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**2016**



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# FIKUSZ

Symposium for Young Researchers

## Proceedings



**FIKUSZ 2016 — SYMPOSIUM FOR YOUNG RESEARCHERS**  
**Celebration of Hungarian Science 2016**

BUDAPEST, 25<sup>TH</sup> NOVEMBER 2016

## **PROCEEDINGS of FIKUSZ 2016**

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## **Welcome to FIKUSZ 2016!**

The FIKUSZ Conference is certainly a special occasion for those who work for the development of management, economics, research and professional development. It was an occasion to meet, to listen, to discuss, to share information and to plan for the future.

Indeed, a conference is an opportunity to discuss key points of scientific and professional policies and strategies, helping us to define how we should encourage responsible conduct, to promote young researchers and also to establish personal contacts with colleagues from other parts of the world. We could meet different colleagues from eight countries.

These made it possible to present perspectives about economical and management concepts and methodologies and consequently have contributed to clarify the fundamentals of a common profession based on a common thinking.

Previous FIKUSZ Conference has been developed under this principle.

And here we were again, to continue this exceptional course that has begun in 2016.

The Óbuda University is proud to host this event again, bringing together renowned experts in our field, to address the vital issue of research excellence and professional development.

I hope that this one day Symposium allowed academics, researchers and professionals to share their ideas and views on common economical issues. Discussing about the leadership challenges and responses in research which may in turn inspire new or validated standards of practices in the professional field.

By the end of the Conference, I intend to formulate the final conclusion and eventually make recommendation, which will be a benchmark for the future. It will certainly contribute to promote excellent researches, appoint principles and strategies for training students, allowing them to acquire the adequate skills to answer the current challenges of society.

Regina Zsuzsánna Reicher Ph.D.

Conference Chair

## **Óbuda University and the Keleti Faculty of Business and Management**



In the first of January, 2010 Budapest Tech became a university called Óbuda University. Budapest Tech was established in 2000 as a result of the merger of three technical colleges. Its history together with its predecessors bridges three centuries. Indeed, in the 2009 Jubilee Year Budapest Tech celebrates 130 years of education including 40 years of higher education. Today Óbuda University is responsible for training altogether 13,000 students in Budapest and Székesfehérvár. In Budapest the campuses can be found in Óbuda (3<sup>rd</sup> district) and Józsefváros (8<sup>th</sup> district). The head office and training premises of Keleti Faculty of Business and Management are located in Józsefváros.

When Budapest Tech was founded, the formerly separately taught economics and social science subjects were integrated into one independently managed organizational unit, the institutes of which are as follows:

- Institute of Economics and Social Sciences
- Institute of Enterprise Management
- Institute of Management and Organization
- Institute of Physical Education and Sport

Our faculty offers training courses in compliance with the Bologna System. In the new educational structure the first level is basic training (BSc, BA). Such first degree courses focus on practical professional training demanded by potential employers, and at the same time provide a good grounding for theoretical knowledge enabling students to further their studies on a Master's degree course (MSc, MA) if desired. In the linear training system such a Master's course normally takes 4 semesters. After graduating from a Master's, a student can start working or opt to continue with his or her studies by applying to enter a PhD programme, the peak of tertiary education. The Faculty offers the following courses:

- Engineering Manager (BSc),
- Management and Business Administration (BA)
- Commerce and Marketing (BA)
- Business Development (MSc)
- Teacher of Engineering (engineering manager) (MA)

Students must obtain 210 credits during the 7 semesters of BSc and BA courses, while 120 credits are necessary on the 4-semester Master's courses. The courses are tailored to the demands of the labour market. Óbuda University's PhD programme in Applied Informatics has been recently accredited completing the range of educational programmes at Óbuda University.



## **Russian Socio-Economic Development: The Present Situation and Future Directives**

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*Abstract: Markets are increasingly affected by the laws of politics instead of the laws of economics. Nowadays political factor plays larger and larger role in the economic policy making, replacing market competition. Russia is no exception. External shocks such as changing oil prices and trade sanctions which influence on Russian economic development are unequivocal illustration of this trend. In order to respond to the changes and requirements of the world's current socio-economic situation, Russia has to transform its economic system fundamentally*

*What is the current socio-economic situation in Russia? What are the challenges and limitations of the ongoing system? Why is there a need for introducing a new economic model? The article deals with the concept of Russian long-term socio-economic development, analyzes the main socio-economic indicators, and presents the main trends and features of the Russian economy.*

*Keywords: Russia, social development, economic development, socio-economic situation, economic policy*



## **1 Introduction**

The politicization of the economy, especially on the international level, becomes a major feature of the current development stage (as well as the ongoing crisis). Markets are increasingly subordinated to the laws of politics instead of the laws of economics. The current crisis has resulted in growing instability of world markets, which now operate in a way that is considerably different from the past few decades. Russia's economic development has been strongly influenced by external shocks since 2014. These include the changing price of oil and other Russian exports as well as sanctions (primarily financial and technological). Importantly, the problem is not just how much prices have fallen, which has happened periodically over the past few decades, but the speed of their decline. In 2015 oil prices fell by half in roughly half a year, which is unprecedented in modern economic history.

However, the main factor of low economic development rates is the structural problems of the Russian economy, which were caused by two overlapping factors – the global crisis and the exhaustion of the economic growth model of the 2000s. A substantial reduction of growth rates started long before oil prices declined and sanctions were imposed on Russia. According to President Vladimir Putin, the economic policy plays major role in rising living standards [1]. The improved business climate and socio-economic development are vital components of the brighter future.

## **2 Socio-economic development of the Russian Federation**

The concept of long-term socio-economic development of the Russian Federation for the period up to 2020 (hereinafter - the LDC-2020) was developed in compliance with the order of the President after a meeting of the State Council on the 21<sup>st</sup> of July, 2006 and approved by the Federal Government on the 17<sup>th</sup> of November, 2008 № 1662-p. [2]; [3].

The purpose of the LDC is to identify ways and means of ensuring in the long term (2008 - 2020) sustained increases in the well-being of Russian citizens, national security, dynamic development of the economy, strengthening of Russia's positions in the world community.

The strategic goal is to achieve a level of economic and social development corresponding to Russia's status as a leading world power of the 21<sup>st</sup> century, which occupies leading positions in the global-term economic competitiveness and reliably providing national security and the implementation of citizens' constitutional rights. In the period of 2015-2020 Russia is supposed to enter the top five leading countries in terms of gross domestic product (at purchasing power parity).

Table 1 shows the initial conditions and macroeconomic indicators of Russian innovative economic development up to 2020.

Indicator	2008 - 2010	2011 - 2015	2016 - 2020
1. Oil prices (world), USD per barrel	99	91	108
2. The global economy, the average annual growth, %	4,2	4,4	4
3. Population, million people	141,8	142,2	143,4
4. Inflation annual average, the increase in prices, %	10,3	6,4	3,5
5. Gross domestic product, average annual growth, %	6,8	6,4	6,3
6. Industrial production, average annual growth, %	5,7	5,3	5,1
7. Real disposable income, average annual growth, %	10	7	6,7
8. Retail turnover, the average annual growth, %	12,8	7,5	6,4
9. Investments, the average annual growth,%	14-14,8	10,3	10

Table 1

The initial conditions and macroeconomic indicators of Russian innovative economic development.

Source: [4]

Challenges of the forthcoming long-term period, according to developers of LDC-2020, are the following:

- 1) Increased global competition, covering not only the traditional commodity markets of capital, technology and labour, but also the national control system, support for innovation, human potential development.
- 2) The expected new wave of technological changes, reinforcing the role of innovation in economic and social development and reducing the impact of many of the traditional growth factors.
- 3) The increasing role of human capital as a key factor in economic development.
- 4) Exhaustion of potential raw materials export model of economic development, based on the forced export of fuel and raw materials, production of goods for domestic consumption due to the pre-loading of capacities in the conditions of low exchange rate, low cost factors of production - labour, fuel and electricity.

Russian Ministry of Economic Development made the long-term socio-economic development forecast of the Russian Federation for the period up to 2030 on the

basis of the LDC 2020, and it is one of the main documents of strategic planning [2]; [5].

The results of 2001-2012 years were announced in the following document. It was noted that Russia's economic development was extremely uneven, including three periods:

- 1) 2001-2008, a period of economic recovery after the transformation crisis and default of 1998;
- 2) 2009-2011, the period of the global crisis and post-crisis renewal of the economy;
- 3) 2012, a new phase of growth, characterized by the slowdown of both investment and consumer demand together with the weakening of external demand.

It should be noticed that indicators given in Table 1, in fact, are not achieved nowadays [4]; [6]:

- 1) Oil prices. Budget parameters were calculated based on the forecast of the average annual price of Urals oil in 2014 - \$ 101 per barrel, in 2016-2020 - \$ 108 per barrel. In fact, according to Ministry of Finance, the price of Urals oil in the first six months of 2016 was \$ 37.85 per barrel.
- 2) The global economy, the average annual increase. Economic growth was the lowest in the past time and amounted to 2.4% in 2015. The UN report presents a forecast of global economic growth, according to which the world economy in 2016 will grow by only 2.9%, in 2017 - 3.2% [7].

In 2016 the IMF has improved the outlook on the dynamics of Russia's GDP to decline by 1.2%. The forecast for 2017 is saved, the Fund expects that the Russian economy will emerge from recession, and its growth will be 1%. The IMF also confirmed the forecast for the medium term, according to which the Russian economy will grow annually by 1.5% [8].

- 3) The population of Russia. The actual indicators were higher than planned ones. The reasons for this are, firstly, the positive demographic changes associated with population growth (from 2013) and, secondly, Republic of Crimea and the federal city - Sevastopol joined Russia. In 2016, Russia's population totalled 146, 5 million people. The forecasts for this indicator are positive.
- 4) Inflation average, the increase in prices. Inflation in 2015 was 12.9% compared to the forecast - 6.4% - for the period 2011- 2015. In fact, inflation was twice higher in comparison with the planned one. At the moment, inflation is 7.5%. It can be argued that there is a process of stagflation.
- 5) GDP, average annual growth. According to Russian Federal Agency of State Statistics, GDP index was 100.7% in 2014, and decreased by 3.5% in 2015 when economy moved from stagnation to recession [10].

Minister of Economic Development A. Ulyukaev noted that in 2016 GDP growth will return to positive level, and in 2017-2018 Russia can be the same as the pre-crisis one [2]. On the Figure 1, the GDP growth is presented.

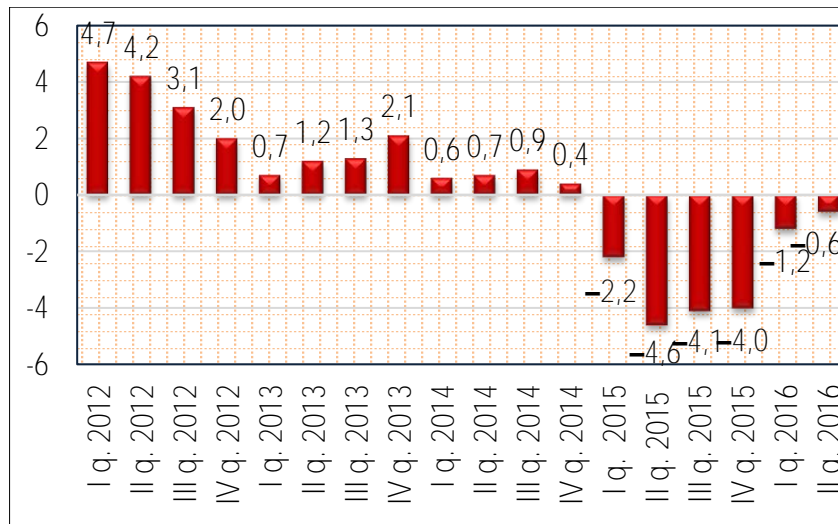


Figure 1

GDP growth of the Russian Federation (2012-2016). Source: [11]

- 6) Industrial production, an average annual increase. The impact of sanctions on Russian industry has delayed effect, the industry reacts to external and internal challenges much more slowly than, for example, the financial market. But, nevertheless, the negative trends are already evident.

Index of industrial production amounted to 96.6% in 2015, which means reduction in production volumes by 3.4%. In January-August 2016 compared with January-August 2015 the volume of industrial production increased by 0.4%. The indicator has improved, but the predicted indicators diverge from the actual ones (according to forecast, growth should be 5.1%).

- 7) The real disposable income of the population, the average annual increase. According to Russian Federal Agency of State Statistics, real disposable income of the Russian population (incomes minus the obligatory payments, corrected by consumer price index), according to preliminary data, in January-April 2016 decreased by 12.7% compared to 2015 [10].

The average monthly salary in April 2016 amounted to 26264.8 rubles (388 EUR) and decreased by 4.4%, compared with April 2015, by 1.3%, compared with March 2016. On Figure 2 the real disposable income growth and inflation growth (2012-2016) are presented.

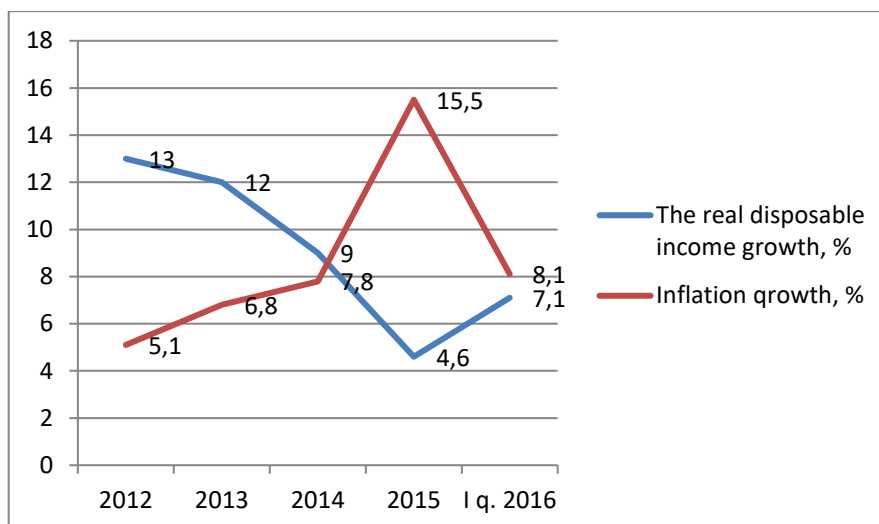


Figure 2  
The real disposable income growth and inflation growth (2012-2016)  
Source: [11]

- 8) Retail trade turnover, an average annual increase. Retail trade turnover in 2015 decreased in comparison with 2014 by 10% to 27.6 trillion rubles. In 2016 retail turnover continues to decrease.
- 9) Investments, the average annual increase. Investments in non-financial assets in 2014 as compared with 2013 year fell by 2.3%, and in 2013 compared with 2012 increased by 0.8%, the trend was negative.

So, the following conclusions about the achievement of the LDC 2020 objectives can be done. Overall, the forecast was justified only in terms of population. Actual indicators were worse than forecast and even planned tendencies were not realized. Ministry of Economic Development published a variety of forecasts for key socio-economic indicators of Russia. Table 2 shows the number of indicators, stated in the forecast of 2015 for the period 2016-2018.

Indicator	2014	2015	2016	2017	2018
The price of Urals oil (the world), USD / barrel					
1*	97,6	50	60	65	70
2**		60	70	80	90
GDP, %					
1	100,6	97,2	102,3	102,3	102,4
2		97,5	103,1	102,7	103,3
Investments in fixed assets, %					
1	97,3	89,4	103,1	102,3	103,2
2		91,3	104,6	103,6	104,8
Industry, %					
1	101,7	98,7	101,5	101,6	101,9
2		98,9	102,1	102,3	102,6
Real disposable income, %					
1	99,2	92,2	101,1	102,6	102,8
2		92,4	102,1	103,7	103,8
Export, billion USD					
1	497,8	348	376	402	431
2		376	410	454	505

Table 2

The main indicators of Russian socio-economic development in the period of 2015-2018. Source: [2]; [9]

\* Option 1 - basic scenario, \*\* Option 2 - optimistic scenario

Thus, the forecast of main socio-economic indicators in Russia does not reflect current economic realities and trends identified for the main parameters of the Russian Federation.

The undeniable fact is the impact of events that have occurred on the international scene since 2014 on the implementation of the strategic plan of Russian socio-economic development. The important consequence was the negative political and economic impact on Russia from Western countries; Russia is in a difficult situation nowadays, in a position of confrontation with the international community.

New sanctions are continuously introduced against Russia, the capital outflow strengthens, international agencies reduce economic and investment ratings, which do not help, but affect the development of the national economy.

Based on results of 2014, some analysts gave the following assessment: due to sanctions Russia will lose about 23 billion EUR or 1.5% of GDP, and nearly 75 billion EUR (nearly 5% of GDP) in 2015. It is important to note that in such conditions there is significant slowdown of foreign investment inflow in Russia (75% of these investments are from EU) [10].

The first sanctions against Russia were introduced in March 2014, mostly symbolic ones that did not reflect on the socio-economic indicators. The sanctions included

the visa restrictions imposed on some Russian officials, freezing their assets, a ban on the support of business relationships with individuals and entities included in the lists.

Second package of sanctions and, moreover, the third one, of course, influenced on Russian economic development indicators. It was a shock, firstly, for the financial sector, for Russian defence and energy sector enterprises. Several countries have restricted the supply of technologies, weapons, minerals and other goods to the Russian market.

Since the main Russian partners were the EU countries (42.2% of import and 53.8% of total export), Russia was supposed to have a lot of problems because of the sanctions.

US President Barack Obama at the end of January 2015 in his annual address to Congress said that western sanctions "broke Russian economy to pieces".

It should be noted that in recent times uncertainty and turbulence in the world economic development have increased, and eventually they have much more negative impact on Russia:

- 1) there is increased risk of low oil prices;
- 2) the role of reserve currencies always increases and especially USD exchange rate;
- 3) there are risks of "financial bubbles" in the US, Europe and China;
- 4) there is Russian's dependence on Chinese economic development (because of the sanctions there is the reorientation of Russian economy to the East (to China), there is dependence of Russia on Chinese investment in fuel and energy sector of Russian Federation) [11].

Of course, external factors will affect the socio-economic situation in Russia, based not only on global economic issues and trends, but also on the negative impact of international policy-making related to Ukrainian and Syrian situations, as well as Russia's participation in resolving political crises in these countries. The main anxiety is ongoing sanction policy.

Besides external factors, there are several internal difficulties in the Russian economy that arised even before 2014, the incidences in Ukraine and the restrictive measures against Russia. The sanctions did not lead to the emergence of new economic problems, but exacerbated and revealed the already existing structural problems in the Russian economy.

V.M. Holodkov, head of the international economic organizations at Russian Institute of Strategic Research, explained the situation: "Thus, the Western sanctions did not generate the crisis and did not "break" Russian economy "into pieces" but only strengthened negative trend that emerged a few years before Ukrainian crisis... Most important is not a quantitative assessment of the impact of sanctions, but the fact that it is the accumulated structural imbalances in the Russian economy led to its vulnerability to the impact from the outside, created those pain points, which prudently hit the West ". [12]

Modern economic realities in Russia can be treated as a crisis. But any crisis could provide a starting point for the development of the country: update, restructure the economic system, give the vector of development to perspective spheres, especially the real sector of the economy, agriculture, food production, pharmaceutical industry, production of high-tech and other goods, which determine the quality of life and the state's national security. On the other hand, the crisis could turn into a protracted economic recession with an increase of the budget deficit and public debt, a sharp decline of business activity, GDP reduction, etc.

### **Conclusions**

The Russian Federation still has the potential to be among the world's leading economies. The sanctions are certainly capable of hampering the economic development of the country and are able to slow the growth of the most important indicators, however, the main source of all problems are still the domestic economic challenges of Russia [1];[13]. Government programs presented today are not able to solve the problem of structural and systemic reforms in the economy. Therefore, all the negative trends will continue to affect social and economic life in addition to the Russian economy as a whole.

State anti-crisis strategy is needed to be developed, which would be effective and transparent, it is necessary to begin the implementation of effective anti-crisis measures, identify the reserves and to direct them to intensify investment and business activity in the economy. In order to cover the national demand, the agenda should reinforce the agricultural sector and support the development of a high-tech, innovative industry including research programs in priority areas.

There is a need to improve the investment climate in the country, including credit conditions for related projects, SMEs, start-ups and main Russian brands that are serving the domestic economy. Important to reduce inflation to the planned level and also the interest rates set by the Central Bank to its pre-crisis parameters.

These measures will allow the Russian economy to reduce its dependence on oil and gas revenues, and the import of high-tech and innovative products in the future. It will create conditions for GDP growth and lead to the country's exit from the economic crisis.

Previous research shows that Russia has the innovation potential to support itself, especially through the new state supported projects like the Skolkovo Innovation Center is [14]. These techno parks and special zones have considerable economic impact on the regions by supporting start-up business, R&D projects, innovative technical solutions and not least attracting foreign investments. There is the need to create millions of highly productive jobs through effective modernisation of production facilities, as well as the support of SME sector, what is the backbone of the national economy [15]. Development of small and medium-sized enterprises and the possibility of private entrepreneurial initiatives are essential for the successful development of the country [16]; [17].



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# Which Aspects are able to Influence the Decision in Case of the Bids for the Olympic Games 2024?

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*Abstract: The aim of the paper is to identify the aspects of decision which countries will be the host city of the Olympic Games 2024. There are many different statistical methods used, just as expert interviews to recognise the most important factors which can influence the host city election. Furthermore, the article helps to the prognoses what will be the odds of Budapest, Los Angeles or Paris being the host city of the above mentioned game. These paper mainly focuses on the factors without providing the final assessment but in the future the authors try to offer the final result regarding the opinion of a famous Hungarian professional.*

*Keywords: Olympic Summer Games 2024, decision-theory, content analysis, weights*

## 1 Introduction

According to Persson (2002) “Olympic Games is big business.” (Persson, 2002, p 27) The brochure of OECD LEED (2010) Programme detailed the local benefits of hosting global events, which are divided into primary and secondary benefits. As we can realise later the secondary benefits are related to the sustainability view of IOC. These are the following: (1) Post event usages of improved land and buildings (2) Connectivity and infrastructure legacies (3) Labour market impacts and social/economic inclusion (4) Secondary impacts in the property market (5) Global positioning, events strategy going forwards, and project management capability. (OECD LEED 2010, p 12)

Although the authors mostly focused on London but their findings are general. General and true for Hungary as well. Budapest (Hungarian capital city) is one of the candidates, it is not the first time. Because it is big business also for Budapest, regarding its vision: “The Olympic Games are an enduring force that unites and uplifts us.” (<https://budapest2024.org/en/>) (available 15/12/2016) However the

final decision comes later we try to sum up the way of judgement taking into consideration criteria of IOC and opinions of experts.

## 2 Process of host city evaluation

Firstly, we highlight the official part of this evaluation, how is the host city election process looks like? It is regularized by the 33<sup>rd</sup> Rule of the Olympics Charta. The process was renewed currently, that is why it is included in the paper. The application is divided into three phases. In the informal phase the IOC is inviting applications, where candidate cities need to declare their interest on hosting the Olympic Games. This step needs to be with ten years earlier before the named Olympic Games. So in this example the invitation period started already in 2014 for the 2024 hosting cities. In this phase there is a possibility to attend on an individual workshop held by the IOC for the representatives of the interested cities.

After this informal invitation stage the cities become official candidates through agreeing with the IOC and with that move the official candidature procedure begins. In our case this stage ended in June 2016 and it was time when the candidate cities needed to hand in a candidature file including the vision, strategy and goals of the application. Since the Olympic Agenda 2020 highlights the value of sustainability, the cities also needed to include in this first documentation, how the hosting of the Olympic Games would be fitted into the long-term city vision. The first part of the application fee needed to be payed during this period. Before first time presenting the candidate cities, videoconferences and workshops were hold organised by the IOC in order to answer the questions of the candidate cities' representatives. In this stage there were five candidates (listed in alphabetical order): Budapest (Hungary), Hamburg (Germany), Los Angeles (United States), Paris (France) and Rome (Italy). After the results of the referendum in Hamburg showed that the people are against hosting the Olympic Games, Hamburg withdrawn its application<sup>1</sup>. In September 2016 Rome also decided to withdraw its application after the mayor of Rome and the city council did not support the thought of hosting the games.

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<sup>1</sup> Although the analysis modell suggested by Maennig and Vierhaus (2014) resulted the best estimated probality as winner for Hamburg.

In the first stage of the application procedure logos were presented of each candidate cities including the name of the candidate city and the year 2024. The logos can be found in Figure 1.:



Figure 1  
Logos of the candidature cities 2024  
Source: IOC

The second stage ended in December 2016 and it focused on the governance, legal and venue funding. The cities needed to detail in their plans: the Olympic villages, sport venues and media centres etc. These plans needed to be pictured on map. The second stage was the deadline for the budget. IOC gives a brief overview about each application by setting up a questionnaire to each cities. The candidates have to reply to the questions of the IOC. At the same time new workshops are offered.

In the third stage topics such as games delivery, experience and venue legacy are explained. This stage will finish in September 2017 before the final decision is made on the 15<sup>th</sup> September 2017 on IOC Congress held in Lima. In this stage the values of the Olympic Agenda 2020 are taken into consideration, especially the sustainability, since the candidate cities needs to give exact details for the members of the IOC. Their plans have to clarify using the Olympic venues after the games. So after the final decision and therewith the winner of this application procedure is chosen, the winner city has 3 years to build and update the venues and to develop the infrastructural background. This means that being able to host an Olympic Games is a result of a 10 years long process which requires precise planning in order to successfully organise the games.

The Figure 2. shows the above explained process of hosting the Olympic games:

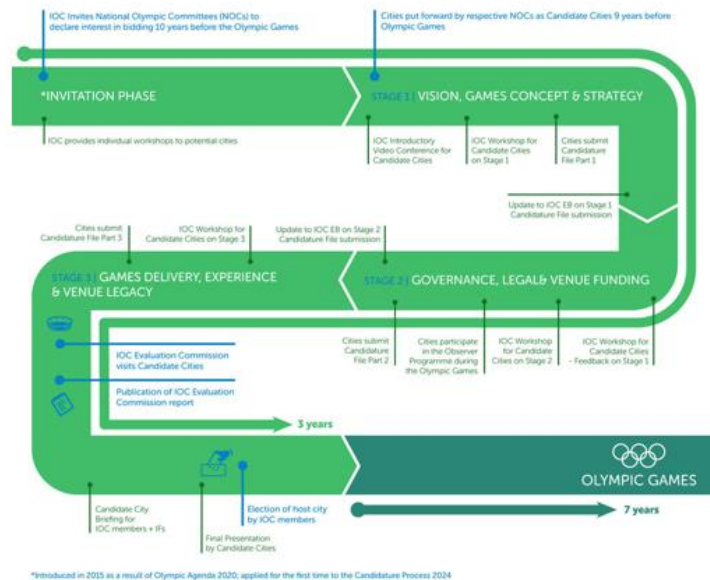


Figure 2  
The process of choosing the host city  
Source: IOC

The detailed process and host city elections can be found: <https://www.olympic.org/documents/host-city-elections> (available 15/12/2016). In this paper<sup>2</sup> we will not judge the odds of candidates instead of that we asked and observed the opinion of real experts of this topic.

### 3 Empirical research

#### 3.1 Content analysis of the IOC president

In order to identify the decision-making criteria, we tried to examine the aspects of the IOC by analysing an interview of IOC president, Thomas Bach. We used the software Textanalyser to gather data from the speech of the president. The IOC president stated that final decision will not be based on the infrastructure it will be based on which candidate would really like to host the Olympic games. (Bach, 2015)

<sup>2</sup> But in the following part we assume the Hungarian odds.

The analysed interview was published by the IOC in 2016 and the title of the article is Olympic Games Candidatures Beyond 2024. General data about the article can be seen in Table 1.

Total word count :	101
Number of different words :	84
Complexity factor (Lexical Density) :	83.2%
Readability (Gunning-Fog Index) : <i>(6=easy 20=hard)</i>	15.1
Total number of characters :	1047
Number of characters without spaces :	686
Average Syllables per Word :	1.9
Sentence count :	6
Average sentence length (words) :	28
Max sentence length (words) :	44
<i>( what makes the relationship between olympic sport and sustainability so special is that sustainability is not simply a 'nice to have' it is an indispensable part of the olympic philosophy since the effective transmission of our values depends on a broad concept of sustainability)</i>	
Min sentence length (words) :	10
<i>( "society today demands more from sports organizations and sports events)</i>	
Readability (Alternative) beta : <i>(100=easy 20=hard, optimal 60-70)</i>	17.5

Table 1.  
General data of the text analysing  
Own sources

In this table it is highlighted that from his 101 words long speech 84 words are different, so he uses a really complex language in this interview. It also means that his interview is hardly readable, it might need to be read more than once to understand it correctly. There is no surprise in his used words, mostly he speaks about the sustainability of venues after the games, he also mentioned the word of legacy a lot, to make it more clear, that it is a very important criterion, how can cities fit the Olympic venues into their cities image and how can these venues be used effectively. This list of the IOC presidents top used words is not surprising, since it confirms, that using renewable energy and venues which can be restructured is not only a vision in the Olympic Agenda 2020, because the IOC wants to see how can be this principle implemented into the practice.



**Frequency and top words :**

Word	Occurrences	Frequency	Rank
sustainability	5	5%	1
olympic	5	5%	1
games	4	4%	2
city	2	2%	3
legacy	2	2%	3
cities	2	2%	3
sports	2	2%	3
our	2	2%	3
host	2	2%	3
investments	1	1%	4

Table 2.  
Top words of Thomas Bach, IOC President  
Own sources

### **3.2 Important factors according to the state of art**

Maennig and Vierhaus (2014) suggested a deeply detailed model calculating the chances of Chances of winning the Olympic host city election 2024. These can be found in Table 3.

Potential bids for the 2024 Olympics		Germany	France	United States	Italy	Hungary
Determinants	Coefficient	Hamburg	Paris	Los Angeles	Rome	Budapest
Urban population in country [m]	0.0186	61.0	52.5	259.8	41.0	7.0
<i>Population in metropolitan area of the city [m]</i>	<i>1.8</i>	<i>11.5</i>	<i>12.2</i>	<i>4.2</i>	<i>2.6</i>	
(Population in metropolitan area of the city [m]) <sup>2</sup>	-0.1531	30.9	0.8	0.7	5.6	15.4
5-Year real GDP growth [%]	0.7368	1.5	0.8	2.2	-1.0	1.2
5-Year development of FH political rights [points]*	-2.0537	0	0	0	0	0
World championships in country in last 10 years	0.5472	14	15	8	14	7
<i>Years since the country last hosted the Olympics</i>	<i>52</i>	<i>32</i>	<i>22</i>	<i>18</i>	<i>0</i>	
(Years since the country last hosted the Olympics) <sup>2</sup>	0.1896	29.2	11.6	5.8	4.0	0.0
Years since last hosted the FIFA World Cup	-0.1577	18	26	30	34	0
<i>Stadia in country with capacity &gt; 40,000</i>	<i>18</i>	<i>5</i>	<i>139</i>	<i>7</i>	<i>1</i>	
(Stadia in country with capacity > 40,000) <sup>2</sup>	-0.0018	28	278	1	156	2500
Involved in dispute with IOC? [D/1]	-7.6261	0	0	0	0	0
Support of the city's population ≥ 67%? [D/1]	3.4115	1	1	1	1	1
Determinants	Estimated values (coefficient * value of bid city)					
Urban population in country [m]	1.1	1.0	4.8	0.8	0.1	
(Population in metropolitan area of the city [m]) <sup>2</sup>	-4.7	-0.1	-0.1	-0.9	-2.4	
5-Year real GDP growth [%]	1.1	0.6	1.6	-0.7	0.9	
5-Year development of FH political rights [points]*	0.0	0.0	0.0	0.0	0.0	
World championships in country in last 10 years	7.7	8.2	4.4	7.7	3.8	
(Years since the country last hosted the Olympics) <sup>2</sup>	5.5	2.2	1.1	0.8	0.0	
Years since last hosted the FIFA World Cup	-2.8	-4.1	-4.7	-5.4	0.0	
(Stadia in country with capacity > 40,000) <sup>2</sup>	0.0	-0.5	0.0	-0.3	-4.4	
Involved in dispute with IOC? [D/1]	0.0	0.0	0.0	0.0	0.0	
Support of the city's population ≥ 67%? [D/1]	3.4	3.4	3.4	3.4	3.4	
Estimated linear value	11.22	10.68	10.51	5.36	1.52	
EXP (estimated linear value)	74429.77	43656.08	36848.84	212.44	4.59	
<b>Estimated probability</b>	<b>47.97%</b>	<b>28.14%</b>	<b>23.75%</b>	<b>0.14%</b>	<b>0.00%</b>	

Notes: *Italicized variables in grey rows are not included in the analysis with their original values. They only enter the analysis in transformed form, which is presented in the respective rows below the grey rows. Population in city [m] is transformed (x/10)<sup>2</sup>; Years since the country last hosted the Olympics is transformed ((x+2)/10)<sup>2</sup>; Stadia in country with capacity > 40,000 is transformed ((x+1)/100)<sup>2</sup>; the Freedom House scale ranges from 1 (most free) to 7 (least free).*

Table 3.  
Chances of Winning the Olympic host city election 2024  
according to Maennig and Vierhaus (2014, p. 17)

Although they ranked Budapest to the last place and we underlined earlier that we do not deal with the odds of any candidate cities we used their model and factors to our interview guide.

