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## EDITORIAL

“Journal of Management“ is periodically published applied sciences journal by Lithuanian Business University of Applied Sciences. Journal is periodically published since 2002 and has gained a lot of experience and international recognition. It has been positively evaluated by foreign scientists and number of international scholars publishing is constantly increasing. Articles in the journal can only be published in English. Currently, 32<sup>h</sup> number of the journal is released to readers. Only those articles that meet thorough requirements set by the Editorial Board are being published. Authors of these articles represent various Lithuanian and foreign countries science, education and business institutions, such as A. Dubček University of Trenčín (Slovakia), Baltic International Academy (Latvia), Budapest Business School, University of Applied Sciences (Hungary), Szent István University (Hungary), Vilnius Gediminas Technical University (Lithuania), Western Macedonia University of Applied Sciences (Greece) and other institutions.

The journal provides opportunity for academics and professionals to interact and communicate in international forum. Applied research journal „Journal of Management“ Editorial Board seeks that all published articles would include foreign countries economical, business and technological environment analysis, which would benefit international audience. Articles are evaluated according to these criterion before publishing. Thus, we expect that readers will benefit from material published in the Journal and will improve their knowledge about specific areas under analysis.

Multiple articles in the journal are presented by foreign scientists. It is worth mentioning the article by scientists B. Horváth and R. Magda, where scientists thoroughly describe how unemployment and inflation are interconnected in the European Union.

Authors analyse traditional economic perception that inflation and unemployment have high significant relationship, known as the Phillips-curve, which shows inverse direction regarding the movements of these measures but after the phenomenon called “stagflation” economists experienced positive correlation within them. Since the 1990’s this observed connection continuously started to fade away and nowadays the curve has become flat. It means that even in a low inflationary period there is a possibility for the unemployment rate to remain low as well. Therefore, scientists analyse the economic development of the EU member states in the past 25 years to find out the reasons for the disappearance of the Phillips’ logic.

Another distinctive research in the journal is made by M. Zsarnoczky, where scientist analyses novel concepts in the health tourism industry. Author identifies that there is a growing demand for health tourism services in the tourism industry, not only in Asia, but in Europe as well. Author combines this analysis together with e-health approach.

Journal also presents a study made by Greek scientist S. Karafolas, where he analysis the effects of economic crisis, in terms of Greece regional examination based on touristic regions. The study compares the evolution of economic indicators between touristic and non-touristic departments for the time period 2006-2016 and tries to answer the question whether regions with important touristic activities tackled economic consequences of the crisis more efficiently from non-touristic regions, especially on the employment level.

However, Editorial cannot review all of the researches, therefore we encourage familiarizing with them in the Journal, which currently is under the indexing process with Scopus and WoS.

We invite scientists to actively publish in the Journal, share their research results and methodological insights. We expect for close cooperation.

Prof. Dr. (HP) Valentinas Navickas  
Editor-in-Chief



## THE RELATIONS OF UNEMPLOYMENT RATE AND INFLATION IN THE EUROPEAN UNION

Bálint Horváth, Róbert Magda

Szent István University

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### Abstract

The aim of the present study is to examine the relation between unemployment and inflation through the example of the Member States of the European Union. According to the traditional economic perception there was a highly significant relationship between these two indicators. Initially, this statistical connection – known as the Phillips-curve – showed an inverse direction regarding the movements of these measures but after the phenomenon called “stagflation” economists experienced positive correlation within them. Since the 1990’s this observed connection continuously started to fade away and nowadays the curve has become flat. It means that even in a low inflationary period there is a possibility for the unemployment rate to remain low as well. Even though in the present experts use a reformed Phillips-curve which examines the relations of the economic performance and the inflation, this research focuses on the linkage between unemployment and inflation. Thus, it analyses the economic development of the EU member states in the past 25 years to find out the reasons for the disappearance of the Phillips’ logic.

KEY WORDS: unemployment, inflation, Phillips-curve, European Union, macroeconomic indicators.

### Introduction

*„The moment it's pressured by a control target system, any statistically sound indicator collapses.”*

- Charles Goodhart

Nowadays, we can see that the most notable theories of the XX<sup>th</sup> century's economic world are questionable within the changing economic environment (Görgényi Hegyes et al., 2017). One of the reasons for this is that the political world gathers its influence above it, as mentioned in the opening quote. This made the lives of researchers hard for a while, as we're already used to the fact that the moment economists find a connection between main microeconomic indicators, the political party in lead tries to influence it using artificial tools, in order to achieve their personal interests (Goodhart 1984). Furthermore, we cannot forget the fact that while the older, 'simpler' economic environment made it possible for two indicator's connection to be researched, nowadays, phenomena have different influencing factors - as stated by those who formed earlier theories.

In the European Union, one such example is the shared market, which waits to be realised even now, which has a strong influence on both our target indicators. The reason is that labour transit between Member States happens within the shared labour market (Levy 2005; Vinogradov et al., 2017). On the other hand, the common monetary policy and the low inflation target also pose a significant problem. Whereas the prior can garner strong influence on the labour conditions of member states, the latter makes it impossible to realise an efficient, national level monetary policy. These factors have an influence on the two important macroeconomic

factors of the Member States - namely unemployment and inflation. Economics described the connection between the two for a long time using the so-called Phillips-curve, which showed reverse correlation between them. After a while, the curve became vertical, and today's newest research results show that the statistical connection between the two indicators completely disappeared. The goal of this research is to unearth the theoretic and logical reasons which cause this phenomenon.

### Literature background

#### Interpreting unemployment

Unemployment basically signifies a state, during which the number of the active populace within an economy grows above those in employment. In this case, we differentiate between voluntary and involuntary unemployment, based on the reasons why people in this status are as they are - did they voluntarily choose to not be within the labour market, or does the labour demand not reach the level of labour supply for the current real wages (Blanchard and Katz 1996). Naturally, economic schools offer a much more in-depth description on unemployment and its reasons.

In the neo-classic model, its existence is only admitted temporarily, and they think the reason it exists comes from the labour market. According to their fundamental thought, unemployment is caused by real wages' deviation from the balance value, which is rebounded by the immediate adaptation of price levels. In time, they expanded their logic - assuming perfect market conditions - with the classic description of unemployment. In this case, the decrease of employment

causes a lower output level, which causes lack on the product market. However, there's no need for state intervention, as the current state will lead to lower real wages on the labour market, and increasing prices on the product market later. Therefore, balance still happens on its own (Malinvaud 1977). However, this modification still cannot explain the long-term unemployment we can also see today. Though to answer this, multiple explanations were made, for example the theory of insufficient information during job hunting, or the background work of labour unions. These can only explain voluntary unemployment. However, the neo-classic school could not find endogen factors within the economy, which would lead to involuntary unemployment.

The discussion of this topic by the Keynes model proved to be much more fruitful, where they inserted the definition of long-term unemployment. This was caused by the effects markets have on each other. In this case, producers did not react to the over-supply of the product market by lowering their prices, but by reinvesting their production. In other words, the Keynes logic realised the adaptation of supply to demand circumstances, which is followed by the level of labour demand through changing production volume. As in this case, the operation of markets is far from ideal, state intervention gains ground, similarly to fiscal and monetary policy. Based on the relationship between supply and employment, we can clearly state that these want to influence the demand side, which will start the previously mentioned process. The budget policy reaches this state directly through state product purchases, whereas the currency policy does it indirectly, by increasing the amount of money, and influencing the demand of the private sector (Layard et al. 2005). This is where the question comes up: if it's like this, why does not the state intervene in the economic operations of the country more, and generate a demand where employment can be maximised?

