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THE ANALYSIS OF THE SALE PROMOTION-LIKING IN THE GROUP OF THE YOUNG

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Abstract

Nowadays the market is saturated. All enterprises want to sale more and more themselves products. Because of it, they have to use elements of marketing mix; for example: the sweepstakes. In my work I examined, is this means really effective, and do the people like it. To the reach my aim I made a questioner, and filled it with students at age of 14 - 22. The number of filled questioner is 200. I analysed the opinions only in food-sweepstakes, because this products are bought by everyone in everyday. The main resources are: The 77% of the answerers have heard about this means. The most of them have got their information in TV. However the most of young think the food-sweepstakes is senseless, they said, it is good thing, because everybody have to purchase food, and also if you can win something it is nice. Students like send to answers or the codes by email and sms, but the most likely possibility is the honouring the coupons in shops. The prize is important for the questioned. The 45 % of the answerers won some presents under the 1000 Ft-price, for example: chocolate, drink, sweet.

Keywords

Sale promotion, sweepstake, questioner

1. INTRODUCTION

Nowadays people can choose from a really lot of food in the shops. The factories have to use a many kinds of sale promotion. The one of these manners is the sweepstake.

The sale promotion is a marketing-method, which inspires directly the consumer, it offer the special value with the purchasing. The advertisement gives the cause; the sale promotion gives inducement for the shopping (Hoffmann, 2004.).

The advantages of the sale promotion are:

It is a popular manner from both side – producer and buyer too. It may be quickly put on the market and quickly stop. It can be successful in short time, but in long time it affect to the image of the company. It help to build connect between the producers, the commerce and the consumers. It helps to difference between the similar products. The disadvantages are: the sale of concrete product has grown, but the other – substituting - product has diminished. The cost of sale promotion can be more than its profit. The consumer has tired, has not carried an article (Bérczi, 2003.).

The main territories of the sale promotion are: the consumer, the trader and the seller. In the first case the main aim is the calling the attention, for example with presents, or tasting. The other aim is the additional promotion, which means: competitive, drawing, bonus points or sweepstakes. In the second case (commercial) the main aim is the conviction of the trader with keeping a connection, studying or the product-preview. In the third case the main means are: study or support (Kotler, 2006.)

2. MEANS AND METHODS

The sweepstakes is a game and a joy and a fortune. It is near to the young people. So I have chosen this age-group for analysing their habits. I made a questioner and had filled in with students' age of 14-22. They study in secondary school and at the university. The most

important themes are: if they like the sweepstakes or not, what kind of sweepstakes they like, where they have listened about it, how often they buy such food, have an influence on their shopping, have they ever won wit h this game.

I have got 200 filled questioners, and I analysed them with STATISTICA 8 programme.

3. RESULTS

At first I present the demographic characters: The asked' sexes are: 37% women, 63 % man. The 50% is from secondary school, the 50% study at the university. The 60% of the filler live in county town, 21% in a city and 19% in a village. The87 of them usually make their shopping in county town, 9% in a city and only 4% in the village.

In the first diagram we can see the division of the opinion about the usefulness of the food-sweepstakes. The 30% of the asked think, that it is a pointless thing, but the other said it is a good idea for promotion (19%), for win (18%) or for funny (14%). 8% -8 % told that it is a swindle, because have decided who will win or they are indifferent. And only 3% (6 students) thing, that it is only a mood of a prise-rising.

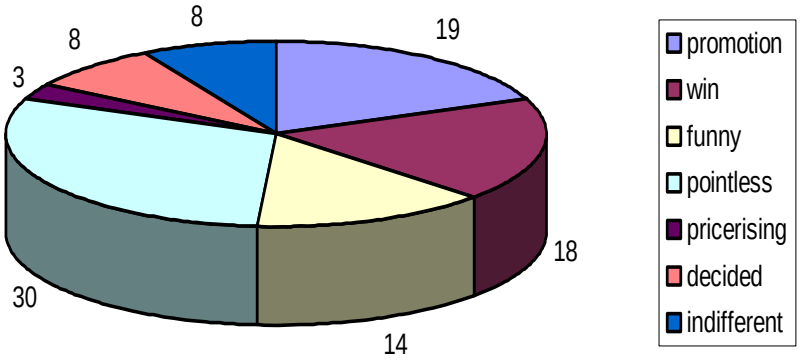

Fig. 1. The division of the opinions about the sweepstakes

The most of students (77%) have heard about the food-sweepstakes, they gathered their information from the TV (25%), Internet (12%), radio (7%), newspaper (10%), ad paper (10%), shops (11%), leaflet (10%), poster (8%) and friends (7%).

In the next question I asked young people, that is it good idea or not if a food is in this game. 35% think "yes", because people must buy food, so it is a specially occasion to win something. The other 35% told, it is indifferent, because they have to buy food. The 16% of the think it is promote for purchasing, but 14% are pessimist: they said for the winning people buy more and more food, but they can not to eat them, so the foods go bad.

The one of the different opinions is that the sweepstakes increases the price. In the next question I asked about it the answerers. The most of them (69%) said, it does not add to the price. The 25% told me, that food will be more expensive, if they are in this game, and the others (6%) thought foods will be cheaper.

In the sweepstakes people can do changeable mood of the games. I wondered what kind of methods like young (figure 2.). The most popular in the group of students (47%) is the shop-exchangeable thing (points, coupons, etc). The second beloved deal (35%) is to send an answer by e-mail (because of it is free and comfortable). The 25-25% like the coupons and the answer send by sms. Student do not like too much the sending by post office - it is too "complicate" for them.

And the last question in this theme was about the motivation. I asked young people, if it was important or not, what was the prize. 83 % of them is motivated by the prize.. the other does not matter with it.

The next theme of the questioner is the buyer-habits. At first I would like to know, if the asked were looking for food in sweepstakes or not. The half part of them has never sought this food. The 46% of this people hunt them, if it is interesting, and only 2% said, that they always buy these articles.

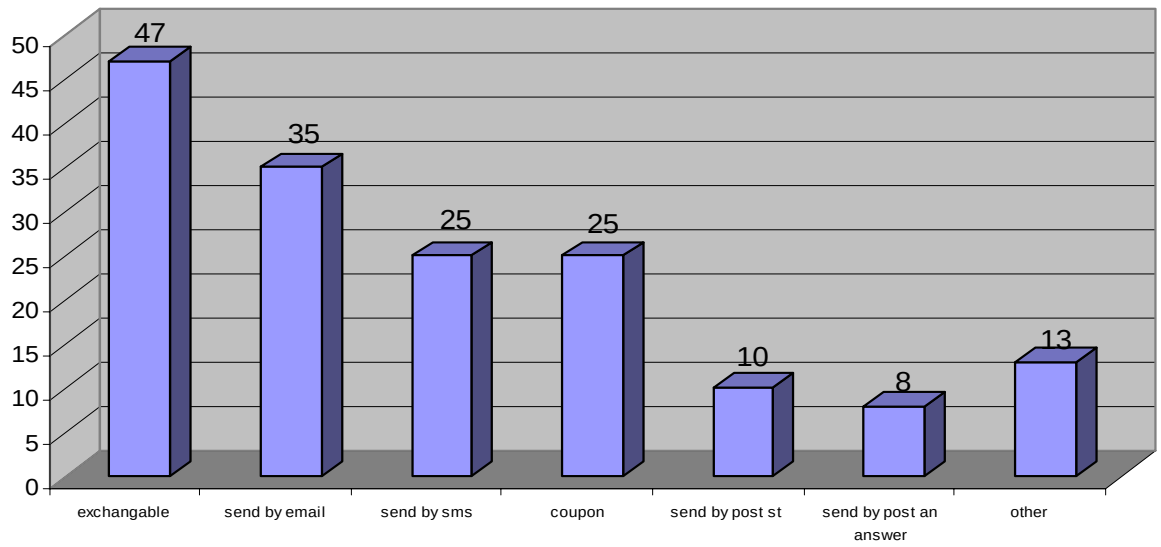

Figure 2. The division of the students about the mood-liking

On the 3rd figure we can see, how often buy the sweepstakes foods the young people. The part of them rarely does it, 17% of them monthly, and only 4 % weekly or daily. The 13% of them have never bought this kind of food. The 1/10 part of students chose the "other" opportunity, for example, if they hear about a good sweepstakes, buy more often than generally.

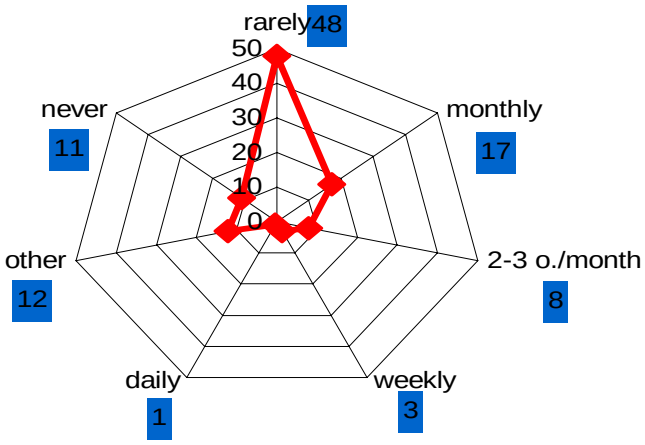

Fig. 3. The division of the answerers about the frequency of the shopping

I asked students if they bought a food only because of the sweepstakes. The 12,5% do it, 87,5% do not. The most part (88%) of these 25 students buy only 1-2 pieces, and 12% buy a lot, they really want to win.

The next situation is: there are 2 similar articles, one of them is in sweepstakes, and the other is not (fig. 4.). The 46% of the students choose the beloved article, irrespectively of the sweepstakes. If the price is same, the 25% buy the winner. If the price is different, only 1% shops the goods in game, 6% told me, they choose the winner, only if its price is not too high and 6% will cull the cheaper. 12% of them will take the better quality, and 4% said it is depend on the prize.

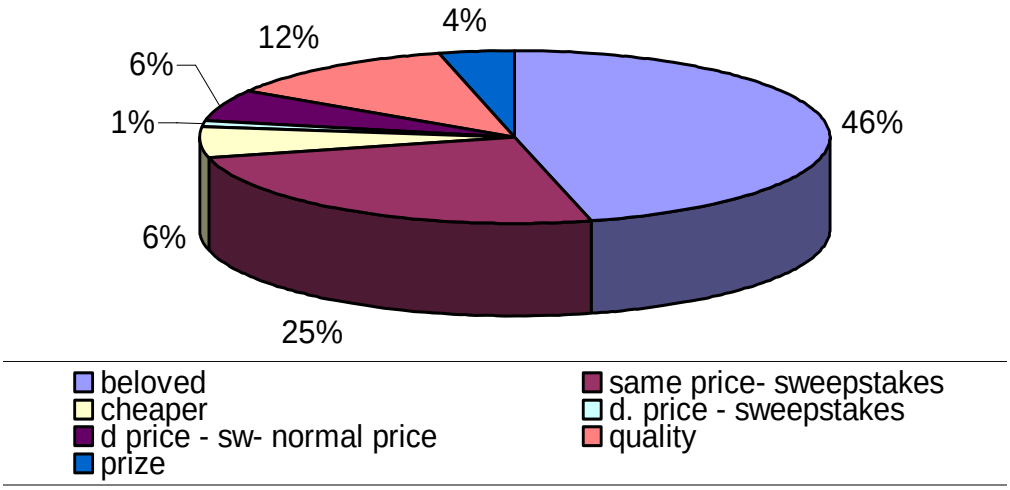

Figure 4. The division of the students about their choice from two articles

At last I wondered about the prizes, have the students ever won something. The bigger part (58%) of them has won, a lot of them (45%) something less then 1000 HUF, for example chocolate, chips, pen, cap, cup, etc. The 9% won more expensive things: CD, perfume, cinema tickets, book, t-shirt, etc. 10 student won really value things: DVD player, camera, bicycle, VIP concert tickets. Some of them (18%) have changed their habits; often buy food if it is in sweepstakes.

4. SUMMARY

Everybody must to eat, so everybody must to buy food, so everybody. In my work I made an analysis about a young people's habits. 200 people - 14 – 22 years old students - filled in my questioner. The main results are the followed:

The half part of them thing it is a good thing, 30% said it was pointless;

- 77% of them have ever heard about this game, most of them from the television;
- 69% of the filler thing the sweepstakes was not effect to the price;
- Them most of student favourite to collect something (points, pieces, etc) and after it they can to exchange them for the prize;
- The win inspires 83 % of young people for the shopping.

By the analysing I have found out, that the students had have heard about the sweepstakes, they liked it, but their consumer shopping habits had has not change because of it.

BIBLIOGRAPHY

[1] Bérczi (2003.): Marketing alapismeretek a kereskedelmi, vendéglátóipari és idegenforgalmi szakemberképzés számára. Kecskemét, KIT Kft
[2] Hoffmann (2004.): Stratégiai marketing, Aula Kiadó
[3] Kotler (2006.): Marketing menedzsment. Gazdaság Kiadó

MENTAL MAPPING IN GEOGRAPHICAL APPROACH AND REGIONAL ENVIRONMENTAL DISPARITIES AT FRONTIERS

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ABSTRACT

Literature follows with attention the process of globalization and inter-regionalisation of environmental market. It offers and requests new possibilities and demands in agriculture too. Using of new, modern technologies in developed countries and conserve outmoded ones take difference among different less-developed and developed countries of the world. Well-known, environmental pollution does not know frontiers, so the gap between countries can be huge. What is the situation and what we can do in this area? Where to invest to win the best output?

Speaking about values we can find different measures in different countries. It takes many difficulties against how to solve problems. One is the most important factor is the disparity of short-term and long-term interests.

It has subjective and objective ways to transform and understand. People often create preconception by their mental map and connect territories and problems. It is not so simple.

We can assert reduction of over mentioned situation can be stimulated. Discrepancy and discrepancy along areas of frontiers cannot sustainable, mainly not in Central and Eastern Europe.

1. INTRODUCTION

The process of internationalization can be observed in the case of environmental programs, as well. The importance of financial funds that stimulates new technologies is increasing. This way the emphasis has been put on prevention from cleaning and controlling. It is realized differently in the case of countries on different levels, as the change to a reasonably modern technology from an undeveloped one is a significant leap forward in Eastern Europe. The problem is that the developed world appreciates only „future technologies". The structure of environmental market in Eastern and in certain Central European countries will be similar to the earlier structure of EU, whereas a certain change in structure is proceeding towards integrated, intensive solutions in developed world. At the boundaries of regions we can often find different indexes, different measuring technologies, and significant differences in attitude (e.g. Finland and Russia) but – mainly in the case of smaller countries – the only solution is reduction of these differences and elaboration of common, harmonized solutions. The members of EU question the unification of problem management in big regions because of their disparity in measurement. Only a unified measuring technology and index system can be regarded as the basis of objective judgment of processes. An essay from Brussels confirms it. (Communication from the Commission 2003) This question is particularly problematic in the successor states of the Soviet Union, as they consider certain cases as successful ones but according to other methods these cases can be valued very modest. Placing the capital outside EU appears in this field, too, so its specific efficiency can be multiplied. Nevertheless, the process (stimulation) of abandonment of conflict between the long-term interests of environment, and the short-term interest of economy has begun in the Central and Eastern European countries-with different intensity and methods.

A kind of idea about the future is required in which different regions can develop in intensive division of labour and not in subordination to each other. The territorial inequality is lessening, the main centers of development are regions and counties, and their cooperation with other regions along the borders creates the opportunity to join the European integrating processes (Gal, J. – Valko, L. 1998). Discrepancies where countries in different state of development can be found will get more important role.

The environmental responsiveness of governments in these countries is very different. A number of enterprises deal with production, development of environmental technology and with environment protection. The role the government takes has an impact of crucial importance on them. Deriving from the nature of the market, only smaller amounts are typical that are rarely supplemented by a bigger order. This situation requires flexibility, significant capital from the enterprises; therefore a lot of them cannot survive in the rapidly changing market. From the prospect of demand the legal regulation, the lawful behavior of enterprises ensure motivation, and the pulling-impeding-moving unity of market mechanism, too, which is able to move the situation from its deadlock. The condition of its function is that it affects the whole economy including the society. In this terminology „impediment" means that we have to prevent materials, energy, products from leaving the process of production and consumption too soon. It should be realized within national frames. Regulation supporting the pull factor removes by-products from the system and it does not let it accumulate to harm the environment. Recycling, collection and managing of waste materials play important roles in this process. Most processes have regional impacts, so the role of cooperation is appraised. Only a small part of these activities can be done on purely market base, in most cases the token of effective solution is in the hand of the state. We can find both good and unacceptable examples for it in Central and Eastern Europe. For instance, Austria's efforts prove that results can be reached in the fields of collection of paper refuse and its use as a second raw material etc.-, which projects have failed in other, mainly Eastern European, countries.

The judgment of environmental market is changing into a favorable direction in Central and Eastern Europe because of the accepted positive externalities of the environment protection. Its effect can be observed in the legal phase, in regional development, in manpower market and in other innovative processes, as well.

2. DISCUSION

The above mentioned facts are supported by a study from Tubingen (Valko L. 1998), according to which 45% of the Western European environment technical enterprises can survive the first 5 years, and only 35% of them the first 10 years. It is mentioned that the condition of survival is that the given enterprise can comprehend the whole market scale from planning through analysis, consultation, execution, operation, and service to the after-care. An enterprise with only one of these activities financially runs a grave risk. Long-term situation of services with oversupply in environmental market is getting more risky comparing to firms presenting intensive environmental technique, technology. The condition of survival is adjustment to the regional and local conditions, this way the role of eco-marketing is going to be appraised. In this context the state's role can be mentioned again, and the dynamic effect of steps that increase demand. There are regional programs not only in EU but in discrepancies, as well. Regional approach is supported by the fact that Eastern European countries that were excluded from joining in 2004 should change their environmental policy and their environment economical programs rapidly, since their backwardness is significant.

Chart no 1
National Environment Protection Program II Hungary
Source: NKP-II

TAP megnevezése	A 2003-2008 közötti időszak teljes költsége (mFt)	kp-i költségvetésből (mFt)	%
1. Quality of urban environment	1.626.561	900.647	29,3%
2. Water protection and sustainable use	1.095.875	680.100	19,7%
3. Change of climate	961..273	262.575	17,3%
4. Health and safety	682.273	386.757	12,3%
5. Use of fields	541.752	245.046	9,7%
6. Waste management	363.000	94.817	6,5%
7. Biodiversity and ecological protection	181.166	106.706	3,3%
8. Safety of environment	64.527	61.677	1,2%
9. Development of environmental awareness	40.577	32.612	0,7%
Together:	5.556.820	2.770.937	100,0%

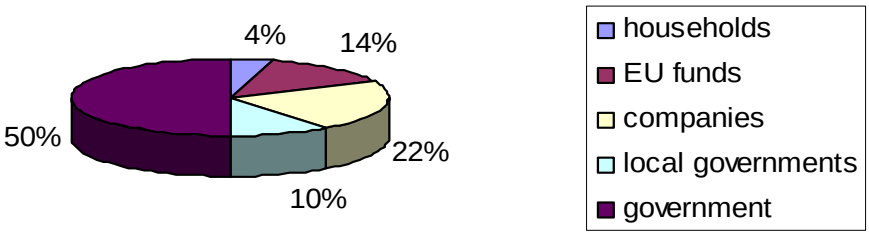
In the National Environment Protection Program II Hungary (chart no 1) has formulated a thematic action program and has planned expenses which show that harmful effects of urbanization and water protection claim the highest expense. These two problematic fields are typical of the Central and Eastern European countries. Technical-technological side of solution is ensured in these countries; the problem is the lack of financial sources. It is worth examining what distribution of sources Hungary planned in order to realize her planned obligation. I suppose that the proportions are similar in other joining countries, as well. The situation is entirely different in the case of other

countries as the rate of EU-funds is essentially smaller. The source-proportion (diagram no 1) coming from the central and municipal budgets exceeds 60%, EU makes a contribution of 13,9 % to it, and finally, there is a problematic self-share, as well.

In the early 60's American psychologists and geographers modeled a special method of cartography, which is surveying the familiarity with a place by means of the mental map. With the mental map we analyze the map formed in people's brain about their immediate environment.

Diagram no 1
Distribution of financial means in Hungary 2003-2008
(planned)

Source: NKP-II



This method helps us to see which places, flows approaching solutions are known for the inhabitants of a settlement; according to the data we can get a picture about the question that which the most interesting and the less interesting environmental impacts are, where the cardinal points of a region or a town can be found. It is worth comparing these notes with the mental maps of those who are interested in the environmental flows.

The answers to these questions help us to examine which are the questions about the areas that have aroused the people's attention and which are we have to highlight.

To serve this purpose we have to introduce the following terms: region, factors that form the region, regional development, environmental conditions. Then we show the development of the region and the immediate environment, together with the advantages and disadvantages that follow the development of the given area. If a really consistent and environmentally friendly transformation is expected, it is worth calling the attention to it.

For the sake of the efficient teaching-learning form the students should be able:

- to analyze the typical region according to different points of view,
- to recognize the typical region with the help of pictures and descriptions,
- to recognize and to name its most important features,
- to make a drawing about the region, to make a description of it,
- to try to imagine and to draw the possible future changes of the typical region,
- to inform about the rehabilitation of an environmentally destroyed region from different sources of information.

The question of the method of the process is very important here. It is the most obvious to make a task sheet where the following methodological possibilities can be exploited well:

- to draw a region on the basis of their knowledge and experience,
- to make a description of a region on the basis of lesson experiences, visual or map information,
- to analyze a region according to some given points of view,
- to make students recognize the process of a regional development with ordering pictures and drawings,
- comparative regional analysis on the basis of a written text (for example the same region in different times or different regions in the same time).

The analysis was about a region at border of Romania, Serbia and Hungary by means of which it was possible to show the connection between man and his environment, and it pointed out how the natural region became economic region.

Global problems of our environment has been revealed during decades, and at the same time the favorable counter moves have been formulated more accurately. Content of these frameworks (international organizations, contracts, financial funds etc.) depends on the responsibility taken by the region and nation. The level of environmental knowledge of nations and the available system of means move on a very wide scale. Therefore, the different short-term interests of developed and undeveloped countries have a significant impact on the international cooperation of environment protection. It

seems that the most effective way of managing global problems is the cooperation between small regions. This solution is able to handle regional disparities and discrepancies above all. In the Central and Eastern European countries the regional cooperation has been getting stronger in most regions since the 90's –after the former political alliance system had collapsed. „Visegrád countries", Carpathian-Europe-Region, Alps-Adria or the league of Vajdasag, Transylvania and South-Eastern Hungary are good examples for it. In the field of environmental protection these cooperation could not have results that would take their environmental status closer to the Western European level. The main reason for it is the lack of financial sources.

3. CONCLUSIONS

As a result of a new attitude on both sides of discrepancies the more developed country stimulates the environmental problems, rehabilitation of the less developed one with her increased role. In the case of Austria and her Eastern neighbours the regional environmental investments can bring bigger benefit for the less developed countries but at the same time they have a positive effect on the whole region, as well. According to a certain research the economical and ecological profit of Austria's foreign environmental investments can be the triple of the same investment inside the borders of Austria.

This change means that environment political principles have new definitions, so does the principle of prevention which emphasizes the efficiency of prevention as opposed to rehabilitation of damages. The principle of the individual, who caused damage which says, that this individual has to bear the costs of rehabilitation. The principle of subsidiary, which says that adequate steps have to be taken on the most efficient institutional level. The principle of cooperation and harmonization which attempts to synchronize the environment protection policy of different countries in the interest of the most favorable output. According to the principle of compatibility the environment policy should be integrated into the work of other fields, so it has to be in harmony with the social and economical policy.

REFERENCES

[1] Communication from the Commission [2003], Commission of the European Communities, http://europa.eu.int/comm/research/industrial_technologies/16-04-03_compenvironment_en.html
[2] Gal Jozsef – Valko Laszlo [2000]: Environmental Education in Hungarian Higher Education, (A kornyezeti neveles a magyar felsooktatasban) (angol nyelven), Periodica Polytechnica, Social and Management Sciences, Vol. 8. No. 2, Budapest, p. 121-131.
[3] Nemzeti Kornyezetvedelmi Akcioprogram-II, (kezirat), Budapest, [2002].
[4] Valko Laszlo [1998]: Kornyezeti ipar es szabalyozas, osztrak esettanulmany, OKO, IX. evfolyam, 1998. 3-4. szam, p. 50-72.
[5] Galne Horvath Ildiko - Gal Jozsef [2009]: Some Educational and Logistic Aspects of Mental Mapping of Rural Areas, AVA Congress, Debrecen 2009.03.26-27. conf. cd

ONLINE TRANSMISSION OF TAX RETURNS – A STRATEGIC GOAL OF SERVICE E-GOVERNMENT IN ROMANIA

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Abstract:

Implementation of e-government in Romania is a complex process related to the development of this system at European and international, the legal framework is the national strategy for promoting the new economy and implementing the information society and Government strategy computerization of public administration. In the paper after a brief overview of the strategic objectives of widespread on-line transmission of all the tax returns of the economic and a brief analysis of the current provision of these services, we reveal the types of relations existing in the information carried by e-government in Romania.

Keywords:

e-government, information society, on-line transmission, G2B, B2G

A. STRATEGIC GOAL OF SERVICE E-GOVERNMENT IN ROMANIA

In order to understand the role and the place held by e-Government processes in implementing modern public strategies, it is important that these processes, which in Romania [1], started in an empiric form together with the development of technologies based on the Internet, be approached step by step.

The implementation of e-Government in Romania is a complex process correlated with the development of this system on European and on international level, while the legal framework is represented by the National strategy for promoting new economies and implementing computer systems, as well as the Government Strategy regarding the information technology of public administration. In this respect, a series of Government specialists, specialists from the Group for Promoting Information Technology, from the Ministry of Communication and Information Technology, from research institutes, from universities or other public institutions and non-governmental organizations aim at coordinating on strategic level and integrating information systems on national level so that they could provide natural persons and legal entities with a set of public information and services which are in fact the quintessence of e-Government.

During the first decade of the 21st century, from informational point of view, the Romanian public administration underwent a full process of e-Government implementation based on a modern computer infrastructure and a coherent set of applications, data bases and services which provide access to information and information management.

B. E-GOVERNMENT CONCEPT

According to Wikipedia [8], e-Government refers to the use of internet technology as a platform for exchanging information, providing services and transacting with citizens, businesses and other arms of government. Romanian specialists, without issuing a complex definition of this concept, are trying to determine it from the point of view regarding the effects of its implementation. Thus, Colesca E. [1] acknowledges that e-Government is a more efficient and cheaper alternative for providing public services 'which may enable the Government to be closer to the citizens and to adapt its services according their demands.'

E-Government is defined [7] as: "the use of ICT in public administrations combined with organizational change and new skills in order to improve public services and democratic processes, and strengthen support to public".

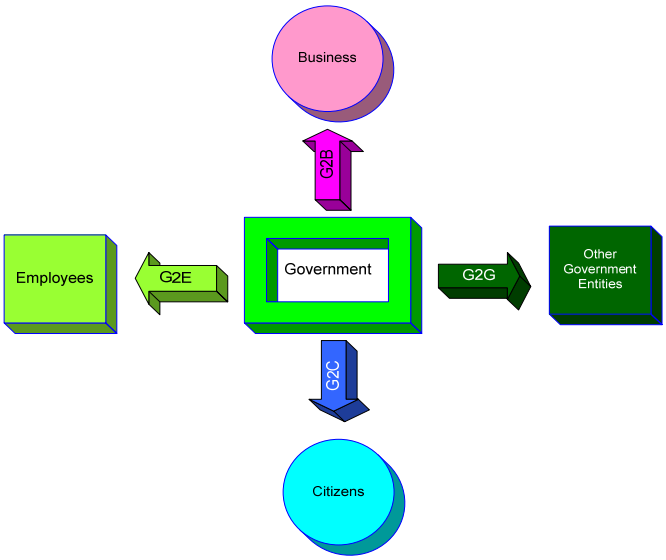

Figure 1. The actual Romanian e-Government relationships model

C. E-GOVERNMENT MODELS

The efforts to determine precisely the existing relations within the informational process conducted by e-Government in Romania enable us to identify four types of delivery models:

- ***relations between government and citizens – G2C*** (Government to Citizen). This component of e-Government includes, beside *public relations* regarding information about everyday life, necessary to separate certain public information and to read certain political and legislative documents, *interactive communication* which provides communication services such as e-mails, blogs/portals and *transactional services* which send certain forms to citizens and stock them over the internet;
- ***relations between Government and the business environment – G2B*** (Government to Business) represent the most important component of e-Government due to the fact that their efficiency has significant implications in the high costs of traditional data and document transmissions. Thus, G2B includes beside *public acquisition and auction systems* over the internet, *services offered to legal entities regarding the transmission of data and documents* or the registration of companies;
- ***relations between Government institutions – G2G*** (Government to Government) can be maintained through information changes on various security levels between the computers of the institutions which interact. This interaction is necessary among public institutions because in order to solve some complex situations it is necessary to process some of the information held by various institutions;
- ***relations between Government and employees – G2E*** (Government to Employees) and their interaction based on computer systems represents the essence of public management improvement and it is going to determine in a very short period of time the forming of an organizational culture characteristic for e-Government. The applications used by G2E are represented mainly by *internal data bases* which make it easier and faster to carry out tasks and responsibilities and *specific applications for employees*.

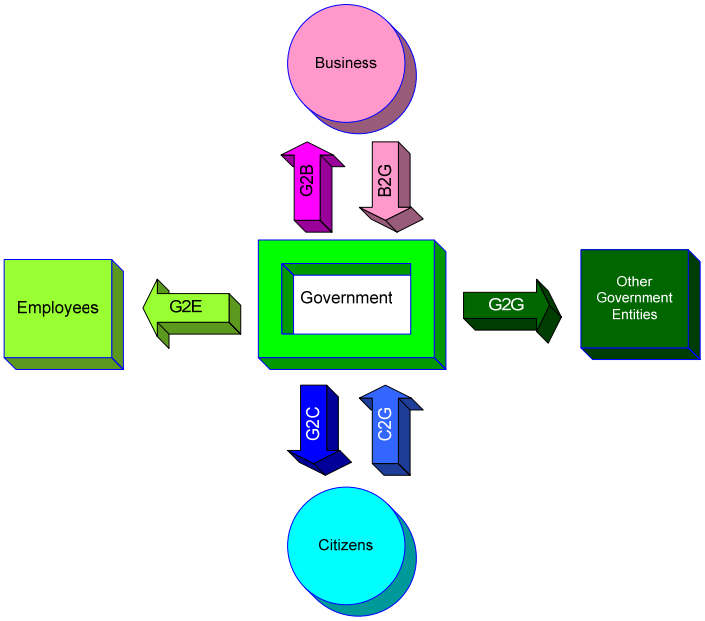

Figure 2. The E-Government Model tendencies

The increasing complexity of activities from public administration, the implementation of high performance informational infrastructure and the training of employees from public institutions show that the new instruments used by e-Government must obey three fundamental dimensions:

- cutting through informational frontiers;
- the transparency of governmental actions;
- developing the knowledge management.

These dimensions are possible through an interaction of the four types of relations created by e-Government (G2C, G2B, G2G, G2E) and through creating new and distributed forms of information management based on modern activity management systems (G2G, B2G) [2].

D. ONLINE TRANSMISSION OF TAX RETURNS

The purpose of accounting operations materializes in summarizing the data in reports, such as annual financial reports which include, basically the balance sheet, the profit and loss account and other annexes, and it can be obtained from the general ledger, from the trial analytical and synthetic balances and registers.

These financial reports must be drawn up by economic units and sent to local financial administrations annually and bi-annually, together with the declarations regarding payments towards the state budget, the social insurance budget and the unemployment budget. In this respect, in order to eliminate the route between economic units and these institutions it is important to create Internet connections which are able to collect all this data [4].

Initially, e-Government may seem like another option for communication with citizens. But in the face of rising demands from demographic, economic, social, and global trends, e-Government no longer appears to be a matter of choice, but a necessity for any country wishing to enter the 21st century as a competitive nation in the world arena [9].

In this context, it shows the need to develop relationship B2G (Business to Government) as an important component of the nature of IT relationships that characterize the e-government system in Romania. This relationship allows increased flexibility in IT solutions used in the economic agents' level and especially in financial accounting. Brief, the online transmission stages of the annual financial statements are:

1. Create a "DecF" folder on the computer of the economic agent
2. Download, fill out and send the company's identifying form from the E-Government portal.
3. Generating the fiscal declaration forms and the annual financial reports with the help of the application used by the company; saving the data in the subfolders created in the first step.
4. Converting the saved data in the previous stage.
5. Connecting to E-Government portal and sending the files.
6. Checking the information received/reply and confirming the submission of online declarations.
7. Corroborating the data with the report of payments made by the company and generating demands for payment which will be communicated online to both the company and the fiscal unit where it is registered.
8. Centralizing the information with a view to draw up national statistic reports.

E. THE IT SUPPORT OF B2G RELATIONSHIPS DEVELOPMENT

The first compulsory condition for sending these financial declarations on-line is the Internet connection through one of these variants: dial-up connection – it implies the existence of a modem installed on the computer and of a telephone line for connecting the computer to an Internet provider; ISDN connection (*Integrated Services Digital Network)* and ASDL connection (*Asymmetric Subscriber Digital Line)* which provide high speed internet connections, better than common telephone connections; cable TV and DSS connections (*Digital Satellite Systems*) supplied by companies which offer beside cable TV services, access to the Internet using the same cable and special modem.

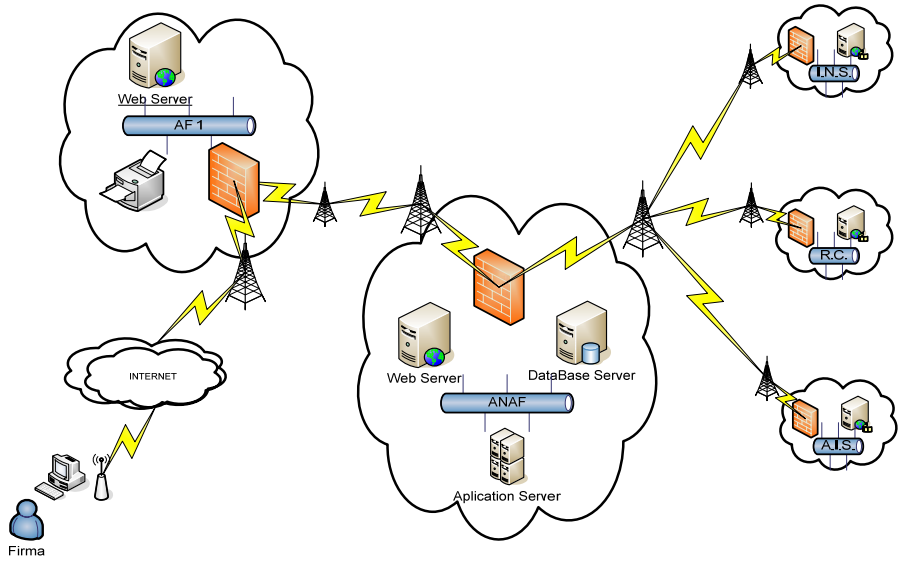

Figure 3. Fiscal information online sending systems

Thus, with the help of the Internet the data should be electronically transferred from an application that runs on a computer to the application that runs on another computer, located at a certain distance, without being printed out or manually stored on a magnetic support.

After the electronic processing of the accounting information in summarizing reports such as the trial balance, the ledger or other financial books, the information is uploaded in the fiscal declarations found on the site of the National Agency of Fiscal Administration; then they are sent to the E-Government portal.

CONCLUSIONS

Online taking tax returns and annual financial statements is an important step for streamlining the relationship between state institutions and economic agents and to eliminate bureaucracy from the system.

On the other hand the generalization of information systems for collecting, processing and tracking of various information about the economic agent and the creation of interrelations databases is an easy tool for obtaining information and interaction with government services.

Thus, trends that are evident for the time period immediately following have the jump from static web to a dynamic and interactive web development methodologies to target and streamline internal processes to determine efficiency and shared services, standards for consistent use of information technologies and communication services transform classical oriented program in e-Government services integrated and not least the education and training of citizens of a culture based information [2], [3].