### 3.3 Deep interviews with Hungarian experts

After this analyse we made structured deep-interviews with two experts about the criterion of the IOC when choosing the host city. Therefore, we asked them firstly to tell us some aspects which they think is important when organising an Olympic game. In this question they needed to associate every aspect they could. After that we asked them to identify the factors which are “crucial” for the athletes and the journalist during an Olympic game based on their previous experience. Then we wanted to know what are the factors, which are important for the IOC in their opinions when they are choosing the host city. They needed to rank these factors. The last big question was to scale the criteria named in the first table regarding

their importance for the IOC. The value 1 meant not important at all, the 5 was the mediate importance and the 10 stand for the most important factor.

Aspects
Ability to organize (based on previous experience)
Political support
Communication and presentation
Accountability
Composition of project team
Relationship marketing
Average distance between the Olympic village and the venues
Average temperature in Celsius
Capacity of hotels
GDP per capita
Population of the city
Support of the citizen
Public transport
Air pollution
Existing and needs-to-be-built venues
Public safety

Table 4

Aspects of the interview based on the article published by Maennig and Vierhaus (2014)

In this paper we focus only on this part of the interview. We made a Spearman rank-correlation analyse to find out how similar are the ranking of the two experts. We found out that the value of the Spearman rank correlation is 0,962, which means that the opinion of the two experts is almost 100 % correlated and significant ( $p=0,95$ ). Some words about the methodology, how we counted that value is detailed in the appendix.

### 3.3 Criterias of decision making

Because the opinions of two experts are connected together we could use this result for paired comparison analysis. This analysis based on rank ordering process and end in paired comparisons. Experts were asked to place two or more objects into rank order according to some attributes than analysis of all the judgments creates a scale with each object represented by a number – its measurement. Distances between the expert preferences provide the weight for the later judgement. In our case the weights are detailed in Table 5.

Aspect	Expert 1	Expert 2
Ability to organize (based on previous experience)	8,98%	8,59%
Political support	2,73%	8,59%
Communication and presentation	4,30%	8,59%
Accountability	11,72%	8,59%
Composition of project team	1,56%	4,30%
Relationship marketing	4,30%	12,11%
Average distance between the Olympic village and the venues	8,98%	4,30%
Average temperature in Celsius	4,30%	1,95%
Capacity of hotels	6,25%	4,30%
GDP per capita	8,98%	0,78%
Population of the city	1,56%	4,30%
Support of the citizen	0,39%	0,78%
Public transport	8,98%	8,59%
Air pollution	6,25%	4,30%
Existing and needs-to-be-built venues	8,98%	11,33%
Public safety	11,72%	8,59%

Table 5  
Weights of all aspects regarding ranking order of two interviewees

All of our results provide a perfect basement to judge odds of every candidate cities. For these later we collected and handled objective macro indexes (like GDP) and asked one of the Hungarian relevant responsible decision maker from field of Hungarian Olympic Games 2024 but all of these results will be presented in Bozány's dissertation (2016) and hopeful later in a new article.

### Conclusions

In this paper we tried to organise all important factors of an important 'big business' decision. This time the big business is nothing else than Summer Olympics Games in 2024. Winning this business there are three candidate cities at

the moment, one of them is our capital city, Budapest. Although the real and final procedure is top secret we have taken a chance to observe the most important factors of this decision. First of all, the IOC model was taken as a basis. For this we were taking into consideration viewpoint of the International Olympic Committee (IOC) after that we tried to highlight the most important aspects with the help of tools of the text analysis based on the interviews from IOC members. After analysing the interviews and identifying the keywords from the interviews these aspects were be built into the decision-making criteria. All of these aspects were complemented with findings from field of literature. Finally, two experts helped us to give an order and rank all of these aspects. This process will help to judge all of the host city elections and of course the chance of the Hungarian applications. Finally, the strengths and the weaknesses of the Hungarian application could be listed.

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- [3] Persson, C. (2002): The Olympic Games site decision. *Tourism Management* 23 page 27–36

## Appendix

First of all we organised the answer of each experts into decreased ranking order. Than we gave each aspect a number from 1-10. For example when the expert said public safety is the most important aspect, we converted that value into a 1. When the expert said that average distance among the venues is not important at all we converted it into a 10. Then we counted the difference between the opinion of the two experts by each aspect, and finally we quadrated this difference. After that we counted the numerator which is the sum of the quadrat of the difference multiplied with 6. It is 384. Then we counted the denominator by raising the aspect number (16) to the third and removed 1 from it. It is 4095. Then we divided 384 with 4095 and the result of this was removed from 1. This results the before mentioned 0,962 value.

Aspect	Expert 1	Expert 2	Difference	Quadrat of difference
Ability to organize (based on previous experience)	6	4	2	4
Political support	2	3	-1	1
Communication and presentation	4	5	-1	1
Accountability	2	4	-2	4
Composition of project team	2	6	-4	16
Relationship marketing	6	4	2	4
Average distance between the Olympic village and the venues	9	6	3	9
Average temperature in Celsius	3	4	-1	1
Capacity of hotels	2	3	-1	1
GDP per capita	1	3	-2	4
Population of the city	3	4	-1	1
Support of the citizen	4	1	3	9
Public transport	4	3	1	1
Air pollution	1	3	-2	4
Existing and needs-to-be-built venues	2	2	0	0
Public safety	5	3	2	4
<b>Sum:</b>				<b>64</b>





## Efficiency of Active Labour Market Policies in Poland

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*Abstract: Unemployment is the most common symptom of disequilibrium on labour market and brings various issues of economic, social and political nature. Because of this, actions are taken in order to limit this phenomenon. The most popular tool of intervention into labour market are active labour market policies. Their importance and spending are systematically increasing. Evaluation reports of these actions indicate high employment efficiency, however there is very little data on significance of ALMP for labour market on macroeconomic scale. Hence the aim of this paper is to collect such data and analyse the real influence of active labour market policies on the situation on this market.*

*Keywords: unemployment, active labour market policies, efficiency*

### Introduction

Labour market is one of the market of production factors, similarly to real estate or financial markets. Although many similarities may be indicated between them, specificity of workforce clearly distinguishes labour market and affects its operation. One of characteristic features that impede consideration of labour just like other factors of production are the consequences of disequilibrium. This disequilibrium, similarly to other markets, stems from lack of adjustment between supply and demand for work. Unlike other markets, this equilibrium brings not only economic effects, but also social and political<sup>1</sup>. Because of that, many countries undertake actions and spend public funds in order to prevent and mitigate this disequilibrium and its most common symptom – unemployment. As an effect, importance of evaluation of this spending is increasing, both in terms of singular efficiency and real influence on situation on labour market. This analysis of real influence of active labour market policies is the aim of this paper.

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1 E. Kwiatkowski, Bezrobocie, podstawy teoretyczne, Wydawnictwo Naukowe PWN, Warszawa 2001



Labour market itself as well as phenomena occurring on it are characterized by huge diversity. This is a result of many factors, such as highly varying structure of both labour supply and demand. Each subject offering their work – employee – is characterized by individual set of features, skills and competences as well as expectations pertaining salary and work conditions. Employers, who create demand for work also have specific preferences on people they hire, including not only aforementioned competences, but also level of commitment. The specificity of service of labour, significantly different from goods offered on other markets, is also of some importance. In face of this diversity, any intervention on labour market in order to confine unemployment and mitigate its effects is an incredibly complex and difficult undertaking.

## **Public intervention on labour market**

In literature, three basic fields of public action for labour market are indicated, that are of importance for size of unemployment. These are: macroeconomic policy, labour market regulation and labour market policies. The use of macroeconomic policy for reducing the unemployment is still a subject of controversy among the economists. The issue is not only purposefulness and efficiency of such actions, but also possibility of occurrence and size of side effects of such intervention. In context of affecting the labour market, the macroeconomic policy is divided onto two key elements: fiscal policy and monetary policy. Although both these elements utilize different tools, in terms of unemployment reduction their objective is increase of global demand in domestic economy through increasing amount of money in circulation. These instruments are, however, highly imperfect. The assessment of their real influence on labour market is incredibly difficult task. Moreover, their application is strictly connected with occurrence of external effects which may negate the results of undertaken actions or trigger negative phenomena in other parts of economy.

Another field in which the authorities may intervene in labour market is its regulation, i.e. legal boundaries of its operation and contracts concluded there. Strictly connected to the regulation is labour market elasticity, which is also an important factor determining the unemployment. Increase in elasticity is achieved through process of deregulation, i.e. decrease of legal interference in operation of labour market. Authors point out that higher levels of elasticity may decrease unemployment rate and allow for more efficient allocation of workforce. On the other hand, increase of elasticity is indicated to trigger negative effects, such as

decrease in employment protection or strengthening of the employer, whose position is relatively superior anyway in conditions of unemployment<sup>2</sup>.

Third element of public intervention in labour market are labour market policies. This general term represents a set of actions undertaken by the government strictly aimed at direct intervention in labour market. Passive and active labour market policies are distinguishable. The passive side is aimed mostly at mitigating the effects of unemployment by supporting people who lost their jobs, mostly through system of benefits. However, active labour market policies (ALMP) is mostly used to help people looking for work as well as to adjust the supply of workforce to existing demand<sup>3</sup>. Currently ALMP is the most common tool for unemployment reduction, financed not only from national government budget, by also by local authorities and from European Union funds. However, the author could not find any papers that would indicate the real significance of active labour market policies on macroeconomic scale. Analysis of real influence of actions undertaken within ALMP on situation on labour market is the objective of this paper.

## Active labour market policies and its tools

Active labour market policies are aimed mostly at preventing and reducing unemployment. At first it was to be directed to people in particularly difficult situation, however, in face of low effectiveness of macroeconomic policy, ALMP became the basic tool for unemployment reduction. Instruments within active labour market policies are usually divided onto supply-oriented and demand-oriented.

Currently in Poland, supply-oriented instruments include vocational courses or training and apprenticeships. Supply orientation of this tools means that they are designed to affect the quality and structure of available workforce. Their role is particularly important in process of creating knowledge-based economy and in reducing of structural maladjustments on labour market.

This second objective is achieved mostly through vocational courses and training. They allow the unemployed to obtain or improve their competences and qualifications, which, in turn, should hasten the process of finding gainful employment. According to bill in Polish law that defines active labour market policies (Employment promotion and labour market institutions act<sup>4</sup>), activities

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2 Z. Wiśniewski, Kierunki i skutki deregulacji rynku pracy w krajach Unii Europejskiej, Wydawnictwo Uniwersytetu Mikołaja Kopernika, Toruń 1999

3 L. Calmfors, Active Labour Market Policy and Unemployment – a Framework for the Analysis of Crucial Design Features, OECD Economic Studies 1994, no. 22

4 Ustawa z dn. 20 kwietnia 2004 o promocji zatrudnienia i instytucjach rynku pracy. Dz.U. 2015 poz. 149

towards improvement of competences are not limited only to strict vocational courses. Other possible forms of support are financial benefits or loans for postgraduate studies or exams required to obtain certain professional authorization. Scholarship are also granted for finishing paid studies. The amount of benefits that one person may obtain are directly derived from other values in economy, particularly minimal wage. Some authors indicate that vocational courses have become the most important tool of ALMP. This is a result of great dynamics on labour market and risk of existing qualifications becoming outdated. Development of knowledge-based economy as well as rising expectations of employers in terms of preparation for employment are predicted to intensify this phenomenon<sup>5</sup>.

Another tool of supply-oriented active labour market policies are apprenticeships. These were introduced as form of support of young people who are only just entering the labour market. As they do not possess any professional experience, their chance of finding work is significantly lower. The possibility of apprenticeship without the necessity of all the legal obligations connected to formal employment contract create a chance for obtaining such experience which should help these people find gainful employment later. Primarily apprenticeships were dedicated to people under the age of 25, however changes to the law allowed this instrument to be offered to all the people in particularly difficult situation. As can be noted, both vocational courses and apprenticeships serve not only to improve qualifications of the unemployed, but also fulfil other roles, such as activation of the unemployed or verification of their readiness to start work. This last function is of particular significance, since readiness for work is the factor distinguishing people who are unemployed from those occupationally passive (not willing to find work) who are usually not counted among the existing workforce.

In contrary to the aforementioned supply-oriented ALMP, the second group does not affect the structure of labour supply. According to its name, demand-oriented instruments are mostly used to increase the demand for work by helping create new workplaces. Because of that, this group of tools is sometimes called by general term of subsidized employment. According to Polish law, this group consists of such elements as subsidies for starting new enterprise or creating new workplace, public works and interventional employment.

The most promoted form of subsidized employment are subsidies for creating new enterprise of new workplace. Their premise is to support small and medium businesses, promoting self-employment and helping to increase number of employees. According to the aforementioned bill, every person registered as an unemployed may apply for subsidy for new enterprise, however, local authorities may introduce additional requirements. Also the volume of such subsidy is left to

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5 E. Dolny, M. Maksim, Podażowo zorientowane instrumenty polityki rynku pracy, [w:] Z. Wiśniewski, K. Zawadzki (red.), Aktywna polityka rynku pracy w Polsce w kontekście europejskim, Toruń 2010, s. 59

discretion of local authorities – the bill only states the maximum value. Similar limitations also apply to subsidies for new workplace. Noteworthy, these funds may only be used for preparing and equipping a new workstation. Additionally, workplace created using one of this subsidies must exist for at least 12 months, otherwise the whole subsidy must be returned with legal interest.

The other demand-oriented instruments, public works and interventional employment, are much less common but are still used. This form of job creation is probably the oldest measure against unemployment, first used in 1930s to help mitigate effects of Great Depression. These two terms represent practically the same tool, basically consisting of (partially of wholly) government-funded employment; they are however distinguished in Polish law. The main difference is the entity where the person benefitting from this form of support is employed. Public works indicate that the employer must be from public sector, usually a department of local authorities. In interventional employment, every entity, including private-owned company may apply for subsidy for employing a new person. In such case, public labour office covers half or whole of the salary of newly employed. Should such subsidy be obtained by private-owned company, the workplace must be upheld for another three to six months after the end of support program. In both cases, the subsidy is granted for period of 6 to 12 months, depending on what part of salary is paid from ALMP budget.

These forms of subsidized employment are usually directed to people in particularly difficult situation, especially those who remain without employment for a very long time. Their objective is to support such people in their return to the labour market and prevent them from giving up attempts to find work, mostly through means of occupational activation and allowing them to gain professional experience.

## **Efficiency issues of active labour market policies**

Labour market policies create substantial costs. The complexity and multitude of tasks realized within ALMP significantly impede coherent evaluation and assessment of efficiency of undertaken actions. Although analyses summarizing each project connected to intervention on labour market are mandatory, these usually are limited to singular assessment. Most frequently used indicators are employment index, which shows how many of the people who participated in given project found work after the program ended, or singular participation/employment cost, which is the cost of the whole project divided respectively by the number of people who participated in it or found employment later. The former indicator, frequently called re-employment index, is usually measured three months after the end of given project, which should allow for some conclusions on persistence of results of intervention. In practice however,

some of the instruments have legally indicated periods during which a person who obtained the subsidy must be working. Considering these periods are ranging from 3 to 12 months, the three-month analysis horizon does not bring any valuable data. There is also no research covering longer periods of time, so determining real persistence of results of active labour market policies is practically impossible.

Assessment or real influence of active labour market policies on unemployment rate is furtherly impeded by occurrence of external effects. These are phenomena taking place whenever public funds are used to intervene in the market, partially derivative from undertaken actions. Although their influence might be positive, it usually is negative. Character of this influence is varying – external effects may directly affect the objective of proceedings, indirectly affect other values in economy or simply obfuscate data required for complex assessment of effectiveness of given policy. In literature, multitude of external effects are described, however, for the purpose of this paper, only several should be mentioned which are particularly obstructive to assessment of significance of labour market policies<sup>6</sup>.

First of such effects is the effect of substitution, occurring in various fields of economy. Increasing intervention involving public funds may discourage private investors from engaging their own resources. As a result, public spending does not support and subsidize company investments but replace them. In case of labour market this effect may take particularly unfavourable form, when employers terminating existing workplaces in order to replace them with subsidized ones. As a result, number of employed people does not increase, the only change being a shift in entity providing salaries. Hence, the results of ALMP introduction are significantly limited or totally negated. This effect concerns only demand-oriented instruments<sup>7</sup>.

Another important external effect, in turn concerning all tools available to ALMP is deadweight. Its consequence is also lack of real changes in employment rate due to program introduction. This may be caused by the fact that people who participated in given program would have found employment regardless of their participation. The deadweight effect is practically impossible to eliminate. It is usually a result of improper targeting of the project. However, introducing countermeasures, which would probably consist of stricter rules concerning who may participate and tighter screening process may discourage people who could benefit from support from even attempting to obtain subsidy. As was mentioned, this issue concerns practically all instruments within active labour market policies, however subsidies for new enterprises and new workplaces seem to be affected more than other instruments.

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6 Z. Wiśniewski, K. Zawadzki (red.), *Aktywna polityka rynku pracy w Polsce w kontekście europejskim*, Toruń 2010

7 *Ibidem*

Improper addressing of public subsidies may not only affect the results of the program itself but also obscure or falsify data pertaining its efficiency. Dedicating the support to people who seem to have better chance of finding employment, such as young, educated and highly motivated may significantly inflate data on results of any given project. This is partly because of aforementioned deadweight effect. On the other hand, addressing programs mostly to people in particularly difficult situation, standing on the verge of occupational passiveness may lower the final results, as many of these people will have problems finding employment despite participation<sup>8</sup>.

These external effects, lowering the efficiency of active labour market policies, are practically impossible to eliminate. Even mitigating their influence by administrative means is extremely hard. Moreover, the analysis of their influence requires significant spending and is difficult to conduct as no control group is available. As a result, all the data pertaining effects and efficiency of active labour market policies are encumbered by the existence of these effects in an unknown degree.

## Results and discussion

As was mentioned before, research undertaken in order to evaluate the efficiency of ALMP are mostly focused on employment efficiency. This is measured by dividing number of people who found employment after participation in ALMP program by the number of all participants. This index is used in reports summarizing all the undertaken programs as well as aggregate analysis combining data from multiple projects and responsible units. The most comprehensive of these reports is the one undertaken annually by Ministry of Family, Labour and Social Policy which is responsible for planning and implementing of all the labour market policies. This analysis collects data pertaining implementation of ALMP from all of the regional employment offices and presents aggregate indexes for whole country and voivodeships (highest unit of administrative division in Poland) for all of the instruments of active labour market policies. It is considered the most comprehensive and veritable source of data on results and cost of ALMP.

Report on year 2014 indicates aggregate employment efficiency on level of 76,2%, i.e. over three quarters of people who participated in ALMP projects found work after these projects<sup>9</sup>. However, the efficiency strongly varies between the

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8 M. Maksim, D. Śliwicki, Wybrane problemy adresowania aktywnych polityk rynku pracy w Polsce, „Acta Universitatis Nicolai Copernici Oeconomia” 2012, vol. 43, nr2

9 Efektywność działań aktywizujących realizowanych przez powiatowe urzędy pracy w ramach programów na rzecz promocji zatrudnienia, łagodzenia skutków bezrobocia i aktywizacji zawodowej w 2014 roku, Ministerstwo Pracy i Pomocy Społecznej, Warszawa 2015

instruments. The highest index, 100% employment efficiency, is presented by subsidies for new enterprises and workplaces. This, however, is a result of legal construction of these tools – job created through this instruments are required to be maintained for at least 12 months after the end of the project, otherwise the project is regarded as not completed and excluded from the data pool. Therefore, 100% efficiency presented in analysis realized three months after the end of the project is actually a formal part of the instrument basics. Moreover, these instruments are characterized by the highest singular cost of participation of ca. 20 000 PLN (approximately 4 600 €<sup>10</sup>). On the other hand, the lowest employment efficiency of 55,6% – and the lowest singular cost of approximately 1000 € - characterize vocational courses.

As was mentioned before, these reports are the most comprehensive analysis of results of active labour market policies, however, they still focus solely on efficiency of implementation and costs thereof, and do not include any data on needs of labour market. However, only such analysis may allow for presenting real influence of ALMP on situation on this market. Only juxtaposition of data on labour market and unemployment together with data on ALMP may approximate such influence.

Year	Number of people participating in ALMP programs <sup>11</sup>	Number of people who found employment after participating <sup>11</sup>	Average number of unemployed registered in employment offices <sup>12</sup>	Number of people deregistered from employment offices due to finding employment <sup>12</sup>
2013	460 773	290 310	2 174 715	1 262 900
2014	442 187	314 542	1 825 180	1 285 700

Table 1.

Selected data on registered unemployment and participation in ALMP programs

Data presented in Tab. 1. indicate, that ca. one out of four people who found employment did so after participating in ALMP program. Noteworthy, one person can participate in more than one support program, decreasing, however slightly, number of individuals who participated. Moreover, there is huge rotation among registered unemployed – only in 2014 over 2,4 million people were registered as unemployed and total outflow from unemployment was almost 2,8 million. Over

<sup>10</sup> exchange rate of Polish central bank on September 19, 2016

<sup>11</sup> Efektywność działań..., op. cit.

<sup>12</sup> Registered Unemployment, I-IV quarter 2014, Central Statistical Office of Poland, Warsaw 2015

80% of people registered as unemployed were those, who had been in the register earlier. This indicates recurrence of unemployment and difficulty of finding work for person who was unemployed.

Moreover, decrease in number of unemployed is only slightly bigger than number of people who found work after participating in ALMP programs and, to some degree, is a result of improving prosperity and general economic situation observed in 2014. Considering the general number of all people who found work in this period, this may indicate short-livedness of results of implemented programs. The longest period of lasting results characterizes the most expensive instruments of active labour market policies. However, their singular cost of approximately 4 600 € practically prevents them from being used on larger scale, particularly since their expansion will most likely increase the occurrence of external effects. Basing on collected data, a conclusion may be drawn that real influence of active labour market policies on situation on this market is rather meagre despite significant and consistently rising spending. Moreover, the presented data is encumbered by the existence of external effects which furtherly mitigate their macroeconomic efficiency.

## Summary

This paper is an attempt at initial analysis of efficiency of active labour market policies in reducing labour market disequilibrium and preventing unemployment. Presented deliberation indicates that applied instruments do show high efficiency on microeconomic scale, particularly in case of activation of the unemployed. However, expanding the analysis to include data describing situation on labour market leads to the conclusion that real significance of active labour market policies seems to be limited.

Support and benefits granted within ALMP includes only a fraction of unemployed population. This is mostly a result of high singular costs of participation, additionally rising alongside the efficiency. Increase in number of people benefitting from this kind of support must lead to rapid increase in public funding required. Significance of undertaken actions is furthermore reduced by relative short-livedness of obtained results as well as occurrence of external effects. Additionally, the magnitude of these effects will be rising with increase of public funding, thus further limiting effectiveness of undertaken actions. Limited influence of ALMP is a result of inherent characteristics of particular tools, occurrence of negative external effects and relatively high cost required for realization as well as lack of instruments for long-term assessment. In practice, significant increase in rationality of labour market policies using its tools in their current form seems impossible.



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# Attendance and the Sports Merchandise Preferences of Fans – the case of Hungary

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*Abstract: This study examines product preferences in one of the most profitable areas of the market for sports: sports merchandising. Sports merchandising refers to the adaptation of corporate design elements such logos and other emblems of sports club on products for the purpose of communicating positive attitudes and feelings towards fans. The aim of this paper is to identify the features that support on-site consumer willingness to purchase sports team-licensed merchandise, and furthermore to explore consumption preferences in the Hungarian market from a sports marketing perspective. Results of the online research indicate that on-site purchases depend on ticket prices for events, and that it is mainly football fans who buy sports-related products, preferring jerseys. The first part of the research described in this paper deals with the sports market and its relation to merchandise; the second section delineates the research findings and their limits. As a managerial conclusion, the price sensitivity of supporters can be highlighted as an important factor in attendance-related-decision-making processes. However, sports team-licensed merchandise can include any kinds of products and services, although the marketing of jerseys and scarves should be emphasised, especially for football supporters.*

*Keywords: Sports marketing, sport team-licensed merchandise, on-site fans*

## 1 Introduction

Sports merchandising is one of the most prosperous fields of sports marketing. In 2015 the income of the sports market reached 20.07 billion US dollars (Statista, 2016) in spite of the fact that revenue from the black market in this area is also significant. Merchandising not only serves the business goals of organizations but also has a positive impact on the relationship between the audience and sportspeople because it increases their personal involvement in sports.

The aim of this study is to examine the consumption of sports merchandise in relation to on-site support through investigating consumer behavior. In this context, the paper highlights the interaction between on-the-spot fan support and willingness to buy sports-team merchandise. In addition to this, the research described in this paper explores supporters' preferences for fan-related products.

## 2 Literature review

Sports marketing refers to the identification and satisfaction of sports consumers' needs and wants (Mullin, 2014). Sports marketing should focus on fans, who provide significant returns (Liu, 2011); accordingly, this research focuses on fan-related activities and preferences.

The magnitude of sports-related consumption depends on the event and on economic factors (Zhang et al. 2003). Due to this fact the main external hindering factor is ticket price, although weather and travelling distance to the event may also have an influence (Kim-Trail, 2010). The cost of supporting sports performers are important in the attendance-related decision making process (Karakaya et al. 2016).

**H1: The buying decisions and on-site attendance (vs. off-site/home viewing) of supporters are affected by the ticket price, weather conditions, the travelling distance to the event, the team's current success, the existence of star players, the atmosphere of the facility, staff readiness and match.**

Sports merchandising refers to the conveyance of a message from the sports brand (athletes, clubs) image to products. Novel marketing models which place services and customers in a central position (service-dominant logic) can explain customer attendance and consumer involvement (Kelemen-Erdős, 2014).

Supporters can express their identity and membership through merchandise (Crawford, 2004). In accordance with fact that supporters are willing to buy sports merchandise, especially on-site fans, the following hypotheses are defined.

**H2: Fans are willing to buy their favorite teams' sports merchandise with team emblems.**

**H3: Supporters who attend games are more willing to buy sports merchandise.**

From the rights holder's point of view, such merchandising fosters the acceptance of new products and shortens the period required for their introduction. For rights holders, especially club owners, license and franchise agreements increase global market penetration, especially in case of football. (Beech-Chadwick, 2007, Kassay-Géczi, 2016). To that fact the following hypothesis refers:

**H4: Football fans are more willing to purchase sports merchandise than other fans.**

This piece of research describes the results of an analysis of market opportunities for sports marketing and management with an emphasis on sports merchandising and consumer preferences.

### **3 Research method and sample**

Based on secondary research the empirical investigation explores the characteristics of the consumer behavior of fans concerning sports-related consumption on the Hungarian sports market.

Quantitative research was carried out within the framework of online questionnaires. The target population of the survey consisted of youth from age 18-29 who were deemed to be open to supporting sports and willing to purchase sports team-licensed merchandise. However, the relevance of the fact that respondents belong to the 'y' generation (i.e. were born between 1980-1999) is noted. This demographic group is characterised by lower levels of personal contact, so sporting events can act to bring them together is potentially elevated (Kolnhofer-Derecskei and Reicher, 2016).

During the course of data collection, non-probability quota sampling techniques were applied, taking into account the demographic distribution according to census data from 2015 (KSH, 2015). Based on the census gender distribution (women 52.4 per cent; men 47.6 per cent), the latter responses were filtered out, so the surveyed sample comprised 52.6 per cent (i.e. 90) women and 47.4 per cent (81) men: accordingly, the data refer to 171 respondents.

Because of the sampling method and limited sample size this research is not representative, but the findings may justify further investigation.

### **4 Results**

Preliminary analysis of the sample indicates the limitations of the research. The database does not permit complex statistical analyses, although attempts were made. Data were evaluated using the SPSS Statistics 19 software package.

In the context of H1, the key explanatory variables were examined, including the ticket price, the travelling distance, weather conditions, match experience, or rather the atmosphere of the facility, staff readiness, and the team's success and the presence of star players. Multicollinearity of variables was monitored by application of multivariate linear regression analysis during which the reference value of five ( $VIF > 5$ ) was exceeded by match experience and facility atmosphere, which were thus excluded. The remaining valid values are depicted in Table 1. Findings of

greater than two indicate strong multicollinearity (e.g. ticket price and travelling distance) and thus should be treated with caution. The explanatory value (adjusted R<sup>2</sup>) of the model is 0.693.

Model	Non-standardized coefficient		Standardized coefficient	T-test	$\alpha$	Collinearity	
	B	Standard error	Beta			Tolerance	VIF
Constant	1.789	.034		53.210	.000		
Ticket price	-.038	.017	-.162	-2.284	.024	.357	2.798
Travelling distance	-.078	.015	-.355	-5.148	.000	.381	2.627
Staff readiness	-.083	.016	-.301	-5.305	.000	.560	1.787
Team's current success	-.046	.017	-.167	-2.780	.006	.501	1.997

Dependent variable: Visiting sport events

Table 1.  
Multivariate linear regression model coefficients  
Source: Author's own construction

Significant T-test findings ( $p < 0.05$ ) indicate the suitability of the model factors. The model indicates that support on the sports field is affected by ticket price, although not significantly. The results of the survey also indicate that travelling distance is an important factor, so holding matches in more locations, thereby increasing travelling convenience, may impact sales.

H2 addresses whether fans are willing to buy their favorite teams' sports merchandise with team trademarks and/or logos. 60.2 per cent of respondents (103 people) have already bought one or more of their favorite team products (principally jerseys and scarves), so the second hypotheses is supported (Fekete, 2015).

H3 is related to consumer choice factors and the proposition that on-site fans are more likely to buy merchandise. Of considerable importance in this purchasing decision is the visibility of the purchased item to others: sports merchandise typically fosters personality identification or contributes to the individual's desire, through signaling, to belong to a group.

To examine the relationship between two variables, cross-tabulation analysis was performed (Table 2). Because of the low cell frequency (Malhotra–Simon, 2009) the analysis was not worth supplementing with further factors.

A Pearson's chi-square test indicates a significant relationship between the variables ( $\chi^2 (1) = 37.715$ ,  $p < 0.05$ ). Based on Cramer's association coefficient, the association is moderately strong ( $V = 0.470$ ). Accordingly, there exists a relationship between on-site support and the purchase of sports-related products, so the third hypothesis should not be rejected.

	Fans have merchandise		All
	Yes	No	
<b>On-site support</b>			
<b>Yes</b>	96	36	132
<b>No</b>	7	32	39
<b>All</b>	103	68	171

Table 2.

Relationship between on-site support and purchases of sports merchandise

Source: Author's own construction, N=171

H4, which refers to the correlation between football fans and the frequency of purchase of sports merchandise, was also examined using cross-tabulation. Table 3. displays the findings.

The results indicate that football fans are more likely to buy sports-team merchandise ( $\chi^2 (1) = 26.138, p < 0.05; V = 0.391$ ) than other sports fans, even if this relationship is relatively weak.

	Fans own merchandise		All
	Yes	No	
<b>Football fan</b>			
<b>Yes</b>	45	5	50
<b>No</b>	58	63	121
<b>All</b>	103	68	171

Table 3.

Correlation between football fans and owning merchandise

Source: Author's own construction, N=171

## 5 Conclusions

The market for sports merchandise is significant and demand is affected by consumption; especially important is the visibility of products to outside observers. Consumption characteristics are dependent on the supporting venue. In the case of on-site fans, consumption is influenced by the ticket price, the service experience of the fans, team success, and staff readiness. On-site football fans are more willing to buy sports merchandise than other fans, probably because their emotional involvement is higher. In spite of the diversity of sports-team licensed merchandise, customers are willing to buy sports jerseys, and sometimes scarves.

One managerial implication is that supporters are price sensitive about the decision to attend sports events so ticket prices should be defined with caution. Merchandise companies should emphasize the design and sale of jerseys and scarves to fans who attend matches, especially in the case of football supporters.

It would be worthwhile carrying out comprehensive research to analyze the additional determinants of willingness to purchase sports merchandise. In addition, further research that explores attitudes and consumer satisfaction variables would contribute to the establishment of a better-targeted market strategy.

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## **Challenges and Opportunities of Organic Farming**

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### **Introduction**

Organic farming became much more popular in Hungary around the turn of millennium. It seemed that the declining line of domestic agriculture could provide an opportunity for raise. Lots of papers dealt with the subject. There have been predictions, extolling and realistic approaches and criticism in these works. The domestic agricultural production with small capitalization was looking for break-out directions. Organic farming seemed to be a way for farmers to resolve issues of low profitability. The study seeks to answer the question of how the predictions of the outbreak and have been implemented in the 2000's, and what issues need to be changed to a greater extent of this direction.

### **The advantages of organic farming**

Organic farming has many advantages for writing shortly.

