualne dzieci w celach komercyjnych,a więc prostytucję, pornografię dziecięcą, handel dziećmi w celach seksualnych. Choć porównanie danych z lat 90. ubiegłego wieku z danymi z wczesnych lat XXI wieku wskazują tendencję spadkową podejmowania przez dzieci pracy, która w jakikolwiek sposób zagraża ich zdrowiu lub życiu – według informacji Międzynarodowej Organizacji Pracy to liczba prawie 120 mln – wciąż odnotowuje się rażące przypadki krzywdzenia nieletnich na tle seksualnym.

przemytników[17]. Innymi czynnikami umacniającymi ten problem społeczny są: kryzys instytucji rodziny, czynniki kulturowe (mężczyźni jako aktywne seksualnie jednostki, dla których korzystanie z usług prostytutek jest koniecznością) oraz oddziaływanie mediów (kreowanie kolorowego świata, kuszenie łatwością zarabiania pieniędzy, eksponowanie seksualności młodzieży). Przyczyny prostytuowania się nieletnich mają więc złożoną naturę. Badania prowadzone przez Lubuską Akademię Nauk skłaniają do sformułowania wniosku, że zjawisko bycia „świnką" nabrało niepokojącego charakteru, bowiem początkowe traktowanie tych działań jako „pracy dorywczej" przekształca się w sposób myślenia o przyszłości, stając się sposobem na życie. Celowe wydaje się więc podjęcie działań profilaktycznych, zarówno ze strony władz centralnych czy organizacji pozarządowych, jak i (albo przede wszystkim) ze strony samorządów lokalnych. Program ochrony i pomocy wobec nieletnich prostytutek powinien zakładać zapewnienie schronienia dla dzieci wykorzystywanych seksualnie, system poradnictwa, zmodyfikowanie (zaostrzenie) przepisów prawa zapobiegając tym samym uprawianiu nierządu przez dzieci, sformułowanie programów chroniących potencjalne ofiary lub skrzywdzone już ofiary prostytucji.

Zakończenie

Nierząd na obszarach przygranicznych zbiera swoje żniwa. Proceder sprzedawania ciała przez dzieci wymaga należytej uwagi, niesienia pomocy, a przede wszystkim przeciwdziałania. Podjęcie problematyki związanej z prostytucją nieletnich na gruncie kinematografii jest zadaniem trudnym, a nawet drastycznym. Robert Gliński sięga po temat ze sfery społecznego tabu, czyniąc z przerażającej historii pozbawioną patosu opowieść, z doskonałą obsadą i dokumentalną manierą, kierując spojrzenia widzów na ten palący problem. W zrealizowanym przez siebie dziele Gliński zwraca uwagę, że prostytucja istnieje w najgorszym z możliwych jej wydań i wciąż będzie jednym ze sposobów zarobkowania. Trwogę budzi rzeczywisty, ekspansywnie postępujący proces demoralizacji, dotykający coraz młodsze dzieci, które nie odnajdują w swoim postępowaniu niczego złego. W świecie przygranicznej seksturystyki pojęcia dobra i zła przestają być antonimami. Uprzedzenia i stereotypy, bardzo silna niechęć międzynarodowa oraz zawiść powodują lekceważenie realnego problemu młodzieży. Fabuła polsko-niemieckiego dramatu obyczajowego obnaża smutną i uderzającą prawdę dziecięcego cierpienia.

[17] M. Przybysz-Zaremba: *Prostytucja nieletnich – czy to problem społeczny.* „Niebieska Linia", 2007, nr 5, s. 32.

Literatura

[1] CICHMIŃSKI A.: *Robert Gliński o prostytuujących się nastolatkach* [18.08.2011]. Dostęp z WWW: http://www.stopklatka.pl/wydarzenia/wydarzenie.asp?wi=32173.

[2] IMIELIŃSKI K.: *Manowce seksu – prostytucja*. Łódź,1990.

[3] IMIELIŃSKI K.: *Seksuologia społeczna*. Warszawa, 1974.