The answer is related to the other difference between the Keynes and neo-classic schools - sticky wages. Due to how the system having a part of a pre-determined minimal nominal wage, which is usually higher than the balanced real wage at the equilibrium operation of the labour market. The neo-classical flexible wages differ from these nominal wages, as these are top-down rigid, due to how labour unions cannot allow them to decrease beyond a certain level. Also, enterprises will only produce an amount that's optimal for them, regardless of the increased demand. Apart from sticky wages, the Keynes school also stresses the importance of uncertain expectations as well, which cause the already mentioned state interventions to end in different results compared to the expected ones (Mortensen and Pissarides 1994; Pissarides 2000). Such a case could be when expansive monetary policy causes the populace to keep the increased money supply to themselves, instead of spending it, or investing it. Economics calls this situation the liquidity trap, during which we cannot observe either the expected increase demand, or the labour demand.

### Interpreting inflation

Though we also describe inflation using a static indicator - price level - similarly to how we describe unemployment, its interpretation can only be done if we take a look at the changes in this value. In other words, inflation can be calculated using the long-term dynamics of price levels (Fama 1981). Meanwhile, the weight of the inflation is usually classified according to its size, which makes the different groups the low inflation (one-digit increase), high inflation (two, or three-digit increase), and hyperinflation (four, or more digit increase). In the European Union, our current inflation environment can serve as a basis for the statement that Member States have been experiencing low inflation - or even none - in recent years (Bulmer and Lequesne 2013; Földi et al., 2017). However, in certain areas in the 1990's, we could observe high inflation reaching a robust three-digit, mainly in Central- and Eastern European economies, which were not part of the EU at the time.

Among the definitions of the schools, let's start with the neo-classic school once again. They believe that inflation can only come from the currency market and has no effect on real indicators. Therefore, we can say that their model treats inflation as a monetary phenomenon. However, we have to stress that just as before, the breaking of the equilibrium is only explained by them using outside factors. Such factors can be the irresponsible increasing of currency production, or if the result of state purchases is that the increased interest rate decreases the value of currency demand. According to their idea, the long-term increase of price levels is caused by this, and similar happenings, which also supports our claim that state intervention needs to be neglected (Green 1982).

However, the Keynes logic is much more complex than this, as in their model, price levels are created on the labour market. According to the basic mechanism, the economy always tends towards the balance state, since the demand coming from the balance on the product and currency markets determines the volume of production, and indirectly, price values. The circularity is obvious from this point, as a higher price level holds demand back, which makes a lower volume of production lead to lower price level, and later, higher demand. At this point, we have to refer back to the neo-classic model, where long-term inflation was explained by incorrect outside interference - therefore, they refused state intervention. The reason is that this state activity is part of the Keynes model, which may cause the stability of currency value significant problems via its artificial demand-inducement. This hazard can increase further in case the state budget has deficits, and the government wishes to cover this using subsidies (Greenwald and Stiglitz 1987). When analysing unemployment, we already saw examples of how state intervention sometimes causes results different from the intended ones, in other words, they don't always increase demand as intended. In this case, this means that the increase of demand does not follow that of the deficit, which leads to a hole in the budget, and the increase of national debt.

Therefore, in both models, the appearance of inflation is possible, and a common point of the two schools is that a long-term increase in price levels is most notably caused by incorrect state intervention. Taking note of how in opposition of the neo-classic school, the Keynes school does not exclude state intervention, we can say this has a much higher possibility of happening. Apart from the state, an important factor is the expectations of economic actors towards inflation, which is not a factor included in the neo-classic school. However, in the Keynes model, both enterprises, and households calculate with the possibility of inflation. This may cause a so-called "self-fulfilling prophecy" effect, where the market processes are concluded while taking the possible inflation into consideration, finally causing the actual inflation phenomenon. Furthermore, in the Keynes system, we already mentioned how much price levels influence demand, which also has an effect on production, and the level of employment as well. All this makes it obvious that we can observe a connection between the changes of the two values according to the Keynes logic.

#### **Relationship between unemployment and inflation**

The first approaches to researching the connection system between inflation and real processes can be attributed to Phillips (1985), who analysed the negative correlation between wage inflation and unemployment in the economic processes of the United Kingdom between 1861 and 1857. This correlation was later developed further by Samuelson and Solow (1960), and wage inflation was exchanged for price inflation. This is also one of the most notable moments of economic history, as changing between the price level and unemployment - which was analysed in the previous chapter - also meant the missing puzzle piece in the Keynes model, and was identified at this point in time. Therefore, nowadays, when we talk about the traditional Phillips-curve, we think of this instead of the original wage inflation equation, as its historical relevance is much more important (Szentmihályi and Világi 2015).

We have to stress the word 'traditional', as due to the economic effects we observed ever since then, there were multiple changes added to the curve by both the neo-classic and the Keynes sides. The reason of this is that after realising the connection, using the logic meant an exceptional tool for decision-makers to determine one side of it, by the necessary state of the other value. For example, some research managed to unearth a significant connection between right-wing governments choosing a lower inflation rate during their ruling, compared to how the left-wing government fighting against unemployment more (Bessenyei 2007). Naturally, at this point, we should refer back to the initial quote in the study, which is called by the 'Goodhart law' by those well-versed in economics. In that instance, he basically meant that the moment we assign a target to an indicator, it stops functioning as a trustworthy indicator (Goodhart 1984). The relevance of this will also be shown by practical examples later, but for now, let's concentrate on the Phillips-curve.

The instability of the curve's logic could already be seen by the people creating it (Samuelson and Solow), and was noted. As Phillips conducted his research in a relatively low inflation environment at the time, therefore, there was no evidence that the exchange could be maintained perfectly even among higher inflation conditions. The first notable critique against the mechanism personalised by the curve came from Friedman (1968), who introduced a new term to economic language: adaptive inflation expectations. According to his thoughts, while the enterprise sector can assume the expected level of inflation with more confidence, the household sector can only react later. Therefore, for a while, it can also do excess labour. However, later, when the different economic environment can be felt, the household sector exercises its influence through the labour unions, in order to achieve a higher level of nominal wages. In this way, according to him, the effect of demand-increasing, expansive monetary policy can only be observed in the short-term, however, in long-term, a natural rate of unemployment comes into existence which it cannot deviate from anymore. This train of thought leads us towards the long-term Phillips-curve, according to which any level of inflation can go with a current unemployment rate - and production level.

In the 1970's, it seemed that Friedman's words would become true, since the stagflation period came to the United States, during which we could not see the development of the economy even with the high inflation environment it was within. People first thought that two factors were the cause of the state of affairs at that time. One was the oil recession of 1973, the other was the strong appeal of labour unions. It must be known that when analysing inflation, this was not mentioned, but according to the Keynes school, the faster employees react to the increase in price levels - reaching an increase of nominal wages - the higher the weight of inflation could become. However, we can say that Friedman found both reasons innocent in court. In the case of the labour unions, he reasoned that employees constantly trying to regain their income state can be seen as a perfectly natural process, even in the midst of inflation. And in the case of the oil recession, he clearly stated that the irresponsible monetary policy of the American government was to blame. According to his reasoning, there were other countries, like Germany or Japan - which have a higher dependence on import as far as energy consumption goes, compared to the USA or the UK - who used a more strict monetary policy, and had to go through a lower inflation (Blundell 2007). After this, Friedman's school of focusing on currency policy became known as Monetarism.