Certain organic ingredients prove to be more descriptive. Many nutritional ingredient contains more than non-organic products. For example, based on studies of Kraft et al. of organic milk has reached a higher level of omega-3 fatty acids than conventional companion, thanks to organic forages. Because the production methods use organic fertilizers in accordance with the regulations, so the benefits can be formed on the nutrient composition (Györéné Kis et al. 2006, Weibel et al, 2004). Moreover in apple experiments were found that phosphorus, plant fibers, also has high antioxidant regard results in the organic apple. (Weibel et al. 2000)

The organic product is synthetic-free, guaranteed that organic products are no pesticide residues. The compliance with regulations minimize their occurrence probability.(Council Regulation (EC) No 834/2007 of 28 June 2007 on organic production and labelling of organic products and repealing Regulation (EEC) No 2092/91)

The biodiversity, that is more study found that one volume of several species occurs in the organic farms. (Fuller et al, 2005, Hole et al 2005). The authors concluded that the tested organic territories have 5-85% more species than the control areas have.

The soil erodes much more less in organic production, so that it can be constructed better than a conventional soil cultivation. (Mader et al 2002 and Seigrist et al 1998)

.It spears the ground water and due to the bettersoil structure,the soil better leads to a sudden downpour of precipitation, which means the inland waters, flood risk is lower. (Schnug et al 2002)

By having a less the climatic gas emissions (NO<sub>2</sub>, CO<sub>2</sub>, CH<sub>4</sub> etc.), carrying organic farming have a number of environmentally benefits. Soil is the largest carbon-emitting in production process. (Lindenthal et al 2010)

Alföldi et al 1999 and Nemecek et al 2002. also found these benefits. The emission of ammonia levels reached also contributes to the protection of the atmosphere in the small farming (Haas et al 1994, Geier et al, 1998)

Organic farming is medically beneficial. In Germany in 1999 approximately EUR 12 million, plus expenses reported in cases of acute pesticide caused. (Jacob 1999) It increases employment because of the work process is more manual labor-intensive.

## **The economic judgement of organic farming**

The economic model of organic farmingis very similar to those of regular schemes. The main difference in operation is located on the input side, as it seeks to minimize the use of industrial materials, and to involve the more renewable resources. It seeks to increase positive externalities, while the negative ones reduced. (Radics et al, 2006)

The benefits of organic farming outlined above, but also organic farmers seek to take advantage of the benefits offered by agro-technological development. (Niggli, 2012)

As it has already been said on the input side level in the case of organic farming uses less chemicals and fertilizers, and lower costs can be calculated, but the seed costs may be higher due to special regulations.

The investigation of production side is more complex. Due to the fact that organic farmers do not use chemicals and fertilizers, They take risks. Less yield can counted with the same conditions. Nieberg et al 2002 experience that the grain yields is 30-40% less, while dairy products with 0-20% rate of decline can be reported. We can talk the most uniform extent in the case of dairy products, where it reached a level between 8-36% from 1994 to 1997. The lowest value was in Switzerland, and the highest was found in Denmark. (Nieberg et al 2002)

As an agricultural raw material production is extremely capital intensive, the return time thanks to the length of the production cycle is high and the major risks in production are high as well. The production and market conditions are necessary to regulate high degree. (Santha 2006)

Although the conventional production is supported in many countries in Britain and France Support only to be provided during the transition period. 100 per hectare amount is to assist in the process of first two years of the transition, but in Finland and some other countries, this amount is EUR 470, while in Switzerland can reach EUR 800 per hectare. (Lampkin, 1999)

The rate of support as a percentage of the profit is 15-26% in the tested western European countries. Average rate per hectare reached € 123-490. Without this support many cases would have been loss-making during the transition to the plants. (Nieberg et. 2002)

One of the characteristics of the agricultural production is high fixed costs. This should be covered by the revenue that is volume produced multiplying the price. Only then it is possible to achieve high rates, we issue quality products in a limited market. In the 90's, the 2000's it was also a characteristic of the market of organic products that the market demand was observed in the result of which was the possibility of a higher price level reached. However, if the supply were considerably increased, it would change, that prices would fall, which is beneficial to the consumer, but disadvantageous to the farmer. The Western markets treated very carefully the expansion, in line with demand, and taking care not to increase the supply more than the increase of demand. However, the producers are able to keep their prices thanks to the higher degree of processing and quality. It should also be noted that the domestic production is 30-100% less than optimal yields, which appears in the case of organic farming, because there is a premium it can be paid by only small rate of customers. (Santha, 2006)

Based on multi-year studies it was found that on average profit of organic farms is +/- 20% compared to conventional farms. Looking at the product produced can see differences. Arable cultivation of organic one is better for the most countries,

while in the case of dairy farms has seen differences between countries.(Nieberg et. 2002)

In summary, the following could be established in the researches.

- It is not the soil and climate were the ones that were significantly affected economic outcomes. The yield indices (the soil and climate potential of influencing the description) were better only marginally successful farm sites.
- Successful organic farms have larger fields. The number and the area of dairy cows reached significantly higher values than the less successful economies.
- Successful farmers seem to be better agro-engineer. Both the dairy and arable production, yields achieved higher volume.
- A successful organic farmers reached higher yields using half the amount of concentration and with lower service costs and veterinary medicine.

(Nieberg et. 2002)

The size of organic farms compared to domestic conditions are high. (Takács, 2006)

A gap is observed in the distribution chain between supply and demand, that is, they do not always manage to connect. The following issues were explored in this regard.

- high operating costs,
- Lack of supply and demand for interconnection,
- The supply of low reliability
- non-cooperation of the supply chain members,,
- different values and motivations of the actors in the chain,
- The lack of information flow.

Until these issues are resolved, the consumers' need will not be available information, not always able to satisfy needs, and thus the income of the farmers can achieve worse results. It is therefore necessary that organic farming would bein different integrations concise and sit on the one hand remain viable, on the other hand they are able to fully satisfy customer needs. (Meredith, Willer, 2016)

## **Organic farming plans and actual achievement**

The world's organic food retail sales in 2009 amounted to 40 billion euros (54.9 billion dollars), whose value has increased to \$ 80 billion in 2014. (FiBL, IFOAM The world of organic agriculture) The highest value markets in North America expects its value to \$ 38.5 billion, despite the fact that the regional share of only 7% of the world organic territory. The United States is the largest exporter of organic products in the world.

The proportion of the world's organic cultivation areas is 0.99% relative to the total. Almost a quarter of the world's total organic cultivation area (43,7 million hectares in 2014; FiBL, IFOAM) is found in Europe (11,6 million hectares in 2014). This is around 5% of the total area under agricultural cultivation in Europe. Returning to the world's data. The world's largest organic cultivation areas are in Argentina (3 million hectares), in China (1.9 million hectares) and in Uruguay (1.3 million hectares). Since the early 1990s, organic farming developed rapidly in most European countries.

2006 model of Járási measured and indicated in advance that we can count how much increase expected in the market of organic products. Compared to projections the facts increase fell short than expected. (Járási, 2006.)

Growth in many cases was due to the increase of areas involved in extensive livestock. This is not the same as sales growth, so the increase of food turnover is less than these figures.

Looking at the domestic situation we can see that the initial high growth momentum has stalled and stagnated since 2004, he set on a level from which cannot move in permanently. What is the reason for this? First, domestic production continues to develop export raw materials, in which there is intense competition among producers of raw materials in main markets. Approx. 10% of producers are biodynamic which have opportunities and the remaining 90% is exposed to considerable competition. So it is difficult for the growth in markets. Another factor that contributes to growth failure, loss of income to the people are also trying to compensate by reducing food consumption. The third reason is the rate of change in domestic purchasing power, in which is not observed high growth.

## Organic production, and market trends

As mentioned in the US market was spend the most for organic products, EUR 27.1 billion. In 2014, EUR 26.4 billion was spent for organic products in Europe, Germany leads with EUR 7.91 billion followed by France with EUR 4.8 billion and the United Kingdom and Italy with 2.3 and 2.14 billion euros.

The consumption of organic products in all countries examined, and the EU's overall level experienced a continuous rise. Whereas the same was observed for total consumption, it is worthwhile to examine the organic / total consumption. We can also find that the proportion of consumption of organic products, both the test and in the case of total EU data showed a steady growth, and in 2013 reached 0.24% respectively. Overall, the statistics also support the expansion of organic products in the consumption.

## Conclusions

Based on the sources and our own research we can see that the domestic organic production has been balanced and can not continue to grow. The reason for this is: the domestic purchasing power of the weakness, the raw material producing nature of the domestic organic, the decrease of food consumption per capita and the minimum level of processing of domestic households. While the consumption of organic products continues to grow in Europe and in the world, but not as much as they hoped in the early 2000's. Despite the size of the domestic organic farmers possess is favorable, as is typically performed in large farms organic production, export is still typical because domestic consumers can not buy. More writers (Sántha, Járási, 2006) found that when the supply grow faster than demand, prices will decline, and you may find selling products at below cost. Although the support is present in most EU countries more organic farmers and producers would not be able to produce without additional support. The less favorable habitat endowments provision is one of the reason for. Organic farming would have a chance to break out of the weaker economies prospects for farmers with worse lands. However, They cannot be competitive without raising capital and development and the eastern competitors with cheaper labor force are able to overtake in Europe markets. There is impossible for organic producers to operate effectively in the case of producing raw material, it is absolutely necessary to increase the processing stage.

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# Reappraisal of Austrian Business Confidence Survey 2015 for Mainland China

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*Abstract: A statistical reappraisal of the Austrian Business Confidence Survey 2015 regarding the legal entity has been done. Various methods like inferencestatistics or factor analysis have been applied. Joint Ventures face challenges within the company. They face to some extent cultural differences between management and workforce. These are challenges within the company. WFOEs by contrast face challenges involving relations and situations in a Chinese environment. These are challenges outside the company.*

## 1 Introduction

In the last months of 2015 results of an Austrian survey concerning business with China have been published. This survey contained data which are relevant to the mentioned research question of the thesis. But data have been published only with rather nonsophisticated statistical instruments. As the author assumes that still there are - not sufficient exploited - relations within the original data of the published results he undertook a reappraisal of the basic answers to the original questionnaire.

### 1.1 Background

The German Chamber of Commerce measures business sentiment of German enterprises doing business in China. This is done by online-inquiry on a yearly base since 2007. [1] Since 2012 the Austrian Chamber of Commerce measures business sentiment and confidence of Austrian enterprises doing business in China also. The results are being published by a brochure as univariate or bivariate statistics [2].

### 1.2 Used Methods

Methods being applied for this reappraisal are dependent of the results of reliability and validity analysis as preconditions. Used methods also are dependent of the level

of data-measurement. They include inference statistics (chi-square-test, man-whitney-U-test) and multivariate statistics like cluster analysis and factor analysis.

## 2 Requirements for Reappraisal

Two prerequisites of any reappraisal are the examination reliability and – at least internal – validity of the data.

### 2.1 Reliability of Data

One first step is to compare the two sets of data (especially the corresponding sociodemographic variables) as they had been generated by the same design of research.

The set of the Austrian data consists of 58 total responses, thereof legal entities: 21% Joint Venture, 10% Representative Office, 64% WFOE<sup>1</sup> and 5% not answered. These values are similar to the German Business Confidence Survey 2015, for instance WFOE: 70%. [3]. The Austrian sample subdivided in main business activity shows production 52%, sales 19%, project / consulting / others 26% and 3% not answered. Again these values are similar to the German Business Confidence Survey 2015, companies with production as main business: 49% [4]. If the Austrian sample is subdivided in number of workforce one obtains a split of 36% for 1 to 50 persons and 60% for 50 and more persons. 60% and 3% missing. And again these values are similar to the German Business Confidence Survey 2015, where companies with number of workforce greater than 50 persons were 63% [3].

Compared with the sociodemographic split of the Austrian results to the German Business Confidence Survey 2015 (based on a sample total of 439), one can say that the Austrian sample is similar structured. Or in other words: The Austrian data show quite some ‘external’ reliability<sup>2</sup> in respect to the sociodemographic variables.

### 2.2 Internal Validity of Data

Question one in the Business Confidence Survey 2015 inquired the importance of various strategic reasons for Austrian companies to be present in China. Substantial later in the questionnaire – as question 14 - it had been asked for the kind of legal entity in China.

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1 Wholly Owned-Foreign Company.

2 Reliability as a measure for the tendency obtaining similar results under consistent conditions.

Therefore it can be tested if there are any differences in the answers of companies to important reasons associated with different legal entities. Six proposed strategic reasons for a company to be present in China have been tested for significant differences concerning the selected legal entity. As the level of the Qu.1-data is ordinal, one can apply the Man-Whitney-U-test.  $H_0$  for each pair of tests states that there is just one significant difference – the difference between Joint Ventures and WFOEs when aiming a Chinese company as a strategic partner.

The difference between Joint Ventures and WFOEs is with a p value of .003 asymptotic significant. An other additional step in this case is to revise the used askew verbal scale of ‘very important, important, not important’. A revised and then formally even verbal scale is important (as the sum of very important and important) and not important. The p value of a now applied chi-square-test (likelihood) is .038. A summarized statistic still shows a significant difference.

Based on the current discussion concerning relevance and meaning of the p value [5] it is advisable to add information. For instance to calculate the possible size of the effect, i.e. the strength the phenomenon under observation. The effect size of a rank biserial correlation according to Wendt is a relatively high  $r = .61$ . Or to be expressed in practical word: The strength of the correlation between Joint Venture as a legal entity and having a strategic partner as reason to be in China is around two thirds of the maximum possible strength.

### **3 Legal Entities and Corresponding Challenges for Business Activity**

To remember the underlying question of research: “What was (or still is) the influence of the chosen or adapted entry mode for the business development in China?” An important area of research is to investigate possible connections between legal entities and facing specific challenges. The Austrian Business Confidence Survey 2015 predefined eleven challenges for contemporary business in mainland China. Hence one can ask which of the challenges correspond with each kind of legal entity. Two methods have been applied to receive an answer: Bivariate interference statistics and Multivariate statistics in form of a factor analysis.

#### **3.1 Bivariate Interference Statistics**

As again the level of the Qu.3-data is ordinal, one could apply the Man-Whitney-U-test. The threefold hypothesis  $H_0$  for each pair of tests states that there just one significant difference concerning current challenges – again a difference between Joint Ventures and WFOEs in respect to cultural differences / workforce. The following figure shows the count of the responses.

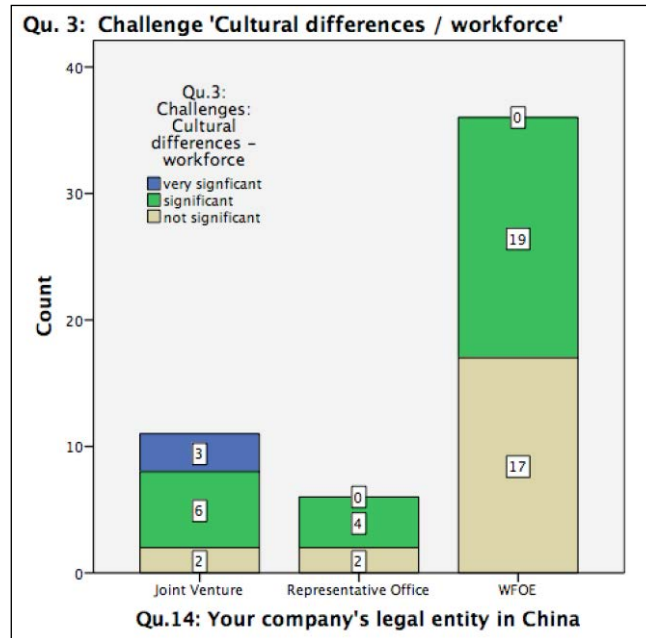


Figure 1

Responses to Question 3 / Challenge 'cultural differences / workforce' and legal entity in China; n=53

As one can see on the first glance, the left column Joint Venture is the only one who shows the category 'very significant'. The man-whitney-U-test yields an asymptotic significant difference with a p value of .015.

A simple method to change this to an even scale is to combine the first two items and call the new combined item now *significant*. This leads to a relationship of 9 *significant* versus 2 *not significant* for Joint Ventures and respectively 19 versus 17 in case of WFOE. Again it is advisable to enrich the results [5]: (a) The effect size of a rank biserial correlation with the original data according to Wendt is  $r = .53$ . (b) The p value of a now applicable chi-square-test to the summarized scale is .074 (Likelihood).

Interim conclusions A: Current challenges for Joint Ventures are cultural differences with the workforce. This means there are difficulties within the company. WFOEs are not confronted with this problem.

### 3.2 Multivariate Statistics to Reduce Dimensions

The number of eleven predefined single challenges is quite high for such a short questionnaire. Hence the question arises, are these challenges reducible to less but comprehensive challenges? And if so, is there any nexus traceable to the items of

legal entities? To answer this question an exploratory factor analysis of the eleven items has been applied.

The analysis – done by principal component analysis - proposes that four new components can explain 64,5% of the total variance in the basic data set. The following table presents estimated correlations.

Rotated Component Matrix<sup>a</sup>

	Component			
	1	2	3	4
Qu.3: Challenges: Cultural differences - marketing & sales		,779		
Qu.3: Challenges: Cultural differences - workforce	,338	,523		
Qu.3: Challenges: Market access barriers		,721		
Qu.3: Challenges: Quality management			,488	,541
Qu.3: Challenges: Rising costs of raw material			,728	
Qu.3: Challenges: Rising labor costs	,707	-,418		
Qu.3: Challenges: Transport & infrastructure			,759	
Qu.3: Challenges: Attracting & retaining staff	,793			
Qu.3: Challenges: Rule of law (transparency, enforcement of rules and regulations)	,697	,394		
Qu.3: Challenges: Competition				,906

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization. a. Rotation converged in 6 iterations.

Table 1

Exploratory factor analysis: Loadings of rotated component matrix

An interpretation of these results runs as follows:

- The first component is characterized by workforce: how to attract and retain them and their rising costs. A short label for this component: *Total Chinese Working Specificities*.
- The second component is characterized by the structure of the market: access barriers, problems with marketing and cultural differences with workforce. A label for this component can be named: *Different apprehension of market*.
- The third component is characterized by rising cost of raw material, the (accompanying) problems with transport and infrastructure and the handling of these troubling issues by management. The label for this component: *Material Workflow*.
- The fourth component is characterized by competition and adequate handling by management: *Management in Face of Intense Competition*.

Further correlations between these new components reveal that component one and component three are narrowly associated with each other. The new influence-model of current challenges consists of these factors: (a) Total Chinese working specificities together with a problematic handling of material workflow, (b) A different

apprehension how to approach the market, (c) Managing of management in face of intense competition. A theoretical statistical test (mann-whitney-U) yield a p value of .015. WFOEs are especially confronted with challenges concerning component one (*Total Chinese working specificities*). Joint Ventures however don't face this problem. Seen these results together - what does this practically mean? Practical significance [8] of these results can be stated as such:

Interim conclusion B: WFOEs (Wholly Foreign-Owned Enterprises) are confronted with challenges on a nationwide scale, i.e. challenges involving relations and situations outside the company, challenges related to total Chinese working specificities.

### **Conclusions**

Based on a reappraisal of the Austrian Business Confidence Survey 2015 one can draw the following conclusions regarding the legal entity: Austrian companies aiming at building strategic cooperations with Chinese companies prefer naturally to establish Joint Ventures. However within this mutual supportive form of doing business cultural differences between management and workforce emerge. WFOEs on the other hand are confronted with challenges on a nationwide scale, i.e. challenges involving relations and situations outside the company. Those challenges are typically related to the environment the company is in. In this paper this environment is called Total Chinese Working Specificities.

### **Acknowledgement**

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# Change Management Process with IT Support at Manufacturing Company

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*Abstract: The dissertation mainly talks about a change management system integration at a multinational company. The goal is to show a real business problem solution. This is a multinational company called Harman. Székesfehérvár plant is a supplier of automotive industry. Produced parts are car audio systems: head unit, amplifier, speaker, etc.. Considering the lot size there is high runner volume production. The daily production is between 1000-3000 pcs/product and the production portfolio is wide. In case of this volume it is absolutely a must to control all the software and hardware changes too: If something changes at these parameters it can affect a high raw material and finished good stock at the warehouse. It is the main reason why the company decided to set up the new process. I got this issue from the Director and started the activities together with a colleagues from the Product Management. I work for this company since 2011 so 5 years ago like an Industrialisation Project Manager and I am responsible for launch activities and other special new projects like this. The direction of the solution was specified by the project core team who decided to create a special software for handling the issue. This software developed by in site Engineers. It can help at the communication because it is a half-automatic informing system what works via mail delivery system. This is also able to follow up the open items traceability. The key of the method that the software gives the tasks for the users automatically and in this way nobody will forget to start the activities in his responsibility. The project was successful because the software is integrated at the company and all the project affected colleagues are able to use it.*

*Keywords: change management, automotive, industry, production, process, support, solution, IT, software, automatisaton.*

## 1 Introduction

The production process changes are frequent at production corporate environment. Coordination of change introduction makes a challenge for the organisation and

the individuals too. The company management defined that the goal is to set up a process to manage and follow up these activities.

If the corporate does not handle the changes in time than there can be more life situation what can affect the costs directly or indirectly.

- Direct affects are the lifetime of the production raw materials and the finished goods and also if the produced parts are out of ordered product version.
- Indirect affect if the customer loss of confidence because of direct affects and it can be a negative judgement at future business.

## 2 Process management

The output of the process need to be defined by the goal. A kind of process check, control methode and process development necessary too. The process output must be harmonized with the working rules of the business side. It can be effective if the process use minimal resources.

“The process input can be the output given to a preceding process. A process or in-process activities are usually started by a trigger event. This event can trigger this input or some other event. The process may also include roles, responsibilities, tools and management control mechanisms in order to give the output reliable. The process may define policies, standards, guidelines, activities and work instructions if necessary.” (Dr. Kovács, 2012)

A process basically never completely finished, there is always something to be improved. The literature calls it Kaizen activity.

„Kaizen – Teamwork developed processes mainly used in the production area, but there are many examples that office processes can also effectively applied. The essence of the methode that there is always a point at the production process which can be improved. If we find the bottleneck, and we can improve on it, we can ensure the compary continued growth.” (Bíró, 2016)

An organization just rarely wants to change itself. The organizational restructuring occurs mostly due to external forces or pressure from above. This the radical change, the development and implementation of a new strategy requires to set up a new organisational structure, to create a new corporate culture. These are the tasks of the top management.” (Reicher-Komáromi-Szeghegyi 2015)

„Conditions for building a knowledge-based organization are: build trust within the organization, continuous optimization of communication, stimulate learning and knowledge management. A knowledge-based organization creates virtual,

cross-functional, informal community from functional and formal organisation.” (Szeghegyi, 2011)

The company's knowledge is the knowledge of people working there. The present project has the task to be able to use this knowledge and utilize it. Corporate tries to make the knowledge management more effective with IT support.

The changes are usually completely independent from us and our control. Such as global warming, the change of the seasons or the economic crisis. Also the changes, which we initiate for ourselves can be controlled even if we do it right: For example dieting, new product introduction and in this case a change of a raw material too. There is a huge difference between the two definitions. However in everyday language often use the same word: change. It is necessary to make a difference between the concept of changes.

### **3 Software introduction at corporates**

The information technology significantly contributed to the transformation of knowledge management into an irrespective area. The knowledge management supplement information technology management and IT applications. (Reicher-Komáromi-Szeghegyi 2015)

“A company has a lot of impact, data and information both external and internal environment. To be effective, a company needs to make a difference between the importance and potential impact of the information. Information systems are designed to help companies, organizations in information collecting, processing, storing, retrieving. Need to provide additional information value for the company.” (Sediviné, 1998)

Criteria of complex integrated information system:

„All functional modules of the system are connected to a common database, using its data and sending data to it. The modules are sharing information with each other through the database. External user access to data is controlled by a multi-level, hierarchical authorization system.

External input data are recorded and entered at the generated place so there is no re-recording and multi-generated storing. (Data is applied only once, and appears only once in the database.)

The whole system has a uniform user interface. This means that each input-output access has the same data input and data display format.

The system has internal, built-in auxiliary tools that allow adaptation to company needs, not the original developer, but at the user level not at the developer level.” (Sziray, 2002)

### 3.1 Supporting software lifecycle processes

„Supporting process subserving is the goal for the primarily affected partners in indirect way. To carry about main processes or organisational processes with special activities.

The support processes are as follows:

#### Documentation

Supporting the knowledge recording of lifecycle processes: interpretations, requirements, solutions, agreements, decisions, instructions, plans, facts.

#### Configuration Management

Software systems and software component identification; oversight of changes at versions, review, evaluation, supply, delivery. It also means all of these records.

#### Quality Management

Includes activities that provide objective assurance for the software products and software processes comply with the requirements.

#### Verification/Validation

Activities of supplier or buyer for software products checking. Depths depends on the project requirements.

#### Common review

Status review of project activities or product development. This process can use any two parties in the session where one party can scan the other party.

#### Revision

This process can use any two parties, where one party (reviewing party) reviews the other party (reviewed party) software products and activities. This activity consists of requirements and contract compliance planning.

#### Problem Solving

Serve to analyze and eliminate problems during the development, operation, maintenance or other problems in the implementation process (including non-conformity ones).

#### Change management

At the standard the *Change management* does not appear as a separate process. The description of the configuration management and configuration control follows that change management for software product is interpreted as part of configuration management. (Gyurkó, 2003)

### **3.2 Company introduction**

*Harman International Industries, Incorporated* is an American company that designs and engineers connected products for Original Equipment Manufacturers, consumers and enterprises worldwide, including connected car systems, audio and visual products, enterprise automation and connected services. Headquartered in Stamford, Connecticut. Harman maintains major operations in the Americas, Europe, as well as Asia and markets its products under more than twenty brands including AKG Acoustics, AMX, Crown Audio, Harman/Kardon, Infinity, JBL, JBLProfessional, Lexicon, MarkLevinson, Martin,Revel, Soundcraft and Studer.

On November 14, 2016, Harman entered into an agreement to be acquired by South Korean company Samsung Electronics for US\$8 billion.

HARMAN has a high position in business sphere at Hungary. At the list of the most profitable companies at Hungary regarding the export turnover it has the 18<sup>th</sup> position last year.

## **4 Implementation**

The company's main activity is the high runner series production, but the factory is responsible for this activity in preparation as well. This is the new product launch process. During the New Product Introduction activities are: product design process and adaption of the production lines, processes and resources for high runner series production.

After the prototype phase, a base process can be set up regarding process implementation. Several factors must be considered. It would be able to produce the parts. This process must be approved by the customer and all the department managers and the director too. Sample production phases are differenced depending on production process development level.

The product and the processes can be improved further, based on sample production problems and customer feedback. All development applications must be approved by the circle mentioned above. This is followed by the introduction of change.

All of these processes together are called change management. In order to increase the efficiency, the company has created a database. With this software they can follow the introduction of changes (over time, status).

The company's change management system applied at 'C and D' phases of production (the automotive industry identifies these like serial production period). In front of these, at product and process development phase (A and B sample) enforce other regulations.

Basically all the employees can request a change. Of course a good reason needed. In some cases the change documentation must be applied and sometimes it is just a possibility.

The request starts with an electronic form initiation.

Form is educated for all employees who might be involved in this area, for example Engineering. The form must be sent via e-mail to the administrator, who will start the approval process in a documentation system.

There are three options:

1. After the approval of the responsible persons, the requestor will receive a confirmation of the feasibility of introducing change.
2. The requestor get a restriction on a parameter, which can be accepted by her/him.
3. Further investigations can be asked from the requestor's side, what is forwarded to her/him. The perform must be coordinated.

If a change request is reviewed and approved, the administrator need to communicate it to the affected colleagues, who are concerned in. They should ensure strict compliance with the deadline of the introduction. For supporting this process the company developed a software, called Change Request Database.

The ISO standard does not define specific operational tasks for change, only specifies general principles. After engineering and auditing proposals the management defined the goal: A real efficient system should be integrated at plant Székesfehérvár, what is able to avoid the delays and misunderstandings.

The software developed by an internal IT team. They take part at the introduction from the beginning to the daily routine. In that way they are able to respond for all emerging issue.

This database is a semi-automatic change management support system. The software notifies automatically the colleagues via e-mail. They are associated with a specific change request. The tasks can be carried out at the same time, or built on each other as well. The task list is specified by the core team in advance. After completing a task it must be documented in the program. The system will alert those colleagues who are the next participants at the priority list . After finishing the whole task list, the change request is implemented.

## Conclusions

Basically, the project is a success. The company has established a process and developed himself a supporting software, which is able to facilitate the introduction of the changes. All the future users got a documented education about the software. The database has been helpful in coordinating hundreds of changes already. Continuous improvement of the software is a self-reinforcing process, because of user laziness. It is important to work with pure data software and to have a person responsible for this in the organisation. (Reicher 2014) It does not require technical review process anymore, as the colleagues do not like unnecessary work. Without asking them, they indicate the system administrators, if an error is found in the process. The process development team is also pleased with this, as it seems that the database used continuously. They work is easier with this behaviour.

Some workers do not like to use the system. They feel it, like a new administration task. But actually it saves time for everybody at the organisation. With this process, they can concentrate to their own expert job, it is not necessary to focus on the management issues. If a colleague fails to carry out her/his task in the scheme, the distribution chain is broken. This shifts the introduction of a Change Request.

Therefore now the next task for company management is to show them what are the reasons behind the new process, and why they must use the database. Motivational tools can help in understanding too.

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## **Education Supported by SME vs. SME Supported by Education**

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*Abstract: Higher education institutions are facing serious challenges all over Europe. Besides the rate of unemployment, lack of professionals, the decreasing number of young generations the expected quality and the content of knowledge have also changed. These challenges have a greater effect on post-socialist countries since it is completely new to them that educational institutions are players on the open market and are competitors. Our research set out to examine the economic and educational policy background in Hungary and Romania for the past 10 years, which might have influenced the functioning of universities, financing research and development as well as relationships between higher education institutions and private companies. Nowadays people want to acquire practical knowledge, courses and trainings are also trying to be more practical in nature. Using in-depth interviews the aim of the research was on the one hand, to find out whether universities are trying to develop relationships with companies and if so in which fields; on the other hand, it tried to reveal if the directors of these companies consider these relationships to be successful and what are the mistakes or shortcomings they see. The opinions and answers given by company directors clearly confirm the existence of such efforts on behalf of the universities. The results show that in the two countries examined, having different educational systems, companies have similar expectations towards universities and their teaching staff. However, responses given to these expectations differ in more aspects, despite of the similar background of the two countries.*

*Key words: higher education, research and development, companies supporting education*

### **Introduction**

Since the regime change post-socialist countries have had greater access to higher education instruction, thus the proportion of those enrolled in higher education

institutions has also significantly grown in the past 20 years. The freedom of learning and teaching has become a reality and with the EU's initiative a unified educational system has been created. This led to the discovery of the need to have a harmonized educational and research approach. Furthermore, expectations towards quality development in higher education have also grown.

Besides the positive effects of the changes in higher education, institutions had to face financing problems due to the introduction of the quota system and for this reason their strategy had to be adjusted accordingly. Therefore it is in the universities' best interests to maintain good relationships with several companies whose operational profile matches those offered by the universities.

During the 3+2 Bologna system students have the opportunity to spend six months practicing at a company where they can familiarize themselves with job market expectations and have the possibility to put their theoretical knowledge into practice.

The present study aims to explore how Romania and Hungary - who joined the EU in 2007 and 2004 - are performing in this matter, what are the opportunities and difficulties that universities have to endure in the context of the new system and the crossfire of continuous challenges. During the research company directors were asked to express their opinion regarding the advantages and disadvantages of their collaboration with universities.

## **1 The Hungarian context**

### **1.1 Higher education**

The world around us is constantly and rapidly changing. Adjusting to this constant change is extremely difficult for an educational institution; however it is vital in order to offer a competitive knowledge and degree for its students. We need to pay attention to the on-going technological development, the effects of globalization, demographic changes, changing social needs and the growing problems of declining energy resources. Members of Generation Y will pose a serious challenge to both universities and the labor market. Kolnhofer-Reicher (2016) Globalization and the changing social needs force universities to build relationships with other universities and companies and to fully take advantage of these opportunities.

The number of publications of Hungarian researchers exceeds the EU15 average (85%). However, at the same time, the R&D expenditures are at 40% of the EU average. The only question that remains is whether these scientific publications

can be accessed by the corporate sector and, if so, can they understand and make use of its results. (Havas & Nyíri, 2007)

There are several factors that force universities to adapt. One of them is the need to find alternative financing for their research activity. Globalization has put an end to regional monopolies and they face competition from foreign universities. Nowadays universities are considered as incubators, forced to practice science and technology-based business activities.

The surveys of Kozma (2005, 2013) with students also prove that knowledge motivates them in selecting an institution and a place of work. Students choose a higher education institution consciously by taking their interest, personality and the academic standard of university into account. When making their choice, the electronic sources of information (i.e. university web, other internet sources) are of great significance.

## **1.2 The SME sector**

Throughout their development, companies formed alliances in order to maintain and increase their competitiveness. In cooperation trust as a critical factor of success is playing a more significant role (Mester et al., 2016). To secure its competitive position on the market, a company needs proper decision making mechanisms. These alliances can take different legal forms and the choice of one or the other legal form is defined by the nature of the cooperation and the partners' interests. Opportunities offered by universities are built on the institutions' structure and educational offers (economic, life sciences, engineering, natural sciences, law etc.).