REFERENCES

[1] Colesca S.E. (2002), Internet in Public Administration, Economic Publishing House, Bucharest, 2002;
[2] Frissen Valerie, Jeremy Millard - The future of e-Government: an exploration of ICT-driven models of e-Government for the EU in 2020, EUR – Scientific and Technical Research, 2007
[3] Ioniță A., Tendencies and New Instrumets for E-Government Applications in Knowlegde Society, Quality Review, no 7-8/2008;
[4] Isac A. – Web Technologies, Universitas Publishing House, Petrosani, 2008;
[5] Vinod Kumar 1, Bhasker Mukerji 1, Irfan Butt 1, and Ajax Persaud, Factors to succesfull e-Government Adoption - a Conceptual Framework, Electronic Journal of E-Government, no.1, vol.5, 2007, pp.63-70
[6] Zaharie, D., Rosca, I., Information Systems Object Programming,. Dual Tech Publishing House, Bucharest, 2002
[7] European Commission (2003) 'The role of e-government for Europe's future' Communication from the Commission to the Council, the European Parliament, the European Economic and Social Committee and the Committee of the Regions, Brussels, 26.9.2003, COM(2003) 567 Final.
[8] http://en.wikipedia.org/wiki/E-Government
[9] http://epp.eurostat.ec.europa.eu/tgm;http://ec.europa.eu/information_society/eeurope/i2010;

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SOME RESULTS OF MAPPING OF MASS CUSTOMIZATION ACTIVITIES IN SE EUROPE

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Abstract

The paper presents results of mapping different activities and subjects in the field of mass customization and personalization (MCP) in Central and Southeast Europe. The results of mapping are presented in Google Maps, devided into four main groups: research institutions, companies, national websites and dedicated conferences. The map is open to everyone, accessible through the Internet, displaying information about the relevant people and institutions. It can be concluded that mass customization business model was first adapted by national universities and then successfully transferred to SME`s and entrepreneurs. The aim is to set up a network of knowledge to help researchers and companies to implement their ideas smoothly.

Keywords

Mass Customization and Personalization, Central and Southeast Europe, Google Maps, Mapping, Network of Knowledge

1. Introduction

The idea of mass customization is based on the observation that there is a customer interest in products that are adapted to his/her individual needs and preferences, since the adaptation will increase perceived performance. As the standard of living has increased in the last 50 years, individualization has received increased focus, since customization has come within reach of the average consumer. At the same time there has been a massive development of technologies [1].

The concept of mass customization was first identified in “Future shock” by Toffler [2] and was later described in “Future perfect” by Davis [3].

Stan Davis, who coined the term in 1987, refers to mass customization when “the same large number of customers can be reached as in mass markets of the industrial economy, and simultaneously they can be treated individually as in the customized markets of pre-industrial economies“ [3]. In order to address the implementation issues of mass customization, Tseng and Jiao [4] provide a working definition of mass customization that is very useful. The objective of mass customization is “to deliver goods and services that meet individual customers´ needs with near mass production efficiency**”** [5].

Doing so, mass customization is performed on four levels. While the differentiation level of mass customization is based on the additional utility (value) customers gain from a product or service that corresponds better to their needs, the cost level demands that this can be done at total costs that will not lead to such a price increase that the customization process implies a switch of market segments. The information collected in the course of individualization serves to build up a lasting individual relationship with each customer and, thus, to increase customer loyalty (relationship level). While the first three levels have a customer centric perspective, a fourth level takes an internal view and relates to the fulfillment system of a mass customizing firm: Mass customization operations are performed in a fixed solution space that represents [5] “the pre-existing capability and degrees of freedom built into a given manufacturer’s production system” [6].

Personalization should therefore be clearly distinguished from customization. Both customization and personalization are based on the assumption that a homogeneous offering is not

sufficient in meeting the customers needs (...). As defined by the Webster dictionary [7], personalize means "to make something personal or individual; specifically: to mark as the property of a particular person" [8]. The definitions of mass customization and of personalization implies that the goal is to detect customers needs and then to fulfill these needs with an efficiency that almost equals that of mass production.

For more than two decades, mass customization has been the future of manufacturing – and for some manufacturers it will probably always be. On the face of it, mass customization is remarkably attractive proposition for customers and producers alike. Consumers get reasonably priced tailor-made product reflecting their personal selection of colors, features, functions and styles. Producers for their part get to reduce their inventories and manufacturing overhead costs, to eliminate waste in their supply chains, and to obtain more accurate information about demand. In short, a win-win position. Today's manufacturing systems have the potential to build a large variety of end products at costs comparable to mass-produced items. However, this potential is just the beginning to be realized based on the complexity of the product, manufacturing, and supply chain. Therefore, different manufacturing sectors have different business drivers and are at varying degrees of readiness to adopt MC methodologies.

Two relatively recent developments have given the prospects for mass customization a boost: first success enjoyed by Dell Computers and other high-tech companies that build products to order, and second the emergence of the Internet, giving the manufactures a platform for taking orders from mass audience for customized products, such as bicycles, clothes, cosmetics, shoes and vitamins, at almost no cost. In the past, customization of this kind was handled by skilled but expensive salespeople closely interacting with customers. With these trends, many issues arise in the product development and production cycle.

These issues are being addressed by capabilities in computational, communicational, and informational areas creating innovations in flexible automation, networks, and electronic product design. An increasing number of companies are adopting mass customization strategies at different levels in their product development cycles (Figure.1).

Having in mind the aim of the research, it was very interesting to find out what kind of Mass Customization and Personalization is present in the region of Central and Southeast Europe, in which economy sectors, what is the depth of involving customers into the process and finally how can companies from the region benefit from implementation of the named strategy. After three successfully organized MCP Conferences (Poland 2004, Poland 2006 and Serbia 2008), Mass Customization and Open Innovation (MC-OI) Network was established from researchers and institutions that initiated and organized previous conferences.

The joint research work through the network started with mapping of MCP subjects in to Google Maps and the obtained results are given bellow.

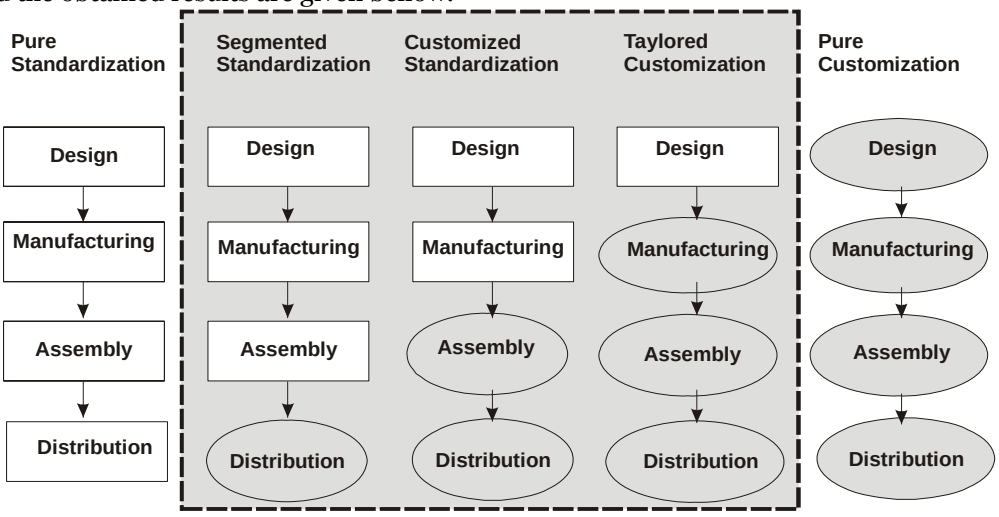

Figure 1 Level and depth of involving customers

2. Implementation of MCP Strategy in the Region – Results of Mapping presented in Google Maps

The future of mass customization seems to depend highly on the interest of customers in buying customized products. In the last decades that's just the customers forced manufacturers to increase constantly the quality of products and to offer more and more diverse range of products. In developed societies, like in Western European countries and in the US a pressure is put on manufacturers to offer

products better matching individual and diverse customers' preferences and expectations. Introduction of mass customization seems to be the best solution to changes happening on markets" [9].

Identifying present subjects in the field of MCP as a part of the larger research activities was carried out for the following countries of Central and Southeast Europe: Poland, Czech Republic, Slovakia, Austria, Hungary, Croatia, Bosnia & Herzegovina, Serbia, Montenegro, Romania, Moldova, Albania, FYR of Macedonia, Bulgaria and Hellenic Republic (Greece). For the referent sources are used proceedings from MCP Conferences, as well as other dedicated conferences like, IMCM - International Mass Customization Meetings, MCPC - World Congresses, academic or education websites and different company websites.

All subjects: researchers, institutes, professors, doctors, experts, companies, etc. are divided into four groups of tags:

- Blue: Universities/Researchers (42 items),
- Green: Companies (14 items),
- Red: national websites (1 items),
- Yellow: Conferences (3 items).

Table 1 Results of Mapping MCP Activities in Central and Southeast Europe

Mass Customization & Open Innovation in Central Europe	Universities/ Researchers Blue colour	Companies Green colour	Conferences Yellow colour	National Websites Red colour
Austria	5 / 17	4	-	-
Albania	-	-	-	-
Bosnia & Herzegovina	-	-	-	-
Bulgaria	1 / 8	-	-	-
Chech Republic	-	-	-	-
Croatia	1 / 1	-	-	-
FYROM	1 / 3	1	-	-
Hellenic Republic (Greece)	6 / 10	1	-	-
Hungary	1 / 1	-	-	-
Lithuania	-	1	-	-
Moldova	-	-	-	-
Poland	15 / 30	3	2	1
Romania,	2 / 2	3	-	-
Serbia	6 / 17	1	1	-
Slovenia	2 / 4	-	-	-
Slovakia	-	-	-	-
Ukraine	2 / 3	-	-	-
Total	**42 / 87**	**14**	**3**	**1**

Figure 2 presents results of mapping visible in the Google maps at the link given below:
http://maps.google.com/maps/ms?ie=UTF8&hl=en&msa=0&msid=115394000225018160781.00045faaf54d785f4ec64&ll=47.872144,23.203125&spn=28.231113,79.101563&t=h&z=4

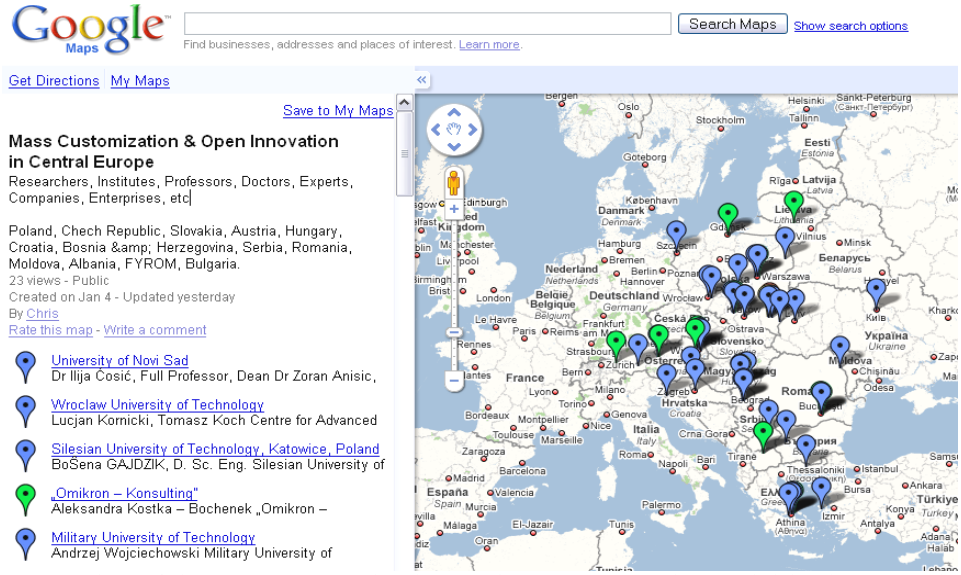

Figure 2 Mapping of the Mass Customization and Open Innovation activities in Central Europe

The sources of data are proceedings of conferences and a research process through the internet. The uploading process of the data imposes the user to create an account in Google's services (like the Gmail account). After that, the user should click on the option of the Google's Site named Google Maps. He has a plenty of choices to do "things", such as zooming in any region all over the world, accessing in geographical and political data, accessing also in data that other users before uploaded. Also there are options of viewing the map in Google Earth, printing user's map, send the map via an email and gain the specific internet link of the map to use it for websites, Blogs or other activities. There is also the capability of uploading photos, videos, Wikipedia options, traffic labels, and different options screen, like Map, Satellite and Terrain. The use of that kind of tool is mostly exchanging information in an open environment through the Internet for the continuous improvement of researches, projects, innovation and knowledge. Any researcher or company that want to participate in this network can create an account in Google and then they are free to open that map of Mass Customization & Open Innovation in Central and Southeast Europe and put information in their territory.

3. MCP as a possibility to increase competitiveness of the companies in the region

3.1 Customization of Produtcs

We focus on discussing Web – based product configurators, because they are very important means for the practical implementation of MCP. Online product configuration tools allow web users to personalize their products over the internet. Depending on the type of product, the configuration services can simplify the selection of product options, help enterprises in capturing customers' needs and bridge the gap between customers' desire and firms' competencies. On Fig.3 are given some examples of configurators for different products:

a) 3D cars demonstrators to display cars of different models and colors (example get from http://www.mercedes-benz.de);
b) Displaying of 3D virtual mobile phones of different models and colors (http://www.nokia.co.uk);
c) Configurator focused on furniture products (http://www.fwc3d.com);
d) A software tool for customization of computers, software, mobile accessories, etc. (http://demo.x-cart.com);
e) Configurator for clothes, gifts and etc. (http://www.earlyimpact.com);
f) Experimental 3D Web configurator [11] - it supports and maintains the development and marketing of modular positioning and handling systems called "DriveSets".

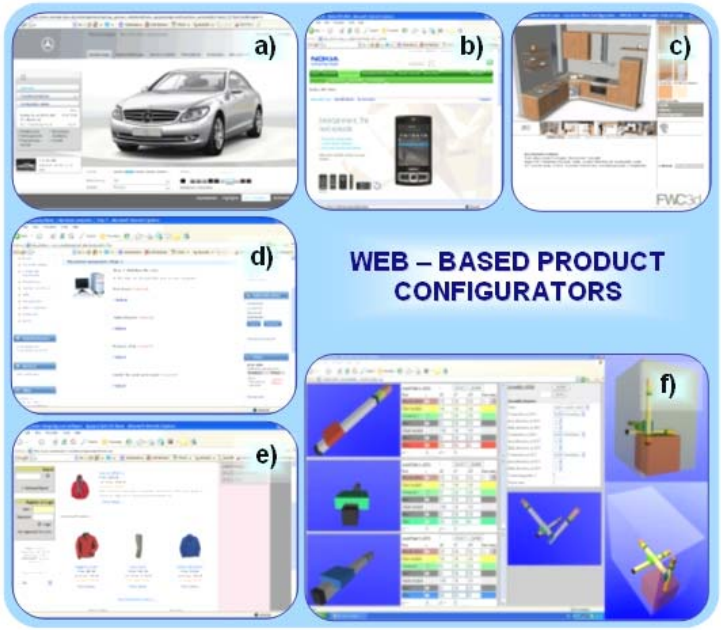

Figure 3 Web – based product configurators

It can be given many examples of products configurators but here our goal is to analyze their repeatable elements and represent their possibilities and functions in common. The features of the products configurators are very well summarized on the site http://www.technicon.com. These features include:

- Providing appropriate queries and generating of order-ready quotes, including by accessing the latest product and pricing information.
- Flagging incompatible options and highlighting prior options that are incompatible with the current option.
- Supporting the import of external and legacy configuration data and rules into Custom Commerce configuration models.
- Supporting complex pricing models that allow multiple price lists to be associated with any product option.
- Providing context-appropriate help messages and selling suggestions.
- Providing graphics and animations to aid in the configuration process, including 2D drawings and 3D models.
- Supporting the use of spatial relationships and rules for configurations, allowing layout and assembly of multiple products to arrive at integrated solutions.

We pay attention to the functionality, because the quality of the reconciling customers' interests and features of products depends on technical functionality of the configurators. So it is very important to implement new ideas and technologies for their development. For example for the assurance of the appropriate to the design by the customer process functionality, the experimental 3D Web configurator given on Fig.3 f) was developed by the use of the relatively new X3D (eXtensible 3D) language for the description of product (we have used virtual product model of the DriveSets-family brought to the market by Systec E+S GmbH, Germany - http://www.drivesets.de). The 3D Web configurator provides as feedback in the web-browser of the customer not only the appropriate graphical representation of the newly developed system, but the model of the systems installation and operational area, animation of the systems action and dynamical change of the model parameters such as dimensions of form, dimensions of dispositions and etc.

By using of Web configurators it become possible users to customize (even in some cases to design) their products over the internet. The direct customer participation in the personalization of product or in the design of it saves time and money, reduces the engineering efforts in respect to the solving of the design problem, improves the quality, changes the attitude of the customers towards the product and on this way facilitates the product market realization.

3.2 Customization of Services

The "decades of the middle", with a more educated and discerning population, have led to a higher level of expectation for personalized services. Allied to that, service providers themselves need to differentiate their offering in some way to sustain market share and profitability. An increasingly common method of service differentiation these days is to introduce options and choices (often associated with premium charges) that give the customer some customization and control over service content and availability. Increasingly, an extremely cost-efficient way of deploying a service to many customers is transforming it into software, that is, automating it and bundling it in some way within the product package. The customer must still be the focus, whether the service is manual or automated; therefore, the product package and the service parts of the package have to treat different customers differently. We're not putting service automation in question; rather, we're stressing that any new or enhanced service must be at least as customized as the previous one – manual or semi-manual – to make sense in the context of Mass Customization, for both simple and complex services.

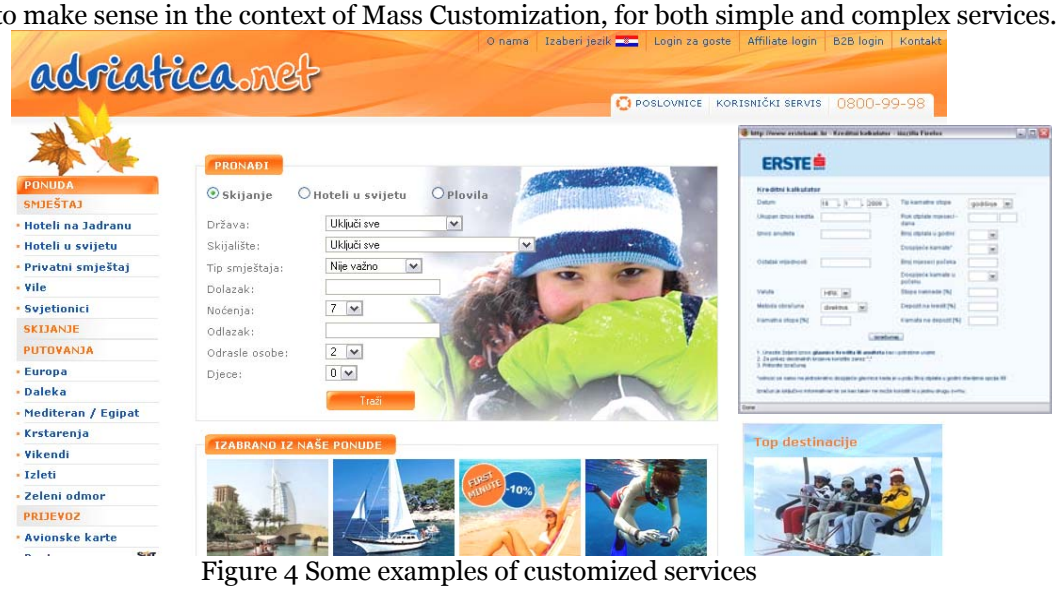

Figure 4 Some examples of customized services

Customization of services, according to the conducted research follows the situation in Western Europe or North America. Possibilities of customization were expanded from typical e-commerce applications in the following areas [12, 13]:

- Transportation services (tickets),
- Financial services (assurance, leasing, etc.),
- Tourism (accommodation, restaurants, etc.)
- Other (arranging celebrations, education, etc.).

Customization of services offers much potentials of implementing MCP concept (quicker and easier building of business model) instead of customization of products, due to the technological level, strength of companies and economies of the stated countries. On the other hand there are many possibilities to develop services, especially in tourism, culture or education in order to integrate, present and promote values of the specific regions to world market through the global net.

4. Conclusions

The economies of the Central and Southeast European countries currently move through very different developmental stages, ranging from the highly industrialized economies of the EU full member states to those transitional and economically unstable systems.

Bearing in mind such a complex state of affairs, the introduction of the Mass Customization and Personalization concept has a very special value and represents a unique challenge.

The results of mapping showed, that there are many mass customization activities in south east European region. Starting at Universities as knowledge transfer centers, more and more companies/entrepreneurs realize, that mass customization business model can help to strengthen their competitiveness. Keeping in mind special cultural aspects of southeast European region, universities should include mass customization business model in their curriculum, build transfer centers for sme and build up stronger networks.

REFERENCES

[1.] Svensson, C.; Jensen, T. (2001): The customer at the final frontier of mass customisation, 1st Worldcongress on Mass Customization, Hong Kong.
[2.] Toffler, A. (1971): Future shock, New York
[3.] Davis, S. M. (1987): Future perfect, MA, Addison-Wesley publishing company, INC
[4.] Tseng, M.M. , Jiao, J. (2001): Mass Customization, in G. Salvendy (Ed.) Handbook of Industrial Engineering, 3rd edition, New York: Wiley, 2001, pp. 684-709
[5.] Piller, F. (2003). Mass Customization News. Newsletter on Mass Customization, Personalization and Customer Integration, Vol. 6, No. 1 (May 2003).
[6.] Von Hippel, E. (2001): Perspective: User Toolkits for Innovation, The Journal of Product Innovation Management, 18 , pp. 247-257.
[7.] Webster Online (2003):
URL: http://www.webster.com/cgi-bin/dictionary?book=Dictionary&va=personalize
[8.] Fung, G.; Boysen, A.; Chignell, M. (2001): A Model of Personalization. 1st Worldcongress on Mass Customization and Personalization, Hong Kong.
[9.] Babiarz/Freund/Piotrowski/Wawrzynkiewicz (2004): Prerequisites for successful introduction of Mass Customization strategy in Central Europe, Manufacturing and Management in the 21st Century, 16.-17.09.2008, Ohrid, Macedonia. Available online at: http://robertfreund.de/blog/wp-content/uploads/2008/12/freund-piotrowski-2004-ohrid.pdf
[10.] Freund, R.; Piotrowski, M. (2005): Mass Customization in Central Europe - Industry Research. 3rd Worldcongress on Mass Customization and Personalization MCPC2005, 18.-21.09.2005, Hong Kong, China.
[11.] Tudjarov B., Bachvarov A., Boyadjiev I., Web Virtual Reality for Product Customization, Proceedings of the 3rd International Conference on Mass Customization and Personalization in Central Europe (MCP - CE 2008), Novi Sad, Serbia 2008.
[12.] Anišić, Z. Duvnjak, S., Mitrović T.: Concept of Customized Turist Offer of Vojvodina Region, MCP-CE 2008, Palić, Serbia, 2008.
[13.] Fürstner I., Anišić Z., Ćosić I., Overview of Current Research Results of Mass Customization, MCP-CE 2008, Palić, Serbia, 2008.

ECONOMIC AND SOCIAL IMPLICATIONS OF UNEMPLOYMENT AND OPPORTUNITIES OF DIMINISHING IT

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ABSTRACT:

Economy does not constantly develop. A period of economic expansion and prosperity is followed by recession or even economic crises. At present, one of the worst consequences of economic recession is unemployment increase. Accordingly, under such circumstances, the paper tries to focus on the consequences of unemployment increase upon economic and social life and to identify a series of goals and measures capable to diminish it.

KEYWORDS:

economic recession, unemployment, social life

Economic development is fundamental for human beings' existence. At the same time, human beings detain the leading position in economic development; they are, together with nature, "primary" production factors. The mutual connections between population and economy occur within certain more or less varied processes and under various time and space historical circumstances.

Society's existence and progress is provided when both the evolution of the two terms – population and economy – and their interaction meet certain quality and size characteristics. Their absence or sizing might determine negative effects such as: economic underdevelopment, unemployment, decrease of the living standard which are quite often considered to be lacks of balance of the population – economy correlation.

History shows that a country's economy has a cyclical evolution. A few years of economic expansion and prosperity are followed by recession and even economic crises; one of the most negative consequences is unemployment increase. As production decreases, companies need less labor; they do not hire anymore new employees; those who still work are fired. Such circumstances manifest more and more obviously in our country too, especially within the present-day circumstances of world financial crisis.

In Romania, the first affected fields have been those connected with exports, especially those towards the European Union that represent about 70% of the whole amount of exports. Although at present statistics barely show the diminishing of industrial production and exports, the effects of the disturbances on international financial markets also affect Romania.

Romania's motor cars industry has already been affected by the effects of the economic crisis; problem are encountered by Dacia and Ford companies as well as by those companies that produce car spare parts. As regards metallurgy, Arcelor Mittal Galati has decided to decrease laminates production and to close certain production capacities. Romania's building field is also affected by present-day circumstances and the increase of crediting costs that negatively influences the demand development of residential segment.

Generally, the hardening of circumstances and the increase of crediting costs, as well as the relative lack of liquidities affect companies belonging to all the branches of Romania's activity. The whole range of economic activity manifests a restraint in expanding and deploying new investments; certain companies decreased production rhythm as a result of a lower demand, especially for exports goods. Companies do not register profits anymore; they postpone investments or, at worst, they suspend their activity, implicitly diminishing the

number of employees. If, until now, Romania has had to face, in certain fields, a lack of labor, at present, in certain areas, unemployment affects even communities.

We have already stressed the fact that the periods of economic recession determine an important increase of unemployment rate. Generally, the characteristics of such a period are *cyclic unemployment and structural unemployment* [7].

Cyclic unemployment – sometimes also called *conjuncture*, is determined by the economic crises that occur, by partial crises or by other crises characteristic of certain circumstances. This type of unemployment can be the result of the defective administration of the correlation between the salaries level, on the one hand, and the level of prices and labor productivity, on the other one. Generally, cyclic unemployment can be totally or partly eliminated during the periods of economic growth.

Structural unemployment is determined by the economic, geographic, social, etc. restructuring tendencies that occur in various countries, especially due to technical progress. It is mainly the result of the lack of balance between labor offer and demand. The system reintegration of such labor can only be done according to a long and difficult process as it implies investments' increase and re-qualification of the affected persons.

At the same time, the appearance and expansion of certain non-typical forms of employment - such as occasional jobs, determined period jobs or seasonal jobs – have determined *intermittent unemployment* and *seasoning unemployment*.

As regards *technological unemployment*, as in Romania new technologies' implementation processes witness a slower rhythm, it is not so evident and ample. We do not support the idea that an ampler technological unemployment could be positive; nevertheless we should notice that the delay of the new technologies implementation process according to an optimum level is going to determine, on a long term, efficiency decrease; labor productivity diminishes as well and the companies' competition capacity also decreases.

Another main form of unemployment is *exclusion unemployment* [2]; it represents the active population including most aged persons, less qualified ones, and those unemployed for a long period of time.

The manifesting of the various forms of unemployment makes its diminishing extremely difficult and, at the same time, delicate.

During the present stage, the main causes that determined unemployment increase have been:

- massive employees dismissals that have occurred within all economic fields that undergo restructuring;
- insignificant increase of the number of jobs due to the lack of diversity of economic activities and to the slow development of the private field;
- a professional and educational qualification level that quite often does not match the demands of the labor market;
- a relatively low investment capacity in economic branches having real development opportunities;
- underdevelopment of medium and small size companies due to a relatively low level of investments;
- the acute effects of the international financial crisis in various fields.

Under such circumstances we support the idea according to which a high unemployment represents an economic problem as well as a social one. From an economic perspective, unemployment is a waste of precious resources. From a social point of view, it is the cause of deep sufferance as unemployed persons have to struggle living with low incomes. During high unemployment periods material problems increase deteriorating people's feelings and family life.[8]

Unemployment cost at the level of the economy and society is extremely complex and all-inclusive. The aspects taken into consideration include:

- waste of an important amount of labor resources as unemployment decreases labor's determining part as a production factor;
- diminution of the economic development as labor's under-use is a factor that determines the tremendous decrease of production amount under the potential one;

- - such facts determine losses of salaries and profits which, at their turn, determine consumption minimizing having negative effects upon the development economy; poverty increase and generalization, especially in mono-industrial areas strongly affected by the economic restructuring of that industry;
- decrease of the State budget's incomes and expenditures due to the spread effect of unemployment;
- increase of the State expenditures in order to maintain and make function public institutions in the field of registering and surveying unemployment, to pay unemployment aids and other social expenditures regarding labor reconversion;
- appearance of social discrimination, of the phenomenon of marginalization of certain persons or less favored groups.

During the last decades, the struggle against unemployment has been a basic element of defining the social policies implemented in all the member states of the European Union. In Romania which is a member of the European Union an important reform process occurs at present influencing all the fields of the economic and social life; its key elements are *unemployment and unemployed persons'* issues.

Unemployment diminishing policies (policies fighting against unemployment [3]) can be grouped in two large categories: the first category directly targets unemployed persons; the second one refers to the measures regarding the employees.

The first category includes: organizing measures of preparing and training those persons who look for a job in order to face the new techniques and technologies; the facilities given by the State in order to create new companies capable of offering new jobs and to create new jobs in public activities. Resorting to new forms of employment has become quite familiar during the last years: reduced program or atypical program jobs; determined period employments.

The policy of unemployment decrease stipulates, accordingly, selective measures in order to train and employ long term unemployed persons.

The measures that regard employed population have as a goal, on the one hand, the prevention of unemployment increase through a needs adequate qualification, and, on the other one, they tend to decrease unemployment through creating new additional opportunities of employment.

The experience of the countries having a „tradition" in the field of unemployment and its settling has proved that the rapid progress and the well functioning of the labor market are influenced by two equally important elements: the first one is the *providing of basic social services for less favored categories* – that resides in social protection as a fundamental goal of social policy, and the second one is the *use of the most important treasure of the poor – namely, labor*.

Social protection represents a group of policies, measures, institutions, and organisms that provide a certain level of welfare and social security for the whole population and, especially, for certain social groups and persons that are nor able to reach owing to their own effort a normal, minimal life standard. Owing to juridical stipulations, social protection implements national and regional programs with a view of providing aids, allowances, allocations, and social services for less favored persons.

Two categories of labor social protection measures are stipulated:

- *passive measures* (targeting money aids such as: unemployment support, professional integration support, support allocation, and money compensations given to the persons that have been collectively dismissed);
- *active measures* (targeting the stimulation of natural and juridical persons that employ graduates of higher education institutions, the giving of advantageous credits in order to found small and medium size companies, qualification, re-qualification, and professional improvement of those who look for a job, organizing job promotions, other special active measures in order to employ dismissed labor).

Such protection measures are meant to stimulate the (re)turning to economic activity and the development of entrepreneurial spirit, to encourage the persons belonging to less favored categories, to increase the incomes of those having low incomes.

The restructuring of the Romanian social and economic system according to the demands of the market economy determined deep and important changes at the level of the labor market that also include unemployment as a mass phenomenon. Under such circumstances, one of the essential goals of Romania's social and economic policies is the guarantee of a job and providing of a decent living standard, either determined by a person's direct work or provided by social protection and assistance (which have an important part in diminishing unemployment's effects among the less favored population).

At present, Romania's labor market displays a series of services as follows:

1. *Financial services* – that include the payment of certain money aids (unemployment support, professional integration support, support allocation, social support), advantageous credits given to the small and medium size companies or subsidies granted to those companies that hire graduates;
2. *Labor intermediation services* – that include activities of labor intermediation, counseling services regarding professional career and business counseling services;
3. *Information services* – for those who demand or offer jobs;
4. *Training services* – that include activities of professional preparation in specialized units (schools, colleges, universities, requalification and professional improvement centers).

Out of the services existing on labor market we are going to focus upon labor intermediation services that we consider as quite important in the process of labor integration/reintegration of unemployed persons.

We consider that, on the one hand, the labor intermediation service can support unemployed persons and those who can be threatened in the future by unemployment owing to the services at their disposal, and, on the other hand, business counseling offers mainly to the private field companies ideas and support regarding their development opportunities as well as counseling and support services for those interested in starting their own business; they consequently contribute to the development of the private field and the foundation of new jobs.

Labor mediation includes a series of activities owing to which they try to correlate demand and offer on labor market; it has as a final goal the employment of available persons and the occupation of vacant jobs. The matching between labor demand and offer should occur under circumstances capable of meeting both parts and of determining a long lasting professional relationship. [4]

Mediation centers offer to those who demand jobs complex information regarding:vacant jobs and the terms to be carried out in order to get them; services offered by mediation centers; statistics regarding labor market; employment programs started at a local level offering jobs prospects; qualification/professional training opportunities and terms to be carried out in order to take part in the courses.

In Romania, labor mediation centers have had to face a series of difficulties regarding: the activity's new characteristics, both for mediators and for their clients; lack of personnel properly trained for such an activity; improper material resources, especially adequate environments for the mediation activity; the increasing number of unemployed persons and the numberless problems to be settled; the timid relationships with companies and jobs suppliers; clients' reticence to resort to the services offered by mediation centers.

Due to the part played by this service with a view of matching labor demand and offer, we consider it necessary that decisional factors should pay the proper attention in order to develop such centers in the future.

Counseling, in general, is known as a wide spread and varied *professional service* in developed countries having a market economy and targeting a large category of persons or organizations belonging to various economic fields: public institutions, private or State small, medium or large companies, non-governmental organizations.

The Association of Companies Management Counseling in the U.S.A. (ACME) defines management counseling as a "service performed in exchange of a fee by independent and objective specialists that support the management of the companies and institutions with a view of attaining their goals and rationally and properly developing their activities." Business counseling as a professional service has the following essential goals: improvement of entrepreneurial spirit; entrepreneurial training addressing to a large number of persons apt

or wanting to start their own company; stimulation of the creativity, flexibility, and work capacity of private business men/women.

We consider that the initiation of business counseling centers with a view of implementing active measures capable of fighting against unemployment is a logical and welcome measure especially under our country's present-day circumstances. The better organized and managed such a center the most the positive effects of its activity are going to be felt in the area it is active. Permanent results may consist in:

- a larger number of new private companies successfully operating and determining the development of the private field;
- development of the amount of the economic activity of the existent private companies (an increased financial result, more profits, etc.) and an increase of their quality indices (increase of productivity, profitableness, of quality and competition level of their products and services);
- a larger number of persons who gained or improved their management skills;
- and, as a corollary of such results, an increased number of jobs that are more stable, and a decrease of unemployment rate.

In essence, in our opinion, the main goals that should be noticed with a view of decreasing unemployment are the following ones:

- Determining opportunities for long-lasting employment; with this in view, regional development programs play an important part;
- Training and re-qualifying not only unemployed persons but also those who work in State companies which are to be restructured;
- Shifting the part played by unemployed persons protection policies from passive measures towards active measures;
- Giving facilities to those unemployed persons who get a job through their own efforts; we consider this could be a quite inciting measure with positive results;
- Increasing the degree of implication of local communities in the issue of diminishing unemployment rate (e.g. limited period facilities – regarding taxes, fees, services, etc. - given by local town halls to the companies that hire unemployed persons);
- Giving the required attention to the notion of "permanent education" throughout one's whole life and even to the notion of "e-learning".

Taking into account the above facts we sustain that:

- Labor employment cannot be done by market games as it is known that labor market is the most imperfect of all markets;
- Employment issue cannot be superficially treated only according to the elaboration of theoretical programs as the degradation of the quality of human resources due to unemployment and lack of use determines chain budget constraints, weakens individual social security, and, under the circumstances of the accumulation of a critical mass, it determines ample social movements;
- A close connection should exist between the need of competent human resources and the proper financing of creating and developing human resources as otherwise e-capitalization effects of human capital are going to come out;
- At the same time, a proper correlation should exist between legislation in force regarding employment and unemployment and the management of the policies resulting out of that legislation;
- Last but not least, employment, unemployment prevention and struggle against it demand a balanced relationship between the active and passive policies of labor market, abandoning certain mechanisms (important compensatory payments) having minor positive effects or short term effects; investment and fiscal policies are to be conceives together with policies of supporting labor employment of generating stable jobs.

In our opinion, with a view of decreasing unemployment and increasing the degree of labor employment, they should search for a manner of matching and combining economic mechanisms, means, measures, and policies that owing to their common action are able to provide the carrying out of the envisaged goal with lower economic and especially social costs.