Before the Keynes school could react to the critique against their model, and the consequences foreseen by it, another traditional economist, Lucas (1973) made changes to Friedman's adaptive expectations theory. While according to Friedman, expectations only have an effect in the long-term, Lucas thought that the household sector is capable of much faster reaction. He supported his reasoning with how the most notable problem of that age's economics is underestimating the development speed of the World. We can highlight three main points argued from this: first, the reason we cannot estimate the reaction speed of the household sector because the flow of information during the 70's became much faster, meaning being informed was much easier for the general populace. Secondly, the changing World needs a different economic policy perspective, since traditional approaches lost their rights to exist in the ever-changing economic environment. Though this latter critique could be said to be quite general, as we can see it in the aforementioned historical overview that economics always adapted to new economic challenges. Finally, his third point can be considered to be a methodological stance, rather than the effect of globalisation, as Lucas thought the equation of the Phillips-curve fixed by Friedman is incorrect, as it also integrates a past period into expectations, and it's weighted the same as the future expectations. And it's an incorrect assumption that conditions 20 years before us have the same role in our lives as our immediate past. These are formalities - naturally - within the neo-classic and monetarist Phillips-curve, the point is that due to Lucas's train of thought, he believes that monetary policy is ineffective not only in long-term, but short-term as well. Therefore, his theory states that no sudden monetary intervention (or shock) can effect economy (Balatoni 2009).

After this, the ball went to the economists siding with the Keynes logic - they had to react to the changes made by the neo-classic economists, and monetarists. Their answer was one of the most notable differences between the two models, which was sticky wages and prices, as the short-term, vertical Phillips-curve made by Lucas can only hold true, in case we calculate with flexible prices and wages. However, Fischer (1977) validated that if the prices and wages are fixed for at least two periods - quarters - the monetary policy can effect real economy in the short-term. The still-used "New-Keynes based Phillips-curve" was made according to this logic, which had its generally acclaimed equation created by Calvo in 1983.

At the end of the history lesson, we have to state that the earlier research of Okun (1962) made economists to use the Phillips-curve for not unemployment, but production gap, in order to research the effects of inflation. The reason for this is the connection called the Okun-law, which states that the production gap and the unemployment rate has a connection. Therefore, we were able to interpret what level of inflation comes with which level of economic performance much easier. Nowadays, we still have many a research dealing with perfecting the model of the curve, mainly by interpreting inflation expectations in different ways. We can observe that in developed countries, the Phillips-curve became flat within a low inflation environment. This means that the

growth of the economy, and the changes of inflation that had a strong positive correlation before, has been liberated from their connection (Szentmihályi and Világi 2015).

To summarise the literature background overview, we can state that the traditional logic of the Phillips-curve lost its effectiveness in developed countries. However, there's still merit in researching what time differences the various EU Member States managed to reach this state. The current structure of the European Union includes a multitude of countries with different historical backgrounds and economic pasts. Our research focuses on how the logic of the original Phillips-curve, based on inflation and unemployment changes in these countries.

## Source and method

Before beginning with our quantitative research, we have to state that we analysed the processes of 28 European Union Member States. This is important because our research spans across an interval of more than 20 years, from 1991 to 2014, and for half this time period, the EU only had its original EU15 (older Member States). However, the goal of this research is exactly to know how our researched logic was implemented in different countries. Therefore, all of today's Member States take part in our research.

As for the indicators, we needed two main ones for the research: the inflation<sup>1</sup> and unemployment data of the countries, which we gathered from the World Bank. As for methodology, we already discussed that the Phillips-curve was calculated using pre-determined equations. However, in this case, we only wish to know the relations between unemployment and inflation, therefore, we made the visual representation as a dot diagram, in order to see the corresponding values clearly. Now, let's see what results we gained from comparing the data for the European Union's Member States.

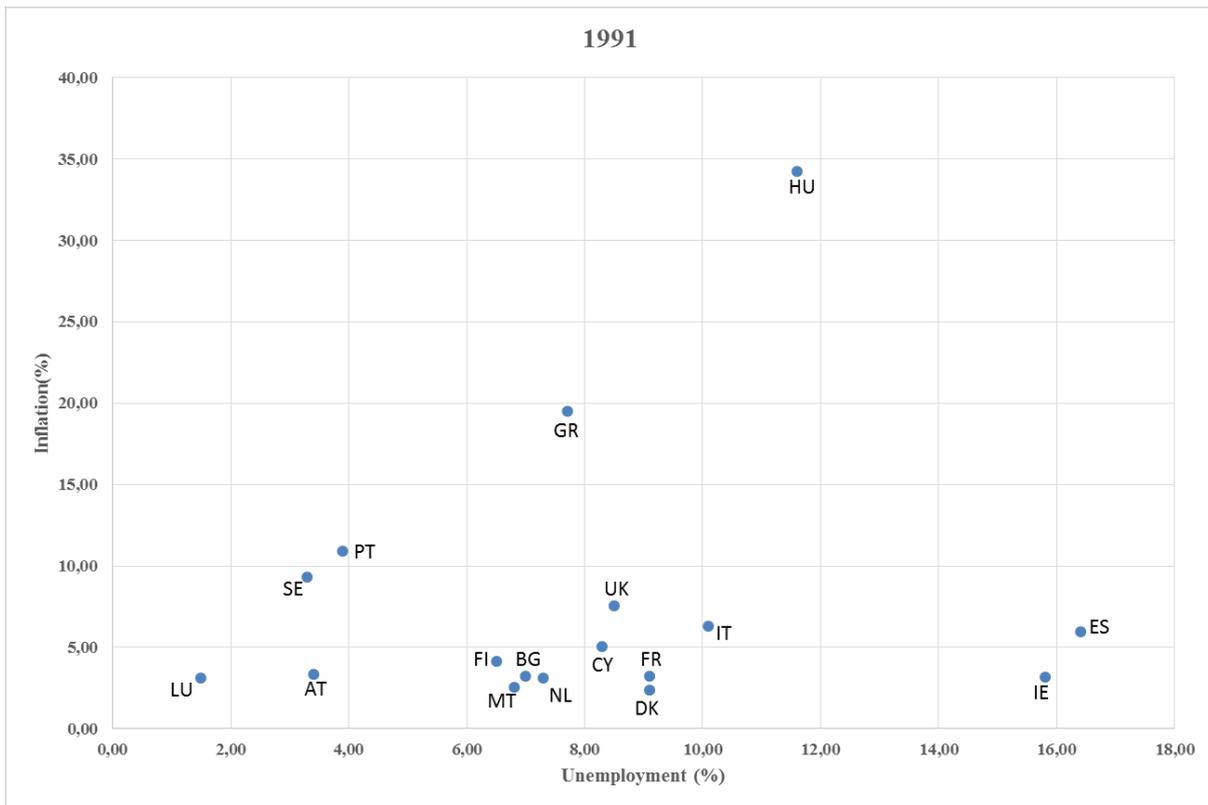
During the research, we analyse certain points of time within a 24-year interval, to see the changes in the EU Member States' inflation/unemployment data, and using these values, we grouped them. These points of time (years) are 1991, 1995, 2000, 2005, 2010, and 2014. Naturally, this grouping does not always mean that countries in the same group will have similar economic statuses. The point of the analysis is rather to determine the movements of the nations during the 5-year cycles.