So as to maintain a successful cooperation universities are continuously developing their course materials, they organize apprenticeships and company-based trainings in order to satisfy the needs of the market. (Polónyi, István, 2011)

SMEs play an important role and make up a significant part of the Hungarian companies. It can be clearly seen that 60% of the added value is produced by the SME sector and this proportion is even higher in Central Hungary, close to 75%. Industrial joint ventures make up 8,1% of SMEs and thanks to their high productivity they produced one quarter of the gross added value. In all regions SMEs achieved greater results than their presence would indicate. (Központi Statisztikai Hivatal, 2014)

On a national level 441 billion HUF was allocated to R&D in 2014, 5% more than in 2013. However in the country the number of research units was 2994, with 165 (5.2%) less than in 2013.

Companies offer more support for research and development. Since 2004 there has been a steady increase of the number of companies financing R&D. (Statisztikai Tükör, 2015/71)

All in all, it can be said that both parties can profit from the cooperation, from the strengthened relationship between higher education and the economic sector. Educational institutions can obtain new income (financing) thus the financial responsibility of governments would decrease – funds coming from the private sector can reduce the burden of government finance.

## **2 The Romanian context**

### **2.1 Higher education**

The higher education system in Romania follows the Bologna system. Except for the medical and engineering studies all BA programs take 3 years to complete. It can be further continued by a two-year Master's degree after a separate admission procedure. Those who wish may continue their studies by enrolling for some postgraduate studies, such as doctoral degrees, professional trainings which gain more and more importance with the spread of the lifelong learning perspective (Torgyik, Judit, 2009)

The problems and challenges of the Romanian higher education are very much in line with those present and already analyzed in the western countries of Europe, more specifically the rise of mass higher education, poorer quality of education which is even worsened by the quota system or the normative per capita financing. (Tonk, 2012)

Romanian universities are only beginning to realize that they also have to compete for the employers, because university diplomas issued by universities will become competitive only if students can successfully obtain a position on the job market.

### **2.2 The SME sector**

In 2015 Romania had three times less SMEs than the European Union average. It is a fundamental goal to increase the number of SMEs by 40% till the end of the 2020 financing cycle. (Bozán, 2015)

The cooperation between higher education institutions and SMEs can be mutually beneficial, yielding valuable benefits. One of the biggest challenges that universities are facing today is that they are unable to provide practical knowledge to their students, while on the job market companies are looking for experienced workforce. SMEs often cannot afford to hire a full-time employee but they have a lot of tasks which might be fitting for university students who could help with their theoretical knowledge, different perspective and could be an efficient solution to the task at hand.

In the previous EU financing cycle the Sectorial Operational Programme Human Resources Development offered possibilities for financing cooperation between universities and SMEs (e.g. several innovative programs, internship opportunities).

Innovative initiatives of Romanian SMEs lag far behind the EU average. Figure 4 shows how many SMEs were considered innovative in nature between 2010 and 2012.

### **3 Analysing the in-depth interviews**

The present study is exploratory in nature; therefore structured interviews could not serve the purpose of the research. In-depth interviews have an informal character. They build upon the relationship between the interviewer and the interviewee. The researchers guide the conversation in order to prevent the interviewee from diverting too much from the topic, but the conversation itself is informal and offers a lot of possibilities to explore new perspectives. The analysis of such interviews is strictly qualitative.

Using the above methodology interviews were conducted with 3 Hungarian and 3 Romanian entrepreneurs. They were asked to speak about their experiences related to their relationship and cooperation with universities.

The main points of discussion were the following:

- What are the main activities of the company?
- What innovative solutions have been implemented in the past few years in order to improve the company?
- What are the entrepreneur's opinions and experiences regarding university students who worked at their company as interns?
- What do entrepreneurs think about the ways universities could help them. What types of cooperation do they consider to be fruitful for both sides?

Company directors claim that their cooperation with higher education institutions is useful for them and this type collaboration fosters new ideas and perspectives that wouldn't have occurred otherwise.

All three Romanian companies have said that they are fully taking advantage of the internship programme. In Romania the majority of higher education programs require students to complete a three-week long mandatory internship as part of their undergraduate studies. All respondents agree that this time interval is not enough not even for a future job application. Students do not have the possibility to fully understand the company's activities, to come with new ideas and changes. Therefore companies recommend students to commit their entire summer (2-3 months) to the internship. Companies expect students to come up with new ideas,

innovative solutions and they expect universities to provide students with success stories, best practices and new ideas.

Hungarian companies have the same positive opinion about their collaboration with universities. In Hungary most BSc programs include a mandatory full semester long internship during which students gain a deeper insight into the company's operations and the company in turn gets to know the students' qualities. According to the directors' statements, university students are creative; they perform their tasks with responsibility and their work is mostly reliable and of good quality. The exceptional and hard-working students can prove themselves on the job market with their innovative ideas, hard work and new perspectives.

The director of the Romanian marketing consulting company said that they run a joint project with the university students. The project involves developing online marketing plans for 2 companies. The project proved to be a success; the students were enthusiastic and worked very hard. The director also appreciated the fact that students were coordinated by a university teacher who facilitated communication and coordination of the work. Involving the students did not mean an extra workload for him, he just had to keep in touch with the coordinator who guided and evaluated the students. This kind of project was considered to be especially useful because usually students do not take their work seriously if they lack supervision from the part of the university.

## **Conclusion**

To conclude, it can be stated that cooperation between companies and universities in Romania has to be initiated and coordinated by the universities. It is worth mentioning that companies are open and glad to take part in such cooperation, and most of them are also willing to pay the students. In Hungary company professionals and experts feel they have to carry a significant administrative burden in exchange for the advantages of cooperation. The universities' bureaucratic system makes it difficult to make fast and flexible decisions. For this reason it is possible for the common project to fail or for it to be cancelled.

The discussion with company directors as well as the researchers' own teaching experience reveals that in order for students to be successful on the job market it is necessary and vital to gain practical knowledge during their undergraduate studies. The Romanian legal framework provides little opportunity to make this possible, therefore universities have to invest time and effort to initiate and organize joint projects with several companies in order to involve students.

Such joint projects of companies and universities have to be coordinated by university teachers in cooperation with company directors. Students have a lot to gain from such successful projects. Company directors are open to cooperation and they welcome new ideas from the universities and consider them useful. However, they complain about the huge administrative burden involved.

Regarding the financial aspect of such joint projects company directors have different opinions. According to the director of the event planning company students should not be paid for the work they do during the internship program. However, the directors of the other two Romanian companies believe that students take their work more seriously if they receive some minimal compensation.

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## Knowledge Increase in the F-Era

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*Abstract: F-Era is the era of freedom and flexibility. So in the era of Facebook a vast and continuously increasing amount of idea and knowledge is available for those, who are willing to search it. Access is easy, however the quality of knowledge is questionable, because it originates from passionate amateurs. The search for validated and relevant knowledge has become the main task, and the evaluation of the results, which are available for the person longing for knowledge. It is the users' task and responsibility to decide, if the available knowledge is of appropriate quality. If the browsing person, who seeks knowledge is able to contextualize the new knowledge in accordance with the previous one, an increase of knowledge happens. Today's organizations are looking for workforce, which is competent, meaning that capable of interpreting its knowledge.*

*Keywords: F-Era, knowledge increase, process of learning, competence, corporate universities*

### 1 Features of the F-Era

The term 'F-Era' refers to many aspects of our present. On the one hand, based on the alphabetical order, it implies that in time we are after the E-Era, the e-tools and e-solutions are no longer essentials, nor e-mail, e-commerce and e-learning are the most important keywords. On the other hand, 'F' stands for free, as in freedom. Freedom is of crucial importance in many fields of our lives, just like free flow of capital, goods, workforce and knowledge, but for us the freedom of learning and teaching is relevant. In the F-Era both learning and knowledge are available for everyone who has an Internet connection, and aims to obtain or share new knowledge. At the same time F-Era refers to the Facebook phenomenon as well, because the influence of social media on our everyday life is inevitable [1].

Facebook is important concerning our socialization too, posts and comments, shared contents are available in an abundance, from all fields of life. Therefore Facebook isn't simply a tool for online communication among people, but became a way for self-expression, so most of us post emotions and thoughts, ideas and opinions on the world on a daily basis. Even if not all of the users of Facebook use

the site to share their inner world, but almost all of the users read the posts of their friends and acquaintances.

So in the Era of Facebook a vast and continuously increasing amount of idea and knowledge is available for those, who are willing to search it. Access is easy, however the quality of knowledge is questionable, because it originates from passionate amateurs [2]. The search for validated and relevant knowledge has become the main task, and browsing and surfing the net, and the evaluation of the found results, which are available for the person longing for knowledge. It is the users' task and responsibility to decide, if the available knowledge is of appropriate quality. If the browsing person, who seeks knowledge is able to contextualize the new knowledge in accordance with the previous knowledge, an increase of knowledge happens.

F-Era is the era of flexibility too. Nowadays it's more complicated for the rest of us to maintain attention for a longer period of time, because so many stimuli reach us in every minute. Carr says, that reading is a different thing as it used to be in the past, because books are often replaced by online contents [3]. Back in the days reading meant continuous focusing, and while we read, our attention wasn't driven away by other things. At present, reading online texts isn't simply reading any more, it became browsing, because whilst reading the reader may meander. Texts can take us to new homepages, links make it possible to jump to other texts and other online contents, whilst in the past a link meant only foot notes or the reference. Flexibility, the ability to change our focus quickly has become a new aspect of learning, searching and gathering knowledge.

At present the economic significance of Facebook is inevitable too, as it is a main platform for organizational communication and online marketing. For most enterprises the presence on Facebook is essential, to present itself for the stakeholders. The online success of a business can be calculated based on the number of likes and comments, or the number of its followers of its Facebook profile. However a liked profile or a product's profile won't result any profit, but this information can be used to estimate the number of customers the enterprise can achieve [4]. The key of the Facebook phenomenon is presence. One and a half decade ago we could say, that an enterprise is viable only if it has a homepage on the Internet, but by now this same minimal requirement is connected to the appearance on Facebook and other social media sites.

## **2 Change in the Process of Learning**

One of the most important features of F-Era is the unlimited quantity of knowledge available. The consequence of this abundance is, that knowledge is shallow, its validity and quality are questionable. The knowledge acquired during

the traditional educational system is validated and approved, which means, that in the past, then and there, it worked, in case of certain circumstances. On the other hand, this kind of knowledge isn't really valuable in the F-Era, because it is easily accessible for everyone, and quite surely refers to the past. So it isn't necessarily valid in the present, and will surely be out of date by tomorrow.

The essence and process of learning was described in different ways by the different disciplines of psychology. Behaviourism defines it as a changing of our responses to stimuli. According to the views of cognitivism, learning is a process of storing, managing and recalling memories. Constructivism says that learners create knowledge and meaning themselves in order to understand the world around, so learning happens by reconstructing known terms and experiences, and their connections about the world. It's important to notice, that in this way the knowledge increase is not a cumulative process, new knowledge isn't simply added to the previous experiences, but new elements of knowledge adjust the previous ones, have an effect on it, so the process results in reconstruction and reorganization. Before the learning the learner had a picture of the world, and the essence of learning is that after the process a new picture will emerge in a different way. The learner gives meaning to the new knowledge in accordance with the previous knowledge and rules of thinking, but the new knowledge also affects the organization of the previous picture, it reforms it, so a new big picture is formed by learning.

Based in Polanyi's work, we can say, that when we learn, we build our personal knowledge [5]. According to the philosophy of constructivism, personal knowledge is built as a result of a reconstructing process, which is individual and lasts for the whole life of the learner. So the term of lifelong learning refers to all people, not only for those, who learn in a formal way in the traditional educational system during their whole life, or always search for new topics to learn. This approach changes the picture of traditional education, because it says, that it isn't the teacher who transfers his knowledge to the student, but a process of reconstruction happens in the mind of the student. So during the process of learning, not simply new knowledge is added to the old one, but the entire personal knowledge changes.

### **3 Organizational Expectations on Competence**

For the safe operation of organizations the workforce which is able to use its knowledge in the given context is of crucial importance, because knowledge has become probably the most important resource. It is still a question, if knowledge can be considered as a resource or not, because unlike other traditional resources it isn't scarce, but on the contrary an abundance of shallow knowledge appears. So it isn't the quantity, but the quality and validity of the knowledge that is

questionable. The purpose of business organizations is to provide workforce for their operation, which is able to respond quickly to the challenges of the dynamically changing environment and the atypical, unexpected changes and effects. Constantly evolving employees are capable of building the learning organization of the F-Era, which achieves sustainability through continuously providing knowledge, new ideas and innovation.

The biggest challenge for educational institutions is the question, how can they train latter employees, who can perform in a fast paced working environment, where their knowledge becomes out of date as quickly as lightning, where the knowledge of yesterday is insufficient, and the knowledge of today is sufficient only at best. The knowledge of persons participating in traditional, academic education, the knowledge of subsequent leaders and decision makers of the future refers to the past, and is about 'know how'. Contrarily most organizations are about to employ workforce, which is able to apply its knowledge in a given working environment, knowing the domain of validity, knowing what 'there and then' can be applied from the knowledge they have. So the emphasis has been moved from 'know how' to 'know when'.

In the process of selection of most organizations, not only the qualifications and language skills, but personal and professional competences of applicants to be employed play a key role. There are (at least) two different definitions of competence in practice. In general, or the way human resource managers use it, a person is competent, if it is able to reach a certain level of performance or handle a situation or problem due to abilities and knowledge [6]. However, according to another viewpoint, a person can be considered competent, if it is able to contextualize and apply its knowledge in a certain situation. So in another way, being competent equals knowing how to interpret knowledge [7]. "Competence is not the same as knowledge and it is not even an entity but a dynamic relationship of three entities: the knower, the knowledge and the context" [8]. Consequently, two different persons with the same knowledge and abilities on the same professional field, can perform differently, based on the context. Furthermore, it is also possible, that the same person in two different environments can't achieve the same level of performance, so it is competent in one situation, but it isn't in the other.

An organization is capable of handling the radical changes of its environment only, if it develops its ability to adapt, and furthermore, can come before changes, and influence its environment itself. That's the reason why organizations try to establish and operate educational institutions on their own, because this way they can provide themselves competent workforce for their safe operation. During the last twenty years we could see many examples of corporate universities, so of strategic associations with universities or shared education. The purpose of schools as such is to disseminate the culture and identity of the organization, to foster the development of not only on the job skills, but teach competences like leadership, creative thinking or problem solving [9].

These internal educational branches of business organizations are located halfway between universities and centres of academic knowledge and the world of business organizations. The validity of knowledge offered by them is different from the validity of knowledge offered by universities, because it is basically organization-specific, where actual or latter workforce is trained based on the needs of the institution. Consequently, all corporate universities are unique, different. Still can be said, that students participating in such an education can build knowledge and an ability for adaptation, which can't be applied in all organizations, but in ones with the same organizational culture this knowledge can be considered as valuable.

### **Conclusions**

The F-Era requires new ways for both learning and teaching. Knowledge workers of this era are eager to build a valuable knowledge, and are willing to use whatever tools and help they get. An important upcoming question is about the support of both learners and teachers. How can a corporate university be managed, so it could provide competent workforce for the organization? How will the process of learning change in such an environment? So there are still many questions to be answered concerning the knowledge increase in the F-Era.

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# Importance of Female Entrepreneurship

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*Abstract: Behind the most significant problems of the world – poverty and starvation, wars, environmental pollution and climatic change, there are goals characteristic of patriarchal society: the extension of power, the acquisition of resources even using violence. One of the main tools of acquiring economic and political advantages is to maintain the subjection of women. Due to their biology, they are exposed to harassment and violence in times of peace and war alike. Their core necessity is their own security and the safety of their children, in order to achieve that, they endeavour to develop a behaviour, an appearance, a life path, a way of life supported by the patriarchate – especially if they have no pecuniary room for maneuver. The investment of women with economic power, their entrepreneurship activity strengthen their autonomy and influence in the personal and economic scope, moreover, even taken in the political sense, and, at the same time, the prevailing of values that go beyond the patriarchal set of values: the welfare of children, the elderly, the sick and other persons exposed, preserving environment and safety. Goal of the paper is to raise awareness as to the importance of female entrepreneurship, the impediments lying ahead of their progress, to set forth the conditions of their development.*

*Keywords: female entrepreneurship, women entrepreneurs', economic independence, women in political decision making*

## 1 Background

### 1.1 Personal motivations

For sixteen years now, I have been dealing with providing support for women restarting their career, with creating equal opportunities for women on the labour market, with promoting their economic independence. My endeavour is to assist spreading the application of gender-based approach as an advisor at individual levels, at an organisational level while elaborating workplace programs that support women, and as a gender expert by making proposals of specialised policy at global social level.



It is my conviction that solving the most significant problems of the world – poverty and starvation caused by the distribution of resources and earnings, the wars, pollution of the environment [1], the change of climate, etc. – is inconceivable without questioning and changing the patriarchal order of society, the hierarchy of the genders.

## 1.2 Questioning the global patriarchy

The millenary distribution of tasks between genders, constitutes the foundation of patriarchal society, based on continuous growth, the extension of power, acquisition of resources often by violence. In our era, one of the main challenges of global market economy is that women's mostly unpaid work secures the sustainability of reproduction activities, thus, the subordinated social role of women is an essential interest of global patriarchy, as its absence would jeopardize the operability of present societies [2].

In the globalising economy, societies disposing of a different culture in terms of gender equality, strive, on the one hand, to meet more or less the minimum of human rights recorded in the basic documents of international organisations, however, on the other hand, they deem it their inalienable right to determine where the place of women is, to restrict or incite maternity, the taking up of employment, to facilitate or aggravate studies, divorce, entertainment, the autonomy and rights of women. Merging women's situation with the families' situation – which, for instance in Hungary, is very deep-rooted in public thinking – successfully diverts attention from the balance of power within the family, the utilisation of earnings, the domestic distribution of tasks, access to leisure [3].

We should recognize that women are one of the most important tools and victims of sustaining patriarchal society [4], to a larger extent compared to men at the identical levels of social hierarchies. Although women are naturally present at the highest levels of social and economic hierarchies, their power and security are secured by men, and men-managed structures, also by their identifying with the patriarchal set of values. Their appreciation, moreover, in certain societies, their existence is straightforward based on their biological adequacy (their ability to bear children, their beauty), or the free performance of caregiver activities deducted from the biological role. Due to their gender roles prescribed along their biological utility, they are exposed to harassment, violence in peace and war alike [5].

Besides, gender status multiplies other disadvantages – health, ethnic disadvantages or those stemming from being a member of another group with disadvantaged position – e.g. from the aspect of lodging, access to the core infrastructure or health services, exposure to violence and discrimination [6].

The substantial part of their work-performance is unpaid, by means of the caregiver activities and domestic chores, they take care of the children, the elderly,

the sick, of reproducing the ability of men to earn money, to exercise power. Due to that, they are subsequently met by discrimination in the world of labour too: there are less women disposing of labour-based income, they work in materially less recognized sectors, activity scopes, throughout life, their earnings and pension are behind those of the men, their own assets accumulated represent a very meagre proportion. Women perform 2/3 of jobs in the world, for overall 10% of the earnings and own 1% of assets [7].

The power structures of patriarchal system – politics, the churches, police-state organizations, and recently the media – did and do a lot – unequivocally or almost imperceptibly – with the goal to make women wish to comply or to enforce it. Although women taking care of the children are interested in peace and welfare in every part of the world – at the same time women themselves maintain the men's power.

The collective and transmitted trauma of physical, sexual, economic, psychological and verbal violence to which women are exposed, well-known to generations, compels women to accept the patriarchal set of rules, the supremacy of men, to apply specific techniques of battling – in many cases in return simply for their own and their children's physical and financial security [8].

Thus, security is the basic need of women, and with a view to achieve it, they generally endeavour to develop a behaviour, look, life path, way of life, family model supported by the patriarchate – especially if they have no pecuniary room of their own for manoeuvre, for choices corresponding to their own ideas, needs, desires.

### **1.3 The importance of women's economic independence**

A core condition to women's security is to cease their dependence and helplessness, whose key factor is to invest women with power: at individual level, to support the creation of their autonomy and economic independence, and on the social level, to promote their equal access to political, social power and to the power enabling the forming of opinion.

I would subsequently like to talk of the female entrepreneurship activity, which provides women with earnings obtained in their own right, at the same time, confirms their ability to independently prosper, reduces their insecurity with regard to the ability of taking care of their children, hence encourages other women as well to strive to assume their autonomy in personal, economic, even political sense, to make independent decisions, to stand up for themselves and their environment.

Namely, I am convinced whereby, compared with work-performance as employees, based on adjustment to the patriarchal set of values and organisational hierarchies, it is a higher proportion of women becoming entrepreneurs, the

strengthening of their enterprises that can strengthen the women's proportionate participation in the decision-making of societies.

The economic independence of female entrepreneurs, the deploying of their self-assertion skills, their assuming responsibility for themselves, their own sort will allow for an ever-increasing number of women to recognize their own skills, strength, to acquire economic independence, and to represent for society the values that go beyond the patriarchal set of values: the welfare of children and other helpless persons, caregiving, preserving the environment and security.

For women, one of the principal traps of patriarchal society is the message whereby women's security is created by men, whilst in our era, the main source of jeopardy, the source of global problems is precisely the subsistence of the patriarchal set of values based on women's subordination.

The key element of social, economic and environmental sustainability is to extend the women's personal autonomy, their rights, to strengthen their ventures.

My lecture is based on my recently concluded research, revealing the particularities of female ventures, and the position of domestic female ventures.

My aim is to cast light on the aspects, reasons and nature of inequalities between genders that are characteristic of the business sector. Namely, without revealing and following up the inequalities, without commitment to their termination in principle and also manifesting it in actions, without carrying out interventions at system-level, it is impossible to create social justice between women and men.

## **2 Inequalities between genders in the business sector**

### **2.1 Female life strategies in the entrepreneurial activity**

The extension of female roles, occurred in the last century, did not bring along the transformation of male roles: the distribution of domestic roles is still determined by the model of male breadwinner. The necessity or need to earn money is still a secondary social expectation in the case of women.

However, due to the female life cycle and roles different from the male ones, compliance with the family obligations is especially emphatic for women in certain life phases, which adversely affects their paid work-performance, their chances to acquire earnings. The female life strategies offered by society belong essentially to three well-separable groups in terms of participating in the world of labour:

- dependent existence: performing the domestic tasks, lasting absence from the labour market

- combination strategy: restricted presence on the labour market, subordinated to the obligations of private life
- career strategy: its goal is durable presence on the labour market, exploiting the skills, earnings acquired on one's own right [10].

Part of the women not taking up a paid job actively contribute to the development of their husband's/partner's venture, they subordinate their personal development, livelihood to the breadwinner activity of the head of the family. Their environment, but even often they too view themselves as the helper of their husband/partner, eventually even if they hold formally also an ownership stake in their husband's firm, based on which they could acquire earnings in their own right. Pecuniary exposure considerably increases the chance of economic and other violence against women in the couples. An eventual breaking up of the couple – despite the rights enforceable during divorce – significantly jeopardizes pecuniary security, as the enterprise can be essentially linked to the man's activity.

Those thinking in terms of the combination strategy can equally opt for a joint venture in partnership with their husband/partner, yet, they strive less to stay in the background, having their personal contribution recognized by their partner and the outside world as well. Entrepreneurship as a complementary activity can be another form of the combination strategy.

A substantial part of female ventures is a single-person enterprise, which could also mean that the growth of venture, the upward-swinging career equally rank among the personal goals. At the same time, for the majority of these female entrepreneurs, an aspect determining daily operation and one of the main barriers to their growth is the endeavour to find a balance between family and work, just like in the case of women's workplace promotion [11].

Female entrepreneurs setting themselves the career strategy – although private life is by all means no less important for them either, moreover, they even strive to reconcile work and private life – do not restrict the development of their enterprise: if necessary, they do several hours of workplace overtime, hire an employee, eventually they undertake even absence, travel, etc.

### **3 Gender-based stereotypes determining the entrepreneurial activity of women**

The business sector is essentially dominated by men to this day, the role model of entrepreneurs is conceived as male by the majority of society to this day. Namely, education that stresses and supports the different qualities, skills of boys and girls, and training that prepares for the traditional gender roles, do not strengthen the qualities necessary to launch a venture – willingness to assume a risk,

independence, self-confidence – in the case of girls, or less than in the case of boys. According to socialization and the stereotypical views confirmed by the media, women are – as they say - „emotional beings”, it is almost like advancing that venture is not a field for women, since women:

- are not tough enough for business,
- are incapable of making rational decisions,
- are impressionable, therefore unsuitable for an executive role, to manage people.
- couple, private life are more important to them, thus, they are not sufficiently reliable, etc.

Women interiorize the gender-based stereotypes, they determine their choice of career, career ideas, expectations of earnings, requirements for financial independence at a lower level compared with men, subordinated to family life. Their self-assessment is largely influenced by the social expectations attached to female roles, physical look, the existence of couple, the fact of childbirth, the clever running of household, compliance with the scope of caregiver task [12.]

### **Inequalities**

Among inequalities existing in the world of labour, the highest-level inequalities can precisely be observed in the world of enterprises. There is a lower proportion of female entrepreneurs [13].

- The entrepreneurial activity of women is often of auxiliary nature, they often carry it out in their homes, often under informal conditions,
- Besides their mobility in terms of space, female entrepreneurs devote less working hours to the enterprise, reconciling work and family life means difficulty for them.
- Female enterprises mostly appear in feminine activities (horizontal segregation).
- Female ventures are mostly single-person ventures (vertical segregation).
- Female entrepreneurs are missing from the decision-making that serves the development of ventures, from the representation of entrepreneurial interests, they do not participate in the business networks dominated by men.
- Women have lower earnings from entrepreneurial activity than the earnings of enterprises owned by men.

The capital supply of female ventures is by far lower than the enterprises led by men, already from the start-up:

- they have a more restricted share capital at their disposal, due to their earnings, inferior to those of men, they dispose of lower savings,
- they are less independent than men in decision-making on the use of family savings for a venture goal, also, within couples, men are less supportive in connection with the venture activity of women than the other way round,
- they involve investors to a lower proportion,
- their willingness to assume risks is lower, therefore they take up fewer borrowings to launch the venture.

The growth of female enterprises is of lower extent too than that of men-managed ventures, due to similar reasons:

- they devote their accumulated earnings rather for goals related to family life,
- female entrepreneurs are less growth-oriented, since the primary goal of women – in the longer run by all means – is to create a balance between work and family,
- female entrepreneurs strive less to involve the contributors, as they endeavour less to become executives, to assume the additional burdens the employer tasks involve,
- very few of them take up borrowing, involve investors.
- the ability to reconcile venture activities with the female/family roles is an important criterion of success [14].

During their entrepreneurial activity, female entrepreneurs face numerous forms of discrimination. However, considering that women themselves also embrace the gender-based stereotypes, they are less sensitive to being directly or indirectly exposed to disadvantageous discrimination as women. In connection with this, legal awareness is of a low level, it is hard for them to recognize the various forms of discrimination. Female entrepreneurs operating in a business environment dominated by men have related several situations which illustrate well the prejudices against women, the sexist belittling of women which can be described as general, the very widespread harassment, which, although those concerned perceive mostly as unpleasant due to their own stereotypical views, at the same time, they do not recognize at all whereby they have received unequal treatment, or have encountered adverse discrimination [15].

## **4 The importance of solving inequalities**

The role and influence of female entrepreneurship both increase in regions of the world with the most different economic opportunities and social traditions, a multitude of governments, international organisations, and prominent participants of the business world welcome the business networks of female entrepreneurs [16]. It is an increasingly acknowledged and recognized fact whereby enterprises led by women can, could substantially contribute to growth, to the development of human environment, to social mobility and integration, to general welfare, therefore, the development of female ventures is a highlighted priority for the most notable organisations, prominent in the field of developing international economy, like the ILO working alongside the UNO, the World Bank and the USAID too [17].

Besides, a number of other transnational organisations, states, multinational companies also emphasize in their strategic documents and communication the importance of enforcing the aspect of gender equality, hence the aspect of women's and girl babies' security appears in the UN endeavours aimed at maintaining peace. Despite the unequivocal positions taken, for the time being, the majority of states, international institutions still apply mostly obsolete models, public policies.

### **4.1 A proposed model for solving inequalities**

The gender-sensitive approach in public policies – gender mainstreaming – creates the genuine opportunity to increase the role of female ventures, to understand their disadvantages and to eliminate the barriers in front of them. This requires simultaneous interventions

- consistent manifestations in order to proclaim the values, to eliminate the prejudices, shaping the approach positively;
- by means of deeds, actions – e.g. prizes, competitions, sponsorship programs -, with systematic initiatives aimed at women;
- moreover, in certain countries, also at a strategic level, female executives and female ventures are equally supported by programs of macro economy and public policy.

Genuine changes are achievable in the field of eliminating the social and economic inequalities between the genders if every concerned participant simultaneously appears at all three levels.

As I am convinced whereby welfare and security interpreted at the individual and broader levels can be realised exclusively by integrating the objective of gender equality, by re-thinking the patriarchal values, by strengthening the women, by

promoting their economic independence, by extending their undertaking of social role.

With I wish to provide assistance with the following model (depicted in the table below) for the next years to plan the action and follow it up.

What is/can (could) be done for gender equality	by the State (macro-level)	by the world of labour (micro-level)	by the individual (man and woman)
in the field of rethinking the values, eliminating the prejudices, stereotypes			
at the level of deeds, actions, practices			
in the scope of influencing public policies and strategies			

Table 1  
Model of solving gender inequalities

### Conclusions

I think that the elimination of hierarchical intergender relations would result in essential changes, with regard to determining the priorities of society, creating an opportunity for global processes of the world to take a different direction. However, the increasing economic power of women is indispensable to create and maintain genuine influence, to change the patriarchal set of values which rushes the world into danger. Detailed elaboration of the above-presented model would mean a systematic action plan aimed to put an end to the economic- and power inequalities between the genders, my subsequent researches will focus on that.

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# Comparative Analyses of Electronic Retailing in Hungary and the Republic of Serbia

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*Abstract: The aim of this paper is to answer questions about the level of implementation of electronic retailing in achieving the competitiveness of retailers. A comparative analysis of the largest retailers in Hungary and Serbia will adopt conclusions on the level of development of electronic retailing and opportunities for further development. Comparative methods with the purpose to point out the similarities and differences in the implementation and development of e-retailing will be used in the paper. The paper will give suggestions for further development of e-retailing and assumptions of further development. The research results should demonstrate a comprehensive level of development of e-retailing in Hungary and Serbia.*

*Keywords: electronic retailing, retailers, retail concentration, Hungary, Serbia*

## 1 Introduction

Regarding the characteristics of traditional retailing, marketing channel structure in Hungary is developing and is moving towards the characteristics of Western European countries since a typical marketing channel in Hungary consists of the wholesaler (or importer), that services the retailer directly (Agriculture and Agri-Food Canada, March 2011). During the period of development, the preconditions for the development had different dynamics. The application of the Internet in enterprises generally after a large growth has met the stagnation now. The application of the Internet in enterprises has even had decline in Hungary; so that the highest use had xDSL connections in 2013, with the fall of usage, while the present growth of broadband mobile Internet use. In terms of company structure,

the most dominant are large enterprises (250 and more employees) 86%, and enterprises with 10-49 employees which use mobile Internet 46% (Központi Statisztikai Hivatal, 2014). Although infrastructural preconditions for adoption of Internet have a dynamic character, for electronic retailing we can notice an upward trend in the past and evidence of expansion in the future.

There were about 5,000 electronic stores that are registered in Hungary in 2013, of which 4,100 had an active status (today the number is estimated at 5,400) (Központi Statisztikai Hivatal, 2014). When it comes to the development of electronic retailing, there has been high growth since 2010, and most bought items are books and techniques, which can be seen by the most popular electronic retailers in Hungary, which mainly sell the best selling products for Hungarian consumers.

Although the Republic of Serbia has had a decrease in the purchasing power of consumers in recent years, which contributed to the fact that consumers are becoming more sensitive and find favour lower prices for products, it has not led to an increase in sales on the Web, which is when it comes to price level more favourable than in retail stores. The development of new retail formats, primarily discount and supermarkets, large retail chains (such as Delta Maxi, Mercator, Idea) in Serbia, has resulted in the development of marketing channels in the country and the region (Končar, Vukmirović, Leković, 2011). Those retailers had decline in retail revenue in the previous period that is influenced by decline in living standards of the population.

Retail market of products of daily consumption in Serbia, primarily in the category of food and household products, strengthens, and retailers are mainly from the European Union. As a result of the strengthening of competition, the expectation is improvement in the supply and purchasing conditions, as well as fight for each individual customer, and given the decline in the purchasing power of consumers in these conditions winning new customers is becoming more difficult and leads to pressure on operating expenses of most retailers who consolidate its retail network in Serbia.

The Law on Electronic Commerce in Republic of Serbia regulates the conditions of information society services, provides information service users, commercial messages, rules relating to the conclusion of contracts in electronic form, the responsibility of providers of information society services, supervision and misdemeanours (Закон о електронској трговини, Службени гласник Р. Србије, бр. 41/2009). This law defines the contract in electronic form, which created the legal basis for the equalization of electronic and mobile business forms with traditional business forms in Republic of Serbia (Končar, Leković 2012).