REFERENCES:

[1] Avrămescu Tiberiu, *Cheltuielile de protecţie socială şi finanţarea acestora în România*, în "Economia contemporană.Prezent şi perspective" Sesiunea Internaţională de Comunicări Ştiinţifice, Piteşti, 24 - 25 aprilie 2004, Editura Agir, Bucureşti, 2004
[2] Ciucur D., Gavrilă I., Popescu C-tin, *Economie. Manual universitar*, Economic Publishing House, Bucharest, 1999
[3] Dobrotă N., *Dicţionar de Economie*, Economic Publishing House, Bucharest, 1999
[4] Neamţu G. (coord)., *Tratat de asistenţă socială*, Polirom Publishing House, Iasi, 2003
[5] Niţă D., *Piaţa muncii. Fenomene induse de restructurarea industriei extractive a cărbunelui din Valea Jiului*, Edyro Press Publishing House, Petroşani, 2008
[6] Niţă D., *Elemente de economie politică*, Cuvântul Publishing House, Bucureşti, 2005
[7] Pârvu Ghe. (coord.), *Economie. Manual universitar*, Universitaria Publishing House, Craiova, 2001
[8] Samuelson P.A., Nordhaus W.D., *Economie Politică*, Teora Publishing House, Bucharest, 2000
[9] Ungureanu E., Avrămescu T., Bâldan C., etc., *Economie.Microeconomie şi Macroeconomie*, Sitech Publishing House, Craiova, 2008

THE JIU VALLEY'S EXTRACTIVE INDUSTRY TRANSITION TO THE MARKET ECONOMY

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ABSTRACT:
1997 represented the beginning of the Jiu Valley's decline. Although it was clear that transition to the market economy would also imply, sooner or later, the re-structuring of the mining field, this process, done in a hurry and with no short or long term economic strategy, only determined the closing of a part of the mining units, unemployment, poverty, and despair. We consider that, according to the opinion of those times authorities, the mining field had to disappear as Romanian economy did no longer need coal. At present, opinions are different due to internal and international circumstances; solutions are looked for in order to improve this important field of the national economy.
KEYWORDS:
transition, reform, re-structuring, improvement, mining field, coal

The reform of the mining field is one of the most important components of Romania's transition process. Besides its positive effects upon the efficiency increase of the mining units and the losses decrease at the level of the national economy, the reform process has various negative consequences upon the miners and their families, upon the communities whose life is largely structured by mining activities, upon the persons who work within other fields (metallurgy or public services) depending or not on the mining industry, and, last but not least, upon local infrastructures. The most important **obstacles and difficulties** are the following ones:

- The increase of unemployment and the impossibility of finding an alternative job;
- The dramatic decline of life standards;
- The deterioration of local infrastructures and public services.

In 1990, with the changes that took place in the whole economy, the restructuring of the mining field started. Accordingly, the first legal act that determined changes of the mining units' organization was Law no. 15/07.08.1990, according to which State economic units were re-organized as autonomous administrations and companies. Autonomous administrations were founded in the strategic branches of the national economy: armament industry, energetic industry, mines and natural gas exploitation, post and railroad transports. At the same time, there were other fields that witnessed the foundation of autonomous administrations, decided by the government. Autonomous administrations have been settled through government decisions – in case of those having a national importance – and through decisions of district or local councils – in case of those having a local importance. Autonomous administrations are juridical persons and have their own economic administration and financial autonomy.

Besides these a series of strategic concepts have been formulated and implemented; they concern the basic restructuring of the mining industry and included:

1. Technical and production restructuring;
2. Organization and management restructuring;
3. Staff restructuring;
4. Restraining or stopping productive activity.

As an effect of the geological and mining characteristics of the exploited deposits and of ores' low content of metals, namely of coal's high content of ashes, as well as due to the poor efficiency of technological equipments in use, the costs of most mining products were, after 1989, and still are higher than the selling prices on external market; accordingly, the State had to support, through subsidies, the pit coal, lignite, and brown coal production extracted owing to underground methods as well as the production of ores containing non-ferrous and precious metals.

During the period 1990-2005 the Government support for the mining industry represented about 6,000 million U.S. dollars, representing production subsidies, budget allocations for capital expenditures, and social transfers (Table no.1). It is true that the subsidies decreased year by year so that in 2000 the whole subsidies for the Romanian mining system represented about 100 million dollars.

TABLE No. 1. Budget allocations for the mining industry during the period 1990-2000 (Million U.S. dollars)

Subsidies	3966.4
Social transfers	308.9
Capital allocations	1675.4
Total	5950.7

Source: The Ministry of Economy and Finance, *The strategy of the mining industry during the period 2007-2020*, p. 1

To this total amount, one should also add, during that period, an exploitation loss of 1547.3 million U.S. dollars. Accordingly, the State's effort for the mining field that also included budget expenditures determined by exploitation loss during the period 1990-2005 represented 6,519.7 U.S. dollars.

One should not overlook the fact that out of the total budget allocations social transfers represent 5.19%; in case one also calculates the amount of exploitation losses, a percent of only 4.73 is reached.

As regards the Jiu Valley, during the last 50 years, the importance of extracting and processing pit coal for the national economy determined a significant increase of production which, in 1988, attained 11.2 million tons; such a fact determined a rapid development of the region, but people dealt with a mono-factorial type of economy. The present mining development strategy estimates that in the future the Jiu Valley should attain an annual production of about 2.7 million tons of pit coal (Table no. 2).

TABLE No. 2. Estimation of the evolution of physical production of the units in the mining field (Thousand tons)

	2007	2008	2009	2010	Total
Total coal	34776.2	35667.1	37125.0	37964.4	145532.7
Pit coal field	2701.2	2709.1	2790.0	2879.4	11079.7
Lignite field	32075	32958	34335	35085	134453.0

Source: The Ministry of Economy and Finance, *The strategy of the mining industry during the period 2007-2020*, p. 71

TABLE No. 3. Evolution of coal production during the period 1989-2007 within CNH Petrosani (tons)

Years	Extracted coal	Processed coal
1989	10 919 534	8 586 644
1990	5 898 594	4 627 167
1991	5 275 716	4 018 282
1992	5 798 901	4 267 951
1993	5 939 287	4 405 722
1994	6 502 136	4 992 069
1995	6 546 121	5 087 295
1996	7 169 429	5 536 737
1997	5 759 511	4 403 159
1998	4 401 695	3 247 764
1999	3 821 070	2 805 343
2000	3 767 031	2 994 711
2001	4 098 549	3 210 089
2002	4 023 285	2 989 432
2003	3 346 613	2 626 490
2004	3 059 385	2 562 292
2005	3 002 434	2 613 676
2006	2 591 024	2 339 648
2007	2 637 484	2 452 959

Source: CNH Petrosani, *Production Department*

Due to the restructuring of Romanian metallurgy that has partly given up the use of the Jiu Valley coal in favor of imports, pit coal demand dropped from 10.9 million tons in 1989 to 5.7 million tons in 1997 (Table no. 3). At present, pit coal production is limited to 2.5 – 2.6 million tons and has two main beneficiaries, namely Paroseni and Mintia power-stations. On the other hand, the 2000 production of extracted pit coal represented one third of the 1989 production (10.9 million tons) and 52.5% of 1996 production, the year before effective restructuring. In 2007, due to the restructuring of extractive industry, to the diminishing of the number of employees, and also due to total or partial closing of several of the Jiu Valley mines, extracted production represented 2.63 million tons, that is 75.8% less than in 1989 and 63.2% less than in 1996.

The continual decrease of coal production had, until 1997, two main causes:

- The decrease of the demand on internal market;
- The lack of investments for opening mining fields, acquiring new technology and modernizing.

As in the case of the other components of the transition process, the restructuring of this important field represents a national priority. Although all autonomous administrations in the mining field have to face relatively similar difficulties, the condition of the administrations in the coal industry seems to be most alarming as they have accumulated huge debts of thousand of billion lei, heavily affecting the State's budget. According to the calculations made by the experts of the former Ministry of Industries and Trade, "during the period 1991 – 1998, 4 billion dollars were lost by coal and ores extractive industry", when "economic activity mixed with social protection". Such a huge sum, out of which various small and medium size companies in the mining regions could have been financed, is the equivalent of about 47% of Romania's external debt at the end of September 1998. The losses registered by the Autonomous Administration of Pit Coal (the present National Pit Coal Company) of Petrosani represented, during the period 1990 – 1998 1,842.5 million U.S. dollars (representing total losses and subsidies) out of which exploitation losses of 445.8 million dollars, namely exploitation losses besides subsidies of 67.6 million dollars (Table no. 4). The same Administration has never paid its debts to the social insurances fund; its debts to the social insurances budget represent about 1,990 billion lei at the level of 1998 which are equivalent with 535 million dollars.

TABLE No. 4. Yearly losses registered by the Autonomous Administration of Pit Coal (the present National Pit Coal Company) of Petrosani (million U.S. dollars)

Years	1990	1991	1992	1993	1994	1995	1996	1997	1998	Total
Total losses, out of which:	26.7	9.4	0	5.9	108.6	113.0	116.1	168.4	286.2	834.3
Exploitation losses	-	-	-	4.8	101.1	107.5	99.0	66.5	64.0	442.9
Subsidies	180.0	162.4	99.5	130.6	129.7	128.3	112.9	33.8	29.1	1007.2
Exploitation losses besides subsidies	-	-	-	-	-	-	-	32.7	34.9	67.6

Source: Larionescu Maria, Rughiniş Cosima, Rădulescu Sorin, *Cu ochii minerului. reforma mineritului în România*, Gnosis Publishing House, Bucharest, 1999, p. xxii

During the last years, the quality of extracted coal decreased while production costs significantly overpass coal's real cost. Poor administration of the mining units, their use of excessive labor, and, especially, the lack of efficiency of the activity in the mining industry have characterized, almost continually, this field, determining huge losses at the level of the national economy.

Nevertheless, despite such losses, mining has continued to be one of the most subsidized fields in Romania; more than 50% of the total State subsidies are directed towards the autonomous administrations in the mining industry. Instead of using such subsidies to equip or technologically modernize the units, they have been spent in order to periodically increase salaries and other incomes or bonuses for miners or their leaders.

Under such circumstances mining restructuring, and especially that of coal mining, has become a national necessity. The increased number of employees in the mining field and the accumulated coal stock determined Ciorbea Government to resort to the "solution" of dismissals owing to two orders: 9/1997, addressing to the employees dismissed from State Autonomous Administrations and State Companies, irrespective of their type of activity, and 22/1997 that gave special benefits to the miners dismissed "on demand". According to the stipulations of the last order, the fired miners were given "compensating payments" that represented between 12 and 20 average salaries of the branch.

Although the labor dismissal program in the mining field stipulated that, according to the implementation of Order no. 22/1997, only about 15% of the employees would leave the field, the number of those who voluntarily agreed to be dismissed over-passed all expectations due to the promised compensatory payments; accordingly, the employees of the administrations decreased with about 40%. Such circumstances determined a series of

immediate negative consequences upon the activity of certain mining units that had to face the lack of specialized employees and the prospect of future closing.

This whole massive restructuring process in the mining industry, conceived almost entirely from the point of view of decreasing the number of employees has had as a basic principle the improvement and increase of labor productivity in the field which has always been considered as non-profitable due to the high production cots, huge subsidies it has benefitted from, and massive debts it has accumulated during the years.

Accordingly, one would wonder whether restructuring has or has not as an effect the improvement of extractive activity. In order to answer this we have displayed the evolution of the average number of employees and of the coal production extracted during the period 1989-2007; we have paid attention only to those data belonging to the Jiu Valley's mining units excluding those from Tebea and Anina (that have also belonged to CNH Petrosani, although they do not belong to the coal basin of the Jiu Valley anymore) as well as the company's auxiliary units (Table no. 5).

One can notice that the number of employees decreased during the period 1997-2002 with 49.1%, production diminished with 19.3%, while labor's physical productivity of 266.9 tons/employee/year registered in 2002 was the biggest during the interval 1989-2007. Nevertheless, one cannot speak about a direct relation of cause between the decrease of the number of employees and the increase of productivity as long as in the mining field the plan figures depend on a lot of factors; among the most important factors one can cite technical equipments and the works of opening and preparing the mining fields. Yet, a visible increase of the productivity per employee can be noticed, a fact that is quite normal under the circumstances of severely diminishing the number of employees.

As compared with 1996, in 2007 the number of employees decreased with 69.29%, production with 55.83%, while labor's physical productivity increased with 43.88% tons/employee/year.

TABLE No. 5. Evolution of the average number of employees, of extracted production, and of labor's physical productivity during the period 1989-2007 in the Jiu Valley's mining units

Year	Extracted coal production (tons)	Average number of employees (persons)	Labor's physical productivity (tons/average number of employees)
1989	9,751,214	39894	244.4
1990	4,997,785	34614	144.4
1991	4,526,420	33751	134.1
1992	4,920,851	34281	143.5
1993	5,055,340	35365	142.9
1994	5,457,948	35822	152.4
1995	5,367,752	35505	151.2
1996	5,971,571	34796	171.6
1997	4,927,139	29306	168.1
1998	3,961,691	18179	217.9
1999	3,512,071	15843	221.7
2000	3,701,140	15402	240.3
2001	4,032,829	15281	263.9
2002	3,976,795	14902	266.9
2003	3,308,583	14382	230.1
2004	3,016,335	13228	228.0
2005	2,981,734	12011	248.3
2006	2,587,424	10909	237.2
2007	2,637,484	10683	246.9

Source: CNH Petrosani, *Production Department* and *Human Resources Department*

It is obvious that the Government which has started the restructuring process has not paid attention at all to the social costs of this approach nor to the economic ones. The Jiu Valley mining industry continued to benefit from massive State subsidies after 1997 too, while CNH's debts continued to grow. In 2007, the Company was, according to the data provided by the National Agency of Fiscal Administration (ANAF), Romania's biggest debtor; the debts to the general consolidated budget represented 2.83 billion RON. Accordingly, on

December 31st 2007, CNH owed 1.1 billion RON to the State budget, 1.5 billion RON to the State social insurances budget, 178.39 million RON to unemployment insurances budget, and 56.9 million RON to the health budget.

TABLE No. 6. State support for CNH Petrosani during the period 2007-2010 (thousand RON)

Specification	2007	2008	2009	2010
State support out of which:	401.440	338.940	293.160	256.022
Subsidies	384,962	324,818	281,057	245,649
Transfers	16,847	14,122	12,103	10,373

Source: The Ministry of Economy and Finance, *The strategy of the mining industry during the period 2007-2020*, p. 61

Under such circumstances, the State's support for CNH Petrosani during the period 2007-2010, given with the agreement of the European Board is going to increase to 1.28 billion RON (Table no. 6).

One can subsequently conclude that the restructuring process of the mining industry has taken place in a hurry with no concern for people's interests or for those of the mining units and areas. The government's program has been conceived and implemented over night and has not relied upon a fundamental and systematic conception capable of anticipating the medium and long term effects of restructuring. It has come out as a roller that swept away people without any alternative and without a concern for the future of the mining industry or of the strategic interests of Romania. Restructuring has not been a gradual process, developed according to certain stages, but more a rash political decision. In case the programs belonging to the restructuring process would have been implemented during several years, as the administrations initially conceived them, the former miners and the persons living in the mining areas had not have to face the extremely difficult conditions determined by unemployment.

As regards the economic and social decline of the Jiu Valley's population, one can say that almost all approaches and researches accomplished during the period 1997-1999 confirmed the fact that the conditions are going to continually aggravate not only for those who look for a job but for those who are employed too; they are going to be affected by the area's poverty and the increasing social tensions. Beginning with January 1999 when most of the "first wave" dismissed persons legally ceased to benefit from financial support (unemployment indemnifications and support allocations), central and local authorities had to face the numberless protests of those who demanded jobs.

The solution of these problems has, from the beginning, been perceived as unattainable from the point of view of its economic alternatives; the State's reaction has ultimately been determined by the serious forms the unemployed persons' protests took (from strikes and moving to Bucharest to hunger strikes, self-firings and even suicides). The solution has also been taken in a hurry, namely the short term financial support of unemployed persons (especially emergency support approved according to Government decisions).

Today, when one talks no more about closing all the Jiu Valley's mines and about renouncing for good to the pit coal extraction in the area (the European Union has re-considered its position and they have ultimately returned to the old advice "give the country as much coal as you can"), the authorities try to find out solutions to really improve the field; among them the giving of investment subsidies with a view of acquiring new technology or the settling of an energetic complex that would include both the mining units and the power stations of Mintia and Paroseni.

Yet, a last specification should be made, namely that after more than 10 years from the first Jiu Valley dismissals, at the end of 2007, CNH Petrosani hired personnel. It means that beginning with January the 3rd 2008, a number of 60 unskilled workers began their activity; they were distributed to all 7 mining units which are nowadays active.

BIBLIOGRAPHY:

[1] Chiribucă Dan, Comşa Mircea, Dâncu Vasile Sebastian, Rotariu Traian, *Efectele sociale ale restructurării economice a zonelor monoindustriale. Studiu regional Valea Jiului*, 2000;
[2] Fodor Dumitru, *Pagini din istoria mineritului*, Infomin Publishing House, Deva, 2005;
[3] Iuhas Valeriu, *Dezvoltarea economică regională: implicaţii economice şi sociale*, Emia Publishing House, Deva, 2004;
[4] Larionescu Maria, Rughiniş Cosima, Rădulescu Sorin, *Cu ochii minerului. Reforma mineritului în România*, Gnosis publishing House, Bucharest, 1999;
[5] Stegar Irinel, *Valea Jiului – Probleme şi politici sociale*, Focus Publishing House, Petrosani, 2007;
[6] *** Ministerul Economiei şi Finanţelor, *Raport privind situaţia macroeconomică pentru anul 2006 şi proiecţia acesteia pe anii 2007-2009*;
[7] *** Ministerul Economiei şi Finanţelor, *Strategia industriei miniere pentru perioada 2004-2010*;
[8] *** Ministerul Economiei şi Finanţelor, *Strategia industriei miniere pentru perioada 2007-2020*;
[9] *** http://www.jiuvalley.com;
[10] *** http://www.mfinante.ro

NEW DEVELOPMENTS IN THE RELATIONSHIP SELLING APPROCH

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Abstract:
The traditional selling approach has suffered tremendous changes lately related to a major shift in the way the sales force is approaching the existent and potential customers. The new developments can be classified into many categories, but we would like it concentrate on few major developments that would dramatically impact the way sales force is evaluating the sales approach. We can classify these developments into 2 major categories: technology and conceptual. In the current context, we would like to analyze the specific changes in each category and a better understanding of the specific characteristics related to each category.

Keywords:
Relationship, selling approach, customer, buyer

DEMANDING CUSTOMERS – FIERCE COMPETITION – BREATHTAKING TECHNOLOGICAL INNOVATION...

These are the realities of today's global marketplace... realities that have changed forever the way we do business, especially the way we sell. Gone are the days when salespeople could rely on charming small-talk and aggressive closing techniques alone to generate business.

Many traditional selling approaches regard selling as something the seller does to the buyer. They sell them something. The result of this attitude to sales is that many salespeople adapt a manipulative, almost coercive style of selling. Some salespeople think of selling as pushing a customer into buying, and success as a victory. Often, people fear salespeople and distrust them. They think of salespeople as fast talking and slick. They are wary of being sold something they really don't need or want.

The traditional customer call once seemed indispensable to the selling process; the time and expense involved were just a basic cost of doing business. In recent years, however, the business community has come to regard the sales call as an expenditure for which there are substitutes. For many companies telemarketing and direct mail have made the sales call a choice not inevitability. This is not surprising when various studies suggest that getting one sales person in front of one customer now costs triple since 1983. As a consequence professional salespeople have to be more effective than ever to justify the investment in a face to face effort.

In essence, we can draw a number of primary conclusions and taken together, these findings paint a picture of the current state of the sales environment.

Customer Focus Creates Competitive Advantage:

- The one term that sets top performers apart - customer focus
- Outstanding sales results depend on:

- The ability to think from the customer's point of view
- Understanding the customer's agenda, buying cycle and best interests

- Beyond a superficial reading of immediate customer needs, salespeople must gain a deeper understanding of both the buyer's long-term goals and the overall business climate
- At the heart of customer focus is the art of listening constructively - the best salespeople are masters at capturing information
- Customer focus means taking the customer seriously - to-day the salesperson who clings to the product orientation of a decade ago is losing ground
- As client companies branch into new markets and unfamiliar territories, they are demanding unique, flexible solutions from their vendors - customized to support specific goals

Another myth which can be exploded is that whilst customers value flexibility, being too flexible can undermine the sales relationship. On the whole salespeople imagine that customers value a vendor's responsiveness above all. However recent research shows that their primary concern is reliability.

In summary, in order to maintain customer focus the best salespeople become facilitators, creating a partnership that extends the selling relationship within the customer's company. The motivation to achieve this should be strong - it costs five times as much to attract and sell to a new customer as it does to an existing one!

The right to do business has to be earned and *never* assumed:

Rather than doggedly asking for the business, the very best sales people work to keep the relationship moving towards a sale. They realize the need to identify how to turn their company's products into real solutions, which must meet specific needs.

Unfortunately, our surveys confirm that the average salesperson drags the customer over old ground as much as 52% of the time - they are unable to provide continuous stimulation and never know when to treat an existing customer like a new one.

Conversely, exceptional salespeople only make such 'return' calls for 10% of the time. Above all, earning the right to proceed requires gaining the customer's trust and top salespeople work diligently to establish a climate in which the customer is willing to share information and feels comfortable doing so. The key here is integrity.

Customers are persuaded when they are part of the process and not part of the audience:

Sales success to-day demands a radical shift from the 'peddler' mentality of merely demonstrating products and expanding on their features. It requires treating the customer as a participant. More often than not, a 'flashy' sales presentation alone alienates rather than persuades

The best salespeople regard the sales call as a two-way conversation - not a one sided pitch. They have developed active listening skills. Average salespeople score fairly well in their ability to provide customers with facts and figures, but top performers dramatically outscore the rest when it comes to gathering information. In addition, how a salesperson collects information still distinguishes exceptional achievers from the rest of the pack. I.e. top performers ask better questions and as a result gain much better information. Essentially, they aim to engage customers in the buying process with questions that require thoughtful answers, that stimulate curiosity and that reveal the customers underlying needs.

Businesses need to re-define selling and what constitutes basic selling skills:

In to-day's world of selling, there is less and less room for apprenticeship. Selling has become an exclusive club of highly skilled professionals where product knowledge and time management skills, for instance, are the cost of membership not leadership.

Ongoing research demonstrates that to-day's 'average' salesperson is just as effective as the high performer in explaining features and benefits effectively, relating a service or product to customer needs and closing a sale. But, above this Level 1 plateau of competence, the exceptional salesperson is busy defining the "basic skills of tomorrow".

Building an up-to-date foundation in sales competence does mean sacrificing some old notions of what it takes to succeed in a competitive marketplace. For example, a salesperson can no longer just "win by knowing". Every company needs to test their assumptions about what skills really contribute to sales success. Too often operating on old sales theories means training and rewarding people to do the wrong things.

When the buyer and seller act as partners, they are building a bridge to profitability:

Successful selling is definitely not about the "hit and run" sale. Sales achievers regard their relationships with key customers as a partnership and cultivate it as such. When customers face tough business challenges and complex technological choice, they rely on sales people who can assist them in making the right decisions.

The primary objective of a sales partnership has to be, to create and sustain a mutually productive relationship, which serves the needs of both parties, now and in the future. The key word here is symbiotic. Partnership does not mean eliminating the tension between buyer and seller; it means that top-performing salespeople know how to strike a balance between achieving immediate results and developing the relationship fully.

In Summary: Why Do We Need A Fresh Approach To Selling?

Many organisations have developed without objective analysis of their purpose and structure. The buying power in many industries is no longer evenly distributed - in a large number of markets a few big firms control the majority of purchases.

The development of new marketing techniques has meant that some tasks traditionally performed by the sales team can be more effectively handled by other methods. The prime objective of all sales staff is to gain business. From an organisational point of view, however, how they all achieve their goals must be defined in order to identify what kind and the quality of skills that are required.

Develop a long term relationship by attaining customer satisfaction Truly effective salespeople succeed because they are genuinely curious and concerned about people in general - and customers in particular. Their desire to understand the customer takes priority over their desire to sell their products and services. The delightful irony, of course, is that the very reason they are successful at selling is because they have made their desire to sell a secondary issue. The primary issue is the relationship they have with their customer.

The surest way to cement a long term business relationship with your customer is to remember that no sale is completed until the customers expectations have been met or, preferably, exceeded. There are many salespeople who take customers for granted. The excitement of new sales often leads to ignoring existing customers. The result is constant pressure to create new business from scratch. Meanwhile, some of your best prospects are right there under your nose, in your own customer base.

The "traditional", fast-talking slick sales person is no longer effective in today's global marketplace. Dynamic and highly competitive, our market consists of well educated, savvy consumers looking to the modern salesperson for guidance in making well-informed buying decisions. Those unwilling or unable to adapt not only experience declining sales, but also risk severing long-term customer relationships. The challenge is enormous and the stakes are high.

Customers buy for their reasons, not ours. When we strive to form a partnership with our customers, providing them with valuable help and advice as well as supplying vital products and services, we virtually ensure sales success.

REFERENCES:

[1] Caffery, Michael, Lasă clienţii să îţi promoveze afacerea", Bussiness Tech International, 1997
[2] Egan, John, Relationship Marketing: Exploring relational strategies in marketing, Pearson, 2004
[3] Kotler, Philip, Kotler despre marketing, Brand Builders, 2003
[4] McKenna, Robert, "Relationship Marketing", Mc Grow-Hill, New York, 2004
[5] Stinnett, Bill, "Think Like Your Customer", Mc Grow-Hill, New York, 2005
[6] Ziglar, Zig, Arta vânzării, Almatea, 2007

INTERNAL MARKETING AND PERFORMANCE IN SERVICES ORGANIZATIONS

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Abstract:

The paper tries to reveal the critical importance of service employees and human resource in delivery of quality services and creating customer satisfaction. We consider that the employees' abilities (attitudes and behavior) can improve - or reduce- the reputation of services organization (employees are responsible for the organizational performance). Internal marketing is the vision of a services organization that wants to transform its employees in loyal customers. By satisfying „internal customers", the organization improves its ability of satisfying the „external customers" successfully. This paper focuses on the fact that the services organization's performance is fundamentally based on the way managers lead – using their creativity, imagination, competence – the employees.

Keywords:

Internal marketing, customer satisfaction, performance, employees

1. INTRODUCTION TO INTERNAL MARKETING

Internal marketing was first proposed within the services literature in the 1970's as a solution to the problem of delivering high quality service (Vary and Lewis, 1998). Internal marketing is a concept aimed at developing customer conscious employees that will consistently deliver superior quality service to the external marketplace (Papasolomou-Doukais, 2003). Internal marketing depends on a variety of individual activities throughout the organizations and it attempts to inform and educate the employee regarding the organizations mission the benefits of the product or service being sold, and the expectations of the organizations customers (Vary and Lewis, 1998). Such a programme aimed at generating employee commitment is not new as it is inherent in total quality management literature.

According to Ahmed and Rafiq (2002, p.1) internal marketing requires:

- The acceptance of marketing techniques and philosophy within an organization
- Customer orientation and a market orientation
- A participative approach to management
- A strategic approach to human resources management
- The coordination of all management activity to achieve customer or market orientation or customer focused management.

Definition of internal marketing

Internal marketing is an ambiguous concept (Flipo, 2000). The term internal marketing is used widely as a means of highlighting commitment to improving the effectiveness of the services offered by an organizations' resources (Gilmore, 2000). Internal marketing is not a departmental function rather an organizational activity as the entire resources within the organization must be coordinated (Hogg and Carter, 2000).

The definitions reviewed within the literature highlight the ability possessed by internal marketing to improve service quality through an organizational effort. The definitions encountered within the literature can be categorized according to three perspectives, the internal customer, the development of a customer orientation and the theory of internal marketing as an implementation mechanism. For the purpose of this paper the group will focus on the customer orientation perspective as it is relevant in the context of high contact service employees.

Customer Orientation

Internal marketing has been defined as the approach employed by the organization to advocate the philosophies of customer and service orientation throughout the organization through the motivation of employees (Varey, 1994). In this context the organization attempts to install a set of values related to achieving a superior service climate within the employees belief systems (Varey, 1994).

Barnes (1998) approaches internal marketing in a similar manner by defining it as actions taken by the organization to ensure that customers receive the highest standard of service due to the

employees' commitment to service quality. The organisation cultivates employee commitment by encouraging the use of customer focused quality techniques (Ballantyne, 1991).

In the context of customer orientation internal marketing considers the attraction, retention and motivation of service-minded employees. The motivation of employees is not enough in itself, as the customer orientation, must be communicated into the external marketplace through employee action (Rafiq and Ahmed, 2000). George (1990) illustrated that relational exchanges between employees within an organization should be considered a prerequisite for successful exchanges with external markets. The satisfaction of the internal customer is of critical importance as; satisfaction will ultimately effect the satisfaction of the external market (Ballantyne, 1997). Internal marketing is a technique implemented by the organization in an attempt to ensure the provision of excellent service.

The Models of Internal Marketing

Gronroos (****) believes Internal marketing is concerned with ensuring employees are consistently conscious of delivering service quality. The model highlights how internal marketing should be supported by management with information exchange, recruitment and training and employee decision making (Rafiq and Ahmed, 2002). Employees realize the importance of their position within the organization and develop into satisfied individuals. The model stresses the importance of interactive marketing in conjunction with internal marketing. Interactive marketing is a proposed with how customer contact employees take care of customers during service encounters (Bitner and Evans, 1993). By improving the service encounter through internal marketing customer satisfaction and employee motivation can be increased.

However, Gronroos (****) does not encapsulate all the elements of internal marketing (Rafiq and Ahmed 2000). The elements of internal marketing identified by Rafiq and Ahmed (2000) include:

- Employee motivation and satisfaction
- Customer orientation and customer satisfaction
- Interventional co-ordination and integration
- Marketing like approach to the above
- Implementation of specific corporate and functional strategies

Rafiq and Ahmed developed a comprehensive model of internal marketing based on these elements. According to the model the use of a marketing like approach is fundamental in internal marketing, as it incites the employee to become customer orientated through motivation and coordination of functional departments (Rafiq and Ahmed, 2002). Job satisfaction is incorporated due to the belief that if the internal customer is satisfied in the service position this satisfaction will be transferred to the external customer (Rafiq and Ahmed 2000). Empowerment is integrated into the model to highlight the importance of allowing the employee flexibility in terms of decision-making during the service encounter (Rafiq and Ahmed, 2000).

This model focuses on the area of service quality so it is largely applicable in the service industry.

The objectives of internal marketing

Internal marketing aims to improve customer consciousness by changing the beliefs of the front line employees (Ahmed, Rafiq and Saad, 2003). Helman and Payne (1992) believe the objectives of marketing depend on the reason it is being implemented. Internal marketing may be concerned with improving employee routines through internal motivation. Internal marketing may be concerned with ensuring the entire organization understands each department's function within the organization. The internal marketing function may be aimed at marketing the organizations product or services to customers.

Internal marketing aims to improve the overall business process within an organization to ensure that resources to progress the organizations aspiration are made available to the internal customer (Joesph, 1996).

2. MOTIVATING SERVICE EMPLOYEES

Why Motivate Employees:

As previously discussed, the service encounter and internal marketing include the use of motivation, as a perquisite for their success in the marketing of services. Management need to be aware of motivations exact connotation to comprehend its use to their business. Motivation can be defined as "the development of a desire within an employee to perform a task to his/her greatest ability based on that individual's own initiative" (Rudolf and Kleiner, 1989, p. 1). By analyzing the definition, one can ascertain, motivation to be the level at which an employee will perform a specified activity for the company, an imperative function for success.

Motivation can also mean employees "…strive to reach peak performance every day, … enjoy the continual challenge of improving results, genuinely care about their peers and their company, and will maintain positive results" (Evenson, 2003, p.21), or as "the willingness to exert high levels of effort

toward organizational goals, conditioned by the person's ability to satisfy some individual need" (Robbins, 1993 as cited in Lu, 1999, p. 63).

The definitions of motivation, lead an organization to believe their employees will perform their specified tasks better than the norm and will genuinely wish to do so, while this is important for the business, motivation can also have other benefits. Carlsen (2003) believes a motivated workforce is essential, as the complete participation of employees will inevitably drive the profitability of the organization. Another paramount concern for management is, motivating their employees relates directly to the perceived increase in performance the employees with deliver from managements' participation in the exercising of motivation techniques, therefore, there is a direct result between the levels of motivation and management's participation. (Tyagi, 1982).

Certain academics have linked motivation as being a key determinant of job performance and how a poorly motivated force will be costly in terms of excessive staff turnover, higher expenses, negative morale and increased use of managements' time (Jobber, 1994). Therefore, management need to know what exactly motivates their staff so resources are not misallocated and dissatisfaction develops among employees (Jobber, 1994). While motivation is a key determinant of performance, management must not neglect how motivation is the also concerned with the educating of employees. Darmon (1974) believe motivation is the educating of employees to channel their efforts towards organizational activities and thus increasing the performance of the said boundary spanning roles.

If management neglect to educate and motivate their employees, they will inevitable become dissatisfied or disenchanted with their job. Disenchantment in the workplace leads to absenteeism, turnover, sick leave, strikes, grievances and even accidents. Denton (1991) believes a motivated workforce would alleviate disenchantment felt by employees and improve these factors. Denton (1991) also believes a motivated workforce will lead to greater understanding, acceptance, commitment to implementation, understanding of objectives and decision making between management and employees.

Finally, motivation can also be used as a tool to develop further, the high performers and ensure they are satisfied with their work activities. Green (2000) envisages motivation to be proactive in the sense of; in dealing with employees who are high performers, motivation is essential, otherwise their performance will decline or they will simply leave the job. In the area of dealing with low performers, motivation is a prerequisite, otherwise these employees will drag results down, lower productivity and certainly won't leave the organization, as they will have nowhere else to go.

How management can motivate their employees?

Rewards: "Good manager helps sub-ordinates feel strong and responsible, who rewards them properly for good performance and who sees that things are organized in such a way that subordinates feel they know what they should be doing" (McClelland and Burnham, 1997, p.30). As McClelland and Burnham (1997) outline, management should reward their employees for their performance and loyalty. Rewards can take two forms; extrinsic rewards or intrinsic rewards.

Extrinsic Rewards: Extrinsic rewards as outlined by Rudolph and Kleiner (1989) and Sujan (1986) as those basic material requirements which management must meet for the employee. Examples include; salary, fringe benefits, promotions and so on. The extrinsic rewards are usually viewed by employees as a given and a must. Extrinsic rewards are usually thought of in terms of money.

Darmon (1974) believes money or financial incentives are motivators of employees' behavior and they can be used to influence their behavior; this can be used in a variety of circumstances, which may arise within the organization.

Dauten (1998) outlines how employees are best motivated, by having them bet on their own success. Therefore, management should tie their performance in with their bonuses; this will act as a motivator, as a challenge has been presented to them. Employees will want to achieve managements' goals as the greater their performance the greater the financial reward received.

Intrinsic Rewards: Rudolph and Kleiner (1989) outline intrinsic rewards as psychological incentives, for example, input, thanks, job rotation, job enlargement and so on. The importance of intrinsic rewards is how they build a climate and environment of trust and co-operation among employees. Or as Sujan (1986) outlines, employees who are motivated intrinsically "enjoy performing job-related tasks, such as influencing customers and learning about the company" (p.42).

Nelson (2003) contends, while money is a motivator, it is not as powerful as the following:

Feeling of contribution to the job, having management tell us we are doing a good job, having the respect of our peers and colleagues, being involved and informed of developments and having meaningful and interesting work. While, Nelson (2003) finds these methods as good motivating tools, he outlines how the use of recognition is the ultimate motivator. The importance being, "recognition is not just for the person who performed well – it also sends a message to other employees as it communicates the standard of the company" (Nelson, 2003, p.8). Nelson (2003) implores to

management, recognition will improve the level of performance by employees, which inevitably improves the financial performance of the organization. Nelson (2003) believes the uses of monetary rewards are becoming "viewed as a right as opposed to reward and therefore the ability for money to serve as incentive is diminished" (p.8). Money also distracts team members as their concentration is now focused on individual cash gains. Therefore, Nelson (2003) has developed a number of ways in which an organization can motivate their employees without incurring great financial costs.

Ways in which an organization can install recognition as low-cost (Nelson, 2003, p.9):

- Call employees into office and say "thanks"
- Acknowledge individual achievements
- Create employee "hall of fame"
- Photo collage of successful project and those who worked on it
- Place to display memos/posters as recognition of employees work in their help in achieving goals
- Behind – the – scenes awards for those out of limelight
- Certificate program
- Most importantly, be timely, sincere and specific.

3. CONCLUSION:

Many organizations testify that their employees are their most valuable resource. This is especially relevant in the service organization. Customers often base their perceptions of the service on the quality of the interaction with service personnel. For this reason it is essential that the employee is motivated to consistently deliver a high quality service experience to the customer. Motivation is especially important when employees operate in a boundary spanning position, as this involves high levels of stress and burn out.

We propose internal marketing as a mechanism for ensuring the motivation of service employees. The implementation of an internal marketing program ensures that motivation is at the forefront of managements' priorities. This realization implores management to consider that motivation is not solely the responsibility of human resources but must be adopted by all managers throughout the organization regardless of their functional department. In summary, the importance of motivated high contact employees is fully realized through the adoption of internal marketing.