## Results

### Analysis of the European Union Member States

In the first phase of the analysis (1991), there are relatively few countries, as the Czech Republic, Estonia, Germany, Latvia, Lithuania, Romania, Slovakia, and Slovenia had no data corresponding to the year. Bulgaria, Poland and Croatia had so high inflation that if they were included, they would've derailed the research results as extreme cases (Fig. 1). However, these countries will also be members of the grouping.

<sup>1</sup> This means the inflation calculated for consumer prices, not the World Bank's GDP Deflator data.



**Fig. 1.** Inflation/unemployment relation of Member States in 1991  
Source: Self-made, based on World Bank data, 2016

We can see on the figure that the Member States are amassed between the 6 and 10% unemployment rate, under the 10% inflation level. Of the countries that remained in the analysis, Hungary proved to be the example breaking the norm of the Phillips-curve, as it produced both high inflation and high unemployment. Contrary to Hungary, Luxembourg and Austria had low values for both indicators. Let's see how we could assign the countries into clusters.

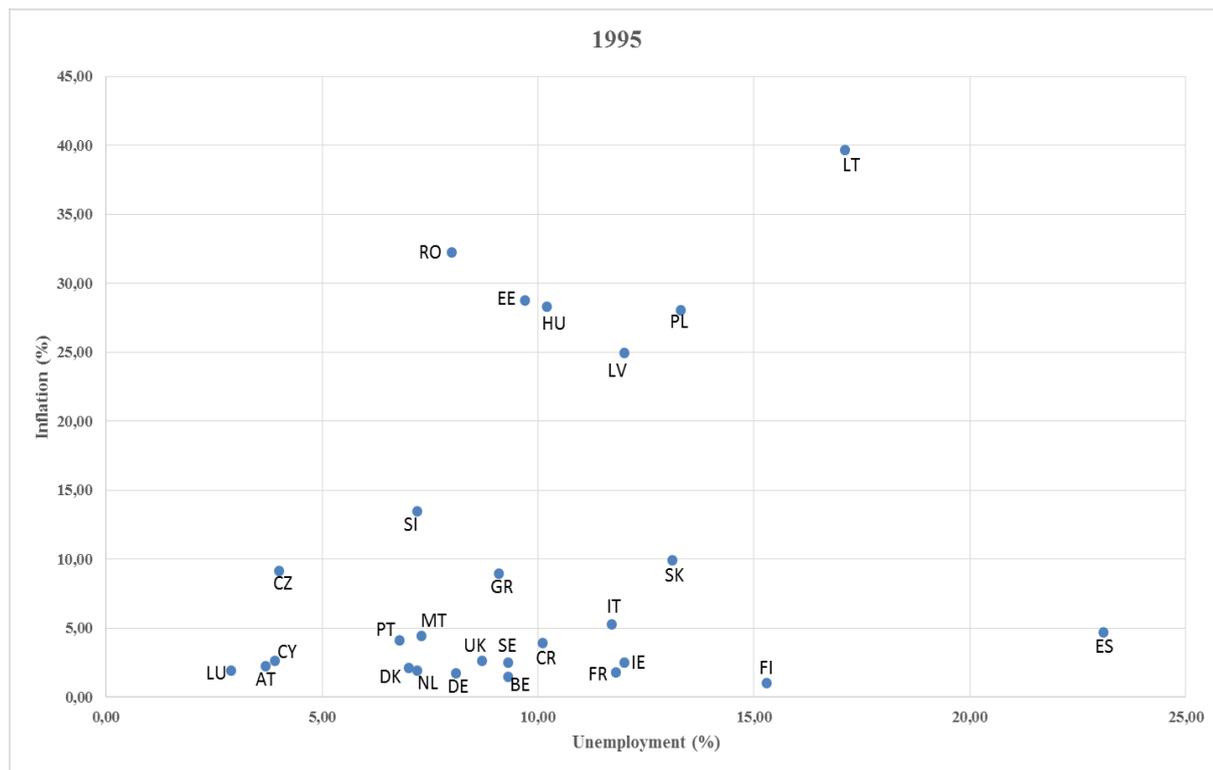
The goal of forming groups is to assign the countries into a 2x2 matrix, according to the low or high inflation/unemployment. However, in order to achieve this, we have to determine what we define as low or high values for the indicators in question. In the case of unemployment, this would be a constant, 8% is the limit, above which we chose to consider unemployment rate high. As for inflation, the demands of the European Union state that there's an allowed difference of 1.5% from the average of the three best-performing countries, which would've proven to be hard to determine, naturally. As the target system of Hungary's inflation determined a maximum of 3% as the ideal level for a long time, we also relied on this value after 2000. However, in the 1990's, there was a relatively high inflation environment, which caused us to increase this rate to 5% for 1991 and 1995. Let's see the clusters for 1991 (Table 1).

**Table 1.** Member State groups for 1991

1991	(-) Inflation (+)	
(-) Unemployment (+)	GR, PT, SE	BG, CY, HU, IT, PL, ES, UK, CR
	AT, BE, FI, LU, NL, MT	FR, DK, IE

Source: Self-made, based on World Bank data, 2016

Basically, only 6 out of the 20 Member States were correspondent to the theory of the traditional Phillips-curve. Apart from this, if we take a look at the two opposing extremes, while countries in a better state - excluding Malta - are all EU15 countries, those in a bad state show a very colourful image. The reason is that not only the Mediterranean and Regime Changing countries, but the United Kingdom was in this group as well. To compare, let's see the year 1995 (Fig. 2).



**Fig. 2.** Inflation/unemployment relation of Member States in 1995  
 Source: Self-made, based on World Bank data, 2016

For this year, we were able to assign data for each Member State, only Bulgaria had to be excluded due to their extremely high rate of inflation. (However, as for the cluster analysis, they will take part as well, similarly to the previous Table.) We can say that the distance growing between the Member States is only an optical illusion, as the outer curve we can observe on the figure only exists because the countries which had a Regime Change finally appeared in the analysis. Naturally, there were a few cases of countries changing clusters, but we can highlight two examples where both inflation and unemployment changed. These were Portugal and Sweden, where the lower unemployment and higher inflation values for 1991 changed to the opposite.

In the case of the Member State groups in Table 2, we'd like to highlight one thing this time, which is the reasoning weight of the inflation rate, or more importantly, it's capability to divide. If we take a look at the Table, we cannot differentiate between the EU15 and EU13 Member States based on unemployment. A different situation is prevalent for inflation, where we can see that apart from Croatia and Malta, only the EU15 countries had low inflation. Furthermore, we can only see high inflation in this year for the EU13 Member States - excluding Greece. Not to mention, most of the latter countries managed to get into the worst category, where both indicators have a really high value. This is no surprise, since we can generally say that in most of the Regime Changing countries, we could not observe an aware, deliberate economic policy in their first few years. Such a case was Hungary as well, where the country was, so to say, going with the flow from 1991 and 1994. 1995 was the first year when we deliberately used economic

policy intervention, in the form of the notorious, and widely argued Bokros package (Aassve et al. 2006).