## 2 Empirical data

The development of e-commerce in Hungary, and thus the development of electronic retailing, is characterized by four stages of growth (EcommerceNews 2015):

- The first period from 2001 to 2008 - during the period retail trade revenue increased from 10 million to € 193 million, when it comes to moderate growth;
- The second period from 2009 to 2010 - when the pace of growth more than doubled and reached € 423 million in 2010;
- The period from 2011 to 2012 - there is a steep increase and eventually moderate growth;
- The final stage is 2013 to the present - electronic retailing exceeds € 688 million, a share of electronic retail in the retail revenue exceeds 3% (2.7% in 2012, which is about 200 billion forints (634 million €) and 244 billion forints in 2014 (733 million €).

In the last phase of 2013 is a turning point in the development of e-retailing in Hungary. The turnover of € 688 million was influenced by developments in domestic electronic retailers to 3.1%, up from 10 billion forints compared to the previous year (eNET Internetkutató és Tanácsadó Kft. 2014). Among the strong retailers on the electronic market in Hungary are traditional retailers Tesco and Media Market. Tesco is the largest retailer by sales in Hungary, but also retailer which is among the ten largest electronic retailers in the country. Extreme Digital is also one of the retailers with a dominant position on the electronic market. According to product categories, computers technology and toys, as well as clothing and footwear in electronic retailing have recorded growing sales in Hungary.

Hungary had 26.2% of hypermarkets, supermarkets 16.6%, 15.6% of domestic retail chains, 27.2% of small independent retailers, 5.5% in retail markets and 8.9% of other retail formats (GAIN 2013) in 2012. Traditional retailers in Hungary don't rely on electronic retailers as a mean of differentiation against the competition, with Tesco being the only one to enter the electronic market and position its place as well on the list of the largest electronic retailers. Hungary is considered to be the fourth fastest growing discount market in Europe, which controls the five major retailers: Rewe's Penny markets, Schwarz's Lidl, Louis Delhaize's Profi, Aldi Sud, and the CBA's Cent market (Agriculture and Agri-Food Canada March 2011).

No	Retailer	Retail revenue in mil \$ (2013)	Origin	Dominant retail format	Product category	Electronic retailing Yes/No
1.	Tesco-Global Áruházak Zrt.	1.915	UK	Supermarket	Food, household products, cosmetics, products for children and babies, clothing and footwear	bevasarlas.tesco.hu Y
2.	SPAR Magyarország Kereskedelmi Kft.	1.226	Netherlands	Hypermarket/supermarket	Food, household products	spar.hu N
3.	Auchan Magyarország Kft.	867	France	Hypermarket/supermarket/convenient store	Food and drink products for children (toys)	auchan.hu Y
4.	Lidl Magyarország Kereskedelmi Bt.	726	Germany	Discount	Food, household products, cosmetics, clothing and footwear	lidl.hu N
5.	METRO Kereskedelmi Kft.	569	Germany	C&C	Food, household products, appliances, clothing	metro.hu N
6.	REWE GROUP Magyarország PENNY MARKET divízió	510	Germany	Discount	Food, household products	penny.hu N
7.	Aldi	270	Germany	Discount	Food, household products, DIY, technology, products for children	aldi.hu N
8.	CBA Kereskedelmi Kft	75	Hungary	Retail cooperation	Food, household products	cba.hu N
9.	Reál Hungária Élelmiszer KFT	37	Hungary		Food, household products, cosmetics	real.hu N
10.	CO-OP HUNGARY ZRT.	35	Hungary	Supermarket	Food, household products	coop.hu N
Total retail revenue		6,230				

Table 1  
Analyses of largest retailers in Hungary  
Source: authors' analysis

The analysis of the largest electronic retailers shows that they mainly go in favour of national retailers while the significant position in the market occupies Amazon.com Inc. As an additional indicator of the development of electronic retailing in Hungary, there is the average value of individual purchases on the Internet, which is higher than the amount of average individual purchases in traditional retail. Consumers on the Internet spend 7,500 forints in average, while in traditional retail store in Hungary they spend an average of 3,000 forints (U.S. Commercial Service 2014). The above mentioned can be explained by the fact that most electronic retailers offer a free delivery to home address to a certain amount of purchase, which increases the value of individual purchases up to a certain value and thus achieves competitive advantage of channels.

No.	Electronic retailers	Market share	Retail revenue mil € (2013)	Origin	Type of electronic retailing	Product category
1.	Libri-Shopline Nyrt. shopline.hu	2.3	16	Hungary	“pure play” electronic retailers	Books, music, movies
2.	Extreme Digital Zrt edigital.hu	2.1	14	Hungary	“pure play” electronic retailers	Techniques, computer hardware and software, music / video / camera
3.	Amazon.com Inc	1.5	10	Global	“pure play” electronic retailers	All product categories
4.	Játéknet.hu Webáruház Kft jateknet.hu	0.7	5	Hungary	“pure play” electronic retailers	Products for children and babies (toys)
5.	Reader's Digest Association Inc rdshop.hu	0.7	5	Hungary	-	Books / magazines, music / video products for home, health
6.	G'Roby Netshop Kft groby.hu	0.7	5	Hungary	“brick and click” electronic retailers	Food, household products
7.	Verlagsgruppe Georg von Holtzbrinck GmbH	0.7	5	Germany	“brick and click” electronic retailers	Books / magazines / newspapers
8.	Internet Mall Kft mall.hu	0.7	5	Hungary	“pure play” electronic retailers	All product categories
9.	Studio Moderna 2000 Tv-Shop Kft. topshop.hu	0.7	5	Slovenia	Multichannel retailer	Cosmetics / health, household
10.	Tesco-Global Áruházak Zrt. bevasarlas.tesco.hu	0.6	4	UK	“brick and click” electronic retailers	Food, household products, cosmetics, products for children and babies, clothing and footwear
Total retail revenue		10.76	74			

Table 2

*Analyses of largest electronic retailer in Hungary*

*Source: authors' analysis*

Electronics retailers in Hungary are characterized by mistrust of consumers, 30% of the population believes that the electronics retail is risky, while 90% are afraid of buying on the Internet, 92% of Internet users buy on online auctions, and prefer auction to traditional shops (Lekovic 2011). Although e-retailing in Hungary has a constant growth of share in the retail trade revenue (share in 2013 amounted to 3.1%), buying online is not available to everyone- 72% of regular Internet users purchased on Internet, while as much as 28% in general does not use this option or had not done so for more than a year (eNET Internetkutató és Tanácsadó Kft. 2014). The potential for further growth of electronic retailing is untapped potential in stimulating demand, growth in the number of Internet users, as well as the



development of e-retailing among traditional retailers, which still do not recognize the importance of electronic retail in their operations.

No.	Retailer	Retail revenue in mil \$ (2013)	Origin	Dominant retail format	Product category	Electronic retailing Yes/No
1.	Delhaize Srbija d.o.o.	631	Belgium	Hypermarket/supermarket	Food, household products	shop.maxi.rs Y
2.	Mercator-S d.o.o.	519	Slovenia	Hypermarket/supermarket	Food, household products	roda.rs N
3.	Idea d.d.	458	Croatia	Hypermarket/supermarket	Food, household products	online.idea.rs Y
4.	ДИС d.o.o.	210	Serbia	Discount supermarket	Food, household products	dismarket.rs N
5.	Univerexport d.o.o.	114	Serbia	supermarket	Food, household products	elakolije.univerexport.rs Y
6.	Tehnomanija d.o.o.	103	Serbia	Specialized supermarket	Techniques, computer	tehnomanija.rs N
7.	Futura Plus d.o.o.	74	Serbia	Kiosk	Newspapers / books / magazines	futuraplus.rs N
8.	Aman d.o.o.	62	Serbia	Market	Food, household products	aman.co.rs N
9.	Alti d.o.o. (Winwin)	55	Serbia	Specialized supermarket	Techniques, computer	winwin.rs Y
10.	CDE S d.o.o. (Interex)	38	France	Market	Food, household products	interexsrbija.rs N
Total retail revenue		2264				

Table 3  
Analyses of largest retailers in Serbia  
Source: authors' analysis

Electronic retailers in Serbia deliver products to consumers' home address, with different options to pay for products (electronic payment cards, payment on delivery, the overall transfer, etc.). However, there is a problem in the implementation of the ordered goods, with regard to the fact that most electronic retailers have no integrated system for monitoring the stock with the process of ordering, and products that are offered on the site are quite often not available, which leads to customer dissatisfaction in the process of shopping (Končar,

Stanković, Leković 2014). By 2013 all obstacles had been removed for the functioning of the PayPal payment system in Serbia, which enables electronic retailing, primarily the purchasing of products from abroad. According to data, in the first six months in 2013, 499.5 million dinars were paid electronically by cards on domestic sites (which is 89,700 transactions) and on foreign € 109 million (770,000 transactions) which amounts to an average € 154 per transaction, indicating that consumers in Serbia spend less on domestic electronic stores, 5,566 dinars per transaction on average (Končar, Leković 2014).

Electronic stores in Serbia vary by size from very large to small electronic stores with a limited offer. In 2012, there were approximately 200 electronic shops in the domestic market (Končar, Petrovic Katai, Lekovic 2012) (1,000 in Bulgaria, Romania slightly more than 2,000, in Hungary 5,000, 7,500 in Austria, Croatia from 250-300 electronic stores). Retailers that have already built a retail network and distinctive name in which consumers trust have had success in electronic retailing.

No.	Electronic retailers	Retail revenue mil € (2013)	Origin	Type of electronic retailing	product category
1.	Idea d.d. Online.idea.rs	5,651	Croatia	“brick and click” electronic retailers	Food and food products, household products
2.	Univexport d.o.o. Elakolije.univerexport..rs	1,721	Serbia	“brick and click” electronic retailers	Food and food products, household products
3.	Alti d.o.o. Winwin.rs	1,111	Serbia	“brick and click” electronic retailers	Techniques, mobile phones, computer hardware and software
4.	Formaideale.rs	1,014	Serbia	“brick and click” electronic retailers	Furniture
5.	Tehnomanija d.o.o. tehnomanija.rs	1,012	Serbia	“brick and click” electronic retailers	Techniques, mobile phones, computer hardware and software
6.	Sve za kucu d.o.o. svezakucu.rs	0,529	Serbia	“pure play” electronic retailers	All product categories
7.	Ringier d.o.o. Nonstopshop.rs	0,441	Serbia	“pure play” electronic retailers	All product categories
8.	Od igle do locomotive d.o.o. odigledolokomoive.rs	0,421	Serbia	“pure play” electronic retailers	All product categories
9.	Gigatron d.o.o. gigatronshop.com	0,349	Serbia	“brick and click” electronic retailers	Techniques, mobile phones, computer hardware and software
10.	Laguna d.o.o. Laguna.rs	0,065	Serbia	“brick and click” electronic retailers	Newspapers / books / magazines
Total retail revenue		12			

Table 4

Analyses of largest electronic retailer in Serbia

Source: authors' analysis

The most common are “click and brick” electronic retailers that sell electronic equipment and appliances associated with computers, baby equipment, toys, product group DIY and so on. Development of electronic retailing of daily

consumption products has been present in recent years with retail chains such as Univerexport (elakolije.univerexport.rs) Agrokor (online.idea.rs), Maxi Delhaize (shop.maxi.rs). If we look at the value of the individual purchase of the largest retailers that traditional and electronic retailers in Serbia have (Univerexport, Idea, WinWin, Metro Cash and Carry), we can see that there is an estimated higher value of individual purchase in electronic retailing than in traditional retail (Končar, Leković 2014).

Electronic retailing in Serbia will certainly have growth in the upcoming period which indicates that 2.400.000 inhabitants in Serbia in 2013 used the Internet every day (an increase of 300,000 compared to the year 2012), and 900,000 of those who have bought on the Internet (with an increase of 300,000) (Končar, Leković 2014), while recent data indicate that 1,220,000 persons purchased in 2015 (an increase of 60,000 compared to 2014) (Ковачевић, Павловић, Шутић 2015).

### **3 Methods**

In this paper we use the comparative method to analyse development of electronic retailing in Hungary and the Republic of Serbia, the analysing electronic retailing in business of major retailers and e-retailers in the country. The subjects of comparison are indicators of concentration of the retail market, as well as the electronic retail market concentration. The coefficient of concentration was calculated as a share value of sales in the total retail revenue and electronic retail in the country. A comparative analysis was also conducted on the basis of parameters of electronic retail participation in the total retail turnover. We analyzed the presence of foreign relative to domestic retailers in the group of the largest retailers. The work analyzes the largest electronic retailers by types of retail stores (“pure”, “click and brick” or multichannel retailers).

### **4 Results**

Retail turnover in Republic of Hungary in 2013 was 8,514,152 million forints (€ 27,175 million) (Központi Statisztikai Hivatal 2015), which means that the ten largest retailers in Hungary had 22.93% of participation. The largest retailers in Hungary are sellers of products of daily consumption and household products. In terms of the structure of retail formats, dominated chains are hypermarkets and supermarkets, discounts.

	Hungary	Serbia	Difference	In %
Retail sales in millions of €	27,175	10,035	17,140	36.93
Population (July 2014 est.)	9,919,128	7,209,764	2,709,364	27.31
Retail sales per capita	2,739	1,391	1.3478	49.19
10 largest retailers in millions of €	6,230	2,264	3,966	36.34
Share of the 10 largest retailers in the total retail revenue	22.93	22.56	0.37	1.64
e-retailing in millions of €	688	125	563	18.16
Internet users (Dec 2015)	7,498,044	4,705,141	2,792,903	37.24
Per Internet user	91.76	26.57	65.19	28.96
10 largest e-retailers in millions of €	74	12	62	16.22
Share of 10 largest retailers in total e-retail sales	10.76	9.85	0.91	91.54
Share of electronic retailing in the total retail revenue	2.53	1.25	1.28	49.41

Table 5

Results of the comparative analysis of electronic retailing in Hungary and Serbia

Source: authors' analysis

Participation of the largest retail seller in the total retail turnover in the Republic of Serbia is 22.56%, the ratio in the past before the recession was 26%, while in most European countries this percentage is between 30 and 35% (Končar, Leković 2012). A significant share in the retail transactions have the top three retail sellers, but the recent merger of Mercator by Agrocor, the second and third retailer, brought a new balance of power in the market, and this year the first discounter Lidl is expected in Serbia (Končar, Leković 2014), which will further increase competition in the market. Although, in comparison with other countries, the retail turnover in Serbia is at lower level than ten largest retailers, trade (retail and wholesale) constitutes to be one of the key economic activities with the largest share in GDP. In 2007, the share of trade was 10.8% (Lovreta 2009), while in 2012 was 9.65%.

## 5 Discussion

Comparing the characteristics of retail trade in the Republic of Hungary and Serbia, Hungary has a higher retail sales in traditional and in electronic retailing for 36.93%. Also the value of revenues from the sale of the largest retailers is higher; an indicator of retail concentration is also higher in Hungary than in Serbia. Electronic retailers in Hungary have higher revenue while the concentration of electronic retailing is at the same level. Retail sale per capita is higher by double in Hungary than in Serbia, as well as parameter of e-retailing development showed with e-retail revenue per Internet user (91.76 Hungary and 26.57 Serbia). The share of electronic retailing in the total retail revenue is low in both countries and both countries belong to the countries with the development of electronic retailing. There are more domestic

retailers represented in the group of largest retailers in Hungary, while in Serbia foreign retailers are equally represented. Electronic retailing is more implemented among retailers from Serbia. In Serbia there are more “pure play” electronic retailers, the same number of “click and brick” retailers, and Hungary has one retailer with a multichannel strategy in group of largest retailers.

### **Conclusion**

A turning point in the development of e-retailing in Hungary is from 2013. The turnover in Hungary was influenced by developments in domestic electronic retailers. Tesco is the largest retailer by sales in Hungary, but also retailer which is among the ten largest electronic retailers in the country. The analysis of the largest electronic retailers shows that it mainly goes in favour of national retailers while the significant position in the market occupies Amazon.com Inc. According to our calculation, the ten largest retailers in Hungary had 22.93% of participation in total retail turnover in Hungary in 2013. Participation of the largest retail seller in the total retail turnover in the Republic of Serbia is 22.56%, the ratio in the past before the recession was 26%, while in most European countries this percentage is between 30 and 35%. As it is shown in our research, the value of revenues from the sale of the largest retailers is higher in Hungary than in Serbia, and an indicator of retail concentration is also higher in Hungary. Results of this paper indicate that electronic retailers in Hungary have higher revenue while the concentration of electronic retailing and traditional retail market are at approximately the same level in Hungary and Serbia. Retail sale per capita is higher by double in Hungary than in Serbia, as well as parameter of e-retailing development showed with e-retail revenue per Internet user. Only one out of ten retailers implements electronic retailing in Hungary, while in Serbia 4 of largest retailer. As it appears, in both countries, the most common type of electronic retailing strategy is “pure play” electronic retailer. Overall value of retail and electronic retail market is higher in Hungary than in Serbia.

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# How Does Greenwashing Effect the Firm, the Industry and the Society - the Case of the VW Emission Scandal

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*Abstract: Volkswagen AG, the second biggest car-manufacturer of the world has admitted in September 2015 that they used special defeat devices in their 2.0 liter diesel cars to pass the emission tests. This kind of greenwashing is not only immoral but a legal case as well. The scandal has relevant consequences not only for the firm itself but for the automotive industry and for the whole society. The major contribution of the paper is to show the uncontrollable ripple effect of the scandal which may last longer than the original case, and therefore shows that greenwashing doesn't worth it.*

*Keywords: greenwashing, Volkswagen, ripple effect*

## 1 The meaning and forms of greenwashing

As in the last five decades environmentally conscious – or at least environmentally sensitive- consumer groups have emerged, companies tried to serve them with their green(er) products and services – however some companies only tried to take advantage on it and sold their traditional products with green claims and green slogans without any real green performance. This –partly or totally – deliberate misleading activity of firms are examined in the marketing literature more frequently.

The term “greenwashing” has been used from 1989, as a combination of two words: green and brainwashing.<sup>1</sup> The meaning of this new term was easily understood when in 1990 there was a trade-fair in Washington where the most polluters companies e.g. DuPont, the American Nuclear Society and the Society of Plastics Industry tried to show themselves as green organizations<sup>2</sup>

According to Greenpeace, greenwashing is “the cynical use of environmental themes to whitewash corporate misbehavior.”<sup>3</sup> On their homepage it is also described as “the act of misleading consumers regarding the environmental

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<sup>1</sup> <https://www.merriam-webster.com/dictionary/greenwashing>

<sup>2</sup> <http://stopgreenwash.org/introduction> (20.11.2016)

<sup>3</sup> <http://stopgreenwash.org/> (20.11.2016.)



practices of a company or the environmental benefits of a product or service”.<sup>4</sup> Greenpeace identifies 4 forms of greenwashing: (1) dirty business, when firms show some green steps but basically their production is unsustainable; (2) ad bluster means exaggerated green claims in marketing communication when companies spend more money on advertising than on real green actions; (3) political spin reflects to the hidden lobby against stricter environmental regulation; (4) when firms communicate their environmental actions as virtues although they only fulfil the legal requirements.

Lyon and Maxwell (2011) define greenwashing as the selective disclosure of positive information without full disclosure of negative information so as to create an overly positive corporate image.

The main features of greenwashing activity are: (1) an information disclosure decision, (2) deliberate, (3) initiated by companies, and (4) beneficial to firms and costly to society. (Boven and Aragon-Correa, 2014)

The typical forms of greenwashing<sup>5</sup> are when there is no proof or evidence behind a green statement related to the product; or when there is a hidden trade-off behind the greener product attribute (e.g. there is no chlorine in it but there is other toxin). Another form of greenwashing is using false, green-like labels (which seem to be made by an independent organization or seem to be official but actually they aren't). Providing irrelevant, vague information about the product is also typical for greenwashers (e.g. the product is said to be no harmful for the whales – but whales have never been affected by the given product category). Another technique is to promote the product as a lesser of two evils (e.g. cigarette made of organic tobacco leaves). Last, but not least, there are also cases when a simple lie (fibbing) is its form.

It is important to underline that some of these sins above are unethical but loose legislation or superficial consumers could also be blamed for them (e.g. providing irrelevant information) – however some of these sins can be categorized as criminal actions because they definitely brake the existing rules.

The automotive industry is definitely under pressure to decrease its environmental impact as low air quality and greenhouse gas emission are the first on the agenda of environmental protection. According to the 2016 EPA report<sup>6</sup>, in the U. S. transportation is responsible for 26% of the greenhouse gas emission (following electric power industry, which is the first with its 30% share), and light-duty vehicles contribute with 61% to the negative effect of transportation on air quality. 96% of the greenhouse gas emission of transportation is CO<sub>2</sub>, the rests are N<sub>2</sub>O, CH<sub>4</sub> and HFCs.<sup>7</sup>

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<sup>4</sup> <http://stopgreenwash.org/> (20.11.2016.)

<sup>5</sup> <http://sinsofgreenwashing.com/findings/the-seven-sins/>

<sup>6</sup> Fast Facts: U.S.. Transportation Sector Greenhouse Gas Emissions 1990-2014, EPA June 2016

<sup>7</sup> <https://nepis.epa.gov/Exec/ZipPDF.cgi?Dockkey=P100ONBL.pdf>

Sometimes this pressure forces technological inventions, sometimes it only generates greenwashing.

## 2 The main features of the VW scandal

The Volkswagen Group is the second biggest car-manufacturers of the world.<sup>8</sup> Well-known brands of the company are Audi, Porsche, Ducati, Seat, Suzuki, Skoda, Lamborghini, Scania, MAN, Bugatti and Bentley beside Volkswagen.

The US Environmental Protection Agency (EPA) has alleged that Volkswagen Group of America (VW) violated the Clean Air Act (CAA) by developing and installing emissions control system ‘defeat devices’ (software) in model year 2009–2015 vehicles with 2.0 litre diesel engines. Defeat software is designed to detect when emissions tests are being run and turn on pollution controls so that a vehicle can meet air quality standards. During normal road use, the pollution controls are disabled to enhance engine performance and fuel economy, but these changes also increase emissions, of nitrogen oxides (NOx) for example. On-road emissions testing suggests that in-use NOx emissions for these vehicles are a factor of 10 to 40 above the EPA standard.<sup>9</sup>

VW has admitted the inclusion of defeat devices for 482.000 vehicles during the given period. (Barrett et al. 2015) All over the world almost 11 million diesel cars are affected by the scandal.<sup>10</sup>

VW definitely lied on the greenhouse gas emission of its diesel cars, so it was a fibbing-type greenwashing. In addition, this scandal is worth examining in details because it shows special elements which are not typical in other greenwashing cases. The most important features of this scandal are the high media attention both in the U.S. and in Europe, its length, and the fact that it affects political level.

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<sup>8</sup> <http://www.forbes.com/sites/andreamurphy/2015/05/06/2015-global-2000-the-worlds-biggest-auto-companies/#4f856d106e48>

<sup>9</sup> <https://www.epa.gov/vw/learn-about-volkswagen-violations>

<sup>10</sup> <http://fortune.com/2015/09/23/volkswagen-stock-drop/> 10.09.2016.

## 3 Important consequences of the VW scandal

### 3.1. Consequences for the VW group

The expected steps after such a scandal would be: Admit-Stop-Compensate-Change. First the company should admit if they did something wrong, and they have to stop this bad behavior immediately. Third step is to compensate (both financially and emotionally) those who suffered any harm or drawback from the greenwashing activity (not only direct customers but all the stakeholders). Finally, the company has to find a good alternative to solve the problem.

Unfortunately, there has already been a problem with the first step. VW only admitted its cheating when its try to a voluntary recall in December 2014 failed to resolve the excess emissions, and when EPA and the California Air Resources Board (CARB) would not approve VW 2016 model year diesel vehicles, (Barrett et al, 2015)

After the admission, responsibility should be taken by the top management. Taken into consideration the length and the deliberateness of the greenwashing action, it was not surprising that the highest level of top management had to react. At this stage VW's CEO, Martin Winterkorn, who had been the CEO of VW from 2007, has resigned at 23<sup>rd</sup> September, 2015.

However, resignation doesn't mean necessarily responsibility taking. Winterkorn added: "I am not aware of any wrongdoing on my part." He said he was stepping down because Volkswagen needs "a fresh start" in the wake of the crisis. "I am shocked by the events of the past few days. Above all, I am stunned that misconduct on such a scale was possible in the VW Group." <sup>11</sup>

The new CEO, Matthias Müller has taken his place from 25<sup>th</sup> September 2015 who formerly worked together with Winterkorn and had been the CEO of Porsche.

At the same time, intensive marketing communication campaign has been started to show the commitment of the new leadership to solve the problem.

First, the company has changed its self-confident slogan (Das Auto - The car) to a more simple and less boastful one (Volkswagen).

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<sup>11</sup> <http://www.forbes.com/sites/joannmuller/2015/09/23/volkswagen-chief-resigns-more-heads-to-roll-in-diesel-tailpipe-scam/#55fa68824016> 10.09.2016.



Figure 1  
The change of the basic slogan of VW<sup>12</sup>

Second, VW put apology-ads into newspapers and magazines. PR activity is strong, and visible – and is for the wide audience. The message is clear: "We have broken the most important part in our vehicles: your trust", the long-copy ad goes on to say that "we know that actions speak louder than words. So we will directly contact every customer affected and resolve the issue for them".

The ad also details which car models may be in need of attention, while asking owners to "please rest assured that our vehicles are safe and roadworthy and that we'll continue to do everything we can to win back your trust".<sup>13</sup>

VW owners affected by the scandal have got a message from VW also with an apology and further action plan. What is missing is the more detailed explanation of the problem.

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<sup>12</sup> source: <http://qz.com/580701/volkswagens-new-slogan-is-a-lesson-in-humility/10.09.2016>.

<sup>13</sup> <http://www.newsworks.org.uk/News-and-Opinion/volkswagen-apologises-with-print-ad> 08.09.2016.

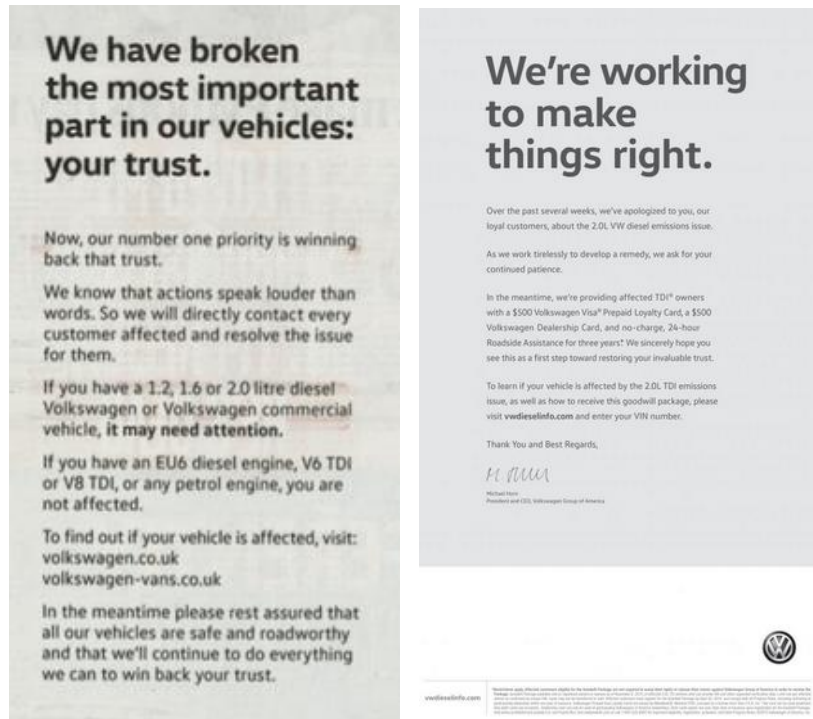


Figure 2

Communication messages of VW after the scandal in Saturday's national newspapers in England<sup>14</sup>

These advertisements mean high costs for the company which would have been spent on research and development of efficient technologies.

VW has already apologized at the highest level. In April, 2016 CEO of VW personally apologized to president Obama for the scandal.<sup>15</sup>

Despite of the change in top management positions and the marketing messages could not prevent or undo the loss of VW market capitalization – the company has lost more than 25 % of its stock-prices.

<sup>14</sup> <https://www.marketingweek.com/2015/10/12/volkswagen-kicks-off-brand-rebuild-with-marketing-push/> 10.09.2016.

<sup>15</sup> [http://www.nytimes.com/2016/04/29/business/international/volkswagen-legal-costs-emissions-cheating.html?\\_r=0](http://www.nytimes.com/2016/04/29/business/international/volkswagen-legal-costs-emissions-cheating.html?_r=0) 10.09.2016.

„Dear Volkswagen Customer,

We regret to inform you that the Type EA 189 engine built into your vehicle with the Vehicle Identification Number XXXXXXXXX you submitted, is affected by software that may cause discrepancies in the values for oxides of nitrogen (NOx) during dynamometer runs. Your car is safe from a technical standpoint and roadworthy.

We are very sorry to have broken your trust and are working at full speed to find a technical solution Volkswagen will cover the cost relating directly to this repair.

We will be in touch with you directly to explain what steps are required. We'll do any rectification work at our cost.

Yours faithfully,

Volkswagen.”

Figure 3

The message sent for the consumers by VW after the scandal<sup>16</sup>

Du (2015) provides strong evidence from the Chinese stock market that greenwashing is significantly negatively associated with cumulative abnormal returns (CAR)<sup>17</sup> around the exposure of greenwashing. In addition, corporate environmental performance is significantly positively associated with CAR around the exposure of greenwashing. Du suggests that corporate environmental performance has two distinct effects on CAR around the exposure of greenwashing: the competitive effect for environmentally friendly firms and the contagious effect for potential environmental wrongdoers, respectively. (Du, 2015).

This tremendous decrease in the share-prices could be experienced not only because of the damaged reputation of VW and the potential loss of market-share in the near future, but because of the financial burden what compensation and penalties mean. The firm has to compensate its buyers in the US (482.000 2-liter diesel engine Volkswagen and Audi owners) but also has to pay a penalty to government agencies. Altogether it will cost \$10.2 billion for the company. “Owners of the VW cars, which date to the 2009 model year, can either sell their vehicles back to the company at the pre-scandal value or let the company fix the vehicle for free, one person said. In either case, owners would also get \$1,000 to

<sup>16</sup> <http://www.autocar.co.uk/blogs/industry/opinion-volkswagen-and-art-saying-sorry>

<sup>17</sup> abnormal return= actual return-expected return

\$7,000 depending on their cars' age, with an average payment of about \$5,000, one of the people said.”<sup>18</sup> Penalties may mean in theory \$18 billion<sup>19</sup>.



Figure 4  
Share prices of VW AG in the days of the scandal<sup>20</sup>

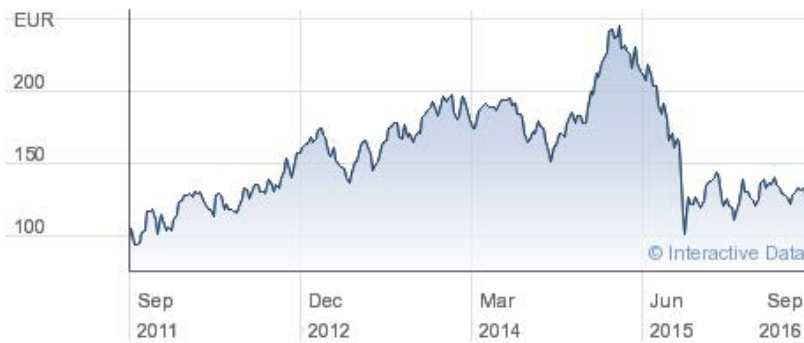


Figure 5  
The share-prices of VW from 2011 till 2016<sup>21</sup>

<sup>18</sup> <http://bigstory.ap.org/article/7331e2a146d24645820afa4d4328747b/ap-source-vw-pay-about-102b-settle-emissions-claims> 08.09.2016.  
<sup>19</sup> <http://www.nytimes.com/2016/04/29/business/international/volkswagen-legal-costs-emissions-cheating.html> 10.09.2016.  
<sup>20</sup> <http://fortune.com/2015/09/23/volkswagen-stock-drop/> 10.09.2016.  
<sup>21</sup> <http://www.hl.co.uk/shares/shares-search-results/v/volkswagen-ag-ordinary-npv> 08.09.2016.

When Barrage et al. (2014) examined the effects of BP oil spill<sup>22</sup> effect on BP's position, they found three relevant consequences: (1) there was a significant reaction from the consumers – BP retail prices declined by 25 % while BP volume declined by 3.6 percent. (2) In areas, where green preferences of consumer were stronger, the impact of the oil spill was definitely stronger. (3) However, where BP showed more intensive advertising activity before the disaster, the negative effect of the spill was lower.

They found that “the impact of the oil spill on BP prices was significantly less severe in areas with more BP pre-spill advertising. These results are robust to a variety of specification checks such as controlling for BP's corporate advertising during the spill and for other types of advertising that may have affected demand for BP-branded retail gasoline stations” (Barrage et al, 2014. p.5.)