REFERENCES:

[1] Bateson, J.E.G. and Hoffman, K.D. (1996), Managing Services Marketing, 4th edn. Dryden Press, Dryden. U.S.A
[2] Carslen, K. (2003) Sales motivation: one size does not fit all. Selling, October, pp. 14 – 15.
[3] Darmon, R.Y. (1974) Salesman's response to financial incentives: an empirical study. Journal of Marketing Research, 11 (3) November, pp. 418 – 426.
[4] Dauten, D. (1998) The best way to motivate employees: have them bet on their own success. New Hampshire Business Review, 20 (13) June, pp.8 –9.
[5] Denton, D.K. (1991) What's wrong with these employees? Business Horizons, 34 (5) September – October, pp. 45 – 49.
[6] Evenson, R. (2003) Motivating to develop an all-star team. American Salesman, 48 (10) October, pp. 21 – 27.
[7] Gronroos, C. (1990). Service Management and Marketing Managing the Moments Of Truth in Service Competition. Lexington Books. U.S.A.
[8] Lewis, B.R. and Entwistle, T.W. (1990), "Managing the service encounter: a focus on the employee", International Journal of Services Industry Management, Vol.1 No. 3, pp.41-52
[9] Nelson, B. (2003) Money is not the root of all motivation. Health Care Registration, 12 (10) July, pp. 7 – 9.
[10] Rafaeli, (1989), "When cashiers meet customers: an analysis of the role of supermarket cashiers", Management Academy Review, Vol. 32 No. 2, pp.245-273
[11] Regan, W.J. (1963), " The service revolution", Journal of Marketing, Vol. 27 No. 3, pp.57-63.
[12] Robbins, S.P. (1993) Organizational Behavior, Englewood Cliffs, New Jersey, Prentice-Hall as cited in Lu, L. (1999) Work motivation, job stress and employees' well being. Journal of Applied Management Studies, 8 (1) June, pp. 61 – 72.
[13] Rudolph, P.A. and Kleimer, B.H. (1989) The art of motivating employees. Journal of Managerial Psychology, 4 (5), pp. 1 – 4.
[14] Sujan, H. (1986) Smarter versus harder: an exploratory attributional analysis of salespeople's motivation. Journal of Marketing Research, 23 (4) February, pp. 41 – 49.
[15] Tyagi, P.K. (1982) Perceived organizational climate and the process of salesperson motivation. Journal of Marketing Research, 19 (2) May, pp. 240 – 254.
[16] Zeithaml, V.A. and Bitner M.J. (2003) Services Marketing Integrating Customer Focus Across The Firm. 3rd ed. McGraw-Hill. New York, U.S.A.

MARKET BASED INSTRUMENTS – EFFECTIVE TOOLS FOR ENVIRONMENTAL STABILITY IN EUROPEAN UNION

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Abstract:
Market-based instruments (MBIs) can be particularly effective tools for dealing with the four major areas of action of the European Union 6th environmental action programme, namely: tackling climate change, preserving nature and biodiversity, protecting environment and human health, and through the sustainable use of resources and management of wastes. They do so by addressing the sources of environmental pollution most relevant to these areas such as: emissions from power stations, industry, cars and aircraft (tradable emission permits, fuel taxes); increasing waste generation by households and other actors (waste disposal taxes, taxes on packaging, incentives for recycling); emissions resulting from houses and offices (incentives for improved insulation and energy efficient heating systems); emissions resulting from agricultural activities (fertiliser and pesticide taxes).

Keywords:
MBIs, tradable permits, subsidies, environmental taxes, efficiency, polluter-pays principle

1. INTRODUCTION

1.1. Conceptual delimitations and classification of MBIs

There are a lot of definitions of economic instruments. The OECD labels instruments economic "when they affect estimates of the costs and benefits of alternative actions open to economic agents". This definition focuses on the mechanics of the measure and points to the existence of financial incentives and freedom of response, thus creating a distinction with direct regulatory or administrative measures. Hahn points to the outcome and calls an instrument economic when it improves efficiency compared with a situation where another instrument would have been in use, or none at all. A carefully-designed administrative measure can be an economic instrument in his view. James observes: "In reality, the distinction between direct regulations and economic instruments is often blurred as any system of economic instruments usually requires appropriate legislative or regulatory backing. Wherever economic instruments have been used, ... supporting regulations have been applied". His opinion represents a practical view, and points to the importance of policy mixes. Rather than defining market-based instruments, this paper lists the following environmental instruments as "economic": emissions trading, environmental taxes and charges, deposit-refund systems, subsidies (including the removal of environmentally-harmful subsidies), green purchasing, and liability and compensation. In dealing with these instruments, policy mixes will not be lost from view. An important policy mix that has emerged recently is environmental tax or fiscal reform, which combines market-based environmental measures with measures in the fiscal and economic sphere.

MBIs are classified into five main categories:

1. *tradable permits* that have been designed to achieve reductions in pollution (such as emissions of CO2) or use of resources (such as fish quotas) in the most effective way through the provision of market incentives to trade;
2. environmental taxes that have been designed to change prices and thus the behaviour of producers and consumers, as well as raise revenues;
3. environmental charges that have been designed to cover (in part or in full) the costs of environmental services and abatement measures such as waste water treatment and waste disposal;
4. environmental subsidies and incentives that have been designed to stimulate development of new technologies, to help create new markets for environmental goods and services including technologies, to encourage changes in consumer behaviour through green purchasing schemes, and to temporarily support achieving higher levels of environmental protection by companies;

5. liability and compensation schemes that aim at ensuring adequate compensation for damage resulting from activities dangerous to the environment and provide for means of prevention and reinstatement.

Experience in recent years shows that the question of 'which instrument is best' has changed to 'which mix of instruments is best', both in terms of using MBIs alongside other environmental measures such as regulations and in terms of using MBIs to meet environmental objectives in combination with economic and social objectives e.g. environmental tax reform and subsidy reform.

1.2. Guiding principles that govern MBIs

The potential qualities of market-based instruments were recognised early in the evolution of environmental policy. Following academic debate and incidental application, market-based instruments were widely recommended at the European and global level in the last two decades of the 20th century. The 5th environmental action programme (CEC, 1993) mentions market-based instruments as important tools "towards sustainability" as they "... encourage the production and use of environmentally-friendly products and processes". Agenda 21 states "Environmental law and regulation are important but cannot alone be expected to deal with the problems of environment and development. Prices, markets and governmental fiscal and economic policies also play a complementary role in shaping attitudes and behaviour towards the environment". The polluter-pays principle is a main guiding principle in environmental policy and is frequently invoked as the legislative justification for the broader use of market-based instruments. However, as originally formulated by OECD and adopted by the member countries, this principle only requests that "...the polluter should bear the expenses of carrying out the measures ... to ensure that the environment is in an acceptable state". This is a narrow definition as it leaves out any damage that may remain after the necessary measures have been taken. Many use a wider interpretation, wherein the polluter should bear "the cost of pollution abatement, the costs of environment recovery and the compensation costs for victims of damages if any, due to pollution". The EU has followed this interpretation with the recent adoption of the environmental liability directive, which has been based explicitly on the polluter-pays principle. Also in its wider interpretation, the polluter-pays principle does not request the polluter to pay for the use of the environment per se. The main guiding principle for the application of market-based instruments is the *economic principle of efficiency*. The costless use of objects that have a value for society is amarket imperfection that reduces efficiency and can be corrected by "getting the prices right". This is captured by the user-pays principle that complements the polluter-pays principle.

2. THE STUDY

2.1. Reasons for using MBIs as policy tools

The economic rationale for using market-based instruments lies in their ability to correct market-failures in a cost-effective way. Market failure refers to a situation in which markets are either entirely lacking (e.g. environmental assets having the nature of public goods) or do not sufficiently account for the "true" or social cost of economic activity. Public intervention is then justified to correct these failures and, unlike regulatory or administrative approaches, MBIs have the advantage of using market signals to address the market failures.

Whether by influencing prices (through taxation or incentives), or setting absolute quantities (emission trading), or quantities per unit of output, MBI implicitly acknowledge that firms differ from each other and therefore provide flexibility that can substantially reduce the costs of environmental improvements. MBIs are not a panacea for all problems. They need a clear regulatory framework in which to operate and will often be used in a policy mix with other instruments. But if the right instrument is chosen and appropriately designed, MBI carry certain advantages over regulatory instruments:

1. They improve price signals, by giving a value to the external costs and benefits of economic activities, so that economic actors take them into account and change their behaviour to reduce negative – and increase positive - environmental and other impacts.
2. They allow industry greater flexibility in meeting objectives and thus lower overall compliance costs.
3. They give firms an incentive, in the longer term, to pursue technological innovation to further reduce adverse impacts on the environment ("dynamic efficiency").
4. They support employment when used in the context of environmental tax or fiscal reform.

2.2. MBIs in the EU context

The European Union is a leading force in the world in taking action on environmental sustainability and, in particular, on climate change. This has been confirmed through the adoption of the energy and climate policy package in which the EU repeated its commitment to addressing climate change internally and on an international scale, to promoting environmental sustainability, to

reducing dependence on external resources and to ensuring the competitiveness of European economies. In addition, halting loss of biodiversity, preserving natural resources that are under pressure and protecting public health also require urgent action. Without public intervention and the strong commitment of all actors, these ambitious objectives cannot be reached. The EU has increasingly favoured economic or market-based instruments ("MBI") – such as indirect taxation, targeted subsidies or tradable emission rights – for such policy purposes because they provide a flexible and cost-effective means for reaching given policy objectives. The more intensive use of MBI has also been advocated in the EU´s 6th Environment Action Programme (6th EAP) and the renewed EU Sustainable Development Strategy as well as the renewed Lisbon Strategy for Growth and Jobs. This paper launches a discussion on advancing the use of market-based instruments in the Community. In this sense the paper fits into the framework set by the new integrated energy and climate change agenda where market-based instruments and fiscal policies in general will play a decisive role in delivering the EU's policy objectives. The paper also explores options for a more intensive use of market-based instruments in different areas of environmental policy at both Community and national levels.

Besides their merits in helping achieving specific policy goals, the EU has used market-based instruments to avoid distortions within the internal market caused by differing approaches in individual Member States, to ensure that a similar burden falls on the same sector across the EU and to overcome potential adverse competitiveness effects within the EU. Common action also makes the EU stronger when confronting external competition from its trading partners. At the EU level, the most commonly used market-based instruments are taxes, charges and tradable permit systems. In economic terms these instruments work in similar ways. However, they also differ in notable aspects.

Firstly, quantitative systems, such as tradable permit schemes, provide more certainty as regards reaching specific policy objectives, e.g. emission limits, (subject to effective monitoring and compliance) compared to purely price-based instruments, such as taxes. Price-based instruments, in turn, provide security regarding the cost or the price of policy objective and tend to be easier to administer. Secondly, they differ when it comes to the aspect of revenue generation. Taxes (and in a more limited way charges) have increasingly been used to influence behaviour, but they also generate revenue. Tradable permit systems can generate revenue if the allowances are auctioned by public authorities. Tradable permit systems using auctioned allowances have therefore similar features to a tax (the regulatory and compliance aspects differ). Charges, on the contrary, are usually a payment in return for a clearly identified service or cost, and therefore lack the flexibility for the public budget to use such revenue.

The above features have, to an important extent, influenced the ways and areas that the EU currently uses market-based instruments at Community level, thus leading to the introduction of instruments such as the EU Emission Trading Scheme ("the EU ETS"), the Energy Taxation Directive, and, in the field of transport, the Eurovignette directive. These aspects have to be taken into account should the EU consider using market-based instruments further at EU level, in such a way as to make the best use of each of them in the most appropriate field and avoid overlaps. In principle, Community decision-making rules should not have an influential role to play in this context. Nevertheless the unanimity requirement in the tax area means that the possibility of using taxation as an instrument differs from other instruments in some respects.

3. ANALISES, DISCUSIONS, APPROACHES AND INTERPRETATIONS

The EU is strongly committed towards ensuring environmentally sustainable development as well as promoting the Growth and Jobs agenda. An environmental tax reform (ETR) shifting the tax burden from welfare-negative taxes, (e.g. on labour), to welfare-positive taxes, (e.g. on environmentally damaging activities, such as resource use or pollution) can be a win-win option to address both environmental and employment issues. At the same time, a long term tax shift will require relatively stable revenues from the environment related tax base. ETR can also help to alleviate the possible adverse competitiveness effects of environmental taxes on specific sectors. If the action is closely co-ordinated at the Community level, these impacts can be further reduced compared to unilateral actions by Member States. Reductions in labour taxation or social-security contributions which tend to benefit lower-income households, can counterbalance any possible regressive effect from environmental taxes.

Finally, with an ageing population, which increases pressure on public expenditure, and globalisation that makes taxation of capital and labour less viable, the shift of tax burden from direct taxation towards consumption and, in particular, environmentally damaging consumption, may provide considerable benefits from a fiscal perspective. As well as discouraging environmentally damaging behaviour through taxation, Member States may also use fiscal incentives such as subsidies

to encourage green behaviour, facilitate innovation, research and development, provided that public resources are first generated in some other way (e.g. by taxing environmentally damaging behaviour) or that spending is reduced (e.g. by removing environmentally harmful subsidies). This approach is particularly relevant in the context of the ambitious objectives of the climate and energy agenda of the EU, notably to achieve the reduction of greenhouse gas emissions by at least 20% by 2020, the binding target of 20% renewables of energy production by 2020, and the target of 10% biofuels.

At the EU level it is considered that it is for Member States to find the right balance between incentives and disincentives in their tax systems, while respecting overall fiscal constraints and fiscal neutrality. The Commission would like, however, Community tax policy to facilitate this balance. There may be scope to improve the structured exchange of information between Member States on their best practices in the area of MBI in general and environmental tax reform in particular. While specialised structures exist in some areas there is no horizontal forum available. In this respect, one option could be the establishment of an MBI Forum.

4. CONCLUSIONS

EU believes that alongside regulation and other instruments, there should be increased use of MBI, including trading schemes, taxation measures and subsidies, as a cost-effective tool to achieve environmental and other policy objectives, both at Community and national levels. This would be in keeping with the Sustainable Development, Lisbon and Better Regulation Agendas.

The new energy and climate policy agreed in Europe implies nothing less than a new industrial revolution over the next 10 to 15 years. It will require a substantial change in the way Europe deals with energy with the final aim of achieving a real low carbon economy. Several policy areas - at the national as well at the European level - will have to contribute and to be adapted in order to lead to this ambitious objective. Market-based instruments will be important parts of the efforts to achieve real change through changing incentives for businesses and consumers. On top of this important long term role, these market-based instruments also carry important advantages for fiscal, other environmental and allocative purposes addressed in this paper.

REFERENCES:

[1] Andersen, M.S., 2000. Designing and introducing green taxes: institutional dimensions, in: *Andersen, M.S. and R-U. Sprenger 2000, Market-based instruments for environmental management — politics and institutions,* Edward Elgar, Cheltenham, UK.

[2] Beers, C. van, and A. de Moor, 2001. *Public subsidies and policy failures. — how subsidies distort the natural environment, equity and trade, and how to reform them,* Edward Elgar Publishers, Cheltenham, UK.

[3] CEC, 2007. Green Paper on market-based instruments for environment and related policy purposes, Brussels.

[4] EEA, 2006. Market based instruments in Europe, Copenhagen.

[5] James, D. 1997. Environmental Incentives: Australian Experience with Economic Instruments for Environmental Management, Environment of Australia.

[6] Kreiser, L.A. (ed.), 2002. *Critical issues in international environmental taxation — insights and analysis for achieving environmental goals,* CCH Inc. Chicago through tax policy.

[7] Tietenberg, T., 2001. 'The Tradable Permits Approach to Protecting the Commons: What Have we Learned?' Paper presented at the Concerted Action on Tradable Permits (CATEP) Workshop on Trading Scales: Harmonising Industry, National and International Emission Trading Schemes hosted by Fondazione ENI Enrico Mattei, Venice, December 3-4.

[8] Wolff, G.H., 2000. When will business want environmental taxes? Redefining Progress, San Francisco.

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SOME ASPECTS OF THE HUNGARIAN SPATIAL- AND SETTLEMENT DEVELOPMENT

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Abstract:
The never before seen sum of the possible financial resources at Hungary's disposal supported by the European Union in the programming period 2007 to 2013, indicates a historical chance in connection with the fulfillment of the development objectives, especially the spatial objectives in Hungary. In order to the optimal utilization of the financial resources it is needed to continue the decentralization process – started in 1996 but refracted in 1999 – and to strengthen the regional institutional system. The efficient utilization of the financial resources co-financed by the EU and the Hungarian government also requires such a planning mechanism, which considers both the national specialities both the international spatial development experiences, and is based on a wide professional and political consensus.
This paper aims to survey the most important milestones of the formation of the Hungarian spatial policy, especially the ones of the spatial- and settlement development. Also the evolution process of the Hungarian self government system will be explored, principally in connection with the relationship between the municipality development and EU grants. Finally the most important projects of the Municipality of Szeged will be demonstrated.

Keywords:
EU regional policy, spatial development, municipality development

1. INTRODUCTION

After the access of Hungary to the European Union, spatial planning comes more and more to the front, because the financial supports of the European Union are based on the completed spatial documents [17]. Ten years ago, the Hungarian Parliament has accepted the Act of 1996. XXI. on the regional development and physical planning in 1996. This has been a high level and complex regulation of the spatial development in Hungary [3]. Its further importance is, that among the candidate countries, Hungary has adopted firstly the legal conditions of the regional institutions regarding to the principles and requirements of the European regional policy. According to the act, spatial development in Hungary is based on national and regional planning documents, concepts, programs, and physical plans [15].

2. SOME ISSUES OF THE HUNGARIAN SPATIAL POLICY UNTIL 1996

The first legislative provision in connection with the spatial- and settlement development was the Act of 1937. VI. on the physical planning of cities, housing and construction. The law obliged the cities to complete city development plans [21], furthermore compelled the cities with high level of exactitude to prepare land use plans and general settlement plans. After the second world war, the Institute of Physical Planning (the so called TERINT) has been established in 1949. The general aim of the TERINT was to coordinate the socialist industrialization and the town-planning. Additionally, its task was to register all spatial and settlement changes, and to work out several plans. Its significance might be the completion of the first regional planning works, like the one of Zagyva-valley, Borsodi area, Baranyai area.

As for local legislation, in 1949 and in 1950 the Constitution, and later the first council law introduced a council system that was completely alien to the Hungarian conditions, by copying the soviet model [9]. From the beginning, the major function of this system was to accomplish the central decisions of the white trash dictatorship that aimed to change society and economy mainly with means of the polity, leaving little local independence. Similarly to the first one, he Second Council Law in 1954

also rejected the idea of local municipality [10]. There was a decrease in the councils' duties in administration and authority but the councils' spatial and settlement developing tasks slightly increased. The councils were regarded as the lengthened arm of the central state organization delegated by the monolithic party-centre. In the so-called dual subservience the centre managed the county by primacy means, the county managed the townships and most of the towns and the township councils managed the villages. This local dependence attached serious lack of local democratism, nominal votings and elections preceding the real free elections. Council boards were politically insignificant, as council leaders, close council meetings and closed executive board meetings decided on important issues beforehand, and the council meetings mostly just accepted these decisions. From the aspect of city development, we cannot disregard that the panel program that started in the second half of the 1960s wasn't based on local decisions, either.

The decree with legal force of 1955. XXXVI. on the regulation of town- and village settlement determined the system of town- and village settlement, and dealt with the notion of regionalism more thoughtfully, than ever before. Thanks to this legislative provision, From the end of the fifties on, the number of regional plans increased significantly. In 1965, the National Settlement Development Plan has been completed, which surveyed the Hungarian settlements, and the development trends. In 1970, the National Settlement Development Concept has been worked out, which has been adopted by the Hungarian government after a wide dialog with the local and departmental authorities in 1971. According to the concept, all the settlements have been classified into development categories. The financial resource provided for each settlement has been dependent on the category of the concrete settlement.

This dual subservience remained during the later "reforms" of the council system, the laws didn't provide much more local independence. The council system was only the executor of central programmes. But these programmes didn't involve local needs that could have given a special image to settlement developments and that could have implemented developments in a way that would have fulfilled local needs the most. As local regulation didn't have any latitude in other developments either, settlements got poorer and poorer, regardless of their size.

On the whole, the Hungarian spatial policy before 1985 can be characterized with a settlement view instead of a spatial view. This policy was city-centric, which underplayed the role and importance of territorial units. In this period, the spatial policy was strong centralized in Hungary.

From 1985 till 1996 the Hungarian spatial policy can be characterized as a transitional one. The resolution of the Parliament Nr. 12/1980-85. aimed to develop the lagging behind territorial units, so this legislative provision was the first, which declared the spatial view instead of settlement view. In the middle of the eighties, it has been realized, that the development of separated settlements is not efficient, complex territorial units has to be taken into consideration and developed. In the decentralization process of the Hungarian regional policy, the Act of 1990. LXV. on the local governments counts as a substantial milestone, which pronounced the local demand on decentralization.

From 1991 till 1995, the spatial development efforts have been supported by a separated money fund in Hungary. The Spatial Development Fund had a very varied function: to support employment level expansion and economic restructuring in lagging behind regions, to support the creation of crisis management programs on the level of regions and sub-regions etc. It also has been emphasized, that during this transitional period the regional policy of the European Union has been also in Hungary get to know, and started the receipt of the core principles [4], but its effects has been only in the next period perceptible.

3. MILESTONE IN THE HUNGARIAN SPATIAL POLICY

The adoption of the Act of 1996. XXI. on regional development and physical planning meant a turning point in the field of regional planning, institutions, financial and economic regulation and EU-integration. 1996, the year, when the act came into force is the beginning of the third stage of the Hungarian spatial policy. This legislative provision set its regional developments goals, overall objectives – therefore the partition of competences between the Parliament and the government – in compliance with the regional policy of the European Union. This act forms the basis of the Hungarian spatial policy [15].

The Country Report of the European Union in 1998 gave a very positive evaluation on the Hungarian regional policy, because the adopted act was unique amongst the candidate countries. One of the most important significances of the act was to define and to clear the most important notions of the theme, like region, sub-region, spatial unit, regional development etc. Furthermore the act defined the tools, financial resources and the institutions of the regional development. The notion of regional planning was given a high priority also in the preparation for the drawing of Structural Funds and the evaluation of the country alike.

The act set up the possibility of applying the regional policy of the European Union by containing the most important core principles of the EU's regional policy, like concentration, partnership, additionality, regional applications etc. Furthermore the act fulfils the requirements of justice, equity and solidarity, and the general cohesion objectives of the European Union [3]. Dissociation of the institutions into national, regional, and sub-regional level also can be evaluated as a big step in the efforts of decentralization. The act ordered to complete spatial development documents first of all on the level of regions and counties1. This is a very important issue from economical view, because foreign direct investment and enterprise development need a well documented background, because spatial documents contains significant information to support investment decisions (for example about externalities).

The progress of the Hungarian spatial policy come to a sudden standstill in 1999. The act of 1999. XCII. on the modification of the act of 1996. XXI. on regional development and physical planning can be evaluated as a withdrawal in the decentralization efforts in the spatial policy. The significant changes in the membership pattern of the Regional Development Councils are on the way back to the centralization: the preponderance of the ministries, its right of veto, the exclusion of the local economic actors (chambers, Council of Labour), the membership of deconcentrated organizations (Office of Agriculture) are steps towards the centralization. The European Union passed strictures on this issue, just as on the inadequate utilization of the financial resources: spatial resources have been used as resource replenishment by municipalities and their institutions so they didn't catch they original target group, the enterprises.

The European Union also crabbed Hungary in connection with the NUTS-2 level regions: the defined seven regions didn't satisfy the criteria of normative regions defined by the EU: there are not elected, only delegated representatives on regional level, and the Regional Development Councils don't have disposal on own financial resources.

In 1998, the first National Spatial Development Concept (OTK) has been approved by the Hungarian Parliament (Decree 35/1998 (III.20.) of the Hungarian Parliament) order of the Parliament). This Concept has been the first complex and strategic development document in Hungary, which has been the principal document of Hungarian spatial development policy, regional development. It gave orientation for different instruments of regional policy, and formulated guidelines in order to reduce regional disparities. As a framework document it contains the development perspectives of the country and its regions, outlines the long-term regional development objectives and laid down the guidelines for the elaboration of the different development programs. In addition, the document provided regional planners and stakeholders with the necessary information [6].

4. NEW TRENDS IN THE HUNGARIAN SPATIAL POLICY

According to the act of 1996, XXI[2], the National Spatial Development Concept should be analyzed every six year. As a result of three comprehensive evaluations on the emergence of Hungarian spatial development policy and the regional processes of the country a new concept was elaborated approved by the Hungarian Parliament at the end of 2005 (Decree 97/2005 (XII. 25) of the Hungarian Parliament). The new concept sets up the principles of a more complex spatial development policy, which must be integrated into all other policies. At the same time these policies also should be integrated through the development of regions by the process of decentralisation.

The new OTK lays down the spatial perspectives of the country, and the long term objectives in harmony with them. Furthermore it draws up medium-term objectives and spatial priorities, tools, institutional conditions, and contains the targets of the regions.

The new National Spatial Development Concept contains the following innovations in comparison with the National Development Concept of 1998 [7] [20]:

- it is strong committed to accelerate and strengthen decentralization and regionalism in Hungary
- it defines a more complex spatial policy, than ever before: a spatial policy with widespread functions, integrated into the general development policy

[1] In connection with this point of the act, the following legislative provisions should be mentioned:
- 184/1996. (XII. 11.) Statutory order on the adoption process of spatial development concepts, programs and physical plans.
- 112/1997. (VI. 27.) Statutory order on the information system about spatial development and physical planning.
- 18/1998. (VI. 25.) Departmental order on the contents of spatial development concepts, programs and physical plans.
- 23/2001. (II. 14.) Statutory order on the modification of the 184/1996. (XII. 11.) Statutory order on the adoption process of spatial development concepts, programs and physical plans.

[2] The act of 2004. LXXV. on the modification of the act of 1996. XXI. on regional development and physical planning and other related acts has gone back to the way of decentralization, because it abandoned the preponderance of ministries in the membership pattern of Regional Development Councils. Furthermore this act established development councils also on the level of sub-regions.

- nearby the objective of decreasing regional disparities also the objective of spatial efficiency (competitiveness) and sustainability comes into the limelight
- it consists of a cross-border thinking.

In harmony with one of the most important core principle of the EU regional policy, the subsidiarity, the National Spatial Development Concept of 2005 puts down only such spatial objectives and task, which are valid for the country in general. These objectives of the OTK are results of a widespread consultancy process with the regional development agencies. The concept provides a wide elbow-room in spatial planning for the regions on several aggregation level, especially for the NUTS-2 regions. These territorial units are defined as the primary aggregation level in the decentralized development policy. During the spatial planning process of the NUTS-2 regions the general objectives written in the OTK should be taken compulsory into consideration [7] [20].

5. DEVELOPMENT POLES IN THE NEW SPATIAL POLICY

The National Development Concept (OFK), as an overarching development concept fulfils the role of a country strategy has been elaborated in 2005, parallel to the National Spatial Development Concept. Because of this fact, their main findings are the same: both of them define development poles in Hungary. "*... in order that development is not limited to the area of the capital, the monocentric spatial structure should be resolved. [...] The whole country requires development poles to catalyze competitiveness, and which are organic elements of a harmonious, polycentric, cooperative town network system. [...] Hungary's development poles are: Debrecen, Miskolc, Szeged, Pécs, Győr, and Budapest.*" [7]. According to the concept, the most important task of the development poles are to facilitate innovation activity and help the spreading innovation in the region. They also should contribute to decrease regional disparities in Hungary.

The Decree 96/2005 (XII. 25) of the Hungarian Parliament on the National Development Concept and the Decree 97/2005 (XII. 25) of the Hungarian Parliament on the National Spatial Development Concept defined Szeged as a development pole also on the level of legislative provisions with other 4 cities listed in the decrees (Figure 1).

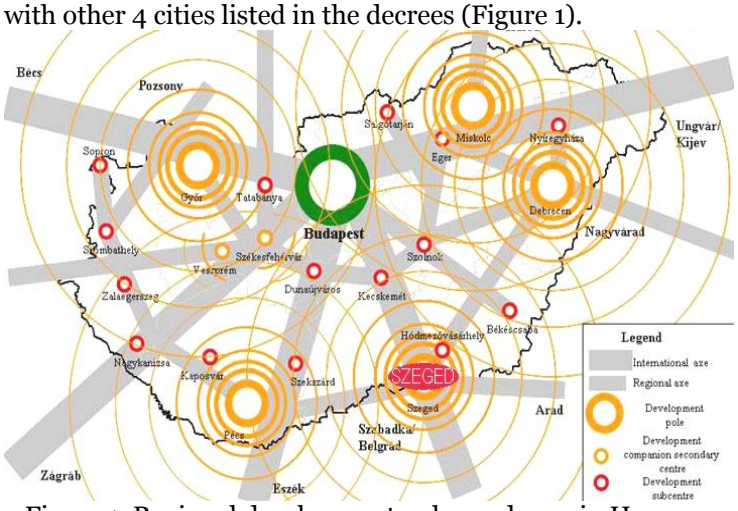

Figure 1. Regional development poles and axes in Hungary
Resource: own editing figure based on OTK (2005) p. 39

Consequently, Szeged, as a defined development pole, with some other preferential cities together plays an accentuated role in the new spatial policy of Hungary. From the point of view of our research it also has to be emphasized, that both OTK and OFK highlight to increase the capacity for specialized research and development of the departments that are competent to instigate defined and significant development [7]. The core competence of the development pole program in Szeged is the biotechnology.

Based on this, in the following part of this paper we will concentrate on Szeged city. In the next few chapters we will enhance the most important milestones from the history of the Municipality of Szeged, than some of its relationships will be surveyed with the most important institution of the development pole competence, the University of Szeged.

6. CHANGE OF THE REGIME AND THE EVOLUTION OF SETTLEMENT DEVELOPMENT'S LOCAL SELF-GOVERNMENTAL LEGAL BACKGROUND

The change of the regime challenged people not only on a national but also on a local level: in Szeged, just like in all other towns of the country, the first general municipal elections were held in autumn 1990 as a significant step to developing democracy. It put an end to the council system and new type of local self-governments replaced them, which, contrary to common councils, could be founded in each settlement.

The political necessity of founding local self-governments, which have their own rights, wealth and income sources, met the national and international economic and professional efforts started in this issue several years before. The new legislation threw the whole council system out, building on municipal traditions and historical values instead. Dr. Balázs Horváth, the Home Secretary of the

Antal-government initiated that the Act of 1990 LXV. should include those basic requirements that the 1985 municipal Charta of the Council of Europe contains, and that József Eötvös, the Cult and Educational Minister of the revolutionary government of 1848-49 drew up as follows [1]:

„ We demand the personal independence to be maintained;
we demand the decisions that are of interest only for certain segments of citizens,
for example a town or the inhabitants of a county,
to be made only by those whom these issues concern!" [12]

The major basic requirement and the quintessence of the new local self-governments system is municipal independence, changing the local self-governments into owners and economic organizations, which could proceed to settlement development based on local interests.

7. THE ECONOMIC GROUNDS OF LOCAL SELF-GOVERNMENTS' DEVELOPMENT SOURCES IN THE 1990's

The economic background of local self-governments that became legitimate by the democratic elections radically changed compared to the council system. At the change of the regime, the Act of 1990 LXV. significantly changed the conditions of settlement management and placed it on a new basis. From this point, local self-governments had their own properties, and could manage their own budgetary incomes and expenses independently. In addition, they could alienate the items that had been taken away from the state property and had been given to the municipalities (suck as roads, institutions, buildings, barracks etc). It was a milestone for settlement development because settlements suffering from financial sources could use their properties as collateral when asking for development aids or applying for tenders, or they could even sell, privatize these properties. Possessing own financial resources, local self-governments were able to decide on their own settlement's actuation and the direction of their development quite independently.

But this kind of independence did not always mean complete independence in terms of development tasks in the first half of the 1990s. The reason for this is that the municipalities' financial operation and their use of sources is strongly controlled: firstly because the budget of local self-governments is part of the public finance, they get most of their financial fund from the state[3]; secondly because in case of other supports financed by the public finance, the state determines the conditions how these supports can be used, for example earmarked subsidies and allocations[4] based only on national sources, that were significant in this period and that realized several important investments in Szeged in the last few years.

8. THE NEW FINANCIAL SOURCES OF THE CHANGE OF THE REGIME: PRIVATIZATION INCOMES, EARMARKED SUBSIDIES, REAL ESTATE BARTERS

In the years following the change of the regime, Szeged couldn't see bigger developments due to a lack of sources. Similarly to other local self-governments the now owner Municipality of Szeged, the county town of Csongrád County, could experience not only the bright side of wealth growth, but also took on a lot of charges after its own ownership developed. Firstly the raising of municipal institutions' costs was almost an impossible task for the local for the local authorities. Secondly, the only significant source of income, privatization, which started due to the possibility to alienate the local self-government's properties, meant not only income but also expenses. These properties were often rather devastated buildings and building sites without public utilities, which had to be upgraded before sale. In most cases it meant restoring building and providing building sites with public utilities.

But in terms of town development and town rehabilitation, the undoubted merit of privatization is that the incomes of selling those properties that had been given by the state meant almost the only sources that could finance more significant projects in the beginning of the 1990s. Due to such incomes several buildings' reconstruction was started in the town (e.g. the restoration of Dóm square).

In the following years the local self-governments' independence in decision-making was damaged by the lack of other developments sources independent of the budget. Due to the Act 1990. LXV. local self-governments could manage local developments in their own jurisdiction, but without proper financial background they could implement only the developments which enjoyed central state support. This statement is confirmed by how the incomes of the privatization of municipal properties (building sites, buildings, etc.) were used, as according to central legislation these incomes could be

[3] The bigger part of the incomes of the local self governments consist of state assigned taxes, normative contributions of the state budget, local taxes, incomings of its own economic activities and fees [11].

[4] According to the Act 1992. évi LXXXIX. the Hungarian Parliament supports some of law definied local investments in order to stabilize the actions of the local self-governments. If a local self-goverments fits to the state spezialized criteria sytem it gets the earmarked subsidies automatically. Beyond this adequace the ermarked allocations were avialable just in competition: in order to get state subsidies local governments have to create competitive project ideas for a ranking list.

used only to restore buildings (mainly residential properties), which were almost the only reliable financial background for building restorations besides earmarked subsidies and allocations in the beginning of the 1990s [11]. It includes the restoration of Szeged's historical centre, which, after the small renovations of the 1980s, appeared only point wise in the beginning of the 1990s, and was limited to certain institutional and residential buildings. From the end of the decade bigger and bigger projects were started with conscious town rehabilitation planning, such as the one billion-forint restoration of Kárász street – Klauzál square, the restoration of so-called 2nd block within Kárász, Somogyi, Kelemen and Kölcsey streets, and the 800 million-forint rebuilding of the dual roundabout at Dugonics square and the transformation of Tisza Lajos boulevard, which were remarkable to improve the city centre's traffic conditions.

For the sake of using the available sources independently, the local self-government has often tried to find other ways of utilizing its properties to gain alternative economic benefits. After the change of the regime the acquired buildings were taken into account not only as properties that could be sold, but they also gave the possibility for different organizations to join economically. The "Universitas property barter programme" that was started in the middle if the 1990s together by the local self-government and the university as their first development programme in the middle of the 1990s serves as a good example for that. It meant that the university, which covers the whole of the city's area, and the municipality swaps properties on the grounds of mutual benefits with the approbation of Szeged's General Assembly. József Attila University and Juhász Gyula Teacher Training College, the legal predecessors of Szeged University possessed a notable number of properties [18].

9. SOURCES APPEARING WITH THE PRE-ACCESSION TO THE EUROPEAN UNION (Phare, ISPA)

The city of Szeged started to work out investment concepts based on new sources in the second half of the 1990s. The reason for this was that the basis of Pre-accession to the European Union became available such as PHARE, ISPA and SAPARD. From these, mainly the pre-accession programmes of PHARE and ISPA were significant from the point of settlement development. Since these programmes – mainly ISPA – supported mostly cohesive investments, the main direction of developments was also limited to remedial projects.

Due to the shift in the direction of the targets of PHARE programmes in 1997, the programme's funds could also be used directly for institutional developments and supporting investment [2]. In autumn 2003, approaching the deadline of using the pre-accession's funds, an application was handed in to restore a square that belonged to the historical part of the city centre of Szeged. Competitive factors started to arise as part of the project as the application included not only rehabilitation, but also creation of workplaces. The reason for this was the establishment of a biomonitoring system at the square, that monitors the pollution level of the air, and to operate this system, experts had to be trained and employed, and other new employees were also hired through cooperation with civil services and the employment centre, who had to look after the renovated park. Thus the idea of partnership, that is a keystone of the grants of the European Union, concretely appears in this 1.1 billion-forint project.

Another important investment of Szeged, which aimed to establish the city's total sewerage system, also got started in this period. Hungary's biggest investment of this kind was implemented from a total gross budget of more than 23 billion forints, using sources from Brussels, ISPA funds, and it meant that 253 kilometres of drainage was built altogether in the city and in the neighbouring villages that joined to the programme.