**Table 2.** Member State groups for 1995

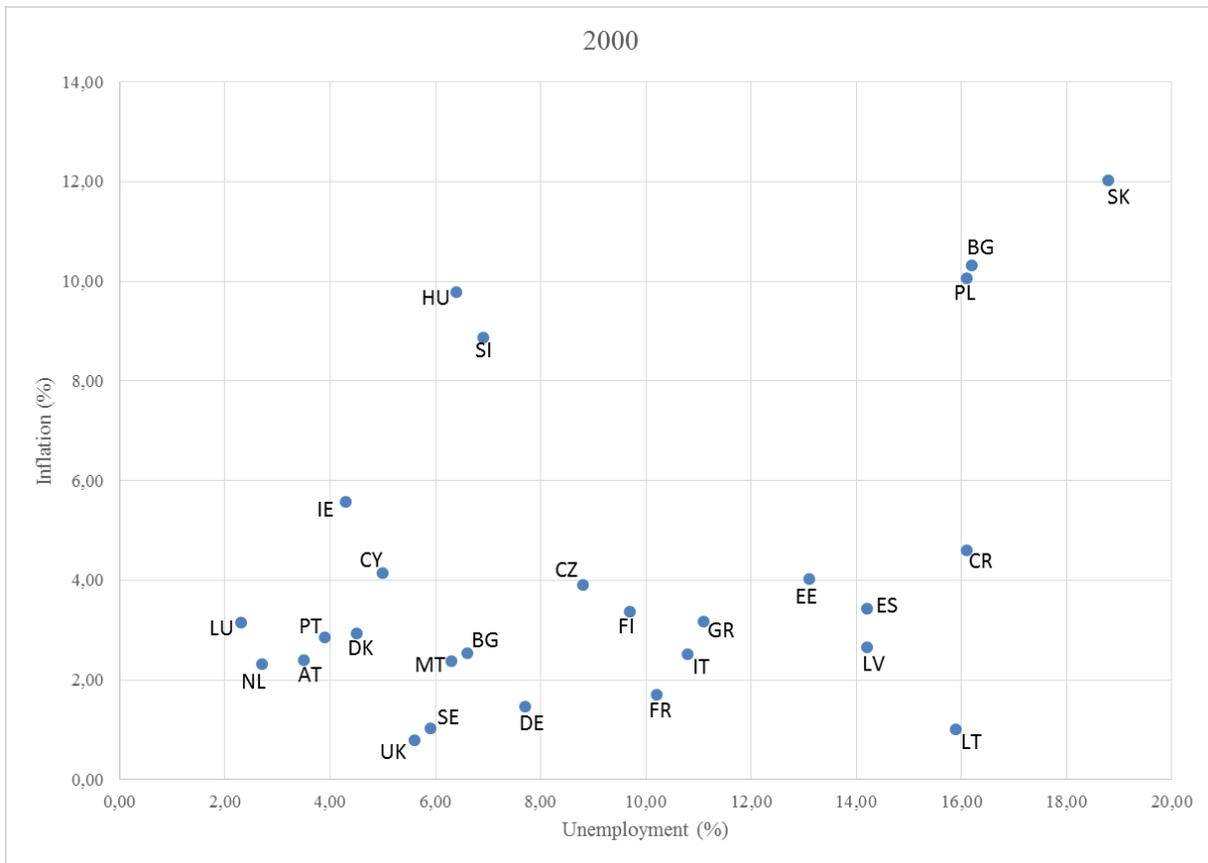
1995	(-) Inflation (+)	
(-) Unemployment (+)	BE, FI, FR, DE, ES, SE, UK, CR, IE	BG, EE, GR, HU, IT, LV, LT, PL, SK
	AT, CY, LU, NL, PT, DK, MT	CZ, RO, SI

Source: Self-made, based on World Bank data, 2016

Now, let's take a look at the year 2000 (and let's not forget, we were stricter with the inflation maximum requirement, and lowered it to 3%), where all countries that had a Regime Change had the chance to make more significant interventions within their economies (Fig. 3). Now, only Romania was excluded, due to their high inflation value. Apart from them, all other Regime Changing nations seemingly adapted the decrease of inflation. This could also be seen on the figure of the analysis, as a two-digit, high inflation has become scarce. Therefore, we must make sure to not evaluate on first look, since the movement constraints of this figure are much tighter. However, we can see that whereas the

inflation's decreasing value made our Figure flatter, unemployment stretched it horizontally. And as for changing between inflation and unemployment, we have an example once again: Ireland. While during the 1990's,

they always fought with a high unemployment rate even during low inflation, by 2000, they managed to push back its value. However, they had to deal with a higher inflation rate.



**Fig. 3.** Inflation/unemployment relation of Member States in 2000  
Source: Self-made, based on World Bank data, 2016

As for the grouping, we can take a look at Table 3 for the values of 2000.

One significant surprise is that the cluster of low inflation rates and high unemployment was halved, and not only that, excluding the French, it was completely reshuffled.

Its two new members are Latvia and Lithuania, who were certainly gifted with this state, compared to the one they were in before, since we could describe them in the previous grouping as having extremely high inflation and high unemployment. At least they managed to salvage one of these problems. The extremities denying the Phillips-curve are still filled to the brim, and they also dominate the total outline. Though we have to state that the less advantageous side also lists in its members countries like the Czech Republic or Finland. They only got here due to the stricter inflation criteria, as if we look at them relatively, neither of their values is that high (unemployment under 10%, inflation under 4%).

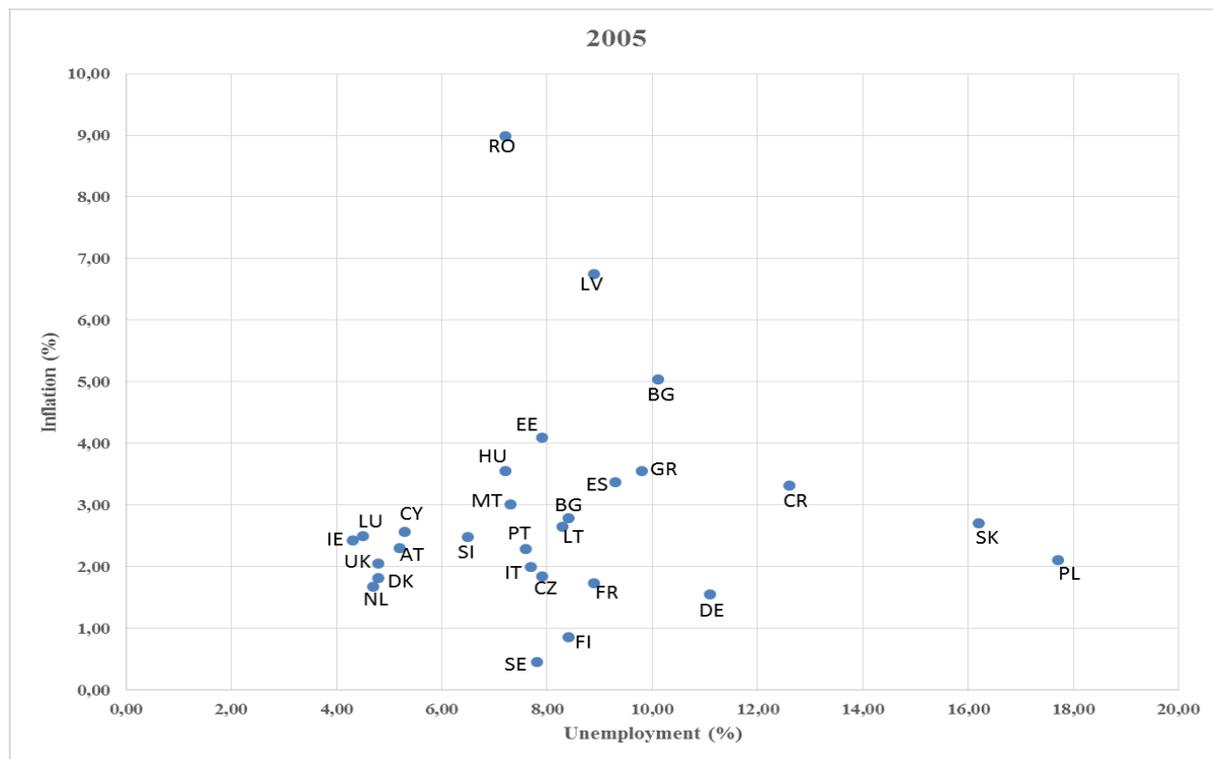
In the case of Hungary, we can finally say that while their too-high inflation is still on the decrease, at least Hungary managed to gain grounds in a better situated category due to reducing unemployment.