Damaged reputation can already be seen in lower sales numbers of VW models. For example, in Europe the company sold 3,1 % less cars than a year before (Jan. 2016 vs Jan. 2015), even in Germany sales declined by 5,2 %. On the Russian market the market-loss is more relevant (27%). On the U.S. market sales declined by 7.6 %. Interestingly, in China, sales improved by 15.4 % - as being the biggest market for VW the whole (300.000 sold in China from the 520.000 new VW car sold worldwide in January 2016), the companies market-position is not devastated by the scandal.<sup>23</sup>

### 3.2. Consequences for the industry

Although VW is responsible for the manipulation scandal, not only the company itself has to pay its price. Share-prices of the main competitors of VW have also decreased after the scandal: Toyota lost -3.24%, BMW -3.88%, Honda -13.73%, Ford -12.42%, General Motors -4.32%, Mercedes -6.51% and Fiat -5.97%.<sup>24</sup>

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<sup>22</sup> The Deepwater Horizon drilling rig explosion was the April 20, 2010 explosion and subsequent fire on the drilling unit, which was owned and operated by Transocean and drilling for BP, 60 km southeast of the Louisiana coast. The explosion killed 11 workers and injured 17 others. The same blowout that caused the explosion also caused a massive offshore oil spill in the Gulf of Mexico, considered the largest accidental marine oil spill in the world, and the largest environmental disaster in U.S. history

<sup>23</sup> <http://www.volkswagen.hu/hirek-es-hirlevel/hirek/1045-koezel-valtozatlan-eredmennyel-kezdt-ez-evet-a-volkswagen-s> 08.09.2016.

<sup>24</sup> <http://bruegel.org/2015/09/chart-of-the-week-the-impact-of-volkswagen-on-the-automobile-stock-market/> 10.09.2016.



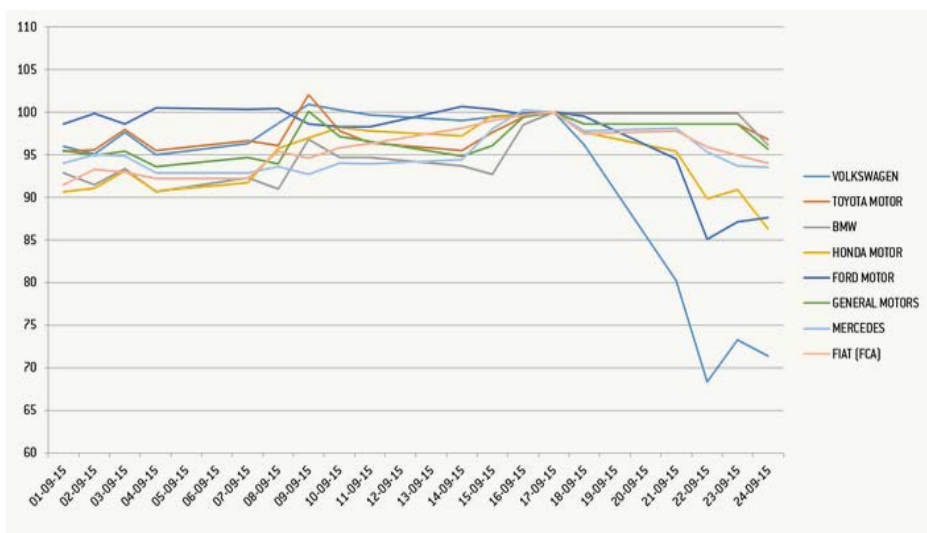


Figure 6  
Stock prices of VW and its main competitors after the scandal (Sept, 2015)<sup>25</sup>

According to Bruegel the potential reason "is that markets may fear stronger and more stringent enforcement of environment regulation affecting all global car producers. It is also possible that the Diesel technology's reputation as a "clean fuel" will be fundamentally discredited, undermining profitability in other companies as well."<sup>26</sup>

From the consumer side higher level of cynicism, lack of trust toward any messages from the car manufacturers is a rational reaction. That makes the task of marketing-managers more difficult in the future.

### 3.3. Consequences for the society

Air pollution is not only dangerous because it contributes to global warming but because it has direct negative effect on human health. Initial estimations in the press of the impact already incurred on public health range from 16 to 106 premature mortalities, but Barrett et al. (2015) made precise investigation and their calculation estimated 59 premature deaths as a consequence of the higher level of air pollution in the U.S. due to the formerly mentioned VW diesel cars.

<sup>25</sup> <http://bruegel.org/2015/09/chart-of-the-week-the-impact-of-volkswagen-on-the-automobile-stock-market/> 10.09.2016.

<sup>26</sup> <http://bruegel.org/2015/09/chart-of-the-week-the-impact-of-volkswagen-on-the-automobile-stock-market/>

Translating the higher air pollution measures into direct death cases can help for the public to realize the seriousness of the unfair behavior.

In addition, researchers estimate an additional 31 cases of chronic bronchitis and 34 hospital admissions from respiratory and heart problems. Individuals would also suffer around 120 000 'minor restricted activity days', including work loss days. (Barrett et al. 2015)

VW's greenwashing case may also result in the lack of trust toward environmental protection institutions and the effectiveness of their procedures because this misleading could last for many years while noone detected it.

According to the German Spiegel, "Meeting minutes, correspondence and conversation records (...) show that the European Commission and member states knew, since 2010 at the latest, that the extremely harmful emissions from diesel cars were strikingly higher than legal levels. (...) According to EU officials, pressure from countries with a strong auto industry, most notably Germany, significantly reduced interest in an investigation. Instead of doing something about the environmental policy violation, the Commission and the member states passed the buck to each other." "The winners in this fight over responsibility are the automakers, like Opel and Mercedes, who have exploited it to shirk their own responsibility. The Volkswagen Group, which will be paying billions of euros in fines in the United States, can feel secure against criminal prosecution in Europe."<sup>27</sup>

The VW case can also affect the whole German image. Angela Merkel, in comments published on her web site, said she didn't believe the reputation of the "Made in Germany" logo has been damaged by the diesel scandal but warned against "taking it lightly."<sup>28</sup>

### **3.4. The ripple effect of the VW scandal**

Long-term, ripple effect of the scandal can ruin the reputation of the firm more, than the direct consequences of it, as it has become a "term", a case which sets an example for emission scandals, and therefore the brand or company name will be the synonyme for the incorrect behavior.

This ripple-effect has already been experienced in marketing communication. PETA, which is the largest organization for protecting animal rights (People for the Ethical Treatment of the Animal), used VW logo to pay attention for vegan lifestyle. Although its message is that there is a bigger scandal than the VW case,

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<sup>27</sup> <http://www.spiegel.de/international/business/volkswagen-how-officials-ignored-years-of-emissions-evidence-a-1108325.html>

<sup>28</sup> <http://www.wsj.com/articles/merkel-urges-volkswagen-to-make-full-disclosure-in-emissions-scandal-1446290032> 10.09.2016.

it uses the VW example because they think that there is a common knowledge in the society about it, so referring to it helps people to decode the message.



Figure 7

PETA billboard – using the VW scandal as an example<sup>29</sup>

Another example of the ripple-effect of the VW case as a flagship example of a greenwashing phenomenon took place in Europe. During the Paris Climate Talks (COP21), guerilla actions were taken by some environmental activists. The Brandalism group replaced approximately 600 bilboards (citylights) with critical messages in connection with climate change and they highlighted the responsibility of companies and politicians. The VW scandal also gave munition to that.

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<sup>29</sup> <http://www.peta.org/blog/theres-a-bigger-emissions-scandal-than-volkswagen-says-new-billboard/>



Figure 8

Guerilla marketing billboard for Paris Climate Talks – using VW scandal as an example<sup>30</sup>

The text on the citylight poster is rather cynical: “Now that we’ve been caught, we’re trying to make you think we care about the environment. But we are not the only one.”

In the age of hashtags it is also remarkable that the “#Dieselgate” term has been coined. As Nixon name has intertwined with Watergate forever, maybe Volkswagen will have difficulties to get rid of this stain on its image.

<sup>30</sup> <http://www.citylab.com/design/2015/11/cop21-paris-climate-billboard-artist-volkswagen-brandalism/417897/>



Figure 9

Dieselgate pictures on the net (Source: [https://www.google.hu/search?q=dieselgate&client=firefox-b&source=lnms&tbm=isch&sa=X&ved=0ahUKewjTrd2P0NrQAhWFDywKHf4XBxIQ\\_AUICCGB&biw=1366&bih=657](https://www.google.hu/search?q=dieselgate&client=firefox-b&source=lnms&tbm=isch&sa=X&ved=0ahUKewjTrd2P0NrQAhWFDywKHf4XBxIQ_AUICCGB&biw=1366&bih=657))

Why these examples mean a real danger to the reputation of the firm? Because VW has n't got any control on such consequences of its own immoral actions.

### Conclusions

The VW scandal is not the only greenwashing case in the automotive industry. "There are still some egregious examples of greenwashing, such as Mazda's use of the Dr Seuss cartoon character The Lorax 'to speak for the trees' and endorse Mazda's SkyActiv technology with a 'Certified Truffula Tree Seal of Approval' from the charismatic cartoon animals" (Bowen and Aragon-Correa, 2014) Honda settled a class action suit for false and misleading statements regarding the fuel efficiency of a hybrid vehicle. Honda advertised that its Civic Hybrid got approximately 50 miles per gallon (MPG) when in fact it got around 30. This practice was also a long-term case: between 2003-2009. (Delmas, Burbano, 2011, p.64).

VW now is doing all the actions what are necessary to survive the scandal: it has admitted their sin, they stopped continuing using the defeat device, they offered compensation for their clients and will pay the fines as well. The CEO also took - at least, partly- the responsibility. However, hard times are not over yet. Just in these days London and France have announced need for compensation (London mayor Sadiq Khan issues £2.5m VW congestion charge call 20 Nov, 2016)<sup>31</sup> To survive this financial crisis, VW announced they will fire 30.000 workers till 2020 in order to improve profit.<sup>32</sup>

<sup>31</sup> [http://www.basingstokegazette.co.uk/news/national/14917037.London\\_mayor\\_urges\\_VW\\_to\\_fully\\_compensate\\_capital\\_over\\_emissions\\_scandal/](http://www.basingstokegazette.co.uk/news/national/14917037.London_mayor_urges_VW_to_fully_compensate_capital_over_emissions_scandal/)

<sup>32</sup> <http://www.origo.hu/gazdasag/20161118-a-vw-4-ev-alatt-30-ezer-embernek-mond-fol.html>

What surprising is that consumer boycott hasn't been started as a reaction of the scandal – although it could have been a clear message for the company and for the society. So there might be a speculation that consumers don't really care about the air pollution of diesel cars in general.

To prevent such greenwashing cases, Baldassare and Campo (2016) suggest a self-assessment matrix to companies. The two dimensions of the matrix are being sustainable and appearing sustainable. A transparent company suits both, but for opaque companies to appear is more important than to be sustainable. VW has to work honestly on changing its position in this matrix in the future.

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## **Fringe Benefit - still a Motivation?**

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*Abstract: Nowadays employers have to face to numerous challenges: sociological questions, quick changes of legal environment, economical insecurities and impacts of international changes as well. These changes affect working individuals of any organization or company too, thus, goal of HRM strategies and reward management is to identify and satisfy the variable needs of employees through organizational reward system which contains fringe benefits as well. The present article discusses the connection between motivation and rewards, in order to make fringe benefits more effective for its users; specifies the opportunities in the Hungarian tax system; and finally, the results of the questionnaire research on the incentive effect of the fringe benefits among employees.*

*Keywords: motivation, fringe benefit, incentives, Hungary, PIT, employee satisfaction, HRM*

### **1 Introduction**

Nowadays companies depend on human capital much more than ever. Increased importance of knowledge management and innovation potential have been placed the focal point of HRM strategies onto employees' satisfaction. In longer term employees' loyalty results organizational commitment that has three primary elements: a strong conviction in and approval of the organization's aims and merits; a disposition to wield significant effort on behalf of the organization; and a strong urge to preserve with the organization [1].

The world of business is traditionally based on profit. Beside the natural and formal boundaries, this process can be limited only by attitude of individuals, by the quality of the workforce and their ambitions. Without the various driving forces the needs of the individual remain unsatisfied and they may stop operating as productive workforce.



The employees' expectations can include: wage system (base salary and benefits), safe and innovative working environment, leadership style. Previous researches show that financial compensation is just the second most important factors among young Hungarian professionals. Conditions, good working atmosphere and stability are the key factors regarding requirements for future workplace. The importance of good working conditions includes innovative environment, opportunity for personal development and attitude of managers and their leadership style. Young labor market entrants who cannot succeed in finding the suitable and desired conditions, have no other choice but working in lower ranked positions. Due to one of the most important motivator is earning potential, it has to be fulfilled, even if the individual is overeducated for the available position [2]. Studies shows that Hungarian employees are mainly salary-driven, but good working conditions are considered as well. Employers and employees in Hungary have to face to heavy tax burdens (the 4. highest in the EU) regarding to wages [3]. In order to facilitate both parties, cafeteria system which offers different fringe benefits has been introduced by the Government. A cafeteria system is such type of non-cash employee benefit which aims to increase satisfaction and loyalty of individuals and offers cost effective compensation alternative for the employees due to provided tax reliefs [4].

Many non-financial factors motivate employees to improve their outcome. These intrinsic motivations give personal satisfaction to the individual and make the employee feel better in the organization. But what is motivation exactly? What is behind benefits?

## **2 Motivation as a HRM instrument**

Motivation is a process that starts with a physiological or psychological need that activates a behavior or a drive that is aimed at a goal. Motivational theories summarize the different integrated approaches encourage individuals to be productive. Every individual has different desires, needs and goals which may appear as a requirement addressed to the organization. More demands remain unsatisfied, more negative organizational and personal impact emerge. As soon as the need is satisfied, balance can be restored and the organization can improve productivity again. Tools to encourage employee performance and productivity can be enhanced if management is aware of the interests affecting the motivation of the employees [5]. Every employee is expected to show increased performance by the managers whose goal to achieve this behavior of the employee. The behavior of the individual is influenced by the environment in which they work. If an employee is never given opportunities to use all of his skills, then the employer may never have the benefit of his total performance. Work performance is also based on the abilities of employee. If a worker lack the learned skill or talents to do a certain task, then performance will be less than optimal. The third dimension of performance is motivation.

## 2.1 Motivational theories

Numerous need-based theories of motivation focus on the drive of an individual to satisfy their needs through their work. The motivational content theories summarize the individual traits which may encourage people to be more productive. Employees are attracted by very different needs, drives and goals. The work-related motivation is “*the willingness to make efforts towards organizational goals in line with individual needs to satisfy*” [6]. The effectiveness of the rewarding tools can be increased if the managers are aware of needs affecting the motivation of the employees [7].

### 2.1.1 Maslow's Hierarchy of Needs and Alderfer's ERG theory

Maslow's hierarchy of needs is a well know and most commonly used theory in psychology proposed by Abraham Maslow. In his book, *Motivation and Personality* (1954) Maslow used the terms "self-transcendence", "self-actualization", "esteem", "love/belonging", "safety", "physiological" to describe the different motivations and organized these needs into pyramid form [8]. The most important levels of needs are at the bottom, and the higher ones at the top. According to Maslow, employees are motivated by unsatisfied needs which have to be satisfied before higher needs are to be addressed. If we relate Maslow's Hierarchy of Needs theory with employee motivation, a manager has to try to motivate his subordinates by satisfying their lower level needs first before he tries to address the higher ones, or the employee will not be motivated. The difficulty lies in the personal differences regarding the priority of needs.

Clayton Aldefer reviewed Maslow's theory and further developed it and categorized the needs and hierarchy in a more realistic way and created the ERG Theory. This theory defines three core needs such as: Existence Needs, Relatedness Needs, Growth Needs [9].

### 2.1.2 McClelland's Need for Achievement Theory

Achievement Theory was introduced by the psychologist David McClelland and focuses on that need of the individuals which lead to achievements which means better productivity. Segments of examined needs are tighter [10]. “Need for Achievement” (N-Ach) refers to an individual's desire for significant accomplishment. Henry Murray, who used this term first, associated it with a range of different actions: “*intense, prolonged and repeated efforts to accomplish something difficult. To work with singleness of purpose towards a high and distant goal. To have the determination to win*” [11] [12]. Achievement motivation defines three types:

- Achievement – seeks position advancement, feedback, and sense of accomplishment;
- Authority – need to make an impact, lead and accepted by others;

- Affiliation – need to be liked by others in a friendly environment.

Most persons have individual combination of these three types which can be measured with the Thematic Apperception Test (TAT) was developed by Murray. Understanding and applying these characteristics can be useful for not just psychologists but managers as well because “need for Achievement” is related to the difficulty of tasks people choose to undertake which effect productivity and performance at a workplace. This theory can help identify the possible most effective employees and leaders in an organization. These individuals (with high N-Ach) demonstrate strong desire to accomplish their goals, dedicated and want to succeed and desire for feedback on their performance [13].

### 2.1.3 Herzberg’s Two-Factor Theory

The two-factor theory (also known as dual-factor or motivation-hygiene theory) defines that there are certain factors in an organization that lead to job satisfaction, while different ones cause dissatisfaction. It was developed by psychologist Frederick Herzberg, who theorized that job satisfaction and job dissatisfaction act independently and not the opposites of each other; satisfied employees are not necessarily more productive than unsatisfied ones [14].

Herzberg's findings point out that certain characteristics of a job can be related to satisfaction (which opposite is No Satisfaction), while different factors are associated with job dissatisfaction (which opposite is No Dissatisfaction) [15].

- **Factors for Satisfaction:** Achievement, Recognition, The meaning of work itself, Responsibility, Advancement, Growth
- **Factors for Dissatisfaction:** Company policies, Supervision, Relationship with supervisor and peers, Work conditions, Salary, Security, Status  
Herzberg classified these job factors into two categories [15] such as:

#### Motivational factors

The motivational factors yield positive satisfaction and cannot be regarded as motivators. These factors motivate the employees for a better performance and give positive satisfaction, arising from intrinsic conditions of the job itself, such as achievement, recognition or personal growth. Employees find these factors intrinsically rewarding. The motivators symbolized the psychological needs that were perceived as an additional benefit. Lack of these factors does not lead to dissatisfaction, just lack of satisfaction [16]. Motivational factors include:

- Recognition
- Sense of achievement
- Growth and promotional opportunities
- Responsibility
- Meaningfulness of the work

### **Hygiene factors**

Hygiene factors are those job factors which are essential for existence of motivation at workplace. These do not lead to positive satisfaction for long-term. But if these factors are absent or non-existent at workplace, then they lead to dissatisfaction. These factors are extrinsic to work itself and describe the job environment/scenario and symbolized the physiological needs which the individuals wanted, and expected to be fulfilled. Improvement of these factors does not lead to satisfaction just helps to avoid dissatisfaction [15] [16]. Hygiene factors include:

- Company Policies and administrative policies
- **Fringe benefits**
- Interpersonal relations
- Job Security
- Pay
- Physical Working conditions
- Status

## **2.2 Practical application of motivation in business**

Industrial and organizational psychology (also known business or I-O psychology) is the scientific study of human behavior in the workplace and applicate different theories [17]. Actions based on these theories can help organizations and companies improve their productivity and create a more optimal working environment for their employees. I-O psychology devotes considerable attention to motivation and rewards and its role of goal achievement and productivity.

### **2.2.1 Connection between motivation & rewards**

Motivation is the reason drives an individual to do something. Reward can be defined what is an individual get for doing something rather than the reason for doing it in the first place. A simplistic way to look at the difference between motivation and reward is that motivations generally come before the behavior, but rewards come after the behavior. Reward management was developed on basis of I-O psychologists' behavioral research. They focused on the reactions of the individuals and groups to rewards and started to study what motivated them to do what they are doing – the results were basis of many motivational theories, which are affiliated with reward management, which aims to analyze and control employee remuneration, compensation and all of the other benefits for the individual and aims to create and efficiently operate a reward structure for an organization [18].

### **2.2.2 Organizational reward system**

A well-designed reward system motivates employees and helps in building positive emotional response towards the job. It also leads to higher and better performance

of employees which has direct impact on the productivity/outcome of the company. Reward management does not focus just onto salary and employee benefits, is also concerned with non-financial rewards such as recognition, development and increased job responsibility [19]. The principal goal of rewards is to increase productivity by increasing employees' willingness to work. Most people assimilate rewards with wage raise or bonuses, but this behavior can be modified by applying reward strategies based on differences of intrinsic and extrinsic rewards [20]. The main difficulty is to harmonize employees' performance (extrinsic) and satisfaction (intrinsic) [21] due to the fact that two type of motivation can differ in how effective they are at driving behavior.

#### ***Intrinsic motivation & rewards***

Definition of intrinsic motivation is the self-desire to try new things and seek for new challenges, to analyze the individual's capability and to gain knowledge [20]. It has been studied since the early 1970s. "*Intrinsic motivation occurs when we act without any obvious external rewards. We simply enjoy an activity or see it as an opportunity to explore, learn, and actualize our potentials.*" (Coon & Mitterer, 2010) [22]. Intrinsic rewards make the employee feel better at the organization, while this kind of motivation arises from within. It gives personal satisfaction to individuals and make the employee feel better in the organization. Types include information/feedback, recognition, empowerment or gaining trust which can guarantee good working environment which is important for the employees: if they feel better about themselves, they may become more productive and affective. Every confirmation came from outside of the individual gain confidence and help them to succeed [23].

#### ***Extrinsic motivation & rewards***

Extrinsic motivation refers to the performance of an activity in order to achieve a desired outcome, and comes from influences outside of the individual. Usually this kind of motivation is used to attain outcomes that an employee cannot get from intrinsic motivation [24]. "*Extrinsic motivation refers to our tendency to perform activities for known external rewards, whether they be tangible (e.g., money) or psychological (e.g., praise) in nature.*" (Brown, Psychology of Motivation, 2007) Extrinsic motivations are rewards for showing the desired behavior, received from the company the employees work for, such as bonuses, **benefits**, salary raise, gifts, promotion and can be beneficial in some situations. These rewards can gain interest and participation in something in which the individual had no interest. Extrinsic rewards can be used to motivate people to learn new skills or knowledge. Once these skills have been learned, employees may become more intrinsically motivated to pursue the activity [25]. These extrinsic rewards are the basis of goal-oriented incentive systems [6].

Both kind of motivations and rewards have to be implicated into incentive systems to increase job satisfaction which leads to higher productivity. Based on the results

of SHRM Employee Job Satisfaction and Engagement survey of U.S. employees in 2015, 53% of employees can be motivated to better performance with fringe benefits [27].

### **3 Characteristics of fringe benefits in Hungary**

#### **3.1 Definition and history**

Fringe benefits include various types of non-financial compensation [28] provided to workers in addition to their base salaries and belong to the type of extrinsic rewards. They are designed to make a compensation package more attractive. The mandated ones belong to employee rights or entitlements, while discretionary benefits are designed to increase loyalty of individuals and increase satisfaction [22]. First studies on the loyalty and satisfaction of employees appeared in the 1970s in the US. Researchers established that increase of basic salary cannot increase the satisfaction of the individuals past a certain a point. Thus, fringe benefits started to be applied but the outcome was different based on age, health and other personal features of employees. Based on these results more complex Cafeteria Plans had been created in the USA pursuant to Section 125 of the Internal Revenue Code, followed by other Anglo-Saxon countries in the 1990s. [29]. Hungarian Cafeteria System appeared in the 1990s and it became a popular and cost effective solution for companies to increase employee satisfaction [30]. These benefits are competitive due to taxation reasons compared to the cash payments even though Hungarian workers prefers cash compensation. Based on the latest researches, the main purpose the organizations introduced cafeteria systems in Hungary is “The ability to plan the costs and using the advantages of the tax exemptions are among the leading reasons” said by Poór and Óhegyi [31]. The early adopters of cafeteria put more emphasis on commitment of employees. In the latest implementations, the cost related motivation is dominant in the organizations.

#### **3.2 Types**

The first food vouchers as cafeteria elements appeared around 1995 in Hungary and the system has developed in a very dynamic manner during the last 20 years. Government varies the taxation and social security regulations even yearly thus the elements and cost of cafeteria system transforms continuously [31].

In 2016, Hungarian employers can choose from wide selection of benefits such as:

- Erzsébet voucher
- Back-to-school benefit
- SZÉP Card (catering, accommodation, leisure & recreation subaccounts)

- Formal training
- Holiday service/voucher
- Health care contribution
- Pension fund contributions
- Dining contribution
- Provided local public transport pass

Hungarian law strictly defines the type of benefits and conditions of usage. For example food vouchers cannot be used for purchasing anything else than food.

### **3.3 Financial advantages**

Employees must receive compensation for labor from their employers based on work related laws and regulations. Hungarian employers are mandated to offer some non-cash compensation in addition to normal remuneration as well and most of them offers many selectable items within a certain amount. Many of the benefits do not have any fiscal advantages for the employees but guarantee cost effective solution for the employer compared to increase of wage due to differences in taxation. This effect has been classified as a tax-shield-effect. Research of Szent István University have found that majority of the companies passed the tax burden fully onto the employees. Less than 30% of the companies took the additional costs resulting from the taxes [31]. Reasons why employers typically implement benefit packages are different. One group wants to maximize the tax advantages, while others aim to use a strategic compensation approach focused on attract and retain good quality workforce.

## **4 Results and Discussion**

This article discusses the summary of Hungarian system of fringe benefits and its motivating effects associated with financial advantages. The quantitative research aims to find out the organizations' awareness regarding the real demands of employees, and examination of the satisfaction concerning different benefits.

### **4.1 Measure and Method**

The data has been collected anonymously by a questionnaire which took maximally 5 minutes to fill in. The survey form included just 17 questions to simplify the filling process and maximize the number of responses. The first four questions collected general information such as gender, age, educational level and job position. The rest of the questions were specifically related to the cafeteria system. The questionnaire was available online and paper form as well in Hungarian and has been sent to employees in area of the capital city, Budapest. Business and public sector also have

been involved in the research. Presented data below is not representative regarding the whole Hungarian population. The total number of responses were 116 (N=116) shared between 81 female and 35 male participants. Employees under 18 years are excluded from the research due to the lack of experience and relevant opinion on the fringe benefit system.

## 4.2 Survey analyses

The survey has been answered mostly by the age group of 41-50 years old employees which represents the 31.7 % of the entire replies. According to their educational qualifications, 46.5 % of the respondents have higher educational degree, 41.4 % secondary or vocational degree and 12.1 % skilled on lower level. In regard to the positions, 101 subordinates and 15 managers are represented.

95% of the employees are receiving any form of fringe benefits above their wage. Based on the results, Erzsébet voucher is the most popular type among employees, regarding the private and public sector too. The SZÉP card's different subaccounts are widely used as the back-to-school benefit as well. The voluntary health insurance fund and the pension contribution are represented exclusively just in the benefit element of the business sector.

In regard to the variations, 48.3% of the employees reported that everybody receives the same kind of benefits from the employer – there is no option to choose, while 37,9% can select and combine and 13.8% provides benefits only for specific groups. Generally, employers offer fixed benefit packages for the employees who are not allowed to choose the preferred elements. Based on the whole responds, 60 persons cannot personalize their benefits, while the system is absolutely flexible in the rest of the cases. More 50% of companies are interested in the needs of employees and try to satisfy their demands.

Level of satisfaction of the employees is measured by questions relating to the provided benefits of the company. Responds have been measured on a 10 point Likert scale, the value "0" represents "not satisfied at all" and value "10" mean "very satisfied". Based on the answers the value is 4.28, which is the "moderately satisfied" level according to the scale. The variance is 2.99 from the average point.

The survey asked the employees regarding their further demands as well. The greatest need among the respondents was the local travel pass and a great number of employees demanded also the implementation of the food voucher as a fringe benefit. Several people are interested in leisure and accommodation subaccount of the SZÉP Card and pension fund and health care contribution as well. Results show obviously that the demand for benefits is much more than the actual provided elements (Figure 1).



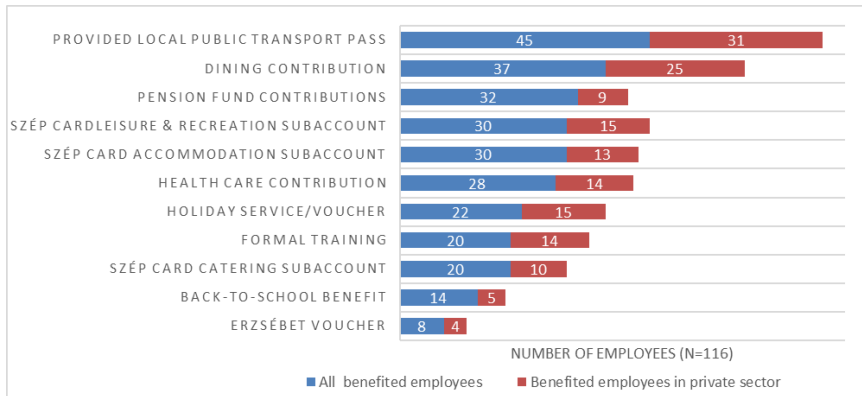


Figure 1  
Further needs regarding fringe benefits

The impact of fringe benefits during the job selection process has been examined as well. The most important factor was the payment (salary), followed by stable job conditions and possibility of work-life balance. Fringe benefits have been the least important factor in case of acceptance of a job offer.

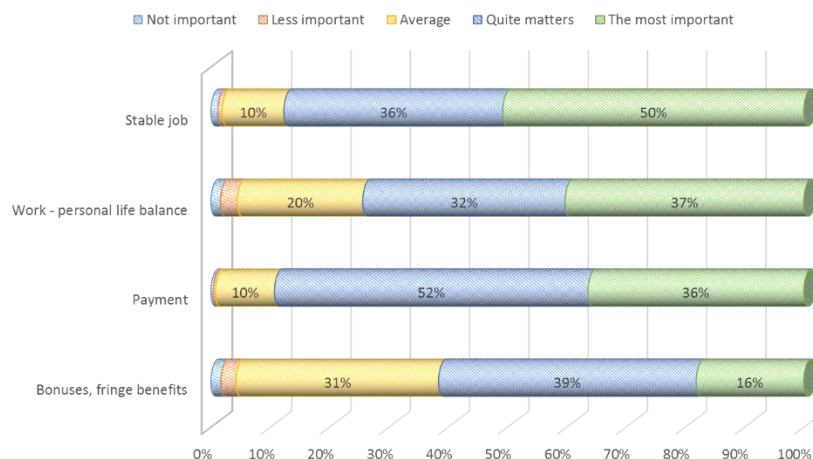


Figure 2  
Importance of different factors regarding a new position

After the examination of the impact of fringe benefits to the motivation, the results showed that after the job is secured, the benefits have effective motivational effect. The benefits' incentive effect has been measured on a 0 to 5 scale. The average value is 2.59 which shows that the benefits are a little bit more motivating than the medium level. The deviation of the opinions is 1.76.

The questionnaire focused on a very important question as well. It measured the willingness to accomplish additional work for more available benefits.

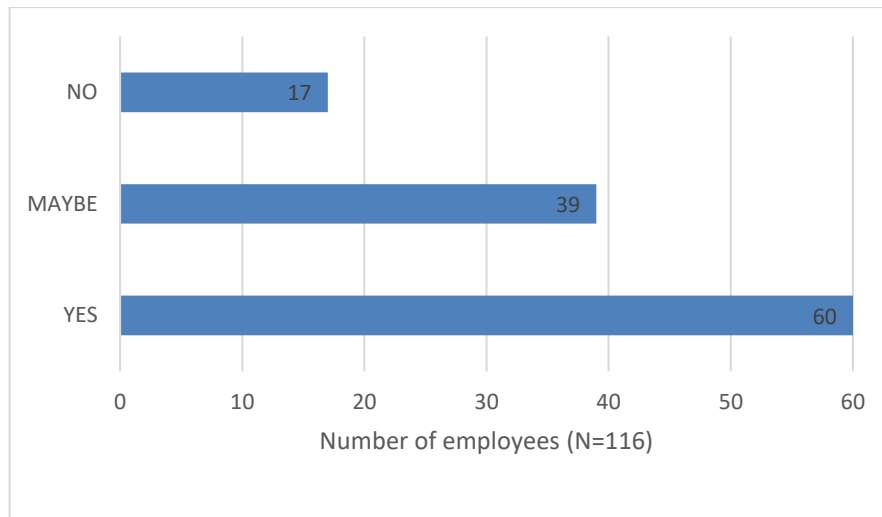


Figure 3  
Willingness to accomplish additional work for benefits

The answers were positive: 60 employees (more than the half of the examined persons) are willing to do extra work if it effects the amount of received benefits. 39 of them replied “maybe” and just 17 employees have no motivation at all. In conclusion, fringe benefits have strong incentive affect.