The main aim of ISPA was to prepare the counties awaiting the accession to welcome the Cohesive Fund's supports, and to solve the concrete problems of traffic and environmental infrastructure, that were hindering the accession. So the supporting programme had remedial aims firstly, and not to improve economic competitiveness. We mustn't forget though, that as an indirect effect of this investment, the number of people employed in local construction increased significantly – even if temporarily -, because 80% of the contractors working on this project were local entrepreneurs, this way local employers and employees could also benefit from the rehabilitation, and it also enlarged the budget of the municipality because of the entrepreneurs' local taxes (mainly trade and communal taxes). Besides the restored roads and completed drainage system, a further benefit of the project was the strengthened local entrepreneurs, who could use this work as a reference and who, this way could apply for similar projects in other parts of the country with great chances.

10. INCREASE IN DEVELOPMENT SOURCES BETWEEN 2004 AND 2006

With Hungary's accession to the European Union on 1st may 2004, unprecedented financial sources became available for national and local developments. Between 2004 and 2006 675 billion

forints were available for certain development priorities in the frame of the National Development Concept (NTF). According to the basic aims[5] drawn up in the NTF, there were calls for tenders in five operational programmes (OP): Economic Competitiveness OP, Environment and Infrastructure OP, Agricultural and Rural Development OP, Human Resource Development OP, and Regional OP. From these Operational Programmes mostly GVOP, KIOP, and ROP provided possibility to implement bigger investments. The support rates were around 50-80%, but in many cases raising the 10-15% own source was also a difficulty. Despite the extended funds, this problem could have discouraged a lot of local self-governments from potential development possibilities, but the Hungarian government established a tender possibility based only on national sources to help the local self-governments. The ministry of Home Affairs has called a tender every year since 2004 "to support local self-governments' own sources for the development tenders of the European Union" and it has supported a lot of local self-governments' development ideas, that gave fund for the own source of a successful application for an operative programme[6].

In 2005 the Association of National Municipalities' Union's standpoint on the T/17700. bill of the 2006 Budget of the Hungarian government also drew attention to the problems of local self – governments' development sources. According to this bill, the extensive reform of local self-governments, that could make the operation of each settlement economical [14], does not come true again in 2006. According to the starting point and the accepted bill, which was mainly unchanged compared to the original one, there wasn't a change in the duties and jurisdiction, the conditions of management regulations remained basically unchanged, the financial conditions were damaged[7], so for the next budgetary period of the European Union between 2007 and 2013, the ability to finance bigger municipal investments remained a key question of development policy.

11. NEW DIMENSION: THE DEVELOPMENT PERIOD OF 2007 -2013

Certain chapters of the presently effective national development document, New National Development plan (hereafter UMFT) enhanced the development possibilities of local self-governments. The 675 billion-forint fund available in the frame of NTF got ten times more in the period of 2007-2013 and it provides a possibility for more specific aims (Schedule 1.).

Schedule 1. Operational Programmes of the New National Development Plan (UMFT)

Priorities	Operational Programmes	Financial Sources (billion HUF)
Development of Economy	Economic Development OP (GOP)	690,0
Development of traffic and transport	Traffic and Transport OP (KÖZOP)	1703,2
Renewing the Society	Social reform OP (TÁMOP)	966,0
	Social infrastructure OP (TIOP	538,9
Environmental and energetical development	Environment and Energy (KEOP)	1140,0
Spatial Development	OPs of the 7 regions of Hungary:	
	Nyugat-dunántúli OP	
	Közép-dunántúli OP	
	Dél-dunántúli OP	
	Dél-alföldi OP	
	Észak-alföldi OP	1609,4
	Észak-magyarországi OP	
	Közép-magyarországi OP	
State modernization	State reform OP	140,7
	Electronic government OP (ÁROP)	
ÚMFT (communication and coordination)	Excecutive OP (VOP)	87,2
TOTAL (billion HUF)		6875,4

Resource: own editing based on UMFT (2007, page 9.)

According to the Decree 96/2005 (XII. 25) of the Hungarian Parliament on the National Development Concept and the Decree 97/2005 (XII. 25) of the Hungarian Parliament on the National Spatial Development Concept defined Szeged as a development pole also on the level of legislative provisions with other 4 cities listed in the decrees. The long term aims of UMTF is enlarging employment and ensuring permanent growth. As for the latter one, according to the UMFT Integrated Settlement Development Strategy, the support for the economic growth of the settlements that are

[5] The National development Plan (2004-2006) drafts three general goals (competitive ecomomy, more effective human resource and well-balanced spatial development) in order to improve the living standard sin Hungary [5].

[6] In the year 2005 a municipality managed project with the name of „Integrated Development of the E-government in Szeged" was granted by the EU. The total project budget was 670 million HUF (appr. 2,3 million EUR). Beyond the 540 million HUF EU grant the municipality got other 78 million HUF as an own source subsidy from the Hungarian Government [19].

[7] According to the Act of the annual Hungarian Budget in 2005 the local self-governments got 1349,8 billion HUF (appr. 4,49 billon EUR) as state financial source which was half billion HUF less than in the previous year [13].

development centres predominates mostly in polycentric, cooperative settlement network system [8]. To ensure a long term, balanced spatial development, there is a need to compensate the capital's economic dominance and to change the monocentric structure of the country, which they want to establish with functionally assigned settlements and emphasized developments based on technological innovation. This idea was rather weakened later, in the phase of planning and social discussions, but because of the central role of 5 "pole cities" the possibility of some key investments (based mainly on equity) didn't disappear. As a matter of fact, cities that are assigned as competitive poles do play a key role in determining their area's competitiveness with their innovation potential.

Although UMFT also underlines the importance of settlements and the settlement system from the point of competitiveness in this case, it is probable that these settlements have also come to the front in case of other kinds of project concepts' central and EU funds – usually developing basic settlement functions (Schedule 2.).

Schedule 2. Some hugh project of the Szeged competitive pole[8]

Operational Programme	Project	Project leader	Total Budget (Billion HUF)	Grants (Billion HUF)
TIOP 2.2.7	Infrastructural development in the Heathcare competitive poles (building a new clinic centre next to the river bank of the Tisza)	University of Szeged	12,366	Data no aviable
GOP 1.1.2	Development and strengthen of the Research & Develpment centres: DEAK – Research and Development	DEAK Cooperational Development Shareholders company	2	0,99992
TIOP 3.1.1 TIOP 3.1.1 - TISZK	Infrastructural development of the TISZK organization (human resource development)	Consorcium with the Municipality	0,992	0,892
KÖZOP -2008-5.2	Development of the Eletric Public Transport system in Szeged (reconstruction of the old lines, building a new tramline, procurment of new vehicles)	Municipality Of Szeged	29	25
DAOP 5.1.2/C	City rehabilitation (rehabilitation of main streets and the old Mars square)	Municipality Of Szeged	3,3	2,1
TIOP 1.3.3./08/1	„Agóra Pole" cities: development of the innovative and cultural infrastructures of cities	Municipality Of Szeged	1,9	1,71

Resource: SZMJVÖ (2009)

12. SUMMARY

The reform of the institutional system in the Hungarian spatial development takes place very slowly. The institutional system set up for the access was not consequently built on institutions of regional development, which disappointed the regions [22]. The effective establishment of the seven NUTS-2 regions has not been achieved yet, though some encouraging efforts happened. The 6. § of the act of 1999. XCII. on the modification of the act 1996. XXI. ordered to set up regional development councils, hereby the regional framework has been defined by legal means. Some competences and tasks have been delegated to regional level, but the regions possess neither elected representatives nor own financial resources, although those later two are very important from the point of view the European Unions definition on regions.

The correct using of some core principles (decentralization, subsidiarity, partnership) requires to rethink decision competencies, to decentralize the power, to strengthen the autonomy of the local communities [16]. The institutional framework of the spatial policy in Hungary is strongly attached to the public administration, especially to the counties. Economic development is unfortunately only second priority in the distribution of financial resources, entrepreneurs are not able to enforce their interests. The counties hesitate to be partners of each other, although an efficient spatial policy requires a successful concentration of forces on each territorial level.

[8] Szeged, the county town of Csongrád county – as well as Győr, Pécs, Debrecen, Miskolc, Veszprém-Székesfehérvár got Development Pole function according to the 2230/2005. (X.26.) government order and they got 100 million forints fund to work out their Development Pole Programme. The pole programme is worked out with scientists, research and engineering experts in module system, similarly to research-engineering development programmes.

REFERENCES

[1] ETS 1985: *European Charter of Local Self-Government, (15.X.1985)*. European treaty series No 122. Strasbourg. 1985.
[2] Flamm Benedek L.: *Kulcs a sikeres Eu-s pályázatokhoz*. A tagállamok tapasztalatai és gyakorlata 13-38.o). 2003.
[3] Horváth Gy.: *Az Európai Unió strukturális és kohéziós politikájának hatása a magyar terület- és településpolitikára*. ÖSZT-ICMA-USAID, Budapest. 1998
[4] Lados M.: A területi tervezés kihívásai a kilencvenes években Magyarországon: a területfejlesztési stratégiák kialakításától a programozásig és az értékelésig. *Tér és Társadalom*, 2, 25-69. o. 2001.
[5] Magyar Köztársaság Kormánya: *Nemzeti Fejlesztési Terv (NFT)*. Budapest. 2004.
[6] Magyar Köztársaság Kormánya: *Országos Területfejlesztési Koncepció (OTK)*. Budapest. 1998.
[7] Magyar Köztársaság Kormánya: *Országos Területfejlesztési Koncepció (OTK)*. Budapest. 2005.
[8] Magyar Köztársaság Kormánya: *Új Magyarország Fejlesztési Terv (UMFT)*. Magyar Köztársaság. Budapest. 2007.
[9] Magyar Országgyűlés: *1950. I. tv. (I. Tanácstörvény)*. Magyar Népköztársaság. Budapest. 1950.
[10] Magyar Országgyűlés: *1954. X. tv. (II. Tanácstörvény)*. Magyar Népköztársaság. Budapest. 1954.
[11] Magyar Országgyűlés: *Az 1990. LXV. Tv. a helyi önkormányzatokról. 80§ (2)*. Magyar Köztársaság. Budapest. 1990.
[12] Magyar Országgyűlés: *Dr. Horváth Balázs 68. számú parlamenti felszólalása* (1990.07.02.). Országgyűlési napló. Budapest. 1990.
[13] Magyar Országgyűlés: *Magyarország 2006. évi költségvetési törvénye (2005. CLIII. (XII.19.)*. Magyar Köztársaság. Budapest. 2005.
[14] OÖÉSZ: *Országos Önkormányzati Érdekképviseleti Szövetségek Állásfoglalása a Magyar Köztársaság 2006. évi költségvetéséről szóló T/17700. számú törvényjavaslatnak a helyi önkormányzatokra vonatkozó szabályairól (Tárgyalási szám: a T/17700) szóló anyaga*. Budapest. 2005.
[15] Rechnitzer J.: *A helyi önkormányzatok felkészülése az Európai Unió regionális politikájának fogadására*. In: Csefkó F. (szerk.): *EU-integráció – önkormányzatok I*. ÖSZT-ICMA-USAID, Budapest. 1998.
[16] Rechnitzer J.: *Területi Stratégiák*. Dialóg Campus, Budapest-Pécs. 1998.
[17] Rechnitzer J. – Lados M.: *A területi stratégiáktól a monitoringig*. Dialóg Campus, Budapest-Pécs. 2004.
[18] SZMJVÖ: A 42/2000 (I.14.) *Kgy. határozat a szegedi egyetem és az önkormányzat között létrejött Universitas ingatlancsere-program megállapodásról*. Szeged Megyei Jogú Város Közgyűlése. 2000.
[19] Belügyminisztérium - SZMJVÖ: *„Szeged integrált e-kormányzat rendszerének fejlesztése" elnevezésű projekt támogatási szerződése* (Azonosító: GVOP-4.3.1.-2004-06-0007/4.0). Magyar Köztársaság. 2005.
[20] Salamin G. – Péti M. – Czira T.: *Paradigmaváltás küszöbén. Az új területfejlesztési koncepció és a területi tervezés*. Területi Statisztika, 5. sz. 423-439. o. 2005.
[21] Sipos A.: *Reformok és reformtörekvések a fővárosban*. Budapesti Negyed, Budapest. 1993.
[22] Szaló P.: Az alap mellé épült ház. *Falu, város, régió*, 1. sz. 7-11. o. 2006.

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THE STRENGTH OF INTELLECTUAL PROPERTY PROTECTION AND THE TRANSFER OF TECHNOLOGIES

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Abstract:

In the wake of the 21st Century achievements of the intellect are gaining in importance in production. Who has the knowledge, also has the advantage in competition. Countries are striving to produce knowledge, or else acquire knowledge elsewhere produced to remain competitive.

Intellectual property rights (IPR) facilitate technology transfer by assuring foreign innovators that transferring knowledge produced by them into the country they will still be able to collect returns.

In this paper I am going to present one possible way of measuring the effect of relative IPR protection strengths of trading partners on the magnitude of technology transfer between their countries.

Keywords:

IPR, Intellectual Property Rights, patent-index, technology transfer, international trade

1. INTRODUCTION

In the last decades it becomes increasingly clear, that those countries will be able to benefit from the new kind of international competition which can better adapt to the challenges of the knowledge-based economy. Knowledge is gaining in importance as an input to the production process. Therefore it is in the best interest of the countries and governments to facilitate knowledge production and try to manipulate its international spread in their own favour. Intellectual property rights (IPR), or property rights more broadly, are institutions which are taken as given or exogenous by neoclassical economic models. In this paper, however, what is seen to influence knowledge production and diffusion is the design and especially the strength of this institution itself. The IPR regime is not an exogenously given variable any more, but can be adapted endogenously to reach a desirable outcome. I tackle this problem from an institutional point of view.

The economic aspects of institutions have just recently started to be explicitly investigated. Starting with the influential works of R. H. Coase as far back as the 1930s, the new institutional economics a) views institutions as not being neutral, but influencing economics outcomes, b) rather than discarding the whole apparatus of the neoclassical economics, tries to link functioning of the institutions with the marginalist methodology and c) tries to use institutional variables as endogenous within the neoclassical framework. One of these institutions endogenously inserted into the neoclassical economic model is the institution of property rights.

Thinking about property rights found its way to economic thinking only recently. In his 1960 paper, the Problem of Social Costs, Coase emphasises the economic importance of property rights. Property right in economics means “actual power to control or affect the use of an object, or some aspect thereof” [5]. This controlling or affecting can typically mean 3 things: a) usage of the object (usus), b) appropriating the returns thereof (usus fructus) and c) the transferring of these rights partly or fully to another person (abusus). Clearcut property rights and their guaranteed enforcement are perquisites of (but not guarantee) a well-functioning, Pareto-optimal market economy.

The third of these rights is in connection with the freedom of contracts and trade. As Makaay writes ([5], p. 248., italics mine): “A person who controls the use of an object may find it *profitable* to allow another person to use it, [...] To this end, the owner enters into an agreement with the other person. The agreement [...] *confers* on him or her *some economic*

property rights." The above quote implies that either using our property ourselves or selling it to someone is driven by the profit-motive and leads to the efficient usage of the property. If there are any limitations to any of these parts of the property (that is, limiting the economic property right that can be conferred on someone, or limiting this conferring itself), efficiency cannot be ascertained.

We also have to be aware of the fact, that the property right system is not static, but dynamically changing. Since it is, in the institutionalise view, an endogenous variable, it is not merely a given factor that determines other variables, but is itself dependent on other economic variables and processes. The tailoring of property rights to different objects with different characteristics can be a natural, evolutionary process, left to the market, but more often than not it is done by the government. This is the case with products of the intellects, or, as I will refer to them, knowledge. The creation of knowledge is encouraged through better or worse IPR systems in every country. The spreading of knowledge, however, will depend on the international differences of these IPR protection systems from country to country.

2. INTELLECTUAL PROPERTY PROTECTION AND TRADING WITH INTELLECTUAL PRODUCTS

Establishing a clear intellectual property rights (IPR) system makes trading with intellectual product possible. The possibility of trading in turn leads to specialisation, meaning that producers can have the necessary knowledge and technology from the researchers, and researchers do not have to bother with the commercial development of their ideas, like they had to in earlier centuries [4]. Knowledge can then be acquired from specialists through the market. This specialisation and cooperation is rendered possible by the market for intellectual products by way of intellectual property protection measures. Research and development can be detached from production.

There exists a number ways to transfer knowledge[1] from one country to another. "International technology transfer refers to the process by which a firm in one country gains access to and employs technology developed in another country" ([1], p. 23.). This has many ways and methods, that can and has been both theoretically and empirically explored. The possible ways include international trading in technology-intensive products, international flow of foreign direct investments, cross-country licensing, or even patenting in a different country. International trading in intellectual products is one the market-conform ways technologies can spread in the globalised world[2]. Clearly established national intellectual property rights regimes enables trade in intellectual property, but national differences can influence this trade. As to how exactly national differences in the strength and design of the IPR system influence international trade in knowledge, no generally accepted theoretical explanation has yet emerged in the literature. There are at least two characteristics of a country's IPR regime, that can influence the inter-country flow of intellectual products, namely its design and its strength. The effects of both have been explored at the model level. The model of Taylor [11][12] explore how the differences in design between countries affect knowledge transfer. Design differences mean the symmetry of asymmetry of protection, that is whether foreign inventions enjoy the same protection as domestic or not. The model's conclusion is, that the more symmetric the IPR protection, the more it encourages knowledge creation and transfer. In Naghavi's model [6] the strength of the protection determines the outcomes, namely whether the foreign company will enter at all the domestic market, and if yes, will it be by way of direct investment or export. These models conclude that more symmetric and stricter IPR protection attracts more knowledge into the country.

[1] In this paper I am talking about knowledge transfer in a very general sense. The model I use and the empirical test of its predictions are at the macro level. These do not say anything about the actual process, how knowledge is being transferred from one country to another. Neither is it important here, how individual firms find out, what knowledge and what innovations it is worth to acquire from outside the home country, or what determines the regional spreading of knowledge and innovations. Although these are all certainly important questions, I will concentrate here only on the aggregate, macro level.

[2] As opposed to certain non-market-conform ways like non-market transactions and spillovers [1].

3. EMPIRICAL STUDIES OF THE LINK BETWEEN IPR STRENGTH AND TRANSFER OF TECHNOLOGY

To test empirically, whether a link between the strength of IPR systems in a country and transfer of technology to that country could be established, two questions have to be answered: first, how to measure the strength of national IPR regimes, and second how to measure the magnitude of transfer of technology.

For the measurement of the strength of IPR regimes, Ginarte and Park developed a composite index in their 1997 paper [3][3]. Their index measures IPR strength along 5 dimensions, giving a number 0-1 to each, and then taking the sum of these to be the patent index, thus ranging from 0 to 5. The five dimensions are coverage (meaning what can and what can not be subject of protection), membership in international treaties (the Paris Convention, the Patent Cooperation Treaty and the International Convention for the Protection of New Varieties of Plants), enforcement (whether the legislation provides adequate mechanism for the law to be enforced), and restrictions to exercising IPRs (eg. compulsory licensing), and duration of protection.[4] The higher value a country is scoring in this index, the more strict IPR protection is taken to be in that country.

For the measurement of the magnitude of transfer of technology many different indicators can be used. [1] enumerate 4 basic channels through which technology can flow from one country to another: through a) international trade, b) foreign direct investment, c) licensing agreements and d) cross-national patenting.

In their original study [3], the aim of the study was to examine, what determines the Ginarte-Park Index as a dependant variable. In [8] the authors conducted an empirical study to examine whether a statistical relationship can be established between the strength of IPR regimes as an independent variable and technology transfers, either in the form of foreign direct investment or in the form of technology-intensive merchandise import as a dependant variable. They conducted a regression analysis where they used the above mentioned Ginarte-Park Index to measure the strength of the IPR system as an explaining variable[5]. Beside that, their regression analysis has many control variables (like country-risk or per capita GDP), accounts for individual, country-specific effects like culture or quality of institutions [8].

In a later paper, Park and Lippoldt present a developed model. [9] has the methodology of what to measure and how to measure. They regress a) stock of inward FDI, b) technology-intensive merchandise imports and c) technology-intensive service imports to the Ginarte-Park Index of Patent Rights. In their paper, they use data from altogether 120 countries, which they divide into three groups: developed countries (25), developing countries (68, including Hungary) and least developed countries (27). What they find is, that 1% rise in the Ginarte-Park index is accompanied by a 1,65% rise in inward FDI to developing countries (as opposed to 11,2 to developed and 1,66 to least developed countries). A 1% rise in the Patent Right Index goes together with 1,34% rise in merchandise imports to developing countries (compared to 9,86 to developed countries and 0,54 to least developed countries). Also, the coefficient for service imports to developing countries is 0,99 (9,99 to developed countries and 0,97 to least developed countries).

4. IPR STRENGTH AND KNOWLEDGE INFLOW TO HUNGARY

Neither the original 1997 study by Ginarte and Park, nor the 2003 study by Park and Lippoldt includes Hungary. Park in his 2008 paper ([10] p. 2.), however gives the values of the Ginarte-Park index for Hungary. For the years 1960-1990 Hungary scores an average of

[3] Beside this Ginarte-Park index, empirical studies use another, called Rapp-Rozek index to which due credit is given both in [3] and [1].

[4] In a 2008 paper [9], this patent right index is developed further, and an index for the strength of copyright protection and trademark right protection is included.

[5] The strength of intellectual property regime is certainly not the only determinant of knowledge diffusion. Some other influencing factors, the effects of which could even be studied at the model level might be the extent of the market, the quality of the labour force, the infrastructure, political stability etc.

2,20. For the year 1995 the index is 4,04 remaining unchanged for 2000, and rising to 4,5 to the year 2005[6]. Having the scores of the patent right index for different years, and having the model of [9], we can see, whether the Hungarian data support my predictions.

Park and Lippoldt give in their 2008 paper an interpretation of knowledge-intensive products and services, listing those parts of merchandise imports and service imports which are the most likely to bring along with them the transfer of new technologies to see how these are related to the strength of the IPR system[7]. In the case of the merchandise imports these are: pharmaceuticals, office and telecom equipments, organic and inorganic chemicals, electrical and electronic products, aircraft and spacecraft-related products and optics and precision equipment ([9], p. 37). In the case of services imports they list communication services, computer and information services and royalties and license fees ([9], p. 43). I also acquired data for Hungary in these categories.

Table 1 shows foreign direct investment, technology-intensive merchandise import and technology-intensive services import for the years 2000 and 2005 into Hungary. As a reference, I indicate in the first column the Ginarte-Park index for Hungary.

Table 1: knowledge transfer to Hungary (values are in Mio current USD)

Year	G-P Index for HU	Inward FDI	Technology-initensive merchandise import	Technology-intensive services import
2000	4,04	22 869,9	16 101,3	461,0
2005	4,50	61 970,1	32 842,4	1 956,8

Source: MNB, KSH, UNCTAD

Even if we take the strictness of IPR protection as a determinant of knowledge inflow into a country, it may not be the absolute, but the relative strictness of the protection that matters. Next I will use the Ginarte-Park index of countries to measure the differences in the strictness of IPR protection between trading partners, and see whether and how this influences knowledge inflow as understood by Park and Lippoldt ([8] [9]). Based on the above studies of Park and Lippoldt, *my prediction is, that as domestic IPR protection gets stricter relative to that of the trading partner's, this encourages knowledge inflow, while as it gets looser, it discourages knowledge inflow*.

Having data on the knowledge-intensive merchandise and service inflow into Hungary broken down to countries of origin it is now possible to see, whether any connection can be seen between change in Hungary's relative IPR strength to its trading partners and the change in stock of inward FDI, technology-intensive merchandise imports and technology-intensive service imports, respectively. To see this I used data for only those countries, for which [10] gives a Patent Right Index, which is, 120 countries. Not having the control variables the original study used I made a plot diagram of the percentage changes in inward FDI stock, technology-intensive merchandise import and technology-intensive service import against change in the patent right index of the trading partner compared to Hungary. I tried to identify a pattern. *According to my prediction, the dots should scatter around a positively sloped trend line.* From the sample I excluded those items, where trade or FDI stock was 0 in at least one of the years, and also excluded outliers, where the change in either way was more than tenfold during the five-year interval. After these exclusions my data account for 86,7% of the inward FDI stock in 2000 and 76,68% in 2005, in the case of merchandise import these percentages are 99,45% and 98,58, respectively and for the services import they are 97,28% and 83,42%, respectively. I got the plot diagram on figure 2 for all three categories.

What the figures show, instead of a positively sloped trend line, is a kind of "reverse funnel". The reverse funnel can be read meaning, that the change in the relative IPR strength does not, per se, determine technology transfer through these channels, but a greater positive change in Hungary's relative IPR strength is able to encourage technology transfer, while the smaller the positive change or the greater the negative change, the less it is able to do so. Put another way, the relative strengthening of the Hungarian IPR protection allows for greater variation.

[6] The Patent Rights Index for Hungary is, however, different, being 3,71 in 2000 and 3,37 in 1995 ([7], p.40).

[7] The model certainly also uses control variables.

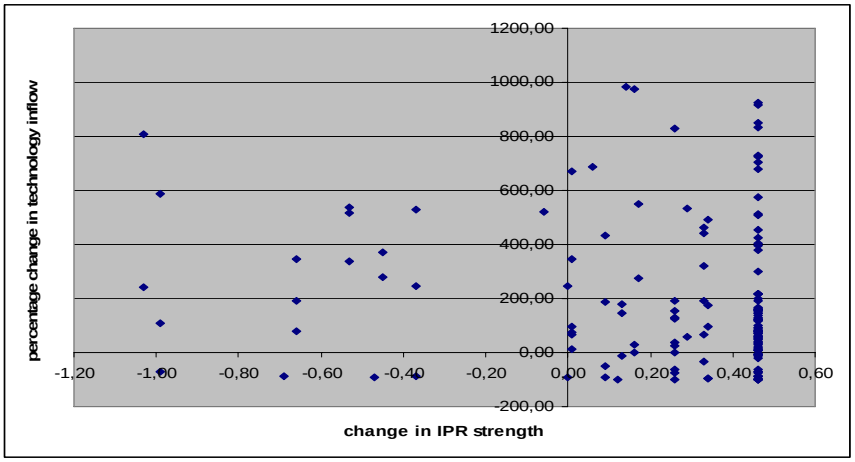

Figure 2: technology inflow in relation to change in relative IPR strength in Hungary
Source: KSH, MNB

5. TECHNOLOGY-INTENSIVE TRADE BETWEEN HUNGARY AND ROMANIA

Table 2 shows the trade in technology-intensive merchandise and services between Hungary and Romania in the years 2000 and 2005, for which Patent indexes are available.

Table 2: technology-intensive trade between Hungary and Romania (in Mio current HUF)
Source: KSH, MNB

	2000	2005
to H from RO		
Patent right index for H	**4,04**	**4,5**
tech-intensive merchandise	20 881,5	64 673,0
tech-intensive services	957,7	7 385,9
to RO from H		
Patent right index for RO	**3,72**	**4,17**
tech-intensive merchandise	29 046,4	157 320,5
tech-intensive services	79,0	6 445,3

The data in the table throw light on some methodological problems already present in the previous section's conclusions. First, the variables to be explained (value of merchandise and services traded) are calculated at current prices, thus any rise in it is partially a result of inflation. Second, the increase in value is higher in merchandise trade then in services trade, the percentage increase however is just the opposite, the base being substantially lower in the services case. Third, even if relative strengthening of IPR protection would allow for higher technology-intensive product and service inflow, if there is nothing to import, then this effect can naturally not work out. Typically, technology-intensive product and services are being generated in countries with higher patent right index than Hungary or Romania. This is reflected in the fact that around 60% or technology-intensive merchandise and around 80% of technology-intensive services come to Hungary from countries with higher patent right index, like Germany, the United States, Japan and the United Kingdom.

6. CONCLUSION

Theoretical studies show, that the actual shape and built of a nation's intellectual property rights protection system can and does have effect on the international flow of intellectual products through the markets. If this is the case, different countries can shape their IPR regimes to profit more from the international flow of knowledge, while this can be a disadvantage for others. This way, appropriate fine-tuning of the IPR system can become a new way of competition between countries and also a new possibility for levelling off. Endowment with or accessibility to knowledge might be less predetermined, constrained than endowment with natural resources, capital or labour. If it can be proven that the type (strength) of IPR systems as a new tool in the hand of a national government can influence international flow of capital and technology transfer, than using Ghosh's words we can speak

of a „new mercantilism", of a new tool a government can use to compete more efficiently at the international level ([2], p. 85).

It is up to further studies to examine, how varying strength of IPR systems influence other kinds of technology transfer, like the international flow of knowledge workers and human capital, and the resulting knowledge products.

REFERENCES:

[1] Falvey, R. – N. Foster: *The Role of Intellectual Property Rights in Technology Transfer and Economic Growth: Theory and Evidence*. UN Industrial Development Organisation, Vienna, 2006.
[2] Ghosh, S.: Globalization, Patents and Traditional Knowledge. *Columbia Journal of Asian Law*. 1, 17, pp. 73-120., 2003.
[3] Ginarte, J. C. – W. G. Park: Determinants of patent rights: A cross-national study. *Research Policy*. 26, pp. 283-301., 1997.
[4] Lamoreaux, N. – K. Sokoloff: Market Trade in Patents and the Rise of a Class of Specialized Inventors in the 19th-Century United States. *American Economic Review*. 2, 91, pp. 39-44., 2001.
[5] Mackaay, E.: On Property Rights and their Modification. In Fase M. M. G. – W. Kanning – D. A. Walker (eds.): *Economics, Welfare Policy and the History of Economic Thought – Essays in Honour of Arnold Heertje*. Cheltenham, UK, Edward Elgar, pp. 245-264., 1999.
[6] Naghavi, A.: Strategic Intellectual Property Rights Policy and North-South Technology Transfer. *Review of World Economics*. Vol. 1, No. 143, pp. 55-78., 2007.
[7] Park, W. G. – Wagh, S.: Index of Patent Rights, 2000 Updade. In Gwartney, J. – R. Lawson (eds.): *Economic Freedom of the World Annual Report 2002*. Chapter 2. Fraser Institute, Vancouver, BC, pp. 33-42., 2002.
[8] Park, W. G. – Lippoldt, D. C.: *The Impact of Trade-related Intellectual Property Rights on Trade and Foreign Direct Investment in Developing Countries*. OECD Working Paper, 2003. [online] http://www.oecd.org/dataoecd/59/46/2960051.pdf accessed: 10.7.2008
[9] Park, W. G. – D. C. Lippoldt: Technology Transfer and the Economic Implications of the Strengthening of Intellectual Property Rights in Developing Countries. *OECD Trade Policy Working Papers*, No. 62, OECD Publishing. doi:10.1787/244764462745, 2008.
[10] Park, W. G.: International Patent Protection: 1960-2005. *Research Policy*. Vol. 4, No. 37, pp. 761-766., 2008.
[11] Taylor, M. S.: 'Quality Ladders' and Ricardian Trade. *Journal of International Economics*. No. 34, pp. 225-243., 1993.
[12] Taylor, M. S.: TRIPS, Trade and Growth. *International Economic Review*. Vol. 2, No. 35, pp. 361-381., 1994.

REGIONAL SUSTAINABILITY INDICATORS

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Abstract:
Besides the measuring of global sustainability it is important to discuss the regional sustainability in detail. Regional sustainability can provide useful information for strategic planners for implementing sustainability goals. Many methods have been developed for regional sustainability assessment. Graymore et al. [7] explored ecological footprint, wellbeing assessment, quality of life, ecosystem health and natural resource availability. In my study I examine that from this assessment which is/are suitable for measuring regional sustainability with special regard to ecological footprint which is an officially accepted sustainability indicator in several countries.

Keywords:
regional sustainability, ecological footprint, wellbeing assessment, sustainable society index

1. SUSTAINABILITY - REGIONAL SUSTAINABILITY

The unsustainability and the potentially self-destructive character of the current socioeconomic processes have become a problem to be considered by public opinion and the researchers of environmental issues. It is a scientific fact that these processes can restrict the socioeconomic options in the near future by irreversibly ruining certain unsubstitutable ecosystem services. The humanity determines the level of natural capital[1] by three factors: size of population, consumption and technology. The humanity's effect on environment is appearing in lost of ecosystem services, degradation of biodiversity and deforestation.

The definition of sustainable development has become one of the most common expressions recently. According to the Brundtland Report [3] (also known as Our Common Future), sustainable development requires development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

This definition, however, does not provide proposals for moving towards sustainability, furthermore ignores the limits of growth in connection with population and economy. In addition, the conclusion that the economic growth is sustainable can be drawn. However, the sustainability of environment, society and economy is rather based on physical laws of nature such as the laws of thermodynamics. In my study I concentrate on sustainability in environmental aspect. There are several definitions for environmental sustainability as well, but there are common points, for example the preservation of ecosystem and biodiversity, the creation of equilibrium between inter and intra generations and the restructure of economic system.

The concept of carrying capacity is closely connected with sustainability. Generally, the carrying capacity is the maximum population that can live in long run without a considerable degradation of the area. According to the ecological footprint (detailed later on), the carrying capacity (biocapacity) of the Earth shows that how many resources the Earth can produce in a sustainable way to satisfy human's demand (expressed in global hectare). To achieve sustainability society and economy have to stay within the given area's natural capital. This means humanity's effect on ecosystem must not threat its function, which has an effect on society and humanity well-being and survive. The necessary and sufficient condition of sustainability is that the population can be on or under the level of carrying capacity. Consequently, for humanity sustainability means the life within the carrying capacity of the Earth.

There are some definitions for regional sustainability as well, Graymore et al. 's [7] definition rhymes to the concept of sustainability, namely it „requires the human population to live within the

[1] Natural capital is defined as the stock of environmentally provided assets, which provide a flow of useful goods and services (renewable, non-renewable and generally non-replaceable) [5].

limits of the region's supporting systems (social, economic and ecosystem), ensuring equitable sharing of resources and opportunities for this and future generations in the region". According to Wackernagel and Yount [18], regional sustainability is „the continuous support of human quality of life within a region's ecological carrying capacity".

There are several sustainability indicators, maybe the most known are ecological footprint (EF), sustainability society index (SSI), natural resource availability, human development index (HDI), environmental sustainability index (ESI), index for sustainable economic welfare (ISEW), etc. These approaches of sustainability are from different aspects but none of them can fill perfectly the part of sustainability. In my study I am going to emphasize the importance of ecological footprint, because its use is widely accepted.

2. CRITERIA OF REGIONAL SUSTAINABILITY INDICATORS

To choose the adequate indicator for measuring (regional) sustainability, it is necessary to collect the possible indicators. Firstly, I examine which factors and criteria the sustainability indicators have to be suitable for. Then I collect the indicators that can be adequate for measuring regional sustainability. Finally, I study that from the presented indicators which can be used to determine regional sustainability and are suitable for criteria.

As we can see, many sets of indicators exist, but it is important that a sustainability indicator has to be suitable for some criteria. I highlight in Table 1. the main characteristics [2, 7, 12].

Table 1. The main characteristics of sustainability indicators

KERK-MANUEL 2008	BÖHRINGER-JOCHEM 2007	GRAYMORE ET AL. 2008
Relevant	Connection to the definition of sustainability	Assesses regional sustainability
Measurable	Represent holistic fields	Easy use
Recent and regularly updated		Simplifies complexity
Independent from each other		Usefulness
		Information not lost during aggregation of data
Reliable		Transparency
Available data (public sources)		
Available data (for all countries)		

There are several criteria of sustainability indicators. In fact, for measuring regional sustainability it is necessary to choose the relevant indicators from sustainability assessments for which there are adequate data. According to the regional aspect, I use Graymore et al.'s [7] set of criteria which is very detailed (Table 2.) As for regional managers (beyond the former criteria in Table 1.), it is necessary that a regional sustainability indicator has to be related to policy, strategic planning, decision making and be suitable for communication to a range of audiences.

3. POSSIBLE REGIONAL SUSTAINABILITY INDICATORS

For measuring regional sustainability Graymore et al. [7] examined the relevance of five indicators': ecological footprint, wellbeing assessment, quality of life, ecosystem health and natural resource availability. Hereafter I generally present the ecological footprint and wellbeing assessment from these indicators, and complete the list with sustainable society index.

4. ECOLOGICAL FOOTPRINT

The ecological footprint measures humanity's demand on the biosphere in terms of the area of biologically productive land and sea required to provide the resources we use and to absorb our waste (global hectare – gha) [19]. The size of the ecological footprint is connected with the following factors: *population, consumption per capita and technological efficiency in terms of ecology*. The ecological footprint calculation is a multiple-stage process and the indicator can be determined with a simple formula:

$$I = P \bullet C \bullet T$$

where I is Impact, P is Population, C is consumption per capita and T is technology, which is used for consumption and production.