**Table 3.** Member State groups for 2000

2000	(-) Inflation (+)	
(-) Unemployment (+)	FR, IT, LV, LT	BG, CZ, EE, FI, GR, PL, SK, ES, CR
	AT, BE, DE, NL, PT, SE, UK, DK, MT	CY, HU, LU, RO, SI, IE

Source: Self-made, based on World Bank data, 2016

And now, let's take a look at the year when all the countries became Member States of the European Union, excluding Croatia. This can be seen on Fig. 4.



**Fig. 4.** Inflation/unemployment relation of Member States in 2005  
 Source: Self-made, based on World Bank data, 2016

Before we start a more in-depth analysis of the Figure, let's take our time, and think about the previous comment. Most of the countries are now Member States of the EU, which also means they have to meet different criteria. At this point, once again, we can go back to Goodhart's Law, who questions all indicators which are used for reaching political goals. In our case, this simply means that in some cases, we will be able to observe significant results for some Member States - often newly admitted ones. However, as for determining how realistic these are, we would need a level of insight into economic history for each nation which is simply impossible for us. Therefore, after this, we'll try to focus on researching the connection between inflation and unemployment, assuming the data can be considered trustworthy.

We can start with the case of Ireland, who were already highlighted in an earlier period as the successful victor against unemployment, for the price of high inflation. However, by the time of 2005, the Irish economy reached its modern-time peak, which made us realise that below an inflation rate of 3%, they managed the lowest unemployment. From the mid-1990's until this time, they had exemplary economic results, and due to this, they received the name "Celtic Tigers" (Baccaro and Simoni 2007). As for the European Conditions, the countries huddled together greatly, so much so that even the cluster analysis only managed to break them apart due to the strict 3% and 8% limit values. However, we can clearly see that both unemployment and inflation are on a relatively low level for each of the countries. On first sight, only Germany shows a relatively higher unemployment for low inflation. Furthermore, we could

place Romania, Latvia, Bulgaria, Croatia, Slovakia and Poland on an imaginary Phillips-curve distanced from the mid-point.

In light of what we mentioned, the grouping seen in Table 4 may be the most unnecessary at this point, as based on the Figure, we can already imagine a perfect outline for the conditions of 2005. In spite of this, we can still use it to draw a conclusion: as for division, unemployment began to take on a much more important role. The reason of this is that there are much less countries that have a (relatively) high inflation. Therefore, the over-abundant - disadvantageous - upper right section also began to shrink.

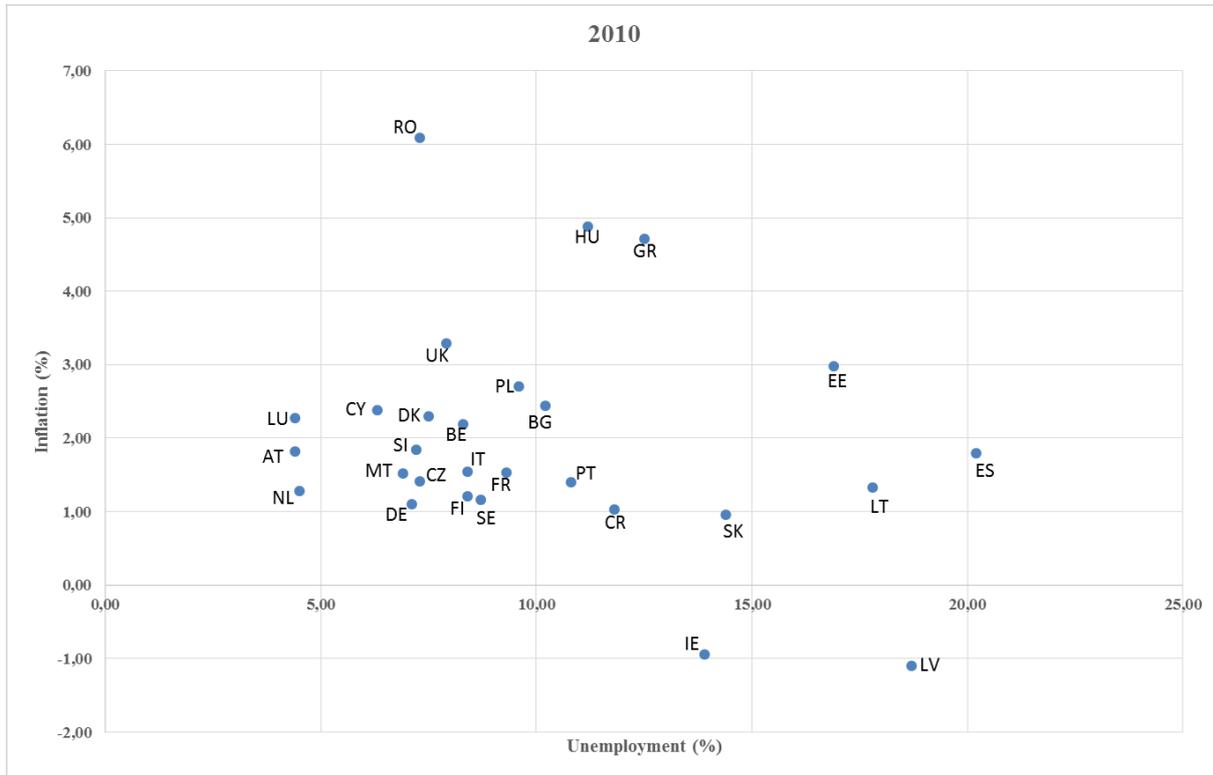
**Table 4.** Member State groups for 2005

2005	(-) Inflation (+)	
(-) Unemployment (+)	BE, FI, FR, DE, LT, PL, SK	BG, GR, LV, ES, CR
	AT, CY, CZ, IT, LU, NL, PT, SI, SE, UK, DK, IE	EE, HU, RO, MT

Source: Self-made, based on World Bank data, 2016

The analysis of the year 2010 may prove to be interesting for us for many different reasons, as this period shows the state immediately after the Great

Economic Depression began to show its influence (Fig. 5).