[4] KARWAT B., SKRZYPIEC A.: *Prostytucja jako zjawisko społeczne i problem niedostosowania społecznego. Raport o środowisku osób pracujących w seksbiznesie na przykładzie miasta Szczecina*. Szczecin, 2001.

[5] KURZĘPA J.: *Młodzież pogranicza – „świnki", czyli o prostytucji nieletnich*. Kraków, 2005.

[6] PIETKIEWICZ B.: *Dziecięca prostytucja. Młodszy przedmiot pożądania*. „Polityka", 2002, nr 40 (2370) z dn. 05-10-2002 r.

[7] Prostytucja dziecięca to nie marginalny problem, [17.08.2011]. Dostęp z WWW: http://kobieta.wp.pl/kat,62594,page,2,title,Prostytucja-dziecieca-to-nie-marginalny problem,wid,11470106,wiadomosc.html.

[8] PRZYBYSZ-ZAREMBA M.: *Prostytucja nieletnich – czy to problem społeczny*. „Niebieska Linia", 2007, nr 5, s. 30-33.

[9] UNICEF: Rośnie dziecięca prostytucja na niemiecko-czeskim pograniczu [17.08.2011]. Dostęp z WWW: http://wyborcza.pl/1,75248,1750064.html.

Filmografia

[10] *Świnki* (2009), reż. R. Gliński, 93 min.

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ROBERT GLIŃSKI JAKO PORTRÉTISTA PROSTITUCE NEZLETILÝCH. "PRASÁTKA" NA HRANICI

Po zrušení kontrol na mezistátní hranici začala příhraniční prostituce v Evropě vzkvétat. Na prodeji sexuálních služeb se stálé více podílejí nezletilí. Problém "prasátek" je obecně tiché drama dětí, pro které je prostituce způsob výdělku, a které je jen velmi zřídka odhaleno. Cílem této analýzy je upozornění na širokou škálu chování se známkami podmíněné prostituce. Tuto obtížnou problematiku vyportrétoval Robert Gliński. Díky jeho práci můžeme nahlédnout do prostředí nezletilých chlapců provozujících prostituci.

ROBERT GLIŃSKI ALS PORTRAITIST DER PROSTITION MINDERJÄHRIGER. „SCHWEINCHEN“ AN DER GRENZE

Nach der Abschaffung der Grenzkontrollen erfährt die Prostitution entlang der Grenzen eine Blütezeit. Am Verkauf sexueller Dienste beteiligen sich immer mehr Minderjährige. Beim Problem der „Schweinchen“ handelt es sich im Allgemeinen um ein stilles Drama der Kinder, für welche die Prostitution eine Verdienstmöglichkeit darstellt. Dieses Drama wird nur sehr selten aufgedeckt. Ziel dieser Analyse ist es, auf die breite Skala des Umgangs mit den Anzeichen der bedingten Prostitution aufmerksam zu machen. Diese schwierige Problematik wurde von Robert Gliński portraitiert. Seine Arbeit ermöglicht uns einen Einblick in das Milieu der minderjährigen Jungen, welche der Prostitution nachgehen.

ROBERT GLIŃSKI AS A PORTRAITIST OF MINORS’ PROSTITUTION. ”PIGGIES” ON THE BORDER

After the abolition of border checks at international borders, prostitution began to flourish in Europe. Minors have been increasingly involved in the sale of sexual services. The problem of "piggies" is generally a quiet drama of children for whom prostitution is a way to earn their living; only rarely is it detected. The aim of this analysis is to highlight a wide range of behavioural signs of conditional prostitution. This difficult issue has been described by Robert Glinski. Due to his work, we can look into the world of underage boys engaged in prostitution.

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Abstract

In the scientific and professional ACC JOURNAL original research reviewed papers, scientific studies and reports on research projects are published. The author is responsible for the originality, as well as for the scientific and formal accuracy of the article. The author can be an academic, a specialist from a research institution or a PhD. student. Publishing a contribution from an author outside any HEI in the ERN will be charged an editorial fee of EUR 50.

Introduction

Thematically the ACC JOURNAL is subdivided into two issues. Issue A, covering natural sciences and technology, and Issue B, focusing on social sciences and economics.