Table 2. Criteria of sustainability assessment methods

A. OVERALL EFFECTIVENESS OF SUSTAINABILITY ASSESSMENT AT REGIONAL SCALE
1. Assesses regional sustainability
•Equity intergenerational and intragenerational
•Level of human activity
•Level of pressure on supporting systems
•Status of supporting systems
◦Ecosystem
◦Social
◦Economic
2. Data availability and accessibility
•Uses existing data
•Data is locatable and accessible
•Data describes the region
•Data collection is cost effective (money and time)
•Ability to assess sustainability without all data
3. Assessment is easy to use
•No complicated calculations
•No specialist knowledge required (e.g. matrices)
•No specialist software required
•Easy to follow method
•Easy to use
•Small indicator set (i.e. manageable data set b40 indicators)
•Not time intensive (i.e. less than 3 months to complete)
B. METHOD
4. Assesses sustainability directly
•Produces an overall sustainability score/index through aggregation of indicator data
•Aggregation method is logical
•Objective assessment of sustainability
•Integrated assessment including relationships between indicators
5. Information not lost during aggregation of data
•Indicator performance is reported
•Sub-system/dimension performance is reported
•Overall system sustainability is reported
6. Transparency in method used to produce results
•Method was clear and well documented
•Easy to understand how final results were derived from indicator data
•Simplifications and assumptions kept to minimum to reduce impact on results
C. USEFULNESS OF RESULTS
7. Simplifies complexity of sustainability and facilitates communication to a range of audiences
•Easy to understand and interpret what results mean for regional sustainability
•Result can be described in a single page report card
•Able to visually represent the results
•Sustainability reported at a range of levels
◦Detailed indicator performance
◦Sub-system/dimension performance
◦Overall system sustainability
8. Usefulness of the sustainability assessment results
•Time and data efficiency of assessment
•For regional managers
◦Sustainability reported at a range of levels
◦Relates to policy, strategic planning, decision making
◦Points out where management actions are needed
◦Targets or thresholds to measure against
◦Can be used to assess trends overtime
•For community capacity building, social learning
◦Result easy to understand
◦Simple to use
◦Data accessible
◦Demonstrates links between sustainability and community activity

To determine the ecological footprint five major consumption classes are set up: food, home/residence, transport, consumption goods and services. Naturally, to have a more exact analysis these classes can be divided into further classes. Consequently, the ecological footprint helps to determine the available natural capital on the one hand and the ecological consumption of people or community on the other hand, thus we can measure whether the given community is sustainable or

unsustainable. In this way it can be proved that social policy is necessary in case of population, consumption and technology (eco-efficiency) [11].

There are several criticisms in connection with the EF because there are some weaknesses, but at present there is no tool for sustainability which is complete and none will satisfy everyone perfectly. Furthermore, the ecological sustainability is not absolutely measurable, especially not with a one-dimensional indicator [4, 9, 15]. Nevertheless, based on our present knowledge, we regard *EF as the most comprehensive sustainable indicator and in several countries – Switzerland, Germany and Finland – it has become the official sustainable indicator* [16].

It is worth noting that nowadays the ecological footprint of humanity exceeds the bio capacity of the Earth (1,8 gha) with 25 %, as large as the ecological deficit. *This means that the demand of the humanity on the biosphere exceeds the carrying capacity of the biosphere* [19]. For this reason, the ecological footprint of humanity has to be decreased below the world-average. According to the estimations, *by 2050, it will have overshot with 200% if the humans do not change their lifestyles and initiate new, environment-friendly technologies, such as solar energy use.*

The ecological footprint per capita is determined by the standard of technology and personal consumption. Thus, the ecological footprint per capita can be reduced by introduction of new technologies. In the literature of sustainability, eco-efficiency[2] has a significant role in relation to technological change; increase of eco-efficiency is regarded as the principal tool of sustainability. An enterprise/national economy is more eco-efficiency than the others if it produces a certain output with less environmental effect. Simultaneously, in the literature the *rebound-effect* is well-known whereby eco-efficiency improvement which resulted by introduction of a new technology may affect against the conservation of resources. At the same time relative eco-efficiency increase, which is induced by technological change, enlarges the scale of biosphere-transformation in absolute amount instead of decreasing it [1].

The ecological footprint is a consumption-based indicator, so the problem of geographical substitution can be eliminated. The ecological footprint considers that developed countries may set out their harmful activities to other (developing) countries.

The main advantage of ecological footprint is that required data is available from standardized database and presents a clear, understandable message that is useful in decision making. The ecological footprint can be measured in global, regional and national level, but in sub-systems data may be unreliable.

5. WELLBEING ASSESSMENT

The wellbeing assessment has been worked out by World Conservation Union (IUCN). This method insures equal weight to people and ecosystem and combines the indicators into a Human Wellbeing Index (HWI), Ecosystem Wellbeing Index (EWI), Wellbeing Index (WI), and Wellbeing/Stress Index (WSI). The subsystems of wellbeing assessment are differentiated in 10 areas (Figure 1).

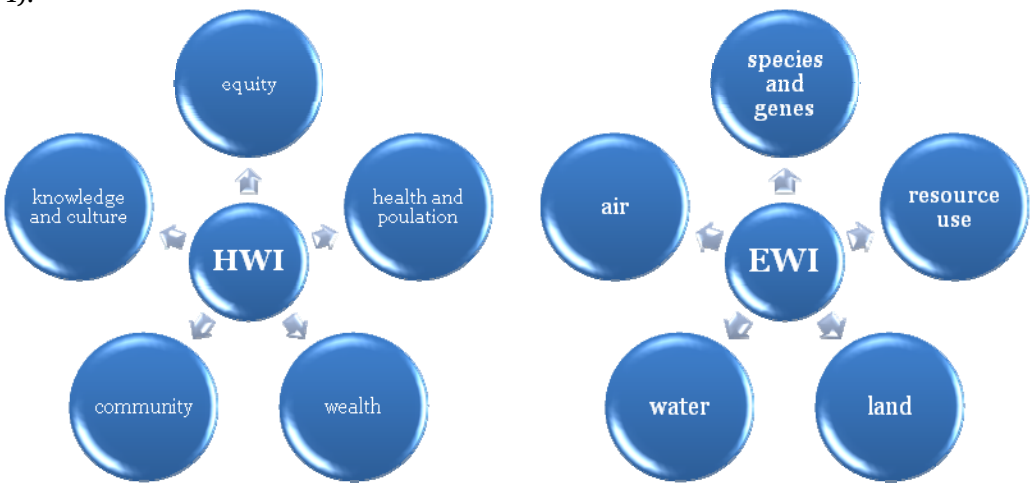

Figure 1. : The subsystems of wellbeing assessment

The IUCN regularly publish reports about problems of environment protection. The Wellbeing of Nations surveys determine 180 countries according to human development and environmental

[2] Eco-efficiency is ratio: value of product or service/environmental effect. That is increase of eco-efficiency means augmentation of this ratio.

protection. Sweden is in the first place, although the survey also terms it as a country with "ecosystem deficit" and Hungary is in the 44th place. The HWI is a better indicator for measuring socioeconomics conditions than GDP and covers more aspects of human wellbeing than Human Development Index [10]. According to HWI, the report highlights that the world's major population live in countries with poor or bad HWI, furthermore the difference between the minimum and maximum values is rather huge: the median HWI of the top 10% of countries is almost eight times that of the bottom 10% [10]. As far as EWI concern it shows that environmental degradation is widespread. There is no country that has good EWI; almost the half of the countries has poor or bad EWI.

The WI shows how well societies combine human and ecosystem wellbeing, the WSI is the ratio of human wellbeing to ecosystem stress, in other words the society's effect on environment. The last two indexes highlight that none of the countries is sustainable in the world and also show that generally poverty goes with low demands on ecosystem and inversely. Furthermore, 116 countries of the 180 examined countries are double deficit countries, which means that they simultaneously have weak environmental performance and inadequate development.

The wellbeing assessment emphasizes that sustainable development is a combination of human and ecosystem wellbeing. The assessment shows that ecosystem wellbeing is very important but the humanity does not deal with the problem sufficiently.

Graymore et al. [7] found that the wellbeing assessment is the most suitable for measuring regional sustainability, considering that this indicator was the only one which met most of the criteria. According to the ecological footprint, the authors emphasized that there were problems with the availability of regional data.

The Wellbeing of Nations report about wellbeing assessment was published only once in 2001, since then there have not been any reports, consequently, annual data cannot be compared in contrast to ecological footprint. Furthermore, wellbeing assessment is based on several indicators, which makes it very complicated.

6. SUSTAINABLE SOCIETY INDEX

The Sustainable Society Index is a newly developed index, which integrates sustainability and quality of life. The SSI is based on public data from scientific research institutes and international organizations (WHO, World Bank, UNESCO, FAO). The SSI consists of 5 categories and 22 indicators (Figure 2).

Figure 2. Categories of SSI

The first calculation was published in 2006, when 150 countries were examined. Then it was updated in 2008. The SSI combines the main aspects of Quality of Life and Sustainability, which are relevant to the development towards sustainability. The index is based on the extended definition of the Brundtland Commission.

According to the results, the high income countries score generally high on the categories of Quality of Life (Personal Development, Healthy Environment and Well-balanced Society) and low on the categories of Sustainability (Sustainable Use of Resources and Sustainable World). On the other hand low income countries show a quite opposite picture. On the list, Africa has the lowest score in the category of Personal Development and Healthy Environment, Well-balanced Society and Sustainable Use of Resources, however. in the category of Sustainable World Africa is the first [12].

In 2008, 151 countries were explored. According to the method, the level of sustainability was measured in 3 steps: the 22 indicators was measured and expressed in a score, then the scores were aggregated into the scores of the mentioned five categories, finally these scores were aggregated into one figure [13]. All scores were expressed on a scale from 0 to 10. The average SSI score was 5, 7 in 2008.

One of the most important disadvantages of SSI is the lack of reliable data, furthermore the disposable data is short for the time being (it covers 2 years).

7. SUMMARY

In my study I presented that it is very important to measure (environmental) sustainability and regional sustainability within. I highlighted that there are several methods to measure sustainability; however, to choose the proper assessment the main criteria has to be clearly defined. I showed the categories of Graymore et al. [7], which is quite detailed and it can help to find the adequate method. I put emphasis on the presentation of three indicators: ecological footprint, wellbeing assessment and sustainable society index. In my opinion ecological footprint can be an adequate indicator for determining regional sustainability.

I think the major problem is that there are countless sustainability indicators and new indicators have been discovered year by year. It would be necessary to choose one indicator which is adequate and to improve it.

The main object of my study was to examine regional sustainablity indicators, because in the near future I would like to test the mentioned indicators and their criteria in the Southern Great Plain in Hungary to measure regional sustainabilty of this area. I would like to study this three indicators based on the list of criteria of Graymore et al. [7].

REFERENCES

[1] Alcott, B. [2005]: Jevons' paradox, Ecological Economics, 54, 9-21.
[2] Böhringer, C. – Jochem, P. E. P. [2007]: Measuring the immeasurable – A survey of sustainability indices, Ecological Economics, 69, 1-8.
[3] Bruntland, G. [1987]: Our Common Future: The World Commission on Environment and Development, Oxford: Oxford University Press
[4] Costanza, R. [2000]: The dynamics of the ecological footprint concept, Ecological Economics, 32: 341-345.
[5] Goodland, R. [1995]: The concept of environmental sustainability, Annual Review of Ecology and Systematicsm, 26, 1-24.
[6] Gonczlik A. [2004]: Az élő természet adományai, Kovász, 1-4, 15–43.
[7] Graymore, M. – Sipe, N. G. – Rickson, R. E. [2008]: Regional sustainability: How useful are current tools of sustainability assessment at the regional scale?, Ecological Economics 67, 362-372.
[8] Graymore, M. [2005]: Journey to sustainability: small regions, sustainable carrying capacity and sustainability assessment methods, Griffith University, Australia
[9] Moffatt, I. [2000]: Ecological footprints and sustainable development, Ecological Economics, 32, 359-362.
[10] Prescott-Allen, R. [2001]: The wellbeing of nations: a country-by-country index of quality of life and the environment. Island Press, Washington
[11] Rees, W. E. [2000]: Eco-footprint analysis: merits and brickbats, Ecological Economics, 32, 371-374.
[12] Van de Kerk, G. – Manuel, A. R. [2008a]: A comprehensive index for a sustainable society: The SSI – the Sustainable Society Index, Ecological Economics, 66, 228-242.
[13] Van de Kerk, G. – Manuel, A. R. [2008b]: Sustainable Society Index 2008, Sustainable Society Foundation
[14] Van de Kerk, G. [2007]: A comprehensive Index for a Sustainable Society (with results shown for 150 countries), Amsterdam Conference 2007
[15] Van den Bergh, J.C.J.M.–Verbruggen, H. [1999]: Spatial sustainability, trade and indicators: an evaluation of the „ecological footprint", Ecological Economics, 1, 61-72.
[16] Vida G. [2007]: Fenntarthatóság és a tudósok felelőssége, Magyar Tudomány, 12, 1600-1606.
[17] Wackernagel, M. - Rees, W. [1996]: Our Ecological Footprint - Reducing Human Impact on the Earth; New Society Publishers, Gabriola Island, BC
[18] Wackernagel, R. – Yount, J. D. [1998]: The ecological footprint: an indicator of progress toward regional sustainability, Environmental Monitoring and Assessment, 51, 511-529.
[19] WWF International [2006]: Living Planet Report 2006, Gland, Switzerland

ROLE OF PROXIMITY IN INFORMATION TECHNOLOGY CLUSTERS (IN SZEGED AND ITS SUBREGION)

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Abstract:
Geographical proximity plays a crucial role in improving the innovative capacity of firms, but today by using infocommunication technologies, knowledge-intensive firms can have successful co-operation in spite of great geographical distances. Benefiting from geographical and organized proximity, cluster form.
Utilizing the advantages of proximity, cluster development appeared in the city of Szeged and in its subregion. Empirical research shows that all the facilities are provided in the software industry for clustering, where further development can be reached by the strengthening of the dimensions of proximity.
Keywords:
geographical proximity, organized proximity, knowledge-intensive cluster, software industry

1. INTRODUCTION

Clusters are today considered to be the basis of local, regional and even national politics in many countries. They are the new poles of competitiveness dominating the economic map of the world, serving as major tools of development in the global economy. Regional clusters are local systems of production, where companies and institutions in a particular industry in one place create an innovative system of business and non-business relations. Yet the competitive advantage of clusters rests not only on spatial concentration. The appearance of modern information and communication technologies (internet, mobile phone etc.) revealed that innovative companies and laboratories might cooperate with each other thanks to the common knowledge base, professional language, behaviours, cultural background etc. in spite of geographical proximity. New channels of information and knowledge transfer shaped, influencing the process of production and development. This phenomenon draws attention to create new approaches to examine clusters and the advantages deriving from physical and relational, in other words, organized proximity too.

Information technology (IT) plays an important role in the development of knowledge-based economy. IT and this way software industry, has become an international leading branch, which contributes to the development of information society. Clusters appeared as successful economic development tools in less developed countries after the developed ones in the European Union. The formation of a software cluster based on the dimensions of proximity has yet not been measured in Hungary, but it became reasonable in the less developed region (NUTS level 2) of the South Great Plain and in its 'knowledge island', Szeged and its subregion.

With a view to realize future opportunities for clustering in the software industry, the first step is to examine the advantages of geographical concentration of software companies and related institutions in Szeged and in its subregion, afterwards to identify the presence and strength of other factors of proximity to which interconnection can be traced back. To explore the chances of cluster development is Szeged, it is indispensable to see the example of foreign clusters operating in the field of information technology.

This paper has one purpose: to demonstrate and analyze the relevance of proximity in clustering. Firstly, we introduce the concept of proximity, and describe the notion of geographical and organized proximity, then we define clusters in terms of proximity. Finally, we propose to examine cluster formation in practice, in case of the knowledge intensive software industry in Szeged and in its subregion.

2. INNOVATION AND DIMENSIONS OF PROXIMIT

Proximity is a critical criterion in firms' choice of where to locate its productive units. Location and geographic concentration have become key factors in the diffusion and exploitation of knowledge, especially in the context of innovation, cluster development and knowledge spillover. Proximity reduces uncertainty, solves the problem of coordination, facilitates the interactive learning and thus

has a positive impact on the economic performance and growth of a region [6]. Most regional, national development programs on regional growth emphasize factors like the nearness of high-tech firms and universities, the proximity of experts and researchers or similar sectors.

Taking a closer look at the use of proximity in theoretical and empirical approaches, we find that its concept used in many way: we may talk about geographical, cultural, organizational, technological, cognitive, institutional proximity [5, 8, 15] etc. All these dimensions are certainly not identical, but refer to 'being close to something measured on a certain dimension [5]. As Ann Markusen [9] described, proximity is a "fuzzy concept". In many cases companies in proximity, but in the geographical sense, can have successful cooperation due to the common language, common skills, experience, social or institutional background, as we can see in the example of software companies in Bangalore, in India, which develop software products and carry out the order of software companies in the USA. The appearance of infocommunication technologies in the 1990s explicitly changed the value and the necessity of geographical and other dimensions of proximity. Literature [2, 12,14,15] usually defines two main types of proximity: geographical and organized proximity.

When the proximity concept is used, what is often actually meant is geographical proximity, which is signified as either spatial, local or physical [5]. Geographical or regional sciences traditionally use the notion of proximity, defined as short geographical distance. Distance basically means 'spatial non-identity', - not being in the same place - [10] and measures the amount of physical space between two units (individuals, organizations, towns etc.). Short distance brings the individuals together, favours information transfer and facilitates the exchange of knowledge, especially tacit knowledge. Agents in geographical proximity, benefit from knowledge externalities. The diffusion of knowledge generates positive externalities if knowledge flow increases the productivity of activities of research and development (R&D). Empirical studies prove that firms near knowledge (tacit and even in case of codified knowledge) sources can have better innovative performance than firms located elsewhere [1].

For today, it has become clear that it is wrong to associate proximity with its geographical meaning. Organized proximity, which is not geographical but relational, is defined as the ability of an organization to make its members interact. The organization facilitates the interactions within itself between employees and with other entities outside the organization. Organized proximity is built on two types of logic. Firstly, when two members of one organization interact, they are in proximity, because their interaction is facilitated by (common, explicit or implicit) rules, routines and behavior that they use and follow. This is the so-called 'logic of belonging' of organized proximity, which develops cooperation between researchers and engineers in the same firm [15]. Secondly, organized proximity reflects the 'logic of similarity'. Two individuals are close to each other, because they are 'alike", they speak the same special language; they share a system of common interests, beliefs and knowledge in the same cultural sphere.

The researchers of the so-called "Dynamics of Proximity" group have developed the notion of relational proximity that includes the spatial dimension of relations. The most frequently examined dimensions in addition to geographical ones,- as the critical assessment of Boschma [1] underlines, - are the cognitive, organizational, institutional and social proximity. These four categories together are based on the notion of organized proximity. The concept of cognitive proximity that has been developed by Nooteboom [11] is generally defined in terms of common knowledge base and expertise among agents. Actors in cognitive proximity have similar knowledge base, thus they transfer knowledge and communicate with each other more effectively. The notion of organizational proximity means relations in the same space either within or between organizations, and refers to the similarity between individuals sharing the same reference space and knowledge [1]. Organizational arrangements are mechanism that coordinate transactions and enable the transfer of information and knowledge. Actors are in institutional proximity, because they pertain to one institutional framework at macro-level. Relations and interactions between actors and group of actors are regulated by a set of common habits, routines, (business) practices, rules and laws. Social proximity can be defined in terms of relationship between actors at the micro level embedded in the same social context. Actors share trust based on friendship, kinship and experience [1]. If business relations (within an organization) are more socially embedded, the possibility of a better innovative performance is available.

The dimensions of proximity are strongly linked to each other. All types increase the effectiveness of learning, and have a positive effect on the production of knowledge-based externalities.

As noted above, knowledge spillover is an essential element in the development of innovation process. Although, the high geographical concentration of firms, universities and research centres in a region belonging both to the same or different sectors, is not enough to explain the innovation capacity of a local area. It is necessary to define the channels through which the knowledge spreads. Capello and Faggian [2] introduced the concept of relational space, and explored the connection between physical and relational space, as preconditions of knowledge spillover (Figure 1.). Relational space is

created by the set of all relationships (market, power relationships) and cooperation between firms, different agents and individuals, who are characterized by a strong sense of belonging and similarity. The approaches of physical and relational space are outstanding tools to analyze the innovation process.

On the one hand pure physical space is the geographical proximity to firms in the same sector (to exploit localization advantages) and to firms in different sectors (to exploit urbanization advantages) and to typical places where knowledge is produced, like in universities and research centres. Economic actors in physical proximity have the opportunity to contact each other, where the spread of knowledge and the production of geographical knowledge spillovers are managed more easily. On the other hand organized proximity and its dimensions (according to the original notion of the authors it is defined as cultural proximity) are the base of the formation and existence of relational capital, which is formed by explicit and implicit cooperation among actors. Actors have the capability to interact and to share common values, which is the fundamental element of collective learning [2].

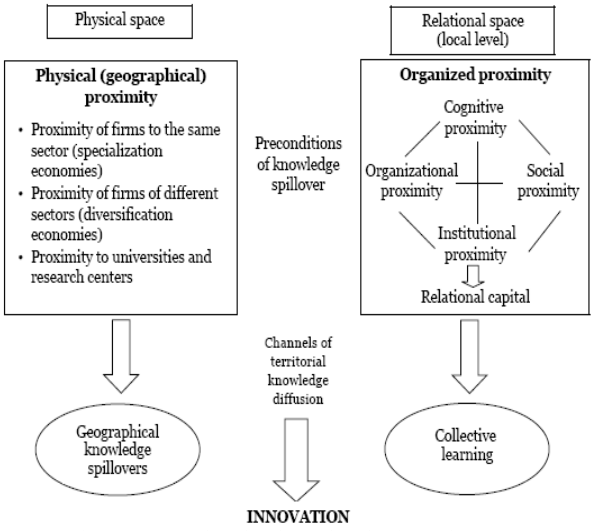

Figure 1. : Physical and relational space

Firms in cognitive or organizational proximity might be able to communicate without face-to-face contact using modern communication technologies (which have spread since the 1990s), thereby overcome the problems caused by large geographical distances [5]. Taking the new role of information and communication technologies into account, we can state that geographical proximity is necessary, but not sufficient in interactions and cooperation. That is why literature differentiates permanent and temporary geographical proximity [3].

3. CLUSTERS IN TERMS OF PROXIMITY

The concept of proximity provides a framework for analyzing the different spatial organizations, like clusters. Clusters exist, their numbers are increasing and more and more policies are implemented to promote their development, and there are many reasons that describe their success. It became clear that geographical proximity is necessary in innovation and research activities, and facilitates the flow of information and knowledge between actors. Michael Porter [13], too, emphasizes the fundamental role of geographical concentration in case of clusters and defines cluster as '*geographically proximate group of interconnected companies and associated institutions in a particular field, linked by commonalities and complementarities*'.

The existence of clusters rests not only on geographical proximity, but also on several other factors. The economic relations shaped between cluster participants are embedded in the social network and the latter often have strong territorial roots. Synergy between interconnected partners does not form, if they are not in social proximity. Also cooperation may occur between actors from different organizations, but it happens due to the same university origins or social and family network. Social proximity reduces the uncertainty, just like cognitive proximity. This is true in case of cluster members and especially in case of newly entering companies, when they search for new knowledge. As a rule, firms' aim is to find partners in vicinity of their own knowledge base. Another important factor is, that geographical context of economic interactions is largely conditioned by the role of institutions.

Cluster members are not only located in the same area, but they form a strong system of innovative relations, and cooperate with each other in their own interest to exchange technology, to transfer knowledge. In terms of proximity, clusters are described as the intersection of strong geographical and strong organized proximity [7]. For example if organized proximity is strong, but geographical proximity is weak, it characterizes non-localized interactions, like value chain.

4. HOW MUCH PROXIMITY MATTERS IN THE SOFTWARE INDUSTRY IN SZEGED AND IN ITS SUBREGION

To investigate the dynamics of proximity, in particular in the high-tech sector, we focus on the case of the software industry in Szeged and in its subregion. The endowments of the key region of development underline the necessity of mapping a software cluster. Sufficient knowledge base is available, ensured by the university background, educational and research activities, the big number of

university students (around 30.000 students), newly graduates, and finally by the Faculty of Informatics (with nearly 500 newly graduated students annually). These factors ensure the fluent re-production of the labour base annually, and the birth of new enterprises found by qualified, young workforce. A circle of software enterprises is built, and the first initiatives have already appeared to have more efficient cooperation (cluster) between companies, although the effects of these are still hardly perceptible.

Our aim is to understand how geographical and organized proximity and its dimensions determine the process of clustering in knowledge intensive activities in less developed regions. The growing application of information and communication technologies appears to indicate that there is a weakening need for geographical proximity, and cause the 'death of distance'. This has not triggered a collapse of 'near and far' in the reality of individuals and organizations, not for actors staying in less developed, peripheral regions [7]. Usually, these firms are dependent on knowledge resources from outside the region too, as we will see in case of Szeged too.

ICT plays a special role in the software industry too, and contributes to its characteristics: products (software and teleservices) have an immaterial nature, and their transportation to business partners and consumers can happen directly through modern ICT tools, which reduces transportation costs. Software companies continue intensive development activities and ICT allows its management and coordination from a distance. Software companies form different business associations like clusters, which operating separately or connected to other high-tech industries (e.g. biotechnology).

5. THE PROOF OF GEOGRAPHICAL CONCENTRATION

The software industry is a potential leading branch in the micro-region of Szeged. Mapping the base of a future software cluster, firstly it is necessary to prove the existence and concentration of the basic input factors in the region. We examine whether the software industry has achieved a specialized critical mass in the region using the methodology of location quotient (LQ) [12]. LQ compares the distribution of an activity to some base or standard. In this case the selected base is the employment and the number of enterprises. In Szeged and in its subregion more than 200 companies, and about 550 employees work. To focus on the most knowledge intensive companies in the region, who have the biggest role in the growth of the industry, we only examine limited liability and public limited companies dealing with software development, software consultancy and supply (NACE Rev.1.:72.2.) whose products have bigger added value. The software industry in limited sense is composed of not more than 90 companies.

As a rule, if the value of LQ is more than 1, it indicates a relative concentration of the activity in the area, compared to the region as a whole. The European Cluster Observatory determines a stricter value equal to 2 or more. According to the value of LQ based on the number of enterprises, which is less than 1 in Szeged and in its subregion, we can state that the area has fewer share in the software activity than in other regions in the country, comparing it to values calculated in case of other bigger cities in Hungary. It is interesting that if we measuring the number of enterprises in the capital, in Budapest (where more than 5000 companies work in the software industry), the LQ is 1,256. We got similar results measuring employment LQ. Taking the employment in Budapest into account, the LQ is 1,119 in Szeged and its micro-region, and, it is 2,867 without Budapest, and none of the other rural cities reach this relatively high value. According to this figure, the relative concentration of the software industry is secured in Szeged and its subregion in the number of enterprises and employees, and the industry may be strong enough to grow as a potential leading branch, and also attract related economic activities from the region itself and from other regions too.

The statistical research based on the calculation of location quotients ensured the observable phenomenon, that software industry is specialized in Szeged and its subregion. The results suggest surveying the opportunity of software industry as a potential leading branch for clustering with qualitative research.

6. THE ROLE AND STRENGTH OF PROXIMITY

Using the qualitative method of questionnaire, we examine how geographical proximity matters in the software industry, and how strong the organized proximity is between companies.

The role of geographical closeness in the sector of information technology appears in a specific way in Hungary. The number and the intensity of business partnership between companies confirm the well known fact, that there are no significant distances within Hungary, and partners in the capital play an important role even in the software sector of Szeged. Software companies valued geographical proximity as relatively important factor. Beside weaker geographical proximity there is proved organized proximity between companies. They do see and enjoy the advantages deriving from geographical proximity, but the lack of it does not mean a disadvantage especially in some stages of

on-demand software development and services.

There are broad market borders among the IT products and activities. Thought many of the distinguished activities can be relocated, but it is quite obvious that at least temporary geographical proximity is necessary in cooperation. The need of permanent geographical closeness depends on the quality of the technical conception of the software being developed. Usually, face-to-face interactions are required in software development, definitely in the initial stage in functional specification, and in the final stage in integration and technical assistance. Companies in Szeged and in its subregion are solution-orientated. They practice research and development, and focus on design software, instead of making standardized tasks.

The cooperation with competitors has special characteristics. Companies in Szeged and its micro-region cooperate and compete with each other, like companies in clusters. Almost half of the companies have participated in a project with its rival in Szeged, and about two third in Budapest. Typically the cooperation occur only occasionally and focus on research and development, and shall be attained by the companies in organized proximity. The IT market in Szeged and its subregion is mostly dominated by local partners, no matter we examine the relationship between producers and university, rivals, suppliers or customers. More than 70% of the customers, 50% of business partners stay in Szeged and in its subregion. In addition, every second organization participates in product and technology development cooperating with the University of Szeged.

Mapping a software cluster in the analyzed area, the research demonstrated that companies do enjoy the positive externalities of geographical concentration, and strive the conscious utilization of its advantages. The need of (at least temporary) geographical concentration depends on the strength of the organized proximity. Organized proximity and its dimensions (cognitive, organizational, social and institutional) are basic inputs in the innovative cooperation. In the interviews, companies emphasized three factors, as the most important inputs in innovation: attainment of innovative and professional workforce, ideas and technologies through personal and business relations and finally the vicinity of educational and postgraduating programs and institutions. The synergy of partners is substantial to obtain the benefits of innovation-based relationships. Within partners, university appears to be an intermediary in the flow of knowledge and information. It has significant role in the facilitation of collective learning.

Business and personal relations between actors determine an 'industrial atmosphere', where the similarities in knowledge, experience, practices and routines are natural. Cognitive proximity is a pivotal factor in the software sector in Szeged. More than half of the employees and almost 80% of the directors of these companies graduated in the University of Szeged, on the Faculty of Informatics. Companies with the same knowledge background participate in forums, clubs, conferences and other professional programs together. It is favoured to have interaction between company members, because they share a set of common rules, specific know-how and organizational routines. This points out that they stand in organizational proximity too. Different forms of interactions play an important role: the lack of personal and business relations is - as the interviewed firms mentioned - factor that hampers their future chance to grow. More than 80% of the companies stated that personal relationships like friendship of employees within and between organizations ensure the flow of information and knowledge. This process would not be managed without socially embedded relations. Strong social proximity facilitates the affirmation of links, the development of trust-based relations, hence the formation of innovative cooperation.

The problem that faces the software industry in Szeged and in its subregion, that the relations are not consequences of constant or recurrent cooperation. They are supposed to obtain financial sources within a common project or trade development competition. Companies in general are not willing to have regular cooperation, because they fear to loose their market position or to have their good ideas stolen. However, they already stated that they would be ready to work together within a cluster. Solving the problem, the key should be to draw up a conscious development strategy creating the synergy between partners (software companies, university and other knowledge producer institutions and the representatives of local government).

The process of cluster development may speed up due to an effective institutional and governmental background. Governments contribute to diminish market barriers, control market competition, ensure inputs (eg. infrastructure, technology etc.) for economic actors and mediate between companies and institutions, which produce knowledge and labour force. Thus, government may facilitate the cooperation of companies in clusters too.

Companies in macro-level are embedded in one institutional background. They are in strong institutional proximity; they are applied to the same laws, rules and regulations. However actors' satisfaction in connection with institutions is a very different story. Interviewed companies are discontent with the administrative work, legal environment and with the representation of their interests. Local government does not have the sufficient tools to promote relation and also cluster

building, the foundation and registration of new firms, the appearance in external markets, the organization of trainings, clubs.

Companies in the questionnaires admitted the importance of business services and governmental subsidies. The great advantages of these factors are seen in the example of foreign, information technology and software related clusters too, which operate also in less developed regions. In the city of Cork in Ireland software industry is largely driven by foreign direct investment (FDI) attracted by the low Irish corporate tax rates. In the region innovation policy was key for IT cluster development, which promoted R&D and innovation, encouraged spillover of knowledge. Due to this, actors have already created a 'knowledge zone' in Cork. The first factor, which led to the growth of the region, was the financial resources ensured by the government, especially for infrastructure and prosperous business environment development. In the city of Oulu in Finland, substantial public policy efforts were made the ICT cluster flourish. The key preconditions in cluster development were the size and quality of the local knowledge infrastructure (technical university, science park), and the existence of a 'champion' company (NOKIA). IT cluster in Oulu is one of the most competitive ones, be present on the 'cluster map' of Europe.

7. CONCLUSION

Our findings ensure that, both geographical and organized proximity exists between the actors in the software industry in Szeged and in its subregion. These have positive effect on its innovative capacity, on the development of corporate skills and on the decreasing of transaction costs etc. The base of researchers and qualified labor force has already been built-up; companies are motivated to deepen their existing business relations, which determine the base of a future cluster.

The relative, national concentration of software industry in Szeged and in its subregion is proved, and in practice, as the qualitative survey revealed, geographical concentration is necessary, but not sufficient to create business and non-business relations. At least temporary geographical proximity and strong organized proximity of actors is needed in the software industry. Companies share the same knowledge background; they are in cognitive proximity, due to the university origins, and the participation in conferences, clubs and forums. They have an extensive system of relations, determined the same behaviour patterns, cultural and social values, rules and regulations, which underlines the existence of organizational, social and even institutional proximity between them. Each dimension of organized proximity separately and also together affects the capacity of innovation and collective learning. There is a lack of more trust-based relations and partnership of companies, local government and knowledge producer institutions, but it can be counteracted by not only occasional, but also frequent cooperation, and by conscious economic and enterprise development.

REFERENCES:

[1] Boschma, R. A. 2005: Proximity and Innovation: A Critical Assesment, Regional Studies,1, pp. 61-74.
[2] Capello, R. - Faggian, A. 2005: Collective Learning and Relational Capital in Local Innovation Processes, Regional Studies, 1, pp. 75-87.
[3] Gallaud, D. – Torre, A. (2004): Geographical Proximity and Circulation of Knowledge through Inter-firm Cooperation. In: Academia-business links, Palgrave, Macmillan, London, 2004.
[4] Kirat, T. – Lung, Y. 1999: Innovation and proximity. Territories as loci of collective learning processes, European Urban and Regional Studies, 6, pp. 27-38.
[5] Knoben, J. – Oerlemans, L.A.G. 2006: Proximity and inter-organization: A literature review, International Journal of Management Reviews, 8, pp. 71-89.
[6] Krugman, P. 2000: A földraj szerepe fejlődésben (The Role og Geography in Development). Tér és Társadalom, 4. pp. 1.21.
[7] Lagendijk, A. – Lorentzen, A. 2007: Proximity, Knowledge and Innovation in Peripheral Regions. On the Intersection between Geographical and Organizational Proximity. European Planning Studies, 4, pp. 457-466.
[8] Lengyel I. 2008: A közelség alakváltozásai a tudásalapú helyi gazdaságfejlesztésben. In: Kérdőjelek a régiók gazdasági fejlődésébenJATEPress, Szeged, pp. 109-129.
[9] Markusen, Ann 1999: Fuzzy Concepts, Scanty Evidence, Policy Distance: The Case of Rigour and Policy Relevance in Critical Regional Studies, 9. pp. 869-884.
[10] Nemes Nagy József 1998: A tér a társadalomkutatásban. Hilscher Rezső Szociálpolitikai Egyesület, Budapest.
[11] Nooteboom, B. 2006: Innovation, learning and cluster dynamics. In: Clusters and Regional Development. Critical reflections and explorations, Regional Studies Association, Routledge, New York. Pp. 137-163.
[12] Patik Réka – Deák Szabolcs 2005: Regionális klaszterek feltérképezése a gyakorlatban, Tér és Társadalom, pp. 139-170.
[13] Porter, M. E. 2000: Locations, Clusters, and Company Strategy. In: The Oxford Handbook of Economic Geography. Oxford University Press.
[14] Torre, A. – Gilly, J-P. 2000: On the Analytical Dimension of Proximity Dynamic,. Regional Studies, 2, pp. 169-180.
[15] Torre, A. – Rallet, A. 2005: Proximity and localization, Regional Studies, 1, pp. 47-60.

TECHNOLOGICAL CHANGE AND SUSTAINABILITY - PART OF THE PROBLEM OR THE SOLUTION?

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Abstract:

In present paper we analyse the effects of technological change on environmental sustainability, considering the approaches of both environmental economics and ecological economics. We touch upon three main issues. First, eco-efficiency and substitution. Second, uncertainty and reflexivity and eventually the Jevons-paradox (or rebound effect). We conclude that the techno-optimist approach of the environmental economics can be seriously questioned. In the existing structure technological change seems to be rather part of the problem than the solution in connection with sustainability.