**Fig. 5.** Inflation/unemployment relation of Member States in 2010  
Source: Self-made, based on World Bank data, 2016

We have to start the evaluation with the fact that inflation almost completely disappeared, and we can only talk about the EU's directive of 3% as the general norm, and the relatively high inflation is only slightly above it. As for unemployment, we can see how much the countries huddled together in the interval between 5 and 10%. However, of the EU13, only the Czech Republic, Poland, Cyprus and Malta, who performed well up until now were in this group.

The Great Economic Depression had much more detrimental effects on almost all of the late-joining Member States apart from them. The Phillips-curve, said to have moved by 2005 is much more of a half-circle at this time, which had the Baltic nations and Spain on its edge.

Furthermore, this group also had Hungary join them, and Ireland, who was an example twice before. As for the latter, the high unemployment rate returned.

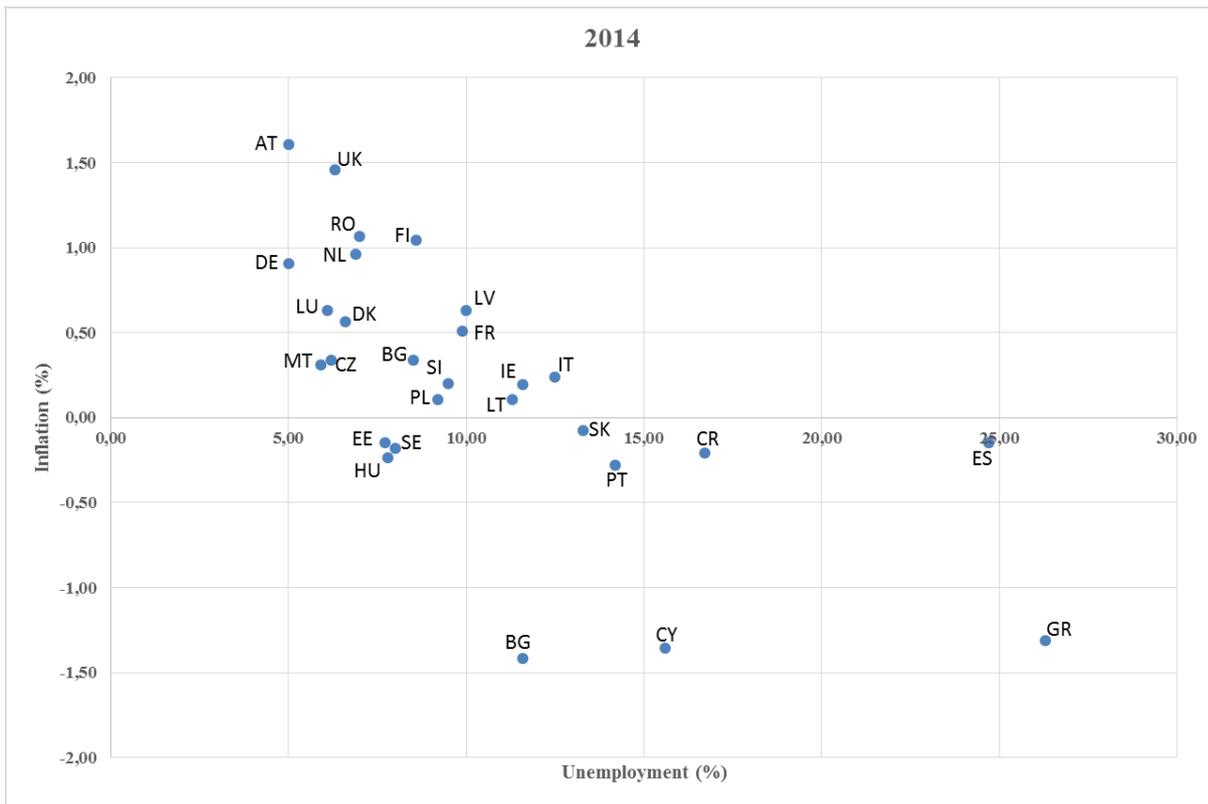
The cluster analysis seen in Table 5 mainly supports the phenomenon that started in the previous period, which means that the unemployment is the main factor deciding the cluster membership.

**Table 5.** Member State groups for 2010

2010	(-) Inflation (+)	
(-) Unemployment (+)	BE, BG, EE, FI, FR, IT, LV, LT, PL, PT, SK, ES, SE, CR, IE	GR, HU
	AT, CY, CZ, DE, LU, NL, SI, DK, MT	RO, UK

Source: Self-made, based on World Bank data, 2016

Finally, let's take a look at the final year of our analysis, 2014, which can be seen in Fig. 6.



**Fig. 6.** Inflation/unemployment relation of Member States in 2014  
 Source: Self-made, based on World Bank data, 2016

We can see that the conclusion drawn in the literature chapter holds true, meaning that today, inflation almost completely disappeared, and merely exists in the economy of the EU. Also, its negative correlation with unemployment has become a sliver of existence. An interesting factor, however, is that the extended curve (resulting in a half-circle) reminding us of the earlier points of the Phillips-curve has disappeared completely, and countries having the highest unemployment rate all have a negative inflation. Also, we might want to take a look at the Baltic countries, who had the highest unemployment rate in the previous period, but managed to reach a significant decrease by 2014. And this suggests a motif that may prove analysis of the connections between inflation and unemployment completely unnecessary. The reason for this is the phenomenon already mentioned in the introduction - the labour force is leaving its country - which was significant by the time of 2010 not only in the Baltic countries, but in the Central- and Eastern-Europe regions on a whole as well (Józsa and Vinogradov, 2017). Naturally, this is also obviously advantageous for statistics, since it efficiently does away with unemployed, but it's no coincidence that nowadays, it's more effective to analyse the Phillips-curve in relation to the production gap.

Finally, it may prove to be no surprise that the results of Table 6 have no weight, as starting from 2005, due to the disappearance of inflation, it was capable of explaining less and less. We can see that the grouping system for countries we made is completely dependent on the unemployment data.

**Table 6.** Member State groups for 2014

2014	(-) Inflation (+)	
(-) Unemployment (+)	BE, BG, FI, FR, GR, IT, LV, LT, PL, PT, SK, SI, ES, CR, IE	
	AT, CZ, EE, DE, HU, LU, NL, RO, SE, UK, DK, MT	

Source: Self-made, based on World Bank data, 2016

**Conclusions**

Based on the results of the research, we can make three distinct conclusions for the relation between indicators during the time interval: first, inflation during the 90's had a much more important role in explaining the state of affairs, we could see how in some cases, high and low inflation clusters almost completely separated EU15 from EU13. During the 2000's, this trend completely turned around, due to inflation disappearing, and unemployment garnered higher and higher influence in separation within the cluster. And by the 2010's, due to how labour travels within the EU, a state where the traditional Phillips-curve's logic is impossible to interpret

came into being, for most of the newly joined Member States.