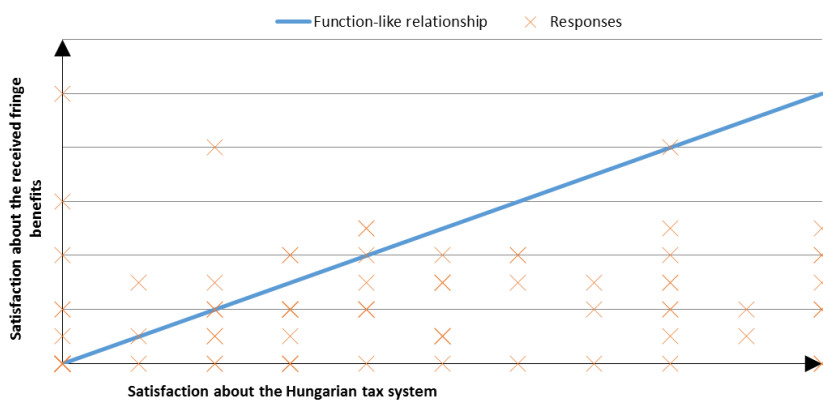


Figure 3  
Willingness to accomplish additional work for benefits

The study aimed to seek for any correlation between satisfaction of employees regarding the benefits and their opinion on Hungarian tax system. Chuprov's coefficient and Cramer's V have been applied, and the value is 0.3 which showed there was no significant correlation between these opinions (Figure 3).

### **Conclusion and recommendations**

The present paper focused on the fringe benefits (Cafeteria) within the incentive systems of the human resource management in Hungary. Research results show that most of the employers do not inform their employees about the exact opportunities offered by the Hungarian Cafeteria Plan. Even if the tax burden is the same between several different benefit options, the list of given ones is usually compiled by the company, without the assessment of employee needs and preferences. If an individual looks for a new job, the "value" and content of the benefit package is not relevant regarding the acceptance of a job offer, but when they are already hired, they are "moderately satisfied" with the fringe benefit system – further improvement would be welcomed. Positive results are that increased sum of benefits would effect employees' motivation towards additional work. Due to the employee's willingness to work more, companies could consider the range of the offered benefit selection and various information channels about the cafeteria system.

As a conclusion, data has shown that employees can be motivated for more productive and effective work, if employers consider the needs of individuals.

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# Microsimulation Modelling of the Pension System

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*Abstract: One of the most significant social changes in the countries of the European Union is the rapid ageing of their populations and its current and expectable effects on their balances of economies. Hungarian population, similarly to those of other European countries is also rapidly ageing, making it inevitable to face different challenges in the near future. The most important of these are the reforming of the healthcare system, social insurance, pension system and taxing system. The realization of these reforms require long-term strategies on the part of the state - the strategies should be modelled, tested and controlled. In some countries of the European Union the methodology of microsimulation has been used for a long while in order to check different impacts of different regulations, and it is getting popular in Hungary as well. This study consists of three parts. The first part is presenting the present and expectable changes of the population of the European Union as a whole. The second part presents the results of pension modelling of the countries of the EU. The third part is describing a possible setting up of a 4 year-long research project examining the economical effects of globally ageing population on pension security.*

*Keywords: microsimulation, modelling of the pension system, research project*

## 1 Changing of the populations of the European Union and Hungary

At present most countries' social insurance systems are pay-as-you-go (PAYG) systems, i.e. expenses of pensions being payed are covered by the inpayment of jobholders. [2]. The theoretical foundation of this kind of pension system was introduced in a publication of Paul Samuelson in 1958. This theoretical foundation is based on the presumption that the active members of the society support the elderly. This presumption is valid regarding the maintainability of the system only if the number of babies being born is sufficient to insure enough

active future jobholders to be able to support the preceding generation(s). Another presumption of Samuelson is that by the constant growth of population economic development also takes place [13]. We can examine the distribution of population regarding age by a population pyramid. As the first figure shows- calculations of the website called Population Pyramids- the population of Europe is going to decrease. The figure is representing the pyramid of ageing societies. According to precalculations rapid ageing can be expected- it endangers the long-term sustainability of pension systems of the European countries [4] [16].

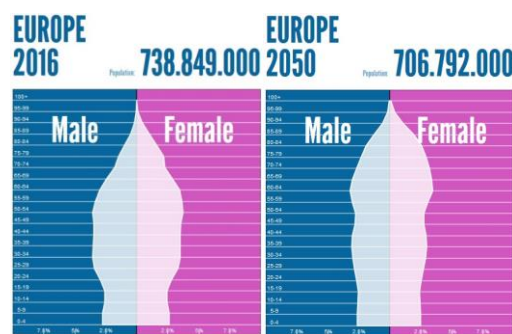


Figure 1.

Population pyramid of Europe in 2016 and 2050 [Population Pyramids]

The population pyramid of Hungary can be found on the website of Population Pyramids or on the website of Hungarian Central Statistical Office (KSH) in a virtual, interactive format. According to the second figure at 2050 Hungary's pyramid – similarly to the of one of the European Union - is going to take the shape of a stagnant population. The proportion of young (children: 20-25%) and middle-aged inhabitants is almost identical to each other, while at elderly generations' (10-15%) lanes the pyramid is getting radically thinner.

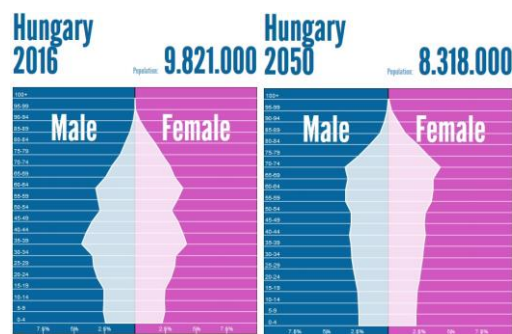


Figure 2.

Population pyramid of Hungary in 2016 and 2050 [Population Pyramids]

The first chart shows the precalculations of a study of Commission of the European Parliament (EPC). According to the study a rapid ageing can be expected of the populations of the European Union as a consequence of the growing lifetime of men and women. [4] Precalculations assume that the number of births are going to change significantly, what more, a stagnant period of time can be expected.

The first chart demonstrates the dramatical changes of the job-holder generations: the active part of the population is going to decrease radically. Expenses of pension payment are likely to grow at the same time. Financing pension payments might become a heavier burden for countries of the European Union including Hungary as well. [4] [16].

	2010	2050
Life expectancy, female	82,1 years	89 years
Life expectancy, male	76 years	84,5 years
Number of births	1,5	1,6
Working age group (15-64)	325 million	283 million
EU pension expenses (GDP %)	10,2 %	12,5 %
Hungary pension expenses (GDP %)	10,4 %	13,8 %

Chart 1.  
EPC precalculations for EU [4]

The basis of the maintenance of PAYG pension system would be a significantly bigger number of jobholders than retired citizens in a society- otherwise the system is going to become imbalanced [6]. According to the precalculations of KSH the proportion of younger and older generations are not going to change in a positive direction as the number of elderly population is going to increase, while young (working) population is going to decrease [7].

According to chart 2. the proportion of working and retired inhabitants has hardly changed from the 22,4% values from the 1970's to 2000, but it can rapidly change to 47,7% by 2050 [14]. Practically this change of proportions would mean that while in 1970 one retired person was financed by 5 jobholders, by 2050 one retired citizen can be financed only by 2 active members of the society.



Year	1970	1980	1990	2000	2010	2020	2030	2040		2050
Proportion of retired and jobholder	22,4	26,9	27,2	23,6	24,6	30,2	33,7	38,6		47,7

Chart 2.  
Proportion of retired and jobholder (aged 15-64) [14]

## 2 Possible ways of modelling a state pension system

State pension systems are targeting long-term goals and have long-term impacts. [1]. Hungarian pension system is found on two main pillars: the first pillar is the PAYG principle, the second is the capital provision principle (see Fig. 3.) [12]. In the case of a pension system based on the PAYG principle the incoming contributions are not capitalised nor invested, but yearly pensions are directly paid from them [6]. The PAYG system is comfortable and might seem attractive until population and economy is in the wave of growth [13]. The recent obligatory social insurance system is loaded by the following three problems that endanger the financial balance of the Hungarian pension system : ageing of population, low level of employment, partial payment of contributions. According to demographical data population has stopped growing long time ago, while at the same time pension payments are continuously growing as numbers show [9] [10].

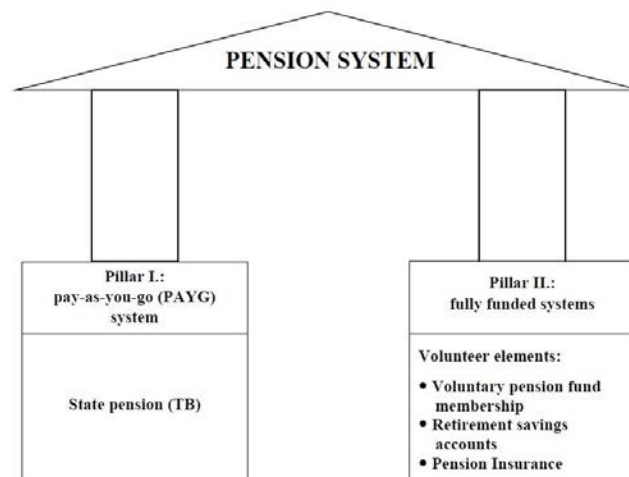


Figure 3.

Pillars of Hungarian pension system now [own figure]

The PAYG systems undergo a serious crisis in the European Union, reforms of pension systems are unescapable. On a macro level of problem-solving an automatism should be designed for contributions and pension payments that would insure the long-term balance of the system [14]. The above listed problems would require the supervision of the long-term effects of regulations and basic principles of the pension system- the methods of microsimulation are definitely a practicable choice for this [3] [5] [8] [15] [17] [18].

The micro-simulation models applied in the impact analysis of the pension system may be classified according to many aspects, from absolutely static to fully dynamic (see Fig. 4.) [17]. Micro-simulation modelling takes place at the level of individuals and households, i.e. in those locations where the direct impacts of the changes of the pension system are registered. This enables the modelling of the effects in time of the distribution of various characteristics (such as income, amount of the pension).

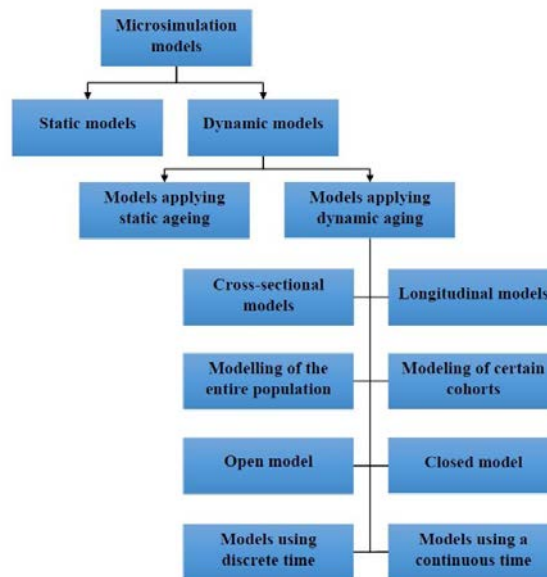


Figure 4.

Microsimulation models [17]

In general, we use the following two micro-simulation models in the impact analysis of pension systems (see Fig. 5) [18]:

- Static models: Pension modelling based on statistical data collection, where we continue writing the data of the known population by aid.

Statistical and probability analysis tools may be used for continuing to project the data of the objects under examination. The impact of the hypotheses assumed in the given model may be assessed by the standard statistical analysis of the results of the simulation, and these results may be considered when strategic decisions are made, e.g. KSH [5] [6] [8] [18].

- Dynamic models: Micro-simulation calculations based on model points, where the focus is on model points: sets assigned to the same category are continued. This means that the volume of required calculations is significantly smaller, however, when the impacts of a pension system are assessed and predictions are made on a time horizon of, say, 50 years, problems may occur with handling the new entrants, e.g. ONYF, NYIKA [3] [5] [17] [18].

In general, dynamic simulation is applied where the demographic module must also be created, concerning which in Hungary the probabilities of birth, death, marriage and divorce may be obtained from the statistical service of the state (KSH). The Hungarian Demographic Research Institute (NKI) provides predictions for the major demographic events, such as birth, death. Being familiar with Hungarian demographic figures, any plans aiming at developing the composition of the population, its impact on the current pension system and its possible evolution in the future, can benefit greatly from the application of microsimulation modelling. It is a widely used method in our days, based on statistical data collection and facilitates making a timeline analysis of the demographic data [3] [5] [6] [8] [9] [17] [18].

Belgium	MALTESE; MEP; MIDAS_BE; MIMOSIS
Bulgaria	ILO PENS (BG)
Czech Republic	Czech Pension Model
Denmark	Danish Pension Model; LAW
Germany	AVID; German Pension Model
Estonia	Estonian Long Term Pension Budget Model
Ireland	Irish Pension Model
Greece	Greek Pension Model
Spain	Spanish Pension Model
France	DESTINIE; PRISME
Italy	CAPP_DYN; CeRP models; RGS
Cyprus	ILO PENS (CY)
Latvia	Latvian Pension Model
Lithuania	PRISM
Luxemburg	LuxMod; REDIS; SOBOLUX
Hungary	Hungarian Pension Models; NYIKA
Malta	PROST (MT)
Netherlands	GAMMA; MICROS; SADNAP
Austria	Austrian Applied Projection Models; Austrian Microsimulation Model
Poland	FUS07
Portugal	ModPensPor
Romania	na
Slovenia	SIOLG 1.0
Slovakia	PROST (SK); MAJA
Finland	Finnish Centre for Pensions models
Sweden	MiMESIS; SESIM
United Kingdom	PENSIM2

Figure 5.

Tools of modelling pension systems in EU [18]

According to Figure 5., countries of the EU use different tools for modelling their pension systems. The task of pension calculation requires the long-term forecast of data, modelling should be well-prepared regarding the issue of data (for example, in the U.S. calculations are performed for 75 years [14], in the EU and in Hungary for 50 to 60 years [3] [4] [17] [18]).

### 3 A possible setting up of a 4 year-long research project

The research takes place in the Doctoral School of Safety and Security Sciences, University of Óbuda from 2016 to 2020. The main focus of the research is the ageing of the populations of the countries of EU, its short- and long-term impacts on economical life, with particular regard to pension security in Hungary [6]. The research analyses the recent and future dispersion of populations in the countries of EU, with special focus on Hungary [3] [4] [10] [17] [18]. Detailed examination is going to be carried out regarding social expenses' debits on economic systems. According to forecasts tight frames are not going to assure sufficient safety and that way they mean serious burden for economical systems. In the following 50 years pension expenses of EU countries are going to increase radically in proportion to their GDPs [3] [4] [9] [10] [16] [17] [18].

Aims and directions of research: Examine and measure demographical data, examine self-care plans and possibilities, individual demands in connection with the pension system and designing a microsimulation model [6]. Research is also focusing on the individuals' decision-making processes: motivations, habits effecting the decision of choosing a certain pension paying model [12].

Methods: Adaptation and processing of Hungarian, international experience and results. Based on quantitative research, using microsimulation modelling, changes in the composition of populations and their effect on the present pension system and its future perspectives is going to be presented [3] [5] [8] [15]. Based on qualitative research (using questionnaires, in-depth interviews) individuals are going to be examined on their possible decision alternatives in the future in self-care, i.e. the second pillar of the pension system.

The structure of the dissertation is planned to examine global ageing, aspects in Hungary and EU [4] [16] in its first part. The second part is comparing the PAYG pension systems in EU countries [18]. The third part is modelling the PAYG pension system and its possibilities through microsimulation [3] [4] [5] [8] [15] [17] [18]. The fourth part is analysing the present and future pension system of Hungary [17]. The fifth part is examining the individuals' self-care behaviour patterns in economical aspect [1] [2] [6] [10] [12] [14].

### **Summary**

According to forecasts, current pension systems are likely to cause severe social and economic problems globally because of the rapid ageing of our societies in Europe. The rich toolbar of microsimulation enables us to model the plans in connection with pension systems. As a matter of course a study or research can not solve all the problems of pension payment itself, but we can clearly define and examine possibilities and effective methods for prediction and problem-solving.

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# What about Change? An Old Theory in a New Light.

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*Change is a constant part of our life... It is almost a klisé. It is everywhere, and we should know, how can it happen to us, and how to act it. This article is the first part of a year-long study, that aims to find, which factors can be a part of a successful lifestyle change, especially for conscious consumption. We consume ridiculously much, way over the level, we need. Half of the world is hunger, and the other half is trying to lose some weight. If we can create a model, like an equation f.e. Two times self confidence and one part good family background equals ten percent succes lifetime change, which is probably not, but if we can found something like that, it would change the theory of lifestyle changing in modern consumption society. This article shows our lifetslye changing model theory, and a study, which presents, it's appearance in practise.*

*Lifestyle changes, conscious consumption factors, decision making*

## 1 The model's theory

Changing is difficult, because the brain essentially would like to be in the most energy-efficient state. This can be achieved if the brain reduces the number of external and internal factors to the state of the minimum. This also implies that the brain try to avoid the unnecessary innovations, so stick to the old habits, which means that brain likes to do everything on the same way. (Kahneman, 2012) This leads to habits. This is practically equivalent to the comfort zone, which is a physical "space bubble" and if other people are "penetrating" into this, it felt uncomfortable. (Pease, 2000) All of this must be added the discovery of Charles (Duhigg, 2012), that a habit has its phases. At first, the brain receives a signal then the routine starts which is followed by the reward. After a short time the signal is appeared again and the usual loop has closed. With enough repetition of these mechanisms are become automatic after a while. (Duhigg, 2012) If change in habits are wanted it should be awared, to be controlled them with decisions. (Dr. Velencei, 2013)

First, the difference between data, information and knowledge is necessary to separate. The data is a detected effect, but it does not include any meaning for us.



When this data is interpreted in some aspect, it becomes information. Knowledge has been confirmed by a true belief, it already has value. (Davenport - Prusak, 2001) "Heterogeneous and constantly changing mix of experiences, values and associated information." Knowledge is complex, its roots cannot be expressed verbally. The Commissioner's conviction is usually a mistake, because it excludes the unknown we do not know. (Szeghegyi, 2011, page 61). In addition, other factors can distort the perception of reality. These are the filters which are based on our own experiences, which is called selective perception; what is more, the settlement schemes, stereotypes, Halo-effect and the searching of causality can be also an influencing factor. The cognitive dissonance is when an internal event contradicts the intrinsic value of the system, and in this way the contradiction appears. (Zoltayné Pepper, 2005)

## 1.1 The combined changing model theory

The main component of my changing-model's research has been recognised in psychology, the trans-theoretical model. (Prochaska, et al., 2009) It is important to note that this model is already 30 years old, and although it is constantly being researched, the original scheme is still the most popular, if not the only changing-model that is universally applicable to all kinds of changes. The model has been successfully applied to quitting smoking and other diseases, or in combination with several changes of behavior, coaching and other programs over the decades. (Pro-change behavior, Systems, inc., 2016) The model itself consists of six phases.

- *Pre-Contemplation*: This section of the main features that we are not aware of the change we need. What we do not see, but the environment has been detected and often will also get to let us know.
- *Contemplation*: At this stage we recognized the problem and brings us want to change. However, so far we cannot talk about Engagement or doable activation. At this stage, we know which way they should go, but we do not know how to start, or just do not know what to do, but we want to do something.
- *Decision*: This is not necessarily a long period but it is important for the floor plan the house is to be built. Of course, it is necessary also decided that we will do well after the preparation
- *Active change*: This is where changes are developed and made by act.
- *Maintance*: At this stage, we have achieved successes, and the wanted state is no longer as far away as the early phase of the action. However, there are throw-backs. There are rarely manage to keep the change for the first time. Therefore, needs a plan that can be followed.
- *Relapse*: This change is most coveted stage. When the new habit entrenched when the new behavior has been self-sustaining. There is disagreement about the part that it cannot be clearly defined by this point, which would be universally valid for everyone.

These are the steps, but not every single one will be reached by during the change. There are throw-backs, and each step can be a possible entering or exiting point. These steps are paradigms which means second order changes and every paradigms are contains first-order changes too. It is important to note that this is a spiral phase, so stage one of the road leads to another non-linear, and not necessarily only upward. The other model is based on the group theory, which is a framework that describes the change within the system, while the system itself is unchanged. The logical types theory provides a framework that is how the relationship between the class and the member of it, and pictures of the transformation when a class entering from one level to another higher logical one. From this arises two types of change. The *first order change* describes changes in one system while the system is permanent, such as the Matrix. Movie, when the actors do whatever you can, within the matrix, but you are connected to the machine. The *second order change* was when Neo disconnected from the machine or in this chase, take a different paradigm, and this is dramatically change. Sometimes, this change may seem illogical, because it is there in one moment and the next, there is not. The second order change, is the changing of change. (Watzlawick, et al., 1990)

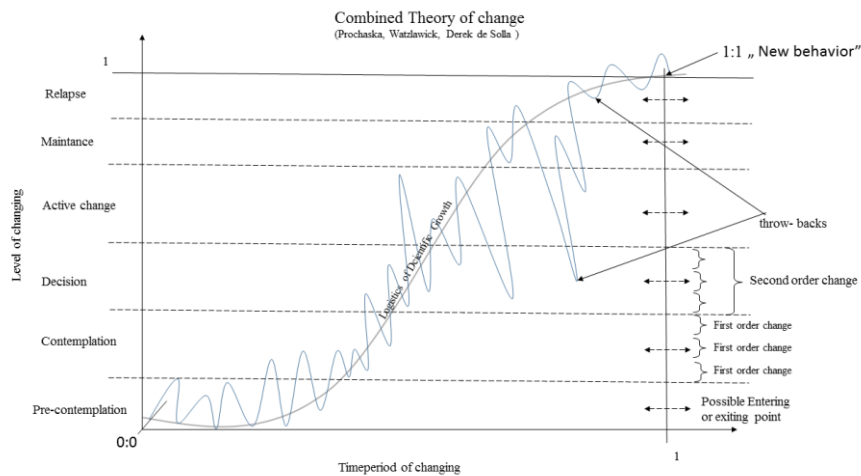


Figure 1.

Combined Theory of change by Prochaska and Watzlawick

In Figure 1, three changing models have combined. The Prochaska one's (Prochaska et al., 2009) and the Watzlawick one's are used for describing people's behaviors. (Watzlawick et al., 1990) The third one is Derek de Solla's (Price, Derek DeSolla 1979) logistics development theory. The process of change is represented by the blue line. It followed the graph by convergent oscillation, if mayor throw-backs have not become. Every stages can be possible entering or exiting points. Every new stages, like Contamplation, or Relapse, are paradigms. A paradigm shift has seen, in allocations indicate, while first order change can

talked about minor changes within the logical paradigms, which are second order changes. (Watzlawick) What is even more, Kurzweil's singularity theory (Kurzweil, 2013) can not be contradicted, it is just investigates a much minor scale.

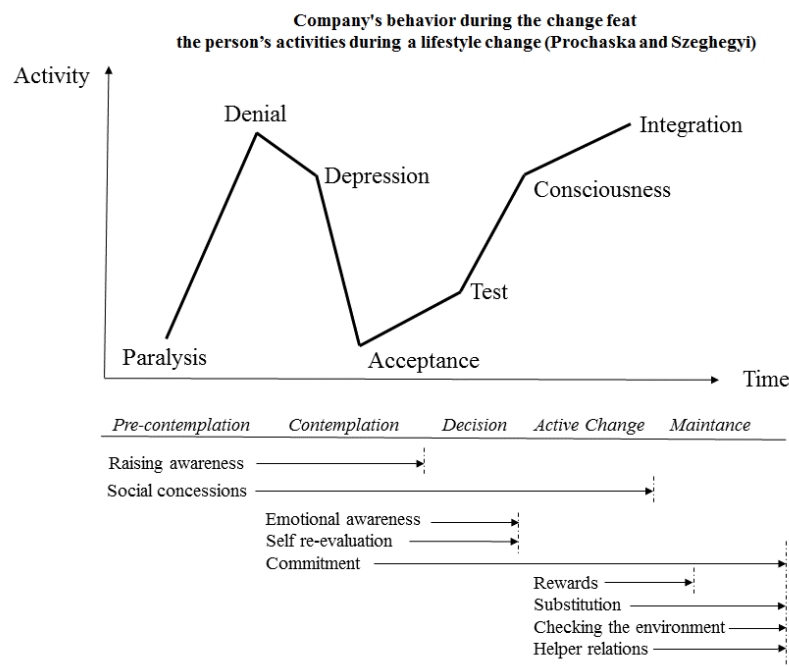


Figure 2.

Company's behavior during the change feat the person's activities during a lifestyle change (by Prochaska, Szeghegyi)

In Figure 2, there is relation because the change in the company life's process (Szeghegyi, 2011), which consists of two participation waves. A negative one to that is a denial and a positive to that is through raising awareness of the integration culminates. If we compare this with the events described in Prochaska's (Prochaska et al., 2009) model, what happens to the individual during the change seems to conspicuous the parallel. The denial can be solved with raising awareness of long displayed a willingness to test, and then with self-re-evaluation, commitment and using rewards can the change takes to the maintance by integration. To do so helper relations, and substitutions, and the checking the environment can be very helpful to facilitate the process. Another parallel is that consideration, is a passive state what is well illustrated in the company's first reaction to change, Paralysis.

## 2 Primary research

During the preliminary research on the subject similar survey was not found. Questionnaire survey forms were researched. The Hungarian sample counts 133. For the research it is an important pillar to test the change model. For this we thought factor analysis the best method to find out how respondents feel about these change stages has been on above-mentioned (pre-contemplation stage, contemplation stage etc). In order to investigate this, a list of 56 statements were created, and were evaluated in a five-scale Likert scale by the subjects, where 1 meant "Absolutely NOT typical," and 5 was "Absolutely typical" (Dr. Fabian, 2014) The Kaiser-Meyer-Olkin criterion of KMO are of very great range, because the value is above 0.8. This means that the items of inadequate factor. (See Table 1). The Bartlett test is successful, because the Sig. less than 0.05, that there is a correlation between the initial claims. (Sajtos & Mitev, 2007)

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		<b>.816</b>
Bartlett's Test of Sphericity	Approx. Chi-Square	2141,493
	df	666
	Sig.	<b>.000</b>

Table 1.

KMO test (own resources)

The reliability test (Cronbach's Alpha) also brought good results. (Table 1) of the examined claims consistency of 0.886 (0.8 over longer a very good), while to the piece related standardized value is 0.884. In total, this means that the statements and answers are also suitable for factor analysis. Table 2 shows that the respondents (those who experienced or planned changes in their lives) the allegations we have listed their answers into what factors can be grouped. The specific analysis is shown in Table 3

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
<b>.886</b>	.884	36

Table 2.

Reliability test (own resources)

Rotated Component Matrix<sup>a</sup>

	Component				
	1	2	3	4	5
(Dec) I have decided, that I will change my lifestyle.	,81	,16	,191	-,091	-
(Act) It is easy to talk about changing, I make the change.	,74	-	,219	-,056	,108
(Dec) I want to act, no matter what it takes.	,71	-	,055	-,107	,151
(Rel) I feel better myself since I have made the change on	,70	-	,341	,096	,063
(Dec) I have made a plan for this changing.	,69	,04	-,215	,027	,151
(Cont) I have thought that I have to change my life/habits.	,68	,23	,289	-,057	-
(Maint) I have a plan after I managed to reach the	,64	-	,010	-,018	,145
(Maint) I have made a change not only on one habit, but	,64	-	,076	,066	,064
(Act) I think about what would be the results of the acts for	,62	-	,183	,079	,334
(Rel) I am proud that I have made a change on one of my	,60	-	,508	,104	,036
(Act) In the past few weeks everyday I have been doing	,60	-	,121	,188	-
(Dec) I know exactly how I will be after the changing.	,58	,00	-,051	,375	,206
(Dec) I was thinking about what I would like to be and	,58	-	,230	,076	-
(Act) Changing can be reached by an immediate action.	,57	,12	,271	-,047	-
(Dec) I am determined by the changing and nothing can	,56	-	,086	,182	-
(Maint) I try to avoid everything which is connected with	,50	-	-,030	,216	,010
(Pre-Cont) Just others can change easily.	-	,70	-,087	,202	,100
(Maint) If I managed to reach the changing, I can lay back	-	,64	-,007	-,059	,121
(Bef) I am afraid that I will be again like I was before the	-	,60	,047	,202	,010
(Pre-Cont) I would like to change something in my life, but	-	,53	,284	,169	,014
(Cont) As soon as I will be ready, the changing will be	,01	,05	,709	,039	,184
(Maint) I pay attention to not flipping back to the state of	,47	-	,511	,220	-
(Act) Changing = I doing something important instead of	,19	-	,076	,556	-
(Rel) I thought if I solve a problem, I can get rid of it	,14	,45	,114	,506	,039
(Dec) I tell my plans everybody.	,26	,41	-,058	-,057	,670
(Dec) I tell my friends what I will do.	,26	,04	,289	-,021	,643
(Act) If I am in a hard situation, I ask for help easily.	,10	-	,322	,129	,561

Extraction Method: Principal Component Analysis.

a. Rotation converged in 13 iterations.

(Pre-Cont=Pre-Contemplation, Cont=Contemplation, Dec=Decision, Act=Active change, Maint=Maintenance, Rel=Relapse )

Table 3.

Factor Analysis of Change in Claims (own resources)

For the factor analysis, Varimax rotation is used, which is looking for a very highly or non correlating variable pairs. This is the most stable and the best factoring separation method, the program knows. Also, it is important to note that because the sample including 133 people, weight factor should be applied, which

means that 0.50 or less weight statements are not typical of the explanations given to factors such as a clearer interpretation, they must be removed. (Sajtos & Mitev, 2007) In the analysis, we found five factors that order of magnitude follow such as:

- [1.] Active Change and Activity based preparing
- [2.] Contenplation
- [3.] Maintance
- [4.] Activity based maintance
- [5.] Decision

The six-stage model we set 4 was finally found in the analysis, which means that in practice it works, the theory. What is interesting is that even though the various other allegations were meant to be for other stages, and yet the meaning of the respondents also became the grouping relevant sense. Finally, the model we developed a phase 6, which is hidden in the four phases 5 and 6 because they supposed to act based on the preparation (whitch we called Activity based preparing) and the act in maintaining (we called: Activity based maintance) a two-section section. Our hypothesis is, that the transitions are not clearly separated, because being changed is not easy, and there is time has to passed, for the commitment has made, and self re-evaluation has to be done. Entering each paradigm has needed time. They cannot entered to one phase to another, they needed, some kind of preparation, which is both times activity based. This is illustrated in Figure 3. This fact suggests that this model is suitable for use and can be adapted for further research.

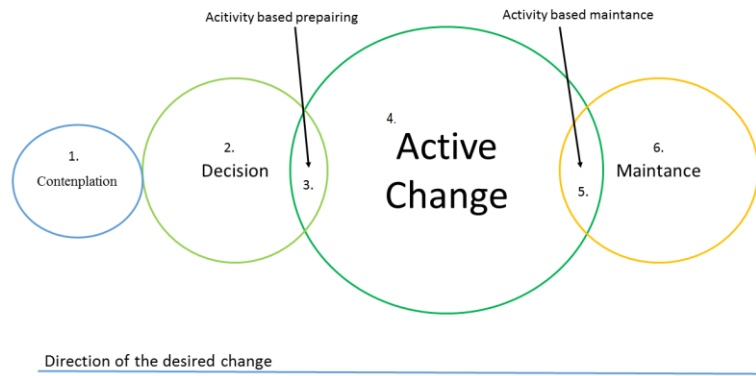


Figure 3.  
Changing factors in practise (own source)

## Conclusions

However consumption choices' connections had not expanded in this article, some older research of ours suggested that there might have connection, like in conscious communication. (Torda T. 2015) But that connection cannot be explored without a usable change model which works in practise.

The paper set up a theoretical model in which the pre-contemplation, you can reach the relapse through contemplation, decision, active change and maintenance stages. The purpose of this work was to justify these theoretical stages, which hard to separate in practice sections, which can also successfully completed. However, there is difference between theory and practice, that the respondents action-oriented factors have been identified. The contemplation stages, followed by a decision phase, which followed by an activity-based preparing, active change and an activity-based maintenance, which finally ends the maintenance.(Figure 3) The comparison shows that the sections can be adapted. However pre-contemplation and relapse, can not be measured directly. It is not surprising, because if those, who do not know that, they would need to change, cannot ask them for what they need to change. And the stage for the relapse is not defined in usual for the changes.

## Acknowledgement

This article based on Torda T. [2016] CONSCIOUS CONSUMPTION BACKGROUND FACTORS IN THE LIGHT OF THE LIFESTYLES I.



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## Under Risk

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“Risk is a situation which is difficult to classify”  
(Armenian male, 27)

*Abstract: The aim of this paper is to observe how the university students define risk. Firstly we try to explore how our subjects use this expression (i.e. how they define risk). Their answers were tested with content analysis technique, which helped us to highlight the most important attitudes of our subjects. In the second part we focused on five risk domains (originally tested by Blais & Weber, 2006). Because everybody will have different risk attitudes, when making decision involving ethical, financial, health or safety, recreational, and social risks. Although the pilot-survey was tested by MsC students this part contained a methodological problem, so this result could not be reliable. In the last part, according to the Domain-Specific Risk Taking Scale (Blais & Weber, 2006) we try to find differences between Risk-Taking, Risk-Perceptions, and Expected Benefits. Our research shows that risk definition could be divided into different meaning-groups and the respondents will order the different type of risks. Furthermore, our results indicate how can we use this validated psychometric scale for our population in the future.*

*Keywords: Risk, DOSPERT Scale, Survey*

### 1 Introduction

Risk taking is one of the stable personality traits which was widely studied in field of psychology. Economists focused on this problem after findings of Kahneman and Tversky were published (Kahneman & Tversky, 1979) who figured out how risk gives weight to our decisions. Although they handled risk as a variable which definition is obvious. The real deeper meaning, how the subjects define it, could be interesting as well. Theory of decision-theory began to grow and most of the researchers built risk-taking into his or her models. However Weber and her colleagues (Weber, et al., 2002) suggested a validated (i.e. scientifically approved) scale for measurement of risk. In 2006 a new (lighted) version was developed

which contains only 30 items (five risk domains) in three different degrees. We try to organize them into 1. Table.