Articles on natural sciences, technology and economics can be published only in English, inclusive of the introductory abstract and the name of the author's institution. Social science topics can be dealt with in one of the ERN languages with an introductory abstract in English.

These guidelines are written in the required template for the contribution and can be used for contribution submitting. The guidelines are subdivided into two chapters called the Contents and the Form; and further on more subcategories follow.

3 Contents of the Contribution

The contribution contains a headline, the author or authors´ address, introductory abstract, introduction, description of the studied problem, conclusion, literature and abstracts in the ERN languages.

1.1 Headline of the Contribution

It should be concise and clear.

1.2 Author's and/or Authors´ Name/s

The name of the author is written without the academic degrees, similarly to co-authors, whose names are also included without the academic degrees and below each other. The names of authors or co-authors with the degrees are provided below the list of references and under a line.

1.3 The Author's Address

This piece of information includes the name of the institution and the department in English, street name, postcode number, town and the English name of the country. Below this, the e-mail address follows. The second co-author has an asterisk before the name and the address. The third co-author has two asterisks in the same positions.

1.4 Introductory Abstract

The abstract outlines the studied problem, states introductory conditions and gained results.

1.5 Introduction

In this section the author describes the current state, aims of the study, and used methods, which will be elaborated on in the following parts.

1.6 Description of the Studied Problem

The content of the contribution can use not only text, but also pictures, equations, and graphs.

1.7 Conclusion

The conclusion presents a summary of gained results, presents the unique and original principle of the used methods.

1.8 Literature

The list of the used literature complements the content of the contribution and presents sources the author studied.

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Individual chapters and sub-chapters are separated by a blank line style”10_Gap between the lines B“, size 16. After the headline a blank line follows; it uses style”10_Gap between the lines A“, size 5.

2.1 Headline of the Article

For this, the style”01_Name of the contribution“is used (capital bold letters, size 14, aligned to the centre). Beneath the headline there is a blank line, style”10_Gap between the lines B“.

2.2 Name of the Author/Authors

For this item style”02_Name of the author/authors“is used (bold letters, size 12, aligned to the centre). Beneath the name there is a blank line, style „10_Gap between the lines B“.

Before the name of the co-author there is an asterisk, similarly to another one placed before the name of the home institution in the address section. In the case of the third co-author, in the same positions two asterisks are placed.

The name of the author and/or co-author is provided with the academic degrees below the list of the used literature; it is below a line, utilising style”06_Text“(size 12, block-justified, gap 3 behind a paragraph).

2.3 The author’s Address

The author’s address (or authors´ addresses) utilise style”03_Name and address of the institution“(size 12, aligned to the centre). The e-mail address is style”04_E-mail address“(underlined, size 12, aligned to the centre). Beneath the e-mail address of the author (authors) there is a blank line, style”10_Gap between the lines B“.

2.4 Introductory Abstract

The word Abstract is style”05_Name of a part of the contribution“(bold letters, size 12, left-aligned). Beneath the word Abstract there is a blank line, style”10_Gap between the lines A“.

On the following line there is the text of the abstract, style”06_Text“not longer than 10 lines. Beneath the text there is a blank line, style”10_Gap between the lines B“.

2.5 Form of the Introduction

The word Introduction is style”05_Name of a part of the contribution“. Beneath the word Introduction there is a blank line, style”10_Gap between the lines A“.

On the following line there is the text of the introduction, utilising style”06_Text“. Beneath the text there is a blank line, style”10_Gap between the lines B“.

2.6 Description of the Studied Problem

The name of the chapter uses style”07_Name of a chapter“(bold letters, size 12, left-aligned). After the number of the chapter there is no full stop. Beneath the name of the chapter there is a blank line, style”10_Gap between the lines A“.

On the following line there is the text of the chapter using style”06_Text“. Beneath the text there is a blank line, style”10_Gap between the lines B“.

Names of sub-chapters use style”07_Sub-chapter names 1.x“(bold letters, size 12, left-aligned), or”07_Sub-chapter names 2.x“(bold letters, size 12, left-aligned) etc. Behind the number of the sub-chapter there is no full stop. Beneath the name of the sub-chapter there is a blank line, style”10_Gap between the lines A“.
On the following line there is the text of the sub-chapter using style”06_Text“. Beneath the text there is a blank line style „10_Gap between the lines B“.