To summarise the analysis, we can state that the traditional interpretation of the Phillips-curve, which suggests a relation between unemployment and inflation, has completely diminished nowadays. One of the reasons for this is the process of globalisation, which was already foreshadowed by Robert Lucas in 1973 - as we said in the literature chapter. He mainly stressed the importance of the flow of information accelerating back then, however, one of the most notable challenges of nowadays is obviously the liberalised European labour market. This phenomenon also raises the question: is it efficient to aim at the generally prevalent common European market, if economic policy's tools clearly don't function on this level at this point in time? The other extremity is when the common policies successfully passed stand in the way of Member States in efficiently using their national-level economic policy toolset. We could see how the Europe-level monetary policy, and low inflation expectations resulted in national-level monetary policy losing its influence above domestic economies. The right of existence of the Phillips-curve was first questioned when it became vertical in the 70's. In spite of modifications, nowadays, its horizontal curve shows that the relation it suggests has diminished almost completely. One of the reasons for this is the lack of synchronised usage of the economic policy toolset.

The other, we could say 'bad luck' of the Phillips logic is that it highlighted a connection system between macroeconomic indicators, which are always the priority of the political power, no matter which power it is. And according to Goodhart's Law introduced during the analysis, manipulation of phenomena like indicators measuring economic performance was not only done in present time. Goodhart meant this statement, or thought as the critique of the British government headed by Margaret Thatcher, who simply went too far with their monetary policy, and always had it latch onto a certain target of political interest. Therefore, from the perspective of later analyses, an interesting question could be if the earlier trends of macro-economy were really defeated by the ever-changing World, or they simply deteriorate under the selfish governance of the political leadership.

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## CRITICAL EVALUATION OF SUCCESSFUL FACTORS IN CREATION OF SERVICE

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### Abstract

Aiming to stand out in a competitive environment, business enterprises of services are increasingly focusing on the analysis of success factors, which not only allow to determine the past factors of success but also by effectively utilizing the company's available resources and competencies, to improve the services provided or to create new services and to shape the user-friendly behavior of the organization. Companies that continuously identify success factors create a positive environment for themselves for the creation of a new service that is not only competitive but also involves specific solutions for engagement of employees in all departments of the organization. Based on scientific literature, the article presents the concepts of the development of the services and the service, the analysis of different approaches to the exclusive service characteristics and the factors determining the success of the development of the service are identified. Comparative analysis and synthesis methods were used in the study.

KEY WORDS: service, service characteristics, service creation, service business, success factors, evaluation.

### Introduction

In the context of globalization, servicing businesses face a variety of challenges: the change of consumer behaviour, rising living standards, more efficient allocation of resources, the increasing access to information, technology, as well as to more affordable goods and services. In order to become unique in the market of services, organizations are forced to analyse not only the competitive environment or consumers' needs but also to pay greater attention to the identification of success factors. Regular and proper identification of these factors allows the company to achieve the intended results, to adequately allocate resources necessary for the creation of a new service, and also to draw the portrait of a target customer. The identification of success factors may also be associated with the use of the company's expertise and knowledge to improve the existing service or the newly created one, shaping it according to the prevailing market trends, the consumer behaviour or the possibility to apply technological innovations. Although success factors are becoming increasingly important in the context of the creation of services, they are fragmentedly analysed by scholars. It should be noted that the attitude to the role of success factors in the development of new services is changing and transforming, which is why their researches become especially relevant in nowadays post-modern organizations.

**Object of the research** – success factors in the creation of services.

**Relevancy of the research** – most of the researches related to success factors in the creation of services focus solely on identifying these factors, while in the context of constantly changing business conditions it is relevant to determine their significance in the creation and development of modern services.

**Aim of the research** – to analyse and summarize success factors in the creation of services detected in scientific literature and to highlight their importance in the development of new services.

**Tasks of the research:** 1) to consider the concept of service and to assess its exceptional properties, 2) to reveal the conception of the creation of services, 3) to examine factors determining success in the creation of services, 4) to determine the importance of success factors in terms of service creation. The research is based on the analysis and synthesis of scientific literature.

### Variety of definitions of service

Now that we live in highly consumer society, surrounded by the intensifying processes of globalization, the definition of *service* becomes one of the most complex theoretical tasks faced by modern scholars. According to B. Vengrienė (2006), the variety of activities aggravates the definition of service. L. Bagdonienė and R. Hopenienė (2009) state that the evolution of the concept of service is related to the intensive development of service business. C. J. Lovelock *et al.* (2011) believes that the definition of service will always have a number of insights due to its intangible nature.

Defining the service as a benefit or satisfaction that a business entity sells to the consumer, W. J. Regan (1963) distinguished three types of services: services involving intangible assets when the consumer receives satisfaction directly (e. g., insurance); services including tangible assets (e. g., transportation, accommodation); services that are purchased along with goods or other services (e. g., maintenance, delivery).

R. C. Judd (1964) identifies the service as a market transaction between the enterprise and the customer the object of which is the transfer of intangible property. Meanwhile L. Shostack (1977) views the concept of

service from the point of view of the creation of marketing service and defined it as an abstract activity. In the author's opinion, the vision and even the outcome of service may be influenced by what the consumer perceives and expects. The service itself cannot be tangible, therefore, the user must rely on side senses and means to assess it.

By claiming that the service can be viewed as the change in the consumer's state as a result of the performance of a business entity, T. P. Hill (1977) argues that this corresponds to the basic idea inherent in the concept of service, namely, the fact that one entity is engaged in an activity beneficial to another entity. The author notes that regardless of what the service provider is engaged in, he has to directly affect the user.

According to J. B. Quinn and C. Gagnon (1986), services are economic activities where the value is created by means, which cannot be measured, i. e. convenience, security or flexibility. Swedish scholars B. Edvardsson and J. Olsson (1996) presented the concept of service from the user's point of view and defined the service as a process (or a group of processes), during which benefits are being created and transferred to the user. Customers have personal assessment criteria, which is why they differently perceive the same services. According to the authors, the most important indicator in the provision of services is a satisfactory result of customer service or, in other words, the quality, therefore, in order to ensure it, it is necessary to find out the needs of a target group of customers and the ways to properly satisfy them.

A service is an action or a multiphase process of activity without any tangible results, intended to satisfy the needs of another economic entity (Vengrienė, 2006). The author notes that in the provision of services it is the activities different in nature that becomes the means of meeting ever changing needs of customers. C. Grönroos (2007) defines the service as a process consisting of more or less intangible activities taking place in the intersection between the customer and the service provider. In this

case, physical or mental resources become a way of solving customer's issues.

After the analysis of concepts of services, S. Kayastha (2011) claims that services are exchanges that are executed within a specified or zero period of time. According to the author, this type of definition of services is much more efficient than identifying differences between goods and services.

P. Kotler and K. L. Keller (2012) defined the service as a process during which one entity offers something to another, however, due to an intangible nature of service the user does not acquire any property. The authors note that the service may be sold separately or along with goods.

M. S. Rosenbaum (2015), who viewed the concept of service from the perspective of contemporary market players, suggests to define services as a process where servicing staff, volunteers and customers are given an opportunity to improve the individual, common, and global welfare during the provision of services.

A. Vitrenko (2015) identifies services as intangible activity involved in the process of production and turnover, by which a business entity intends to meet the specific needs of consumers. According to the author, services may be analysed in three aspects – the type of actions, direct actions and the result of actions. C. H. Lovelock with co-authors (2011) holds a similar position. By defining the service