Keywords:

Technological change, sustainability, evolutionary economics, uncertainty, Jevons paradox

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INFLUENCE OF TRADITIONAL PRODUCTS TO THE REGION MANAGEMENT IN HUNGARY

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ABSTRACT:
Region marketing is barely known in Hungary and we have only limited experience in connection with its Hungarian applications. Region marketing is by all means part of marketing. It is a mixture of such activities which purpose is to effectively channel products to the customers. It must be considered, that there is a strong competition in satisfying consumer demand.
Main goal of region marketing is to help discovering the competitiveness and charm of the region in order to reach multilateral development-, economic- and life-conduct objectives. Being a member of the European Union, it is vital for Hungary that its food industry could reserve its traditional role. Numerous high-quality, special products (hungaricums) are produced in the South Great Plain Region. Farming experience – gained throughout centuries - resulted in special, unique products representing national values. Key words: Region marketing, marketing objectives and strategies

Keywords:
region management, region marketing, traditional products

1. INTRODUCTION

Regional marketing is a new concept, which is not widely known in Hungary, there are only very few and limited experiences with it. It is a total of all the activities and at the same time a way of thinking, the aim of which is to take a product to the customers very efficiently (Berács, 2002). The task of regional marketing is to explore the competitive assets and attractions of a region, to help the realization of the plans in order to support achieving the goals of economic and community life (Lakner-Hajduné, 2002).
In the South Great Plain Region several top-quality products are made and these products are Hungarian specialties (Piskóti, 2002). In this immense competition an image formed about a country, a part of a country or about a region has a considerable influence on the decision of customers – both on the national and international market.

2. ROLE AND NECESSITY OF MARKETING STRATEGY IN THE REGION

2.1. Necessity of region marketing strategy in the South Great Plain Region

- The South Great Plain Region, similar to the other regions of Hungary is an artificially made formation which does not have independent internal government. One important condition of the maintainable competitiveness of the region is the foundation of independent internal identity which grounds effective regional cooperation (Juhász et al, 2006/a)
- Even currently, numerous organizations conduct marketing activity which are not coordinated with each other, and as a result they give contradictory pictures. Thus, it is necessary to coordinate region marketing activity, applying a uniform frame.

2.2. Role of the marketing strategy of the Region

- Basic document from the aspect of regional level organizations and institutions, reliable starting point for the marketing activity which provides information for the business organizations of the region.
- Draws the intentions and projected future image for the population and public opinion.

3. ASPECTS OF SITUATION SURVEY BASING THE MARKETING STRATEGY IN THE SOUTH GREAT PLAIN REGION

Region marketing has to rely on the sources of the region, thus it is vital to conduct a situation survey before the workout of marketing strategy (Figure 1.).

3.1. Results of situation survey

The South Great Plain Region is the largest region of Hungary, expands to one-fifth of the area of the country. Its population of 1.36 million gives 13.4 % of the country's population. The region lies on flat land and thus, the most important natural resource of the region is arable land. This region also provides significant proportion of the country's hydrocarbon energy resources. From the 37 towns of the region, 4 have county rights. Employment situation is about average, but differs greatly by counties: most favourable in Csongrád County (proportion of active wage earners 36 %), average in Bács-Kiskun, and unfavourable in Békés. Population structure by education level improved continuously in the past decade, the proportion of secondary and high-school graduates increased steadily (Juhász et al, 2006/b).

Level of communication network exceeded the average of other regions as did tube gas supply. Public water supply was also appropriate but the sewer network was quite undeveloped. An outstanding endowment of the region is education, but GDP is well below national average (Töpfer et al, 2005).

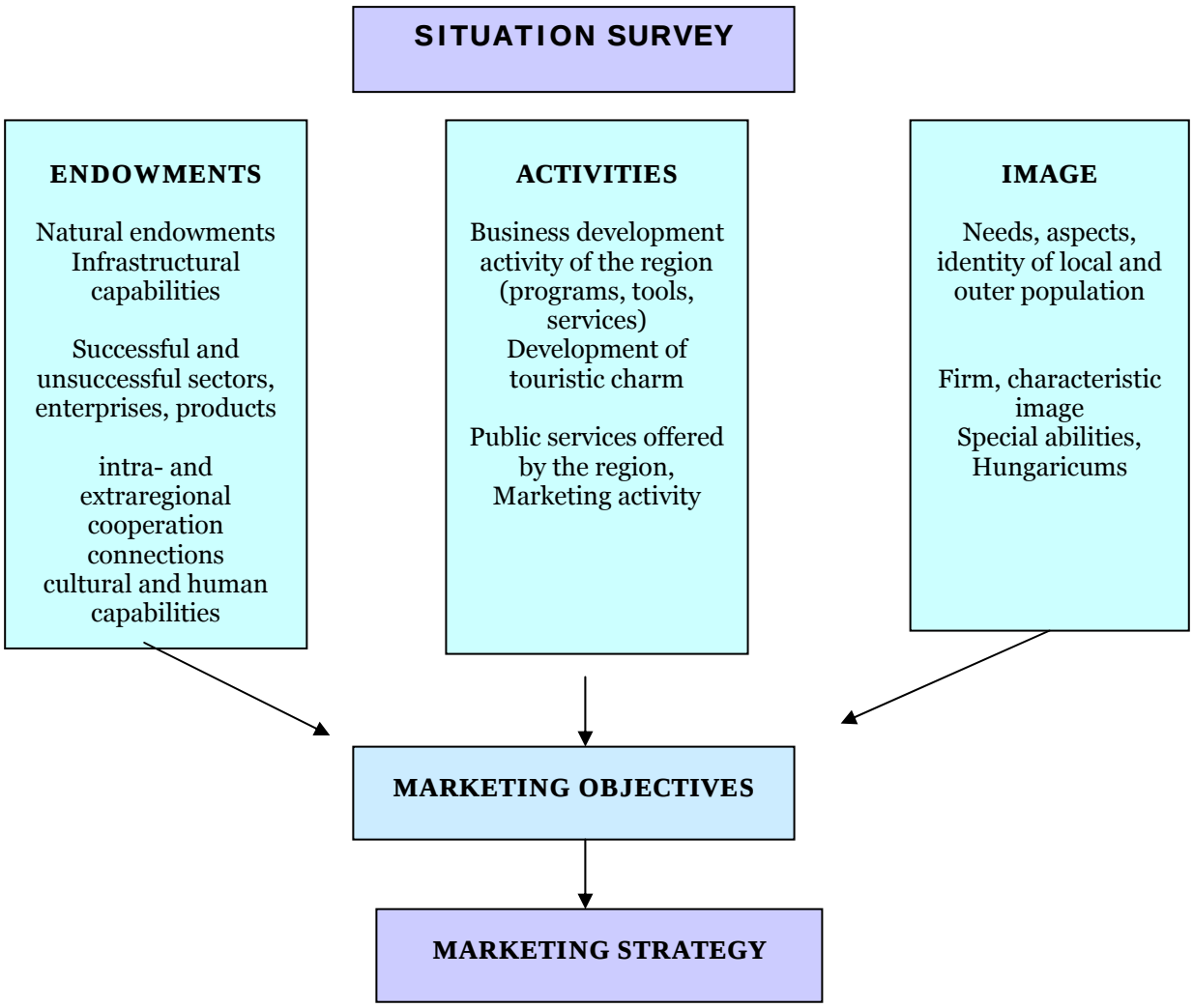

Figure 1.: Aspects of situation survey basing marketing strategy

3.2. SWOT analysis of the region

Strengths of the region:

- Role of agriculture is dominant in the Region, the food industry is competitive even by international comparison;
- Number of sunshine hours is very high and the average yearly temperature is also amongst the highest in Hungary;
- One of the busiest international transportation lines towards South-Eastern Europe crosses the Region;
- Number of tertiary educational-, research- and cultural centers is outstanding in national comparison.
- Many famous firms with high level of professional culture and brands connected to them works in the Region.
- There are a number of unique, excellent quality „Hungaricums" produced, which are unambiguously characteristic to the region.

Weaknesses:

- The GDP per capita has remained unchangedly below the national average in the past years;
- Quality and quantity of transportation infrastructure is insufficient;
- Proportion of foreign capital is lower than the national average;
- Many small regions of the Region belong to the group of small regions currently being in critical position.

Threats:

- Regional effects of the EU's Agricultural Policy;
- Uncertainty of the Balkanic policy;
- Appropriate environmental protection agreements and cooperations wouldn't be signed with the neighbouring countries;
- Sharpening competition between the domestic region and the regions of neighbouring countries.

Possibilities:

- Growth of the role of euroregional organizations;
- Affirmation of the South-Western European gate role with the reconciliation of the Balkanic situation (Müller, 2007);
- Change in consumer preferences;
- Positive international image of certain kinds of foods;
- Demand for unique, special provincial products.

Based on the results of situation survey it can be stated that the South Great Plain Region wants to be positively distinguished and also to shape a clear image. In case the efforts will be successful in the future, the region would gain domestic and foreign sources and in addition, the capital flow to the region could become more intensive.

4. MARKETING STRATEGY OF UNIQUE, SPECIAL QUALITY REGIONAL PRODUCTS IN THE SOUTH GREAT PLAIN REGION

One of the problems of the South Great Plain Region lies in the relatively limited number of such well-known, unique products which determine a clear, united image. And even if some are present, they exist separately. In the same time there are numerous „Hungaricums" produced in the region, which are available for conserving local traditions and forming the image of the Region. Definition, management and protection of the group of these products with the tools of active marketing policy could contribute to positively influence the image drawn from South Great Plain Region. They facilitate stabilization of special producing districts, affirmation of local economy and the melioration of the income conditions of the population.

Region-specific products (e.g.: Kecskeméti barackpálinka) which fulfil strict regulations and requirements could be the key elements of the marketing strategy of the South Great Plain Region.
Quite important, that the unique products of the Region should remain real „Hungaricums" and behind trade-marks constant, guaranteed quality must appear (Ferencz, 2004).

5. TASKS OF THE REGION IN MELIORATING THE MARKET SITUATION OF HUNGARICUMS

Instead of mass production the sortiment of traditional, special products should be broadened given the fact that experiences of the centuries-long production already brought up those „Hungaricums" which represent the outstanding qualities and national values of the region;

- High-level professional skills, training and flexible marketing activities are needed;
- Origin, trade-mark and adept information must be indicated on the packaging of the products;
- Forming of support systems must be conducted in such a way that it could facilitate establishment of special production structures and concentrate on resurrection of the values of the region.

6. CONCLUSION

Material and immaterial products which are manufactured in, and are representative exclusively to the Region should be supported practically in regional cooperation. Beside measurable economic profits the following advantages can be achieved:

- conservation of traditions and cultural heritage, strengthening the idea of belonging to the same community among the people living in the region;
- forming the peculiar image in the competition among the regions and in the accelerating globalization processes of our days.

It can be expected only as a result of a long-term, coordinated marketing strategy that the image of South Great Plain Region becomes widely known and attractive. One precondition of this is that the Region should successfully represent the selected image and to develop a positive affection for its „Hungaricum" products. This affection could be formed inside the region by positive local-patriotism, while outside the region with the sympathetic and valuable features.

This is important because the South Great Plain Region has its competitors by now – certain domestic and neighbouring country regions. In the future, the enhancement and specialization of the competition between regions could be expected. The South Great Plain Region only has its chance to effectively join the domestic and international competition if conscious preparations and image-forming takes place.

REFERENCES

[1] BERÁCS J. (2002): Nemzeti imázs és versenyelőny. Marketing és menedzsment, No.1 p. 8-11.
[2] Juhász, Cs. – Berde, Cs. (2006)/a : Theoretical Possibilities of Pecuniary and Moral Motivation of Human Resources. Aktuálne problémy manazmentu a marketingu vovyucbe na vysokych skolách. Nitra - Lucenec
[3] Juhász, Cs. – Kurczina, M (2006)/b: Pecuniary and Moral Allowance Possibilities for Human Resources in the Hungarian Food Industry. Aktuálne problémy manazmentu a marketingu vovyucbe na vysokych skolách. Nitra - Lucenec
[4] Lakner, Z- I-né Hajdu (2002): The Competitiveness of Hungarian Food Industry; Mezőgazda Kiadó, Budapest
[5] Müller, T. (2007): Zwischen Tradition und Globalisierung. Beiträge zur 9. Wissenschaftung Ökologischer Landban Universität, Hohenheim, p.525-530.
[6] Piskóti (2002): Régió- és település marketing. KJK Kerszöv Kiadó Budapest, p.31-41.
[7] Töpfer, A. – Mann, A. (1995): Kommunikation als Erfogsfaktor im Marketing für Städte und Regionen, Hamburger Verlag

SUSTAINABLE DEVELOPMENT AND THE ECONOMIC CRISIS

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Abstract

One of the constituents of the sustainable development is economic sustainability, along with the social, environmental and institutional dimensions.
In business, there are only companies which manage their economic sustainability as no amount of excellent social and environmental performance will prolong the life of a company that is economically unsustainable.
It is only obvious that economies and communities are to a high degree affected by business failure and economic instability having a disastrous effect on people. However, businesses that only measure success against financial indicators, such as turnover and profit, increasingly risk failure. A broader perspective on sustainability is now emerging, based around reputation, full cost accounting, ability to add value and the management of knowledge.
Summarizing specific challenges, it is critically important that the European Union has resident (citizen) capacity to carry out strategic planning on a continuing basis. While this capacity will in the short-term necessarily have to depend on externally supplied expertise, more institutional strengthening will be required to ensure the development and institutionalization of planning and policymaking capacity at both national and state levels.

1. GENERAL CONCEPTS REGARDING SUSTAINABLE DEVELOPMENT

The term of „sustainable development" appeared in earlier decades due to a high number of environmental movements. It was first defined by World Commission on Environment and Development (WCED) as the development that "meets the needs of the present without compromising the ability of future generations to meet their own needs." [1] This definition is clear enough, not requiring any further explanations. But there are two more questions worth thinking about: Why should we think about the future generations and how can we implement a sustainable development?

Referring to the first problem, taking into consideration the sustainable development not only helps our children, grand-children, grand-grand-children and so on, but also helps us. It helps us live a better life in a better world reducing pollution, uncontrolled waste dumping, controlling the resources which, in the end, reflects in the increase of our life expectancy. Moreover, from the economical point of view, we will be able to better fulfill our needs, as individuals, as long as we take into consideration a good management of our personal resources and we keep our consumption levels under control.

However, how do we get to the sustainable development? Starting with 1992, at the Earth Summit, held in Rio de Janeiro, the EU identified the need for sustainable development in Europe. There has been developed a strategy (which was renewed in June, 2006) that focuses on climate change and biodiversity. The challenges identified which European Union has to face are:

- Climate change and clean energy
- Sustainable transport
- Sustainable consumption and production
- Conservation and management of natural resources
- Public health
- Social inclusion, demography and migration
- Global poverty

Unfortunately, although the first summit concerning sustainable development took place 17 years ago, the progress in this direction is still not very significant and visible. This is also due to the different ways of understanding and implementing the concept of sustainable development in EU's state members mostly characterized by the reticence towards this concept met in poorer countries. Many state members tend to believe that the implementation of a good sustainable development strategy is expensive, thus unaffordable or they even consider it "a brake to development". In this

situation, it is no wonder that the strategy did not achieve its goals. Still, new goals have been set, among which the limitation of the climate change and the reduction of the greenhouse gases by 20 percent by 2020. How and if this targets will be met, remains to be seen.

2. EU SUSTAINABLE DEVELOPMENT POLICY

The main focus of the European Union Sustainable Development Strategy (EU SDS) is to progressively achieve the change in the current unsustainable consumption and production patterns and the non-integrated approach to policy making. Of course this can be obtained only by succeeding in raising awareness among communities in order to improve the quality of life for both the nowadays generations and the future ones. Being able to efficiently manage and use resources to trigger the ecological and social innovation potential of the economy, building up a prosperous and protected environment, as well as social cohesion. The cross cutting policies are:

1. Education and training.
2. Research and development.
3. Financial and economic instruments.
4. Communication, mobilizing actors and multiplying success.

Obviously three main actions are most significant in achieving the goal and these are – implementation, monitoring and follow up. Starting September 2007 a new rule has been set – the Commission has to submit every two years a progress report on the success of the implementation of the above mentioned directions in the European Union and the Member States, as well as on future actions and targets.

The two issues that keep coming up in the debate are the quantification of the progress made by EU and the Member States in implementing EU SDS and the setting of future targets.

In this respect, a very high importance is given to the climate change and clean energy. All the Member States , as well as EU, agree that this is a very important theme, therefore the number of initiatives that have been taken. One example would be the focus on renewable energy and biofuels which has caught the public's eye. Unfortunately, not so much attention is being paid to post-2012 emission reduction and adaptation to climate change, which is becoming a more and more urgent matter. In what concerns the climate change and clean energy there is a lack of coherence between objectives and actions. Thus the adaptation to climate change has no corresponding actions attached to it and therefore we need strategies to reach the already mentioned objectives. There are policies such as agriculture, trade policy, research and technology development which although are not directly connected to the climate change issues can influence the sustainable development and mainstreaming energy.

In the field of sustainable tourism the energy use and the greenhouse gas emissions are in focus. The problems concerning the sustainable tourism refer to separating the economic growth and energy consumption from the increase in demand for transport. This can be helped by providing a real market price for the different means of transport. Improving the technology in the field is another way to help the sustainable tourism in what concerns the obvious energy consumption and emissions. The transport by air demand is highly increasing in Europe, being estimated to double by 2020.

With regard to the progress, there are limited reasons for showing optimism in the area of sustainable transport. The growth of freight transport volumes has outpaced economic growth since 1995 and growth of passenger freight transport has exceeded economic growth between 1990 and 2002. Growth in transport related energy use has exceeded growth in energy use in all sectors: transport's share of total energy consumption is rising and oil provides 98% of the energy used by the transport sector . Greenhouse gas emissions from transport are increasing and it is questionable whether targets in this area can be met. Although harmful, polluting emissions are decreasing, air quality problems in European cities still persist. A shift to environmentally friendly means of transport is unfortunately not a reality at the moment: road freight transport is still dominant and continues to grow; passenger air transport has increased significantly; passenger car transport shares have remained constant. The pollution through noise is as well on debate, although there is not, at the date, a valid data in support of the negative effect it has on the quality of life.

Obviously, *the challenge faced by all the Member States to apply the measures for a sustainable development is great.* It requires good inter-ministerial cooperation and horizontal methods of working, along with the ability to synthesize all outputs varies considerably between the Member States.

3. ECONOMIC RECESSION – AN OPPORTUNITY FOR TRANSFORMATION

The issue of origin and nature of economic cycle is one of the most important and the oldest unsettled problem of economy theory, still a very actual problem. A lot of the most famous scientists-

economists studied phenomena of economic cycles, economic dynamics and development. Among them one can name: Karl Marx, Wicksell, Mitchell, Tugan-Baranovsky, Gassel, Schumpeter, Kondratyev, Harrod, Hansen, Aftalion, Clark, Spiethof, Kuznets, Pigou et al. and, according to Hansen, this problem had not been solved till the time of his work (40s of the 20th century) (*Hansen, 1997*). By analyzing, comparing and contrasting the works of economists of the second half of the 20th century, it is possible to say that his statement remains true until now. Methodology that exists today in economics and its sections – theory of economic dynamics and theory of economic development – has come from classical mechanics [*Kondratyev, 1998; Schumpeter, 1982*). Today is a time of complexities. It looks that the organization of universal system is complex, intricate and functions according to non-linear laws. The idea of complexity itself became the focus of scientific thought. Non-linear physics and physics of open systems have occupied their place in educational and research processes of physics (*Zaslavsky and Sagdeev, 1988; Klymantovich, 1999; Bar Yam,1997*). The concept of self-organization of physical objects is confirmed as open dissipation systems. Fundamental categories of physics are newly interpreted from the position of new knowledge of complexity. The same phenomenon can be observed in economics as well. Wide diffusion of knowledge, including methods, occurs among different branches of science. Interdisciplinarity of research is one of the fastest spreading scientific methods. Our work is inter-disciplinary. It is an attempt to consider economic problem from position of non-linear physics, or, more exactly, - from position of physics of non-linear wave processes. So we are aware that "pure" physicists interested in economics can reveal triviality and even dilettantism in stated context and they will be right.

Economists, acquainted with physics, can reject the very method of approach and they will be right as well. It is due to the fact that economics studies human objects, the ones possessing reason and right to choose and making decisions, i.e. biological objects, while physics studies physical objects.

In such times, when companies struggle to remain on the market, a good question arises: can we still afford to focus on sustainable development?

Some claim that now is the best time to do that and that right now it should be clear to everyone that we can not go on as we have been.

Always in the face of challenge, a lot of new opportunities appear. We just need to seize the moment and make the most of them. Our future (as individuals and as a society, as a whole) depends on it.

The "big questions" here are: how do we build a more sustainable society with lower energy and resource use? How do we create the "green jobs" that will be needed to deliver these solutions? And how do we create a societal infrastructure that will be more resilient to the challenges of climate change and its impacts on our food and water supplies?

The amount of investment needed for energy, urban infrastructure, water, transport and food supply, to mention a few, will be tremendous, but we can not allow these investments to lock us into an unsustainable future. The infrastructure we invest in today will be with us a long time (50 years or even more). It is vital that governments remember this when designing the future infrastructure. They need to look forward to the low-carbon economy of the future and focus on investments in new energy systems, transport solutions, energy-efficient buildings and water and urban infrastructure. Making the right decisions now will spur new industries, create "green jobs", change our lives and secure our future.

We need to be thinking across the board, and outside of the usual constraints. With vision, foresight and planning, the world can be re-shaped. Imagine, for instance, a life in the future, where our homes and industries are powered by low-carbon energy, where transport runs on clean fuels, where even the poorest people have easy access to clean water, where our buildings and household appliances consume less energy, and where workers equipped with new, "green" skills are employed in the abundant jobs these new industries create.

All these represent opportunities for new businesses and growth. But the achievement is not possible by thinking in silos and within narrow national borders. A global view is required. We must take advantage of these opportunities. Future generations will not thank us if we fail.

4. ECONOMIC SUSTAINABILITY

One of the constituents of the sustainable development is economic sustainability, along with the social, environmental and institutional dimensions.

The term of economic sustainability does not only refer to achieving economic growth every year, but also at understanding that economic growth is only sustainable if it simultaneously improves our quality of life and the environment.

Along with ways of a business to operate and its financial stability, economic sustainability involves the generation of community capital, such as local sourcing, employment, partnerships and investment.

In business, there are only companies which manage their economic sustainability as no amount of excellent social and environmental performance will prolong the life of a company that is economically unsustainable.

In time, there have been set certain models of the sustainable development, therefore it is well-known that in order to obtain the sustainability each of the four subsystems (economic, social, environmental and institutional) has to maintain its capability to survive and evolve, while the connections of the subsystems must enable a permanent co-evolution. It has always been a challenge to identify the perfect level of complexity for descriptions and models in order to develop adequate analysis and to avoid wrong prognoses and this is sometimes beyond the analytical capacities of current economic theories. In this way, a system analysis perspective is presented as a framework for debating the co-evolution of economy, society, and nature. In this context, the economic, social, environmental and institutional sustainability of the economy can be defined and economic theories can be assessed regarding their usefulness for the description of a complex evolving system, like the economy.

In business, there are only companies which manage their economic sustainability as no amount of excellent social and environmental performance will prolong the life of a company that is economically unsustainable.

It is only obvious that economies and communities are to a high degree affected by business failure and economic instability having a disastrous effect on people. However, businesses that only measure success against financial indicators, such as turnover and profit, increasingly risk failure. A broader perspective on sustainability is now emerging, based around reputation, full cost accounting, ability to add value and the management of knowledge.

However, the present tax system acts in the direction of discouraging small business as it encourages waste, discourages conservation, and rewards consumption. The tax system needs a major overhaul to favor the legitimate and critical needs of the small business community. Retention of capital through retained earnings, efficiencies, and savings is central to small business competitiveness. Current tax policies often act to unfairly penalize small business.

To sum up, sustainable development is and always will have to be taken into account as it decides not only the economical welfare and growth, but also the quality of life.

Summarizing specific challenges, it is critically important that the European Union has resident (citizen) capacity to carry out strategic planning on a continuing basis. While this capacity will in the short-term necessarily have to depend on externally supplied expertise, more institutional strengthening will be required to ensure the development and institutionalization of planning and policymaking capacity at both national and state levels.

REFERENCES

[1] Ekins, Paul, Economic growth and environmental sustainability: the prospects for green growth, Routledge, ISBN 0415173337, London, 2000

[2] Dhamija, Urvashi; Gapal Jayal, Niraja, pref. , Sustainable solid waste management: Issues policies and structures, Academic Foundation , ISBN 9788171884285 New Delhi, 2006

[3] Jurgen Schmandt, Calvin Herbert Ward, Marilu Hastings, Contributor Marilu Hastings, Sustainable development: the challenge of transition, Cambridge University Press, 2000, ISBN 0521653053, 9780521653053

[4] Lele, Sharachchandra M., Sustainable development: A critical review, World Development, 19 (1991)

[5] Barbier, E, The concept of sustainable economic development, Environmental Conservation [ENVIRON. CONSERV.]. Vol. 14, no. 2, pp. 101-110. 1987

ECONOMIC AND MARKETING EXAMINATION OF TRADITIONAL HORTICULTURAL PRODUCTS AMONG THE COSTUMERS IN HUNGARY

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ABSTRACT:
The high demands on the international food markets can only be fulfilled with added value products from either quality or food safety aspects. Our 'Hungaricum' products answer these requirements, which access to the market has to enhance via effective marketing activity. The paper looks for answers about the domestic market of Hungaricums and their possibilities on foreign markets. The main task of the future is to drawing the customers' attention to the special quality products and working out a strategy for their competitiveness.

Keywords:
economical and marketing analysis, traditional specialty products, SWOT analisys

1. INTRODUCTION

In the late eighties in the developed Western European countries started the process during which the consumer demand increased for the country/region specific, multi-generation, high quality products produced in a traditional manner. Hungarian horticulture and food industry based on it are one of the most important fields of the national economy. The standard and the position of food industry define the market possibilities of a national agriculture, the competitiveness of agricultural/horticultural products (Berde, 2003). In the world of globalization more and more people all over the world realise the importance of preserving local traditions. This especially applies to the products with excellent quality which represent national worth (Juhász et al, 2006). Hungary, by its geographical location, is especially suitable for the production of special food products with high quality (Ferencz, 2005). The globalization has brought new challenges for our food economy, therefore the use of the trademarks and geographical indications guaranteeing special quality should have a priority increasingly in order to step up the market competitiveness.

2. MATERIALS

2.1. The definition of Hungaricums

According to the survey, the cluster of Hungaricums is preferred and well-known among the Hungarian consumers. Taste, quality, traditional features of the product and personal experience are the most important factors of being named as Hungaricum.
In the Hungarian agriculture the usage of Hungaricum as a word is wide spread for groups of products. Generally Hungarian "inventions" or traditional methods, techniques are associated with this attribute. A precise definition is needed in agriculture and food industry to determine the borders of Hungaricums to be able to use it as an affective marketing tool.

The following definition can be applied:
"An animal species, a plant variety, a food industrial process, technique that is linked to the Hungarian people, the Hungarian characteristic, Hungarian result, the producing culture and a product that is derived from the above listed features which has been for long centuries, for long generations or in the past became proved that it belongs to Hungary, it is acknowledged ion foreign countries and can be associated with Hungary"

In case of Hungaricums the geographical indication also very important. The European Unions' system of geographical indications, such as PDO, PGI is close terms and some of these products are nominated for and under the process of gaining the protection.

2.2. METHODS

The questionnaire is the most important tool of the primary market research. During the qualitative research standardised survey was used, which suited to give numerical data. The standard characteristic of the questionnaire made possible the comparability of the answers of different consumers (Churcill, 2000).

The data collected during primary research were evaluated by a mathematical-statistical method. In the investigations SPSS 10.0 for Windows and LISLER 8.30 program package were applied. The gathered data were evaluated by the following procedures: multidimensional scaling, correspondence analysis and confidence interval.

Multidimensional scaling (MDS) is analysing quality variables. The substance of MDS is based on the distance matrix. There are two criteria for MDS grouping:

1. If the data concerns one thing (variable or object) than MDS is one kind.
2. If there are two aspects to consider: objects and variables, it is a two way MDS.

In this research the second type was used. (Füstös et al, 1986)

Perceptual maps were created by correspondence analysis using both nominal and ordinal variables. Correspondence analysis is a descriptive, explorative technique which analyses one or two variable cross tables and explores relationships between them (Jobson, 1992).

In surveys the expression of result in percentage is not always adequate and sometimes misleading because seemingly different observations are not always statistical different (Lévai et. al, 2000).The calculation of confidence intervals is especially useful when socio-demographic sub-samples are in different size. This kind of assessment is statistically more reliable than point assessment.

3. RESULTS

3.1. The SWOT analysis of Hungaricums

STRENGTHS	WEAKNESSES
The products have good and excellent characteristics and are delicious. Their quality exceeds of the competing substitute products.	The integration is low in case of vegetable and fruit products.
The rural regions have traditional growing and production processes.	There is a lack of product brand development.
Experience and professional skills in production, processing and occasionally in research are typical.	The promotion activities are not enough. Liquidity problems exist, mainly for the small farmers.
Quality is determined by the features of the production sites, the soil and weather conditions.	The product revenues are not concentrated therefore there are no funds for marketing promotion.
A latent demand exists for special, country-style food products both on the local and on the international markets.	The processing level of some specialty products is low.
Several products have their own event, and certain products even have other marketing tools.	Deficiencies exist in packaging and brand development, primarily in the fields of vegetable and fruit production.

OPPORTUNITIES	THREATS
The changes in consumer trends aid the introduction of the products on the market.	The consumers do not get familiar with and do not accept the product.
The demand can be increased by the introduction of modern packaging with distinguishing features identifying the origin.	Counterfeiting may worsen the general view on certain products.
The market can be influenced by integration and concentrated supply.	The profitability of product preparation does not increase.
The demand for the products can be increased by a prepared media package.	The threat that consumption trends having an opposite effect may result in the influx of import products (the specialties of foreign countries).

3.2. The consumers' evaluation of Hungaricums in Hungary

According to the results of our Hungarian researches there is correlation between the age of the consumer and the buying frequency. Researches show that people aged 36-40 are the most frequent consumers of special, Hungarian products.

In the questionnaire it was also studied where the buyer prefers to purchase the Hungaricum products see on Figure 1. They give preference the specialist shop where the consumer faces the factors influencing the value judgement relating to the quality of the product. The communication of these explored values towards the consumer is a task of major importance in order to increase the consumer awareness and competitiveness of the product. It is apparent that the consumer found the assortment of the specialist shops satisfactory in all cases. They criticized that there are not enough of these specialist shops at national level.

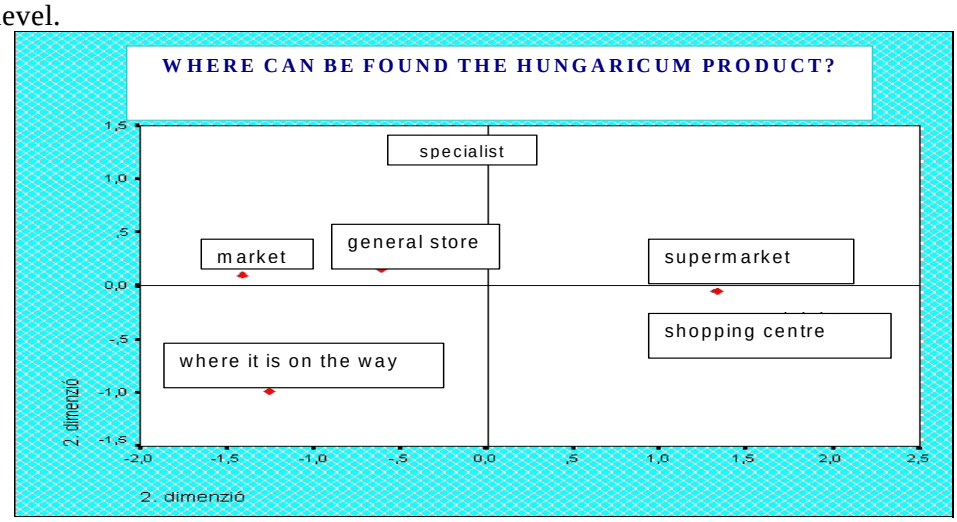

Figure 1. The place of purchase of the Hungaricum products

Specialized shops are mainly in bigger cities and only for processed food, such as Pick's salami shop, Palinka shop. There is a big gap between horticultural almost unprocessed products and processed, convenient food.

Fruits and vegetables are in worse position on the market about 50% of them sold on traditional markets without packaging and one can be never sure what buys. There is an initiative nowadays that the biggest Hungarian Producers' organization is standing up a shop chain for their famous fresh fruit and vegetables.

Figure 2. demonstrates the uniqueness and general quality of Hungaricum products. According to the data consumers like and appreciate these products. Uniqueness has also high value although there are dozen of fake or similar products on the market. The general quality judgement is quite good although the food scandals of the last few years made it worse than before. Consumers do not believe in food quality as easy they did a decade ago. The first few top features of Hungaricums are Hungarian, traditional, the part of our gastronomy and safe. These characteristics can only be used as marketing tools in the domestic market; on foreign markets they may be only useful as a piece of special gastronomy. Only a few percent of the questionnaires mentioned them as possible export products which are regrettable and hopefully is not true.

In Hungary the price of a product is still an important buying decision factor. It has smaller, but recognisable influence in case of special products, on niche markets like Hungaricums. Consumers agree on that Hungaricums have higher price offering a price premium for their producers, but feel that the current difference is too high, difference can be from 20-100% (Figure 3.).

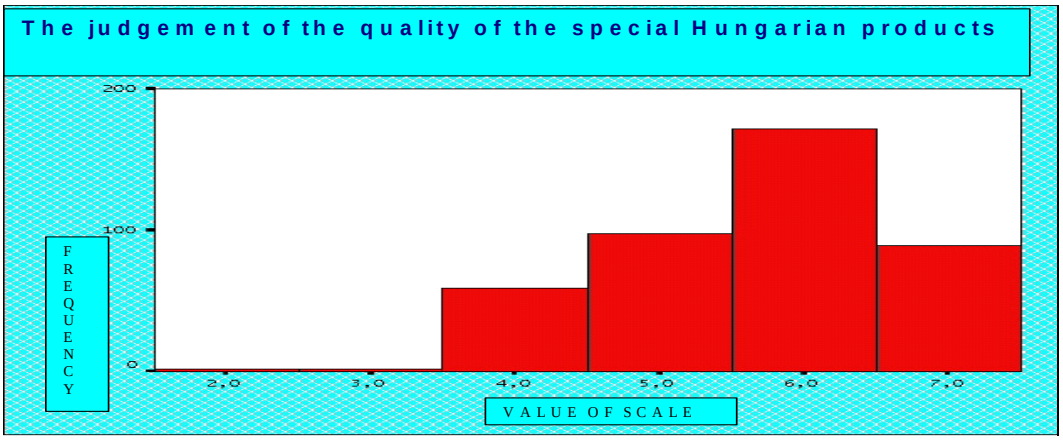

Figure 2. The judgement of the quality of the special Hungarian products

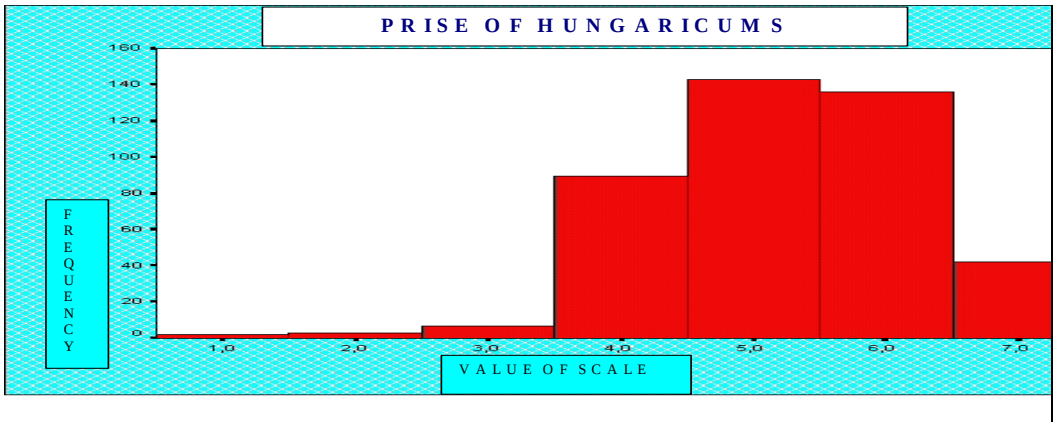

Figure 3. The price of the special Hungarian products

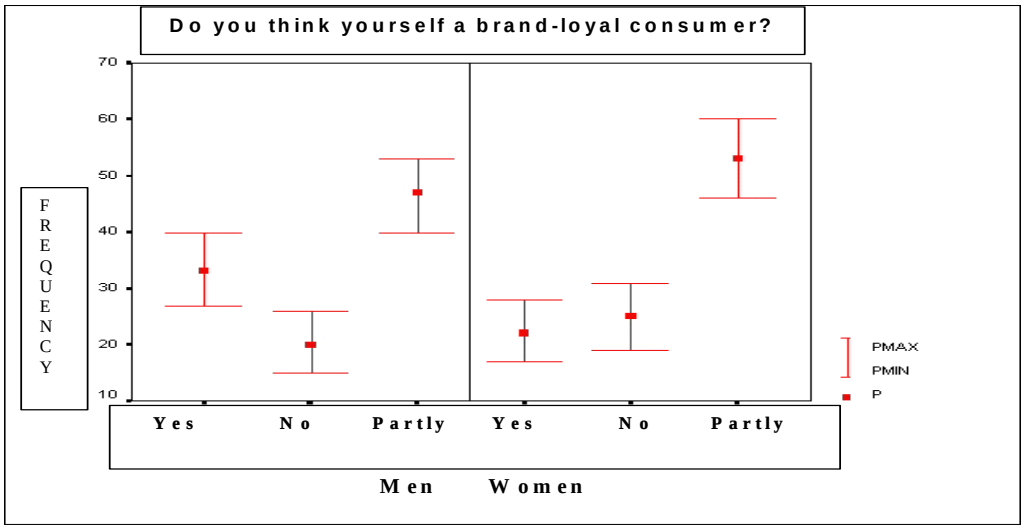

Figure 4. Brand loyalty broken down by sex

The most influential factors of their buying are packaging, price, knowledge and experience. They find very important the effect of advertisements. The consumers meet the advertisements of these products primarily on TV, in press, at exhibitions and fairs. In their opinion these advertisements influenced them in buying these special products, but they find the amount of these advertisements insufficient, require more, and would use more types of incentives. To sum up, it can be stated that market demands the rise of applied marketing means and give special importance to information and advertisement message. In the field of information there is so much to do in Hungary. The superficial knowledge of consumers can become the barrier of market improvement; therefore our results should be spread out

widely. The brand loyalty is the consumer's attachment to a given brand. It helps the consumers to process the information and to motivate their decisions (Olin, 200). The genders think themselves partly brand-loyal to the same proportion on the perceptual map in Figure 4. Significant difference cannot be identified between the sexes among the non-brand-loyal consumers. A bigger proportion of the males called themselves brand-loyal. According to a previous survey Hungary-loyal consumers were higher ratio than brand-loyalist, 62% of the answers said that a Hungarian brand (with controlled quality) has to be launched to the market, and in our opinion Hungaricums are able to serve this demand.