Equations and their numbers are included in a table with two cells, one to each other, of the total width 16 cm. In the first cell the equation is placed, and to the other cell the number of the equation in brackets is added. The former cell is left-aligned and centred; it is style”08_The first cell of the equation table“(size 12, left-aligned, gaps before paragraphs and behind them is 3). The latter cell is centred and uses style”08_The second cell of the equation table“(size 12, right-aligned, gap before and after the paragraph 3). The inner margins of the cells are set on 0 cm. For the table, borders are set off.

$$y_t = \mu_0 + \sum_{j=1}^{H} \alpha_j \sin \omega_j t + \sum_{j=1}^{H} \beta_j \cos \omega_j t + \varepsilon_t, \quad t = 1, 2, \ldots, n \tag{1}$$

For image wrapping in the text we use style”09_Image“(centred).

The name of the image or table, its number and description is included in a table with two cells, one to each other of the total width 16 cm. The first cell includes the name and number; the other one contains the description. Both cells are left top aligned, style”09_Table cell of the image or table name“(italics, size 12, left aligned, and with gap 6 before and after the paragraph). The inner margins of the cells are set on 0 cm. For the table, borders are set off.

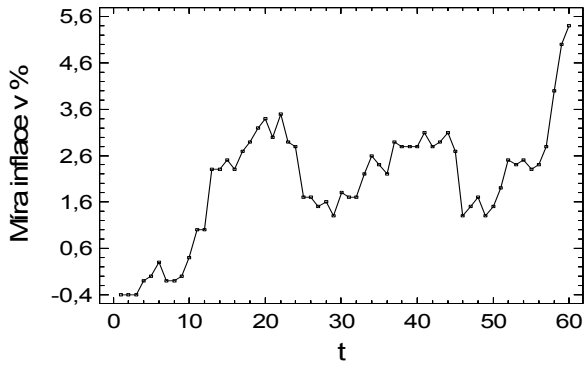

Fig. 1 Diagram of the dependence of the rate of inflation

The name of the table is provided above the table itself.

Tab. 1 Periodogram of time series of inflation (in %) in the CR in 2003 – 2007

Frequency	Ordinates	Frequency	Ordinates	Frequency	Ordinates
0,0166667	10,7537	0,183333	1,51176	0,35	0,435943
0,0333333	12,777	0,2	2,24582	0,366667	0,331248

2.7 Form for Conclusion

The word Conclusion is style”05_Name of a part of the contribution“. Beneath the word Conclusion there is a blank line, style”Gap between lines A“. On the following line the text of the conclusion follows in style”06_Text“. The blank line follows, style”10_Gap between the lines B“.

2.8 Literature

Individual items are included according to the relevant norm; style”06_Text“is to be set at the beginning of typing.

2.9 Abstracts in Euroregional Languages

The last page contains only abstracts in all three languages of the ERN; the first one is the language of the author and then the remaining language of the countries according to the clockwise direction when looking at the ERN map.

Conclusion

These guidelines can be used for typing the contribution. An advantage is opening the window of styles and using the function of spell-check.

Literature

Individual sources used in the text are included here according to the relevant norm, as demonstrated below.

[1] ANDĚL, J. *Statistická analýza časových řad*. SNTL, Praha, 1976. L11-B3-IV-41f/11740

[2] BROWN, R. *Lecture notes: harmonic analysis* [online]. USA, Lexington: University of Kentucky. [cit. 2009-04-14]. Dostupný z WWW: <*http://www.ms.uky.edu/~rbrown/courses/ma773/notes.pdf*>

[3] CIPRA, T. *Analýza časových řad s aplikacemi v ekonomii*. SNTL/Alfa, Praha, 1986. ISBN 99-00-00157-X

[4] HINDLS, R.; KAŇOKOVÁ, J.; NOVÁK, I. *Metody statistické analýzy pro ekonomy.* Management Press, Praha, 1997. ISBN 80-85943-44-1

Name of the author or co-authors including the academic degrees.

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