Domain subscales or life domains	Risk-taking (How respondents engage in risky activities.)	Risk perception (How respondents assess the level of risk in each activities.)	Expected Benefits of risk (what kind of benefit respondents obtain in each risky situations.)
Ethical	Instruction: <i>“For each of the following statements, please indicate the likelihood that you would engage in the described activity or behavior if you were to find yourself in that situation.”</i> 7 points ranking scale	Instruction: <i>“we are interested in your gut level assessment of how risky each situation or behavior is.”</i> 7 points ranking scale	Instruction: <i>“For each of the following statements, please indicate the benefits you would obtain from each situation.”</i> 7 points ranking scale
Financial (Investment/Gambling)			
Health/Safety			
Recreational			
Social			

Table 1

DOSPERT 30 (Own table based on Center for Decision Sciences, Columbia Business School)

As it could be seen this test contains 30 statements (all subscales have 6 statements) in three different contexts. The authors measured validity of test and offered scoring instructions as well (i.e. concrete mathematical model how risk can be evaluated). The test was translated into different languages, most of all also in Hungarian.

That means all subjects need to read, understand and answer the same 30 sentences comparing 3 times, all together (in sum) 90 choices per a subject. Although it could be handled easily with a help of IT tools but telling the truth it can be called as respondents' friendly solution. In last semester we try to use this test and it was implemented. But our results were not stable, unfortunately. Maybe the source of the problem was that our subjects were not able to find differences between the before mentioned life-situations or they were impatient to pay attention for all items.

So the research questions was given, how this test can be suit to our population (in this case university students from different cultures). But first of all how risk could be defined in their mind. Examination of the Generation Y is increasingly important, as it not only represents a new challenge for the education system, but the labor market. (Kolnhofer-Derecskei-Reicher 2016)

## 2 Methodology

Regarding the literature we worked with the items and categories from Blais & Weber (2006). In frame of Research methodology course we worked with MsC students who helped us to design the survey. The survey contains four parts and can be found in the appendix. The first part asked the demographical background of respondents like gender, age or nationality. Because this survey was suited not only for Hungarian but foreign students as well, so the survey was in English. In the second part respondents should define risk with their own words. In the last half of survey we used the before mentioned scale's categories. Firstly, the answerers should evaluate which situation is more likely to happen to them. Finally, they need to judge which aspect influences their decision.

### 2.1 Limitation

Despite the fact, that we tried to manage the problem of scientific reliability and validity. Unfortunately, a problem was given in the second part. The opposite meaning of the instructions and scales descriptions should effects misunderstanding. That means, the subjects found "likelihood of the situation" and "risk" in the scale, which can confuse them. At the end we have decided that we skip out this part from the research. The following (table 2.) table shows the results, that proves the conflicting assessments. The present part had not any goals, because we can not be sure which questions were answered (i.e. did the students rank how the mentioned situations are likely or risky).

Statistics

	Ethical	Financial	Health	Social	Recreational
N Valid	29	29	29	29	29
Missing	0	0	0	0	0
Mean	2,2069	3,1552	2,6207	3,7241	3,5862
Median	2,0000	3,0000	3,0000	4,0000	4,0000
Mode	1,00	4,00	3,00	2,00a	5,00
Std. Deviation	1,49712	1,49465	1,59046	1,57880	1,89957
Minimum	,00	,00	,00	1,00	,00
Maximum	6,00	6,00	6,00	6,00	6,00

a. Multiple modes exist. The smallest value is shown

Table 2

Given answers for the problematical part of survey

### 2.2 Materials and procedure

The whole research was made at the Obuda University. Firstly we discussed the problem and designed the survey with MsC students. After that, paper

questionnaires were given for students during the first Economic psychology lesson. This course is in English for Erasmus and Hungarian students. The instructions were general, and the papers were given personally to the participants. All of the responses were uploaded in a table. The two Hungarian and one German answers were translated into English, and all of them were checked by spelling. For the evaluation procedures we have used (free) NVivo content analysis software and SPSS.

### 2.3 Sample

Because our main conception was bearing an extrapolation, so we did not monitor representative sample. Moreover this method does not exact representativeness. The frequency tables of the sample are following:

Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	15	51,7	51,7	51,7
	Female	14	48,3	48,3	100,0
	Total	29	100,0	100,0	

Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	19,00	2	6,9	6,9	6,9
	20,00	5	17,2	17,2	24,1
	21,00	6	20,7	20,7	44,8
	22,00	2	6,9	6,9	51,7
	23,00	10	34,5	34,5	86,2
	24,00	1	3,4	3,4	89,7
	25,00	2	6,9	6,9	96,6
	27,00	1	3,4	3,4	100,0
	Total	29	100,0	100,0	

Nationality

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Armenian	1	3,4	3,4	3,4
	Romanian	1	3,4	3,4	6,9
	Turkish	2	6,9	6,9	13,8
	German	12	41,4	41,4	55,2
	Hungarian	8	27,6	27,6	82,8
	Dutch	1	3,4	3,4	86,2
	Ukrainian	1	3,4	3,4	89,7
	Spanish	1	3,4	3,4	93,1
	Iceland	1	3,4	3,4	96,6
	French	1	3,4	3,4	100,0
	Total	29	100,0	100,0	

Table 3  
Distribution of the sample

As we can realize the German and Hungarian students were over represented and most of the participants were 23 years old.

### 3 Results

Firstly we monitored the meaning of risk, what kind of expressions came firstly into subjects mind. It is necessary to underline, that non of the students speak English as native but they could use dictionaries during the research. The content analysis based on two stages: 1. automatic coding regarding frequencies of every words 2. open coding, which means that we read through the text several times and started to create relevant groups. These codes helped us to find some connections between the subsamples.

As we have mentioned earlier, the next part of the survey was not able to be evaluated. Last part we used descriptive statistics because all of the responses were measured on nominal scales.

#### 3.1 Content analysis

##### 3.1.1 Automatic coding

Software of NVivo code the text automatically which means without any meaning only the frequencies of the expressions will be counted.

Word	Length	Count	Weighted Percentage (%)	Similar Words
risk	4	20	8,16	risk
something	9	10	4,08	something
decision	8	9	3,67	decision, decisions
know	4	7	2,86	know, knowing
danger	6	6	2,45	danger, dangerous
situation	9	6	2,45	situation
take	4	6	2,45	take, takes
sometimes	9	5	2,04	sometimes
negative	8	4	1,63	negative
outcome	7	4	1,63	outcome
always	6	3	1,22	always
bad	3	3	1,22	bad



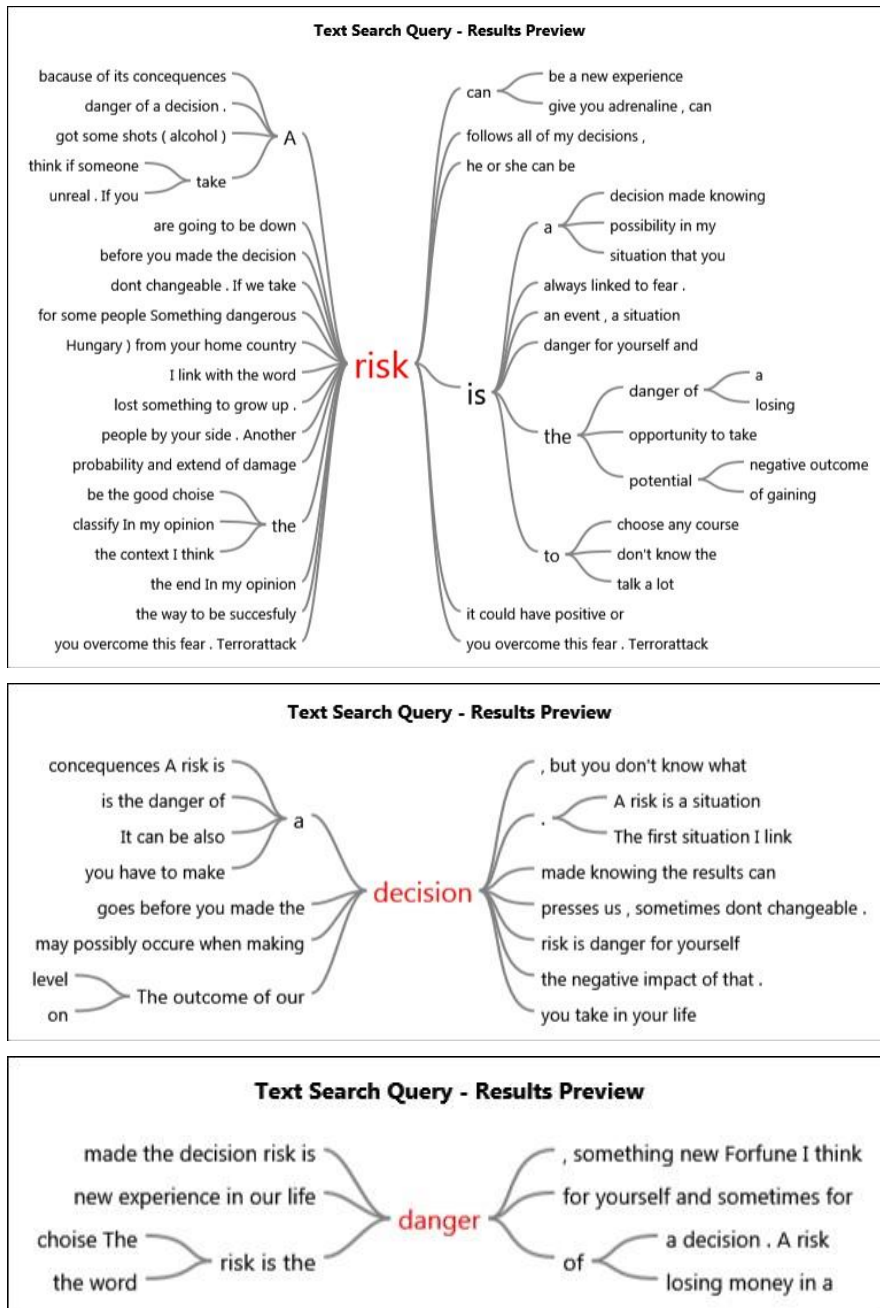


Figure 2  
Text searches regarding often mentioned terms



### 3.1.2 Open coding

After several times of extensive readings we have found the aforementioned code structure:

- targets of risk could be divided into
  - situation (n=4) when the subjects defined risk as a situation
  - possibility (n=5) when they described risk as a possible choices of their life
  - uncertainty (n=11) when they see risk as an uncertain problem (like in study of Kahneman and Tversky)
  - behavior (n=3) when they identified risk with a behavior
  - last but not least when the students gave only an example (n=4).
- the direction of the outcome were defined in three different ways
  - positive (n=2)
  - negative (n=11) or
  - both (n=14)
- the whole (altogether) meanings (essences of the definition) were the next three
  - some student (n=6) concentrated on the outcome of risk
  - others (n=7) focused on the danger
  - and the rest (n=8) highlighted the whole process of decision.

There was only one significant ( $p=0,95$ ) connections between codes. In case of danger and negative outcome directions symmetric measures showed positive relationship (Cramer's  $V= 0,558$   $p=0,029$ ).

In case comparison of the subsamples regarding gender only one major difference could be found (see Figure 3). Women mentioned uncertainty oftener than men.

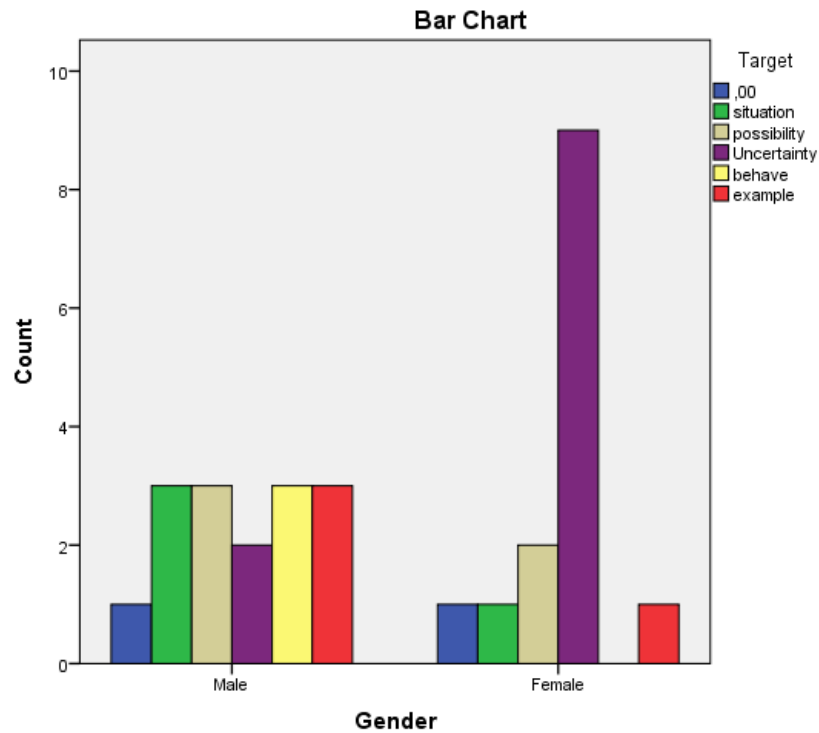


Figure 3  
Text searches regarding often mentioned terms

### 3.2 Frequency tables of aspects

In the last part we have used frequencies and cross tabs analysis to determine sources and motivations of risk. Originally Weber and Blais (Blais & Weber, 2006) used multilevel modeling, they investigated the risk the risk return relationship between risk taking and risk perception. Their empirical investigations provided a multiple risk construct which contains three observation of risk. They found

1. differences in the perceptions of the riskiness of risky choice options (perception)
2. differences in the perceptions of perceived benefits of risk (benefit)
3. differences in willingness to take part in a risky situation (risk-taking).

DOSPERT Scale allows us to assess conventional risk attitudes (reported level of risk-taking), perceived risk-attitudes (reported willingness to engage in a risky activity) and outcome of risk (reported value of taking part in a risky situation).

In our study we were interested in which aspects will mostly influence students decision in a risky situation. The students needed to choose which options will impact on their decision. The last table provides us an overview about the choices.

Benefit					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	24	82,8	82,8	82,8
	no	1	3,4	3,4	86,2
	no opinion	4	13,8	13,8	100,0
	Total	29	100,0	100,0	

Perceptions					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	13	44,8	44,8	44,8
	no	8	27,6	27,6	72,4
	no opinion	8	27,6	27,6	100,0
	Total	29	100,0	100,0	

Risk-taking					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	19	65,5	65,5	65,5
	no	4	13,8	13,8	79,3
	no opinion	6	20,7	20,7	100,0
	Total	29	100,0	100,0	

Table 5  
Frequency tables of each aspects

Maybe the order of the questions influenced the assessments, but the oftenest influence-factor was the benefit (outcome) of a decision. Comparing the frequencies of generated open codes with DOSPERT aspects we have found middle strong relationships between danger and risk-taking (Cramer's  $V= 0,476$   $p=0,038$ ). According to gender there were no differences.

### Conclusions


Goal of this study is to have an overview (or a work definition) what the students think about risk. Content analysis caused an useful essence about the risk's associations of our sample. Aim of risk regarding our sample is decision in a possible situation which can end in good or bad results so it is dangerous.

Direction: The current results suggest that risk means danger decision for the students. Only two students evaluated risk as a positive term. They identified risk is a chance or an opportunity. Most of the students mentioned the both sides of the possible outcome that means risk is an option which has to be weight. Some of the

students gave a concrete example to define risk. DOSPERT scale contains 30 example from different life situation three times. However, this scale is a validated solution to measure risk. Our preliminary studies showed that together 90 statements are difficult to handle. That is why we tried to evaluate the dimensions of the before mentioned scale. For that we asked our respondents ranking the five different life situations from three different point of views (see Table 1). Unfortunately we could not be able to take in consideration all of different dimensions of risky situations. But we have found that the final benefit of a risky decision will influence respondents mostly (like outcome as a regularly mentioned expression in the definitions). Finally it is necessary not skip out personality. We tried to take consideration all limitations of this research, in sum it could be a good base for the future. One of the advantages that we had a feedback from our respondents' definitions which show some similarities with the DOSPERT Scale.

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**Appendix**

**Risky survey**

**Some background questions:**

- **Your Gender:**
  - Male
  - Female
- **Your Age:** I am ..... years old.
- **Your nationality:** .....

**What is risk? How can you describe it? (You can answer with your very first ideas, words which come in to your mind or you can draw as well.)**

**What do you think which situation is more likely to happen to you? Please rate separately all of them (extremely risky: 1 .... not at all: 6, No opinion: 0)**

	Ethical situations like “Leaving your young children alone at home while running an errand.”
	Financial situations like “Investing 10% of your annual income in a new business venture.”

	Health or Safety situations like “Riding a motorcycle without a helmet.”
	Social situations like “Choosing a career that you truly enjoy over a more secure one.”
	Recreational situations like “Bungee jumping off a tall bridge.”

**If you need to value a situation (regarding risk) which aspect influence your decision? (Y: yes, N: no, NO: No opinion)**

	“Expected Benefits of the situations” the benefits you would obtain from each situation.
	“Perceptions of these situations” In this case each situations have to be indicated (is the possibility of negative consequences) how risky you perceive it.
	“Risk-Taking”: the likelihood that you would engage in the described activity or behavior if you were to find yourself in that situation.

**Thank You for your answers!**

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# Assessing the Online Purchasing Decisions of Generation Z

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*Abstract: The goal of the research described in this paper is to explore the shopping habits and attitudes of individuals from the Generation Z regarding online shopping. In this context, the main sources of information that are provided to buyers, and their preferences towards online shopping are examined. The first section describes the online consumer behaviour of Generation Z according to the secondary data, while the second part presents the results of an online survey (1055 participants). The study shows that Generation Z youth mainly rely on personal experience and take quality and prices into consideration when choosing what to purchase, mostly disregarding other people's opinions. However, even though the internet is their main source of information, they still seek input from others in most cases before making purchasing-related decisions. A third of young people like to shop online; however, because of their age and discretionary income, the findings currently apply to only a small portion of this segment.*

*Keywords: Generation Z, consumer and purchase behaviour, online and offline purchases*

## 1 Introduction

Time and distance have virtually disappeared thanks to the internet. Anyone can find anything or anyone at any time they like on a website. Thanks to smart devices, we have entered a time of permanent online presence. Young people, who were born into this internet-enabled world, take full advantage of it. Simultaneous consumption of media content (Palfrey and Gasser, 2008) is typical of this

generation, often referred to as “Zappers”, “Homeland”, “Tweens”, “Generation 9/11”, “Digital Natives”, “Net Generation”, “Facebook Generation” or the “Always Online Generation”, and, depending on the continent, the Australian “Zeds” and American “Zees” (Williams et. al 2011, McCrindle, 2014). These individuals spend their free time surfing the web, while at the same time chatting with friends, watching movies and doing their homework. As these characteristics reflect, generations can be defined by the simple fact of their being alive at a similar stage of life, with similar social, cultural and technological backgrounds, as well as environmental similarities. As they go through life and encounter situations, so their experiences and attitudes towards happenings and events are somewhat alike. This phenomenon can be approached in a sociological sense rather than as a biological issue (McCrindle, 2014). The net generation has access to a new world, the global world: the web, which facilitates personal interaction through technology, although this may lead to depersonalization. Gen Z would like to be part of a group which shapes and maintains their self-esteem (Williams et al., 2010). A significant social problem for this generation is that they have seen the consequences of terrorism as children. It is important to take into account that these problems are also encountered by other generations, but there is a difference in terms of the older generations’ perceptions due to their psychological makeup which is a consequence of their age.

The new Generation Z, born between 1995<sup>1</sup> and 2009 (McCrindle and Wolfinger, 2009, Kutasi, 2013) has been fundamentally influenced by technological development; their lives are basically unimaginable without the existence of smartphones and other digital platforms (Prensky, 2004. Williams and Page, 2011).

The object of the research described herein is to determine what factors characterize the online shopping habits of Generation Z youth. Furthermore, the goal is to examine their buying habits, which includes addressing the primary question whether it is online or offline shopping they prefer, as well as what shapes their purchasing preferences. Since individuals in this generation are still very young, we expect to obtain usable results mainly from those born before 2000-2002.

The first part of the paper defines the online buying characteristics of Generation Z and their social media habits. The second part involves an empirical examination of these elements with the help of an online survey.

## **2 Literature review**

The digital natives’ range of online opportunities is growing exponentially: this includes the activities they engage in online, such as buying designer clothes on e-

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According to other sources (Prensky, 2004, Williams and Page, 2011), 1994.

buy, or sharing intimate details of their lives, or writing blogs to replace former diaries which were once written in secret (Prenszky, 2004).

It is common for Generation Z youth to solicit their friends' opinions when shopping 'offline'. The same situation applies to online shopping (Tari, 2012). For instance, when using Facebook, members of Generation Z can easily share links to websites about specific products. Prices can be compared, and when decisions have been made, a few clicks will secure the product. None of the parties has had to leave home, yet they have shopped 'together', thereby saving time and sharing information. In connection with this sharing and interacting behaviour, the following hypothesis is proposed:

**H1: One feature of Generation Z is the importance they attach to 24-hour accessibility, and the need to share opinions with others.**

The reach of the internet as a source of information and a shopping platform is increasing. This most susceptible generation tends to engage in purchase-related methods such as BOPS (buy-online-pickup-in-store) or ROPO (research online purchase offline) (Gallino and Moreno, 2014), in addition to engaging fully in online shopping. BOPS decreases online sales, but promotes shop traffic, while online and offline purchases 'meet' in store, and in this way customers need only use an online platform for information gathering rather than ordering (Gallino and Moreno, 2014). Accordingly:

**H2: Young people primarily gather information from the internet before making purchase-related decisions.**

The online buying habits of Generation Z are influenced by a few factors which primarily depend on their socio-economic status. Family influence plays a huge role, since it is typical for 'Gen Zers' to live with parents (Hofmeister-Tóth, 2014); also, in many ways, reference groups have an even greater influence on young people, along with the internet generally, and social media and opinion leaders in particular.

Maintaining a constant online presence is also typical of the opinion leaders (actors, celebrities, and so on) to whom young people look up to as role models, and whose every move they may follow. These key actors can significantly affect the behaviour of young people who obtain information about where and what these opinion leaders buy, what kind of food they consume, and how they spend their free time. Accordingly, young people are able to easily mimic them (Sas, 2012). The personal dimension of influence is encapsulated in H3.

**H3: Generation Z considers important the opinions of others when shopping online.**

Generation Z individuals visit social media websites, watch movies and serials, listen to music and shop online when surfing the web. While doing so, they



encounter online advertisements which, if interesting, incline them to visit and explore websites. When they find products they like, they typically do not immediately buy them, but instead search for information on other websites about those products to find the best deals (Eszes, 2011).

Thanks to their permanent online presence, Generation Z youth also purchase products on the internet. They quickly and easily compare products at different web shops, and are also able to manage purchases from the comfort of their homes. In connection with the fact that online shopping is the obvious choice for Generation Z because of their significant online presence, we construct the following hypothesis:

**H4: Generation Z prefers online to offline shopping.**

### **3 Research method and sample**

Our primary research focuses on the typical online shopping behaviour of Generation Z and is based on an online survey involving 1055 individuals. We approached respondents with our survey using one of the favourite sharing methods of Generation Z, the Facebook group.

According to the latest census in 2011 released by the Central Statistics Office (2013), the population of Hungary was 9 906 000, of which our target group (Generation Z) comprises approximately 1 870 000 people. 1055 individuals may thus be considered a representative sample of the target group, and results can also be considered applicable to the wider population; however, because of the sampling method, they cannot be generalized.

The demographic composition of the sample is 70% female (n=731) and 30% male (n=324), so women are over-represented in our sample. Older members of Generation Z make up a large portion of the sample; three of the age groups with the oldest members from the sample make up more than half of the total sample (Me=1997) and more than a fifth of the sample are older individuals (20,57%, Mo=1995). 37% of the subjects live in the capital of Hungary, Budapest, 15% live in county towns, 9% live in big cities, 23% in small towns and 16% in municipalities. The last two types of settlements, which add up to more than a third of the total sample, possibly provide shoppers with limited access to commercial units so shopping may be more often undertaken on an online basis in these locations.

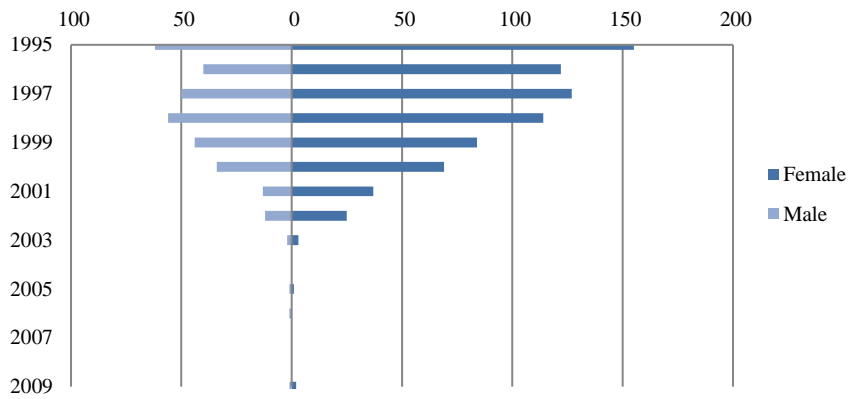


Figure 1  
The number of respondents' according to gender and year of birth  
Source: Authors' construction

The research design was planned to facilitate examination of the hypotheses. We started by emphasizing particular sections of a simplified purchasing decision model (Figure 2). The role of the internet is significant throughout the entire process, although the choice of this medium is not always a conscious activity; one cannot always clearly explain the reason *why* respondents select this medium for doing their shopping, so this subject received limited emphasis in our study.

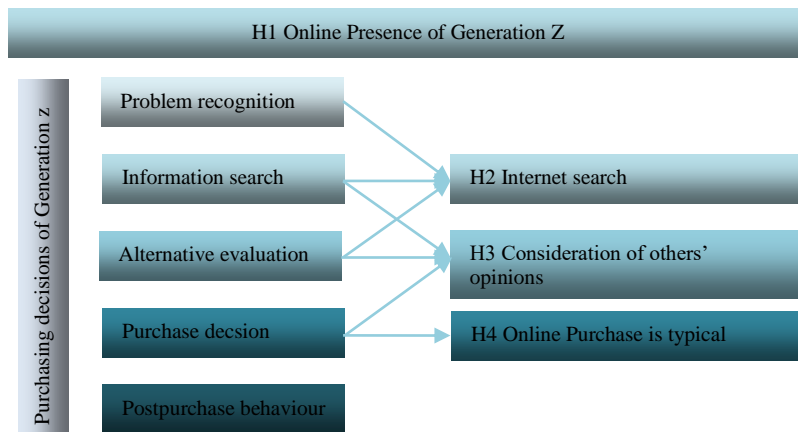


Figure 2  
Research design  
Source: Authors' construction

## 4 Results

Only one respondent does not use the internet every day: 99.34% of the sample use Facebook on daily basis, but use of YouTube and Instagram is also significant. Those who do not use Facebook regularly use YouTube. In contrast to the formerly observed characteristics of Generation Z, the survey shows that maintaining a continuous online presence is only moderately important ( $\bar{x} = 3.21$ ,  $Mo = 3$ ) as, surprisingly, is sharing posts and opinions ( $\bar{x} = 1.76$ ,  $Mo = 1$ ) and respondents claim that they do not necessarily expect feedback ( $\bar{x} = 1.91$ ,  $Mo = 1$ ). Accordingly, H1 cannot be confirmed.

To examine the sources of information used by Generation Z relating to purchasing decisions, multiple choice questions were employed. The sources of information used prior to making purchases contribute to the examination of H2 on the one hand, but also assist in verifying H3 because the primary source of information becomes identifiable. This we believe to be the internet, based on the characteristics of Generation Z. In this context, we studied the role played by product catalogues (1), flyers (2), vendors (3), family and friends (4), TV commercials (5) and the internet (6). We deliberately listed the internet in last place in the list of multiple choice responses so as to eliminate selection ordering bias. However, using the internet to disseminate the online survey probably influenced the findings.

The primary external source of information is the internet, as reported by 82.1% of respondents, while 60.0% ask for family and friends' opinions (Figure 3.). Product catalogues (15.6%), flyers (11.3%), vendors (6.7%) and TV commercials (7%) are less typically used as sources of information.

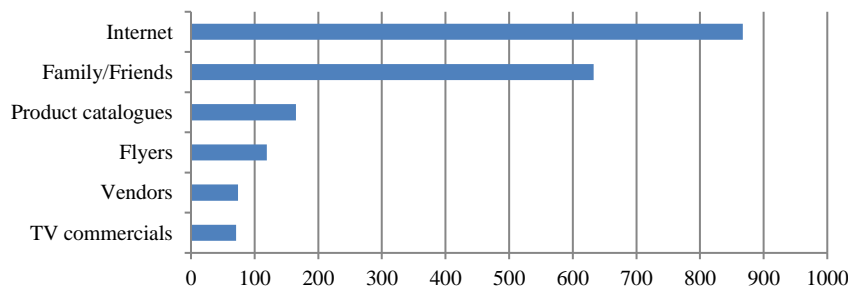


Figure 3  
Sources of information used prior to purchasing  
Source: Author's construction

The results confirm H1; the majority of members of Generation Z gather information from the internet before shopping; ROPO behaviour may also occur but was not addressed in this survey.

We did not directly examine H3, which concerns taking other people's opinions into consideration. Instead, using a five-point Likert-scale we indirectly examined the

evaluation of four factors which play a significant role in purchasing decisions: (1) price, (2) quality, (3) other people’s opinions, (4) personal experience, (5) product advertisements, (6) brand, and (7) packaging. By examining these items we are able to infer the role and weight of their influence in the decision-making process.

Respondents deemed pre-purchase personal experience, previous encounters ( $\bar{x} = 4.39$ , Mo = 5) and quality ( $\bar{x} = 4.35$ , Mo = 5) and, at the same level of importance, price level ( $\bar{x} = 4.16$ , Mo = 5) to have a significant role in purchasing decisions. However, brand ( $\bar{x} = 2.91$ , Mo = 3) and others’ opinions were not reported to be as important ( $\bar{x} = 2.55$ , Mo = 3), while packaging ( $\bar{x} = 2.70$ , Mo = 3) and advertisements ( $\bar{x} = 1.88$ , Mo = 1) may only have a subconscious influence (Figure 4). H3 could not be confirmed.

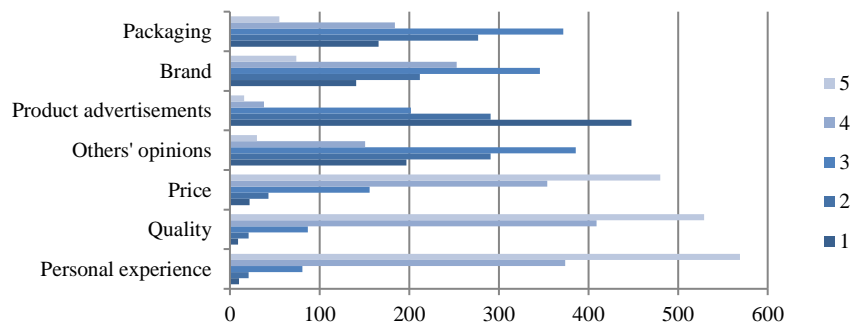


Figure 4  
Factors influencing purchasing-related decisions  
Source: Author’s construction

To test hypothesis H4, we asked young people whether they prefer online or offline shopping and which platforms they prefer. 30.4% of participants prefer to shop on the internet, although only 6.4% regularly shop online. Further research may examine the prevalence of BOPS behaviour.

## 5 Conclusions

The development of the digital world is creating modern ways of communicating. Generation Z and later generations such as Alpha Generation start off with a huge advantage over other generations in this digital world: they are able to gather information extremely quickly, they adapt well, they are able to multitask, they spend much of their free time surfing the web, and are almost always available online. The research described here did not address the potentially negative social effects of these habits, such as the lack of personal contact, estrangement and

lagging behind in other spheres of life. The latter factors are also characteristic of the Y Generation (Kolnhofer-Derecskei and Reicher, 2016).

In this article we sought the answer to whether Generation Z prefers online or offline information-gathering and shopping through examining their purchase-related decision-making processes, and investigated which factors play a role in their purchasing choices and decisions.

The results of our research indicate that Generation Z individuals, besides using the internet as the primary source of information, ask for the opinions of their families and friends when making purchasing decisions. The fact that the Generation Z members examined in this study do not prefer online to offline shopping may be explained by their financial and economic status. Further studies would be required to explore the reasons for this more deeply.

### **Acknowledgements**

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