The traditional, unique property is the property originating from the traditional raw material, traditional technology and traditional composition used during the food production. It can be readable that the buyers of the unique, special products know the typical properties of these products because that is why they decide to buy them. In case of products of traditional, unique property the quality difference compared to the conventional products lies in the special production method most of the time (Neggi, 2007). There are several state-run programs in Hungary connected to food stuffs, but their marketing is not enough and the different but same purpose systems result misunderstanding among consumers in Hungary.

Quite important that the unique products of the country should remain real "Hungaricums" and behind Trademarks, constant guaranteed quality must appear. The national application of the European certification system of the protection of origin and special characteristic would ensure the legal protection of the Hungarian products in the single internal market of the EU against counterfeiting and use of other unfair marketing tools. The inclusion of our products with registered trademark in the list of the approved products by the European Commission would have a significant marketing value and it would help to increase the competitiveness of our products. It is therefore necessary to introduce this system in Hungary as soon as possible. The European Union provides assistance for the member states in the framework of its rural development policy to help the production and sales of the products with registered trademark. In order to help the evolution of these activities in the small settlements of rural areas where the only way of living is provided by the agriculture one mode of employment and so the permanent provision of the population's income can be the labour intensive production of the products with registered trademark. The 40-45% of the answerers deliberately looks for Hungaricum products. As for men the percentage is higher than in case of women. This difference however is not significant. Therefore we can not say that men search there special domestic products more. n open question looked for the answer to know which Hungaricums are known the best. Tokaji Aszu proved to be the number one (like abroad). It is significantly different from any other mentioned Hungaricums. Pálinka won the second position, but it is not significantly better-known as onion (of Makó). Then the animal species and the products processed from them continue the list.

4. CONCLUSIONS, PROPOSALS

The identification of the resources available to us, the search for newer resources, the elimination of threats and the expansion of relationships are among the basic tasks. It is very important to evaluate the external environmental effects. The opportunities we will actually realise and the threats we will be able to prevent are to be seen after our internal resources are revealed. Generally it is practical to repeat the SWOT analysis every 2-3 years, or more frequently as needed, and to compare it to the previous examination results. Why is it important to deal with the production of the unique products with registered trademark and of special quality?

- Having observed the trends of the European Union and other developed regions of the world since the middle of the nineties, it can be experienced that the food quality has an emotional approach as well.
- The consumers evaluate not only the mg/kg but they demand that the product should be exactly the same as it has been produced for many lifetimes.

- The products representing characteristic regions, uniqueness, specialties differing from the others, high quality standard with registered trademark should be offered in the overstocked solvent market with the use of the appropriate marketing tools.

Specific tasks:

- To increase the popularity and the market revenues of the Hungaricums noted, and to simultaneously enhance the situation of the producers and the processors associated with the products.
- The processing of the products by preserving the Hungaricum nature to increase the added value that is recognised on the market.
- The application of well-selected marketing tools helps in the development of the regional and the national „image". The Hungaricum products are not well marketable on their own, but together with the appropriate „historical and cultural background".
- These are the tasks of major importance to make the consumers aware of the unique quality of the traditional products with registered trademarks and to develop a marketing strategy to increase the consumer awareness and the competitiveness of the products. In my opinion, the community marketing tools can be used to the efficient realisation of this aim.
- The consumer in this case does not purchase merely a product – products are available anywhere – but also flavours, aromas and traditions.

Tasks to meliorate the market situation of Hungaricums:

- Instead of mass production the assortment of traditional, special products should be broadened given the fact that experiences of the centuries-long production already brought up those „Hungaricums" which represent the outstanding qualities and national values of the countries;
- High-level professional skills, training and flexible marketing activities are needed;
- Origin, trade-mark and adept information must be indicated on the packaging of the products;
- Forming of support systems must be conducted in such a way that it could facilitate establishment of special production structures and concentrate on resurrection of the values of the country.

REFERENCES

[1] Berde, Cs (2003): Vezetéselméleti ismeretek. Campus Kiadó, Debrecen
[2] Churcill, G. A. (2000): Marketing research– Metodology Foundations, 8th Edition, New York, The Bryden Press
[3] Ferencz, Á. (2005) : Problems of work organization and economics of intensive apple orchards. Acta hortuculturae et regiotecturae. Supplement 2005, Vol. 8. No. I. 12-16.p.
[4] Füstös, Zs. – Meszéna, Gy. S-né – Mosolygó, A. (1986): A sokváltozós adatelemzés statisztikai módszerei, Akadémiai Kiadó, Budapest
[5] Jobson, J. D. (1992): Applied Multivariate Data Analysis, Volume II: Categorical and Multivariate Methods, Springer-Verlag, Berlin
[6] Juhász, Cs – Berde, Cs. (2006): Synchronisational problems in organisational motivation in agriculture. Studies in Agricultural Economics. No. 104. 2006. 129-142.p.
[7] Lévai, P.- Farkas, Zs (2000): Studies for using frameless plastic in the forcing of some ornamental crops. International Jorunal of Horticultural science vol. 6, number 1, 2000. Budapest Hungary 148-150 p.
[8] Olins, W. (2003): On brands, Thames and Hudson, USA
[9] Neggi, U. (2007): History ans conceps of food quality ans safety in organic food production. Handbook of organic quality and safety, Woodhead Publishing Limited, Cambridge

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MANAGING PRODUCTION ACTIVITIES USING THE BALANCED SCORECARD STRATEGIC MANAGEMENT SYSTEM

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Abstract:
The work deals with the way in which organizations should choose the BSC solution which meets the company's requirements best so as to fulfill its individual needs.

Keywords:
Management, organization, balanced scorecard, strategy

1. THEORETICAL CONSIDERATIONS

The leaders of modern organizations are confronting with a series of challenges, generated in the first place by the extremely dynamic character of the world in which we live. In order to keep up with the people around, it is necessary to create a permanent alignment to the novelties appeared on the economic market, but also in the IT field. We are living in the century of speed, everything we do needs speed and precision, that is why all the activities undertaken tend to be automated.

The use of an adequate management method can ensure organizational success. If until now the focus was on the financial success of organizations, now more and more important are the customers, employees, collaborators. Within the management instrument, the Balanced Scorecard analyses the four perspectives: the customers, learning-development, internal processes and the financial field.

The Balanced Scorecard (BSC) is a strategic management system that manages the company's activities depending on its vision and strategies. This concept was presented for the first time in the 1992February issue of Harvard Business Review by professors Robert Kaplan and David Norton.

At the highest conceptual level, the BSC is defined as "*a frame that helps organizations to transpose the strategy on operational objectives so as to control both the organizational behavior and performance*" [1].

The system consists in 4 processes:

- The transposition of the vision on operational objectives;
- The communication of the vision and its connection to individual performances;
- Business planning;
- Feedback, learning and strategy adjustment depending on the course.

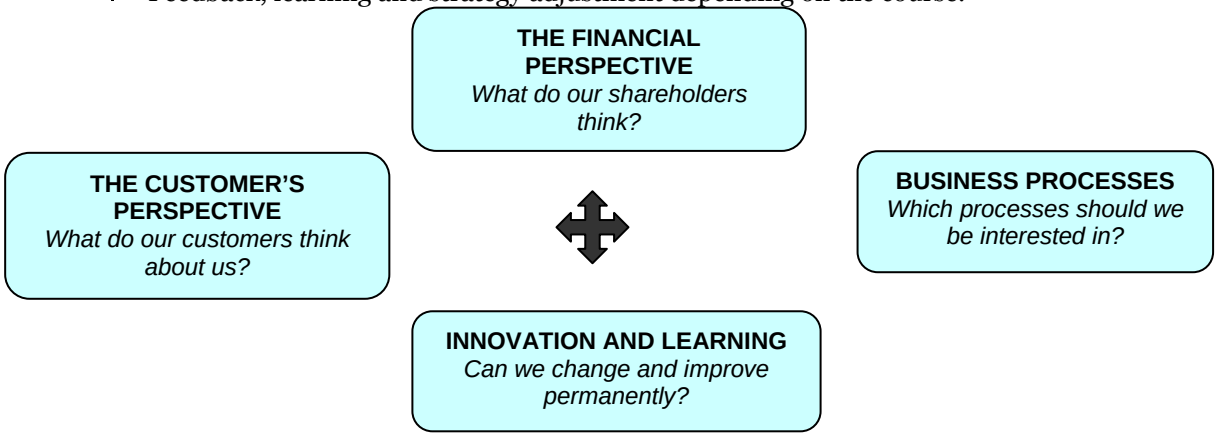

Fig. 1. The BSC principle from the 4 perspectives [1]

The Balanced Scorecard looks at a business strategy from all perspectives and allows the division of the strategic objectives in individual objectives and actions down to the last operational level. The BSC can contain both *quantitative* and *qualitative objectives*.

The strongest point of this instrument is the fact that it binds long-term strategic objectives with short-term actions. Most control and management systems of companies are built around financial indicatives and targets which place little emphasis on the long-term strategic objectives, thus a discrepancy being created between strategy elaboration and its implementation.

The managers who use the BSC do no longer count only on the short-term financial indicatives to evaluate company performances. The BSC allows them to use the 4 processes which, used separately or together, contribute to the correlation of long-term objectives with the short-term actions [2].

The first process, "*Vision translation*" is the process which helps managers reach consensus in the organization regarding organization vision and strategy. Most times, despite the good intentions of top-management, assertions of the following type: the best in the x category, number 1 supplier, cannot be easily translated in operational terms which deliver action directions at the local level. So as people to act according to the statements from the vision and strategy, they must be expressed in an integrated set of objectives and measures, agreed upon by all the executive directors, which should describe the success factors on the long-term.

The second process, "*Communication and relating*", allows managers to communicate their strategy upward and downward the organization steps and to tie it to individual objectives and the department objectives. Traditionally, the departments are evaluated according to the financial performances and the financial motivations are tied to the short-term financial objectives. The BSC gives managers the certainty that all the organization levels understand the long-term strategy and that both the individual objectives and the departmental ones are in line with it.

The third process, "*Business Planning*", makes it possible for companies to integrate their financial and business plans. Almost all companies implement changing plans, each with their managers and project counselors, competing for the executive seniors' time, energy and resources, frequently leading to disappointments regarding the program result. But when the managers use ambitious objectives for the BSC, as a means for resource allotment and priority settlement, they can understand and coordinate those initiatives which lead to the long-term strategies previously set.

"*Development and learning*"**,** the fourth BSC process offers the company the possibility of strategic learning. The existence of feedback and the process evaluation focused on the company, its departments or the individual employees, ensures meeting the financial objectives previously set.

2. THE BSC WITHIN THE ORGANIZATION

The BSC offers a valuable instrument to the employees for a better perception of the organizational environment. It also supplies information to the management when the organization starts to document itself and develop the control measurement indicatives, which will shortly lead to reaching the desired goals and fulfilling the organizational visions.

The result is that the day-to-day operations are created starting from a common point of view about where the organization is heading to on the long-term. If the scorecard is segmented on activity areas, the operation control will be perceived as being a lot more relevant than in the previous models. The employees will become more cooperative and motivated and thus more open to change and decided to implement the new decisions of the organization.

Thus, the organization becomes more open to the learning process, more receptive and it is developing its competences permanently.

All this make it necessary for the scorecard to be introduced and used continuously in best conditions. Taking into consideration the fact that the use of the scorecard is simple, the resource involvement and top management contribution are often underestimated. The scorecard project is easily perceived as a more elaborated project on the measurement of organization performances. It can also meet with opposition from the employees, who could see in this project only a method of work inspection.

So, how can then this process be conceived so as to avoid these impediments? The following structure can be used [3]:

- *For what type of activities must the scorecards be created?* The first decisions which must be reached are connected to the starting point. The scorecard usefulness for nonprofit organizations is also taken into consideration: personnel units, governmental agencies, etc.
- *Initial scorecard development.* Launching the project in the adequate direction is of vital importance.

- *Scorecard introduction and use – process visualization*. Continuing the previous item, the wished connection between strategy through control and learning and back to strategy is shown.

Only by continuous use of the scorecards can real wins be obtained for the organization. In this stage, the support for the project can decrease, because the managers believe that the scorecards have been introduced successfully**.**

3. THE ADVANTAGES AND DISADVANTAGES OF THE BSC

The Balanced Scorecard has proven to be an efficient management work frame. It has the following functions [1]:

- *Transforming strategy into action;*
- *Aligning the organization to the strategy;*
- *Strategy performance as everybody's task;*
- *Continuity of strategy performance;*

The system is the basis of the organization's strategic success, but the strategy is implemented through initiative, innovation processes, by heading the activities in the direction of organization development.

The following ten assertions come to support the argumentation of using the Balanced Scorecard method:

1. Cost reduction, productivity increase;
2. Such a valuable measurement system enables an organization to align its activity to the suggested strategy. With this system, the organization can receive the desired answer so as to guide its future actions.
3. The measurement of process efficiency enables a rational settlement of the process fulfillment order.
4. Enables managers to identify the best practices for activity performance.
5. The information obtained based on the system allow quicker and better budget decisions, and also offer control on the processes made in the organization. It can also reduce the risk.
6. The accountancy and the financial department are working with concrete data.
7. Performance indicatives are obtained, which can be compared with the financial results of the competition, thus setting the organization situation and position.
8. The estimation of future costs can be done with great accuracy, all this due to the experience gained in previous projects.
9. The method allows the measurement of performances and initiatives following the strategy.
10. The system makes it possible to measure the indicatives and to determine the likelihood of their increase in value.

Since its first appearance in 1992, the Balanced Scorecard concept has been adopted as a new approach of the control management both in business and by governments.

It is used to describe the ambitions and achievements of the organization. It has proven useful for [2]:

- *Communicating the strategy of both the employees and managers;*
- *Fulfilling the activities that follow the strategy before the fulfillment of the activities whose end is to meet current needs;*
- *Monitoring and awarding these activities;*

The Balanced Scorecard is based on the following principle: "*doing the things that are necessary, doing them properly, rewards will be obtained in the future*".

The benefits of using this method can be synthesized as follows:

- *The Balanced Scorecard contributes to aligning the performance indicatives with the strategy at all organization levels;*
- *Offers management a full business image;*
- *The method facilitates communication and understanding the business goals as well as the strategy at all organization levels;*

Some authors state that the system is not a new method of measuring and interpreting a firm's situation, but rather a logical presentation of what has to be done so as to follow the chosen strategy. The Balanced Scorecard is an organized split work frame which enables the strategy implementation and fulfillment at all the levels of an enterprise by binding the initiative with the objectives and actions. The system offers a full image of the enterprise performance, combining the financial indicatives with other important performance indicatives within the relationships with customers, internal processes, research and development.

As any other method, the Balanced Scorecard has certain disadvantages:

- *This approach is not fix, it takes a lot of time to define a set of scorecards;*

- *The implementation of a Balanced Scorecard system in an organization implies the detailed study of all the existing problems, then defining an action plan, all these involving a long period of time.*

For example, Kalpan and Norton divide the life cycle of a business in three stages: *growth, maturity and decline*. Three financial themes are also usually set: *income growth, cost reduction / productivity increase, and resource user*. In fact, instead of wishing to increase the level of the performance indicatives, a lot of companies concentrate on the risk of not fulfilling these indicatives. Then, when it is strategically important, these organizations will want to incorporate the management risks within the financial perspective. In conclusion, it is important for all objectives and indicatives set in the other perspectives to be tied to one or more objectives of the financial perspective.

The creation of a Balanced Scorecard involves a considerable period of time for everybody whose performances are being measured.

Setting the strategy is time-consuming, but it does not use so much time as finding and defining the performance measurement indicatives for each perspective does. Usually, people hardly agree on what and how is being measured.

Moreover, a large number of people are involved in building a BSC, and these people's approval is very important both for building and implementing the instrument. It can happen that a Balanced Scorecard is well-built, but its disapproval by the employees, as well as their lack of involvement will make the model useless. There is also the risk of too many indicatives being selected. This is a problem because it is very difficult to use and interpret too many results.

Certain indicatives can by objective, others subjective. The subjective indicatives, by definition, involve the judgment of a person, so there are chances for them to be wrong. There is always a question, namely "must the indicatives set subjectively be used"?

The Balanced Scorecard is a management system, not only a measurement one which allows the organization to set its strategy and vision and to put them into practice. The instrument offers the feedback of the business internal process and external indicatives, instead of wishing to continuously increase the strategic performances and results. After being fully developed, the Balanced Scorecard instrument transforms the strategic planning from an academic exercise into a nervous center of the organization.

4. CONCLUSIONS

For the present-day organizations information is no longer the basic component. Because the organizations administer a too big volume of data and information, the manner in which the relevant information is selected and used within the organizational actions and in decision-taking is of extreme importance. The ecosystem that underlies a Balanced Scorecard is made up of visions, missions, organizational values and competences, strategies.

It is important for certain fundamental observations which express the BSC's importance and value to be reiterated:

- Only 10% of the organizations that define a strategy are capable of successfully fulfilling it;
- The strategy of an organization must be clear and synthetic;
- The BSC is a strategic management and performance system;
- The BSC translates the organization's strategy into concrete actions;
- The BSC explains and clarifies an organization's strategy from both the management's and employees' point of view;
- The BSC is a communication instrument, not one of control/constraint;
- The BSC allows the alignment of the component structures and organization members to the strategy set by the management team.

BIBLIOGRAPHY:

[1] Olve, N., ş.a. – *Making Scorecards Actionable. Balancing Strategy and Control*, Editura John Wiley&Sons, England;
[2] *** , http:// www.balancedscorecard.com
[3] *** , http:// www.balancedscorecard.org

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ECONOMIC THEORIES, INSTITUTIONS, REGIONAL COMPETITIVENESS

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Abstract

Spatial competition and competitiveness stands high on the agenda of regional research. These concepts are open to discussion even today, and scholars of different economic schools starting from different premises treat them differently. The aim of this study is to review what the major economic schools of thought have to say about leveling regional differences, about spatial competition and regional competitiveness. Based on different theoretical foundations even within regional sciences different hypotheses are articulated and accordingly different conclusions are drawn about for example the possibility of convergence between regions with various endowments at diverse state of development. As we see it, this is another example of the interdisciplinary character of regional science at work, as getting from different assumptions to different conclusions do not so much question the credibility of our science but calls attention to its versatility and problem-sensitivity.

Keywords

Regional competitiveness, schools of economic thought

1. INTRODUCTION

Different schools of economic thought start out from different premises, and view certain problems from different angles. The aim of the article is to show after a short review of a few selected schools, how many different relevant answer can be given to the question important to researchers of the field: how to handle spatial differences, spatial competition and regional competitiveness and their mechanisms. Based on different theoretical foundations even within regional schiences different hypotheses can be articulated, and accordingly different conclusions can be drawn about the possibility of convergence between regions at diverse state of development with various endowments. These apparent contradictions should not question the credibility of our science, but rather call attention to its versatility and problem-sensibility.

In the arguments about spatial differences and regional competitiveness in connection with it we can witness remarkable diversity of different schools of thought. A fundamental question is, wether market automatism in itself is sufficient to moderate spatial differences in a given economy, wether spatial convergence emerges in every market economy? Otherwise it is possible, that the invisible hand of the market cannot guarantee this, and outside intervention is necessary.

2. THE CONCEPT OF REGIONAL COMPETITIVENESS

We are going to use the standard definition of competitiveness ([5] [7], p278.) of all the recognised competitiveness-definitions, according to which it is „the ability of companies, industries, regions, nations and supra-national regions to permanently attain relatively high income and level of employment, while open to international (global) competition”. Here we will call competitiveness the permanent success in spatial competition, the ability of continuous economic development, which in turn manifests itself in the growth of GDP and thereby also welfare.

3. SCHOOLS OF ECONOMIC THOUGHT

We selected seven schools of economic thought out of the diverse macroeconomic and alternative schools which we consider relevant. Next, let us review the main concepts and theories of these. The seven schools are:

1. classical economics,
2. neo-classical economics,
3. keynesian economics,
4. theory of endogenous growth,
5. New Trade Theory,
6. Institutional economics,
7. Evolutionary economics

Reviewing these seven selected schools we will concentrate on whether and how spatial competition can at all be interpreted in terms of the school, and whether levelling off of spatial differences can happen as a result of market mechanisms.

Classical economics considers division of labour and its necessary consequence, trade and accumulation of capital to be the key to economic growth [12]. Investing in capital and trade will facilitate specialisation, enhance productivity and the output growthrate. Trade between countries happens according to the absolute differences in productivity, according to absolute advantages [9].

Ricardo prooved, that division of labour and trade between countries can be profitable even in the presence of relative (comparative) cost-advantages [18]. The market prices of goods will necessarily reflect the relative magnitudes of labour and capital needed to their production. This happens through the market, through competition. The ordinary profit (normal profit in today's jargon) thus attained by producers will guarantee maximal welfare. „...that [is what] prevents the market price of commodities from continuing for any length of time either much above, or much below their natural price. It is this competition which so adjusts the exchangeable value of commodities, that [...] the remaining value or overplus will in each trade be in proportion to the value of the capital employed." ([16], p60.). Competition is thus a central concept in classical economics, but is something which governs only the acts of individual economic actors. The problem of spatial competition can not be interpreted as a relevant question in the age of the industrial revolution.

The **Neo-classical school** is undoubtedly competition-centric [10]. It further develops the classical thoughts mainly building on microeconomic grounds. Two things seem important in connection with our topic: the marginalist methodology and the hegemony of self-regulating market mechanisms. Both of theese point in the same direction: there is no alternative to free competition. Reaching Pareto-efficient resource allocation through competitive mechanisms there are generally no welfare losses. The comparative advantages and disadvantages also advocated by the neo-classical school will necessarily fade away in the long run [6]. However, the dominance of market clearing prices on the micro and macro level leads one to the conclusion, that any non market-conform phenomenon (government intervention or any other market restrictions) will result in welfare loss.

Despite all these the underlying assumptions of the neo-classical model – perfect information, constant return to scale, long run equilibrium, perfect mobility of factors and perfect competition – and the tools adopted by it make the interpretation of regional competitiveness impossible. A strength of the neo-classical growth model of Solow is to identify technology as the main factor of growth, which is in accord with the generally known understanding of competitiveness. Technology is, however, an exogenous variable in this growth-model, which means, that development will affect every regions alike. Due to the absolute mobility of factors – inclucing technology – any kind of potential difference initially present between regions is bound to disappear over time. If the model does not allow for regional differences, it will also not allow for levelling regional differences.

The **keynesian school** by acknowledging that markets may not necessarily clear, tacitly acknowledges regional differences as well [10]. The keynesian theory agrees, that market is a fundamental institution of the modern economies, but it is unable to guarantee

on its own the maximum of social welfare, and has to be supplemented with active government interventions. Less than full utilisation of resources (most notably low rate of employment) causes welfare losses, thus active regional governmental action is indispensable. The same is true at the regional level: on the longer run more can be gained by the intervention of a higher level of government than could be lost by the lack of it.

The model posits a level of national income that can deliberately influenced, and one possible interpretation of this is, that the crowding out effect – much advocated by the neo-classicals – do not prevail at all, or only to a smaller degree. Because of this, the Pareto-efficiency criterion is not affected, while through the well-managed governmental interventions and their multiplicated effects the undesirable regional productivity (competitiveness) differences are moderated or the desirable competitive advantages can be strengthened. The accompaniment of this process is the growing demand along with higher level of employment, which is the motor of the keynesian economics.

An important characteristic of the keynesian school is the recognition of spatial differences, of the effects of government interventions on conjuncture cycles and of underlineing the importance of capital-intensity on economic growth [9]. This is the first school which recognises the roles institutions and central and local governments play in determining economic growth and development, which is one of the most important factors influencing regional competitiveness according to empirical studies. The tools and concepts of this school of thought are thus capable of serving as a foundation for regional economic development and deliberate moderating of spatial differences. Put another way: the spontaneous functioning of the markets can hardly lead to regional convergence, this can much more likely to be reached by a deliberate institutional intervention.

The **endogenous growth theory** studies economic growth through explicitly modeling technological advancements and accumulation of human capital [8][17]. In contrast to the neo-classical assumption of exogenous technical development, this is no more coming from outside the model in the endogenous growth theory, but is itself a result of decisions made by rational economic agents. Accumulating human capital necessitates communication between people and the transfer of allready acquired knowledge, the accumulation of new human capital is therefore a function of human capital allready owned. Also, a critical level of human capital have to be reached, below this level it is unable to generate any substantial growth. Spatial differences in productivity due to regionally different endogenous growth in technology and human capital can permanently prevail.

Another basic type of endogenous growth models puts innovation as the center of its enquiry [20]. The manyfold application of an invention results in constant horizontal product differentiation, and ultimately the efficiency of the economy grows. Monopolistic competition emerges as dominant market structure and occasional differences in application of inventions will lead to the development of competitive advantages and disadvantages.

Endogenous growth theory is able to study spatial competition, but this will happen on inperfect markets, where permanent competitive advantages develop.

The most important novelties of the endogenous growth theory are the recognition of technology, knowledge and the regions' own endowments as endogenous variables of the model, which are fundamental in determining competitiveness. According to the model, accumulation of knowledge calls forth increasing return to scale, and thus rising productivity is the result of spatial diffusion of knowledge and technology, wich do not imply any kind of automatism decreasing regional differences. It is noteworthy, however, that deliberate regional (economic) policy aiming at encouraging the growth of these endogenous factors can be an effective tool to moderate regional differences.

The **new theory of trade** has as its starting point the monopolistic competition model of Dixit and Stiglitz, the spatial reformulation of which was an acchievement of the new economic geography [6][21]. Economic schools of thougth from the 1990s on began to stress, that due to the globalisation the conventional concepts and tools of earlier economic schools are less aplicable to the functioning of modern economies, like the new kind of competition. Spatial economics or the new economic geography started to develop at the beginning of the 1990s, as the most influential stream of „re-discovering geography" [7]. Krugman set the focus of his research on the location of production, within which he modeled the changing of

the spatial structure of economic activity, emphasising spatial concentration. His main assumptions are increasing return to scale, inperfect competition, decreasing transportation costs and local externalities [1].

According to Krugman, each country or region specialising along comparative advantages can win. As a Pareto-efficient spatial equilibrium emerges from the centripetal and centrifugal forces, it is pointless to talk about spatial competition or competitiveness. A logical corollary from the above is, that regional differences in productivity are the result of different levels of spatial specialisation, agglomeration and clustering. Although many of the concepts of this school rhymes with the logic of regional competitiveness, the whole structure of spatial economics is not suitable to study competitiveness, as it concludes that spontaneous market processes formulate iter-regional differences [7]. Spatial differences, however, can satisfactorily be explained by its help.

Institutional economics has at the focus of its enquiries the explanation of economic, social and political institutions [4][11]. They study why and how different institutions emerge that govern human behaviour and organise different interactions. It is noteworthy, that by institution we do not mean organisations, but fundamental characteristics of the functioning of an economy, like private property, market, intra-firm coordination. This school emphasises the concept of institutions along with transactions and transaction costs associated with them. According to Douglas North, the share of transaction costs (which are indispensable to the efficient functioning of an economy, but which are beyond the neo-classical cost concepts) within the total costs in the economy can reach 50%. They are thus absolutely significant.

This school considers competition as a fundamental institution. While the traditional marginalist methodology continues to hold, beside the usual cost functions of production, transaction functions [14] and transaction cost functions [22] are also used. Another cornerstone of the school is the empasising of property rights. An indispensable prerequisite of the Pareto-efficient allocation outcome of competitive markets is the clearness of property rights and their enforcability [15]. This increases the number of the model's explaining variables and regional differences in productivity have to be studied in a *reformulated competition model* using intitutional factors.

Regional competitiveness is determined by the region's broadly defined (macro-) instituional environment and transaction costs associated therewith: search-, information-, communication- and coordination-costs, bargaining and decision costs, monitoring and enforcement costs [9][19]. This extended condition-set reflect the complexity of the current economic processes. The concepts and tools of the institutional economic school are thus appropriate to trace spatial competition and regional processes. Likewise, increasing or decreasing spatial differences can well be handled in the model as the results of the interactions between the narrowly defined economic processes and the institutional factors.

The **evolutionary economic school** puts the emphasis contrary to the mainstream schools on innovation and learning, and stresses the ever-increasing diversity of the economic structure [2] [13]. Heterogenity, differentiation, complexity and uncertainty are focal concepts of this school [9]. Economic growth is determined substantially, but not deterministically by particular local conditions and historical background. These conditions – most notably prevailing institutional, social and technological conditions – are not exogenous, but part of the „economic evolution". Regional competitiveness is in turn based on the historical past of the region. New technologies, new institutions can, however, displace old ones, and growth can follow a new trajectory, which, due to the nature of an innovation, may only scantly connect to the past. The ability of regions to create novelty and innovation is the factor, which influences their regional competitiveness on the long run, and this ability is powerfully influenced by spatial concentration.

Competition is a central concept in the evolutionary thought, because new variations constantly emerge, which then compete with each other and this competition selects out certain options. This selection is not only possible through the market, but in the basic model it is generally done by the market. Basic assumptions and concepts of this school make it suitable to study regional processes, especially in the case of hubs of knowledge [3]. Changes in regional differences are influenced by changes in the prevalence and intensity of

innovative behaviour in the regions. These changes can be results of spontaneous market processes, so evolutionary economics can handle regional convergence resulting from both market automatisms and institutional (public) intervention. Regional differences are considered to be necessary, but they constantly transforming as a function of the region's succes in generating and absorbing innovations.

From the above rewiev of the different schools of economic thought it can be seen, that each of them emphasises a different aspect of regional competitiveness. Table 1 recapitulates the key concepts and basic thoughts of these schools in connection with regional competitiveness.

Table 1.: highlited points of the different schools of economic thought in connection with regional competition and competitiveness and spatial differences.
Source: Own compilation

Name of the school	View on spatial competition	Can spatial differences be moderated by market forces?	Key concepts and basic insights in connection with regional competitiveness
Classical Economics	Not applicable in original model	Yes	Specialisation, trade based on division of labour, differences in productivity
Neo-Classical Economics	Discarded	No	Model's basic assumptions preclude studying regional competitiveness within the model. Main spatiality-related concept is the concept of externalities
Keynesian Economics	Acknowledged	No	Economic policy, government interventions, budgetary expenditures, institutions
Endogenous Growth Theory	Acknowledged	Yes	Knowledge and technology as endogenous regional resources
New Theoury of Trade	Discarded	No	The model's design is not suitable to study competitiveness. Inter-regional differences in productivity are results of market mechanisms. Concepts related to spatial processes: spatial specialisation, agglomeration, cluster formation
Institutional Economics	Acknowledged	Yes	Importance of institutions, spatiality of transactions and transaction costs, importance of property rights
Evolutionary Economics	Absolutised	Yes	Regional competitiveness rooted in the region's past, but new technologies, new institutions can start growth on a new path.

4. CONCLUSION

From this review one can see, that the different schools of thought contradict each other in multiple important issues, and thus a consistent theory can not be built up synthetising them. Each of these schools emphasise one particular process, factor or a segment which constitutes an important ingredient of the concept of regional competitiveness. Consequently parts of these approaches can complement each other to contribute to our better understanding of the concept of regional competitiveness. Different economic schools thus do not have to be taken as isolated variants in trying to solve the problem of regional competitiveness, but they all study different aspects of the same object, and so it is worth reconsidering and matching most of their conclusions.

REFERENCES

[1] Ács-Varga 2000: Térbeliség, endogén növekedés és innováció. - *Tér és Társadalom*, 4, 23-38. o.
[2] Bajmóczy 2007: A technológiai inkubáció elmélete és alkalmazási lehetőségei hazánk elmaradott térségeiben. *Doktori értekezés*. Szegedi Tudományegyetem Gazdaságtudományi Kar, Szeged.
[3] Boschma-Martin 2007: Constructing an evolutionary economic geography. - *Journal of Economic Geography*, 7, 537-548. o.
[4] Coase 2005: The Institutional Structure of Production. - Menard, C. – Shirley, M. M. (ed.): *Handbook of New Institutional Economics*. Springer, Dordrecht, 31-40. o.
[5] EC 1999: *Sixth Periodic Report on the Social and Economic Situation and Development of Regions in the European Union*. European Commission, Luxembourg.

[6] Krugman-Obstfeld 2003: *Nemzetközi gazdaságtan*. Panem kiadó, Budapest.
[7] Lengyel 2003: *Verseny és területi fejlődés: térségek versenyképessége Magyarországon*. JATEPress, Szeged.
[8] Lucas 1988: Ont he Mechanics of Economic Development. - *Journal of Monetary Economics* 22, p. 3-42.
[9] Martin et al 2003: *A Study on the Factors of Regional Competitiveness*. A final report for The European Commission DG Regional Policy. University of Cambridge, Cambridge.
[10] Mátyás 1993: *A modern közgazdaságtan története*. Aula, Budapest.
[11] Mátyás 1996: A hagyományos közgazdaságtan bírálata és kutatási körének kiszélesítése az új intézményi iskola képviselői részéről. - *Közgazdasági Szemle*, 7-8, 614-628. o.
[12] Mátyás 2002: *A korai közgazdaságtan története*. Aula, Budapest.
[13] Meyer 2003: Evolúciós közgazdaságtan elmélettörténeti szemszögből vagy közgazdasági elmélettörténet evolúciós szemszögből. - Bekker Zsuzsa (szerk.): *Tantörténet és közgazdaságtudomány*. AULA, Budapest, 295-312. o.
[14] North 2005: Institutions and the Performance of Economies over Time. - Menard, C. – Shirley, M. M. (ed.): *Handbook of New Institutional Economics*. Springer, Dordrecht, 21-30. o.
[15] Pejovich 1992: *A tulajdonjogok közgazdaságtana*. KJK, Budapest
[16] Ricardo 1940: *A közgazdaság és adózás alapelvei*. Magyar Közgazdasági Társaság, Budapest.
[17] Romer 1990: Endogenous Technological Change. - *Journal of Political Economy,* 98. 71-102. o.
[18] Samuelson-Nordhaus 2000: *Közgazdaságtan*. KJK-KERSZÖV, Budapest.
[19] Schuman 1998: *A mikroökonómiai elmélet alapvonásai*. JATEPress, Szeged.
[20] Valentinyi 1995: Endogén növekedéselmélet. Áttekintés. - *Közgazdasági Szemle*, 6, 582-594. o.
[21] Varga 2003: Thünen és az „Új Gazdaságföldrajz" térgazdaságtana. In Barancsuk J. (szerk.): *Tanulmányok Zinhober Ferenc Professzor emlékére*. Pécsi Egyetemi Könyvkiadó, Pécs, 85-98. o.
[22] Williamson 2005: Transaction Cost Ecomomics. - Menard, C. – Shirley, M. M. (ed.): *Handbook of New Institutional Economics*. Springer, Dordrecht, 21-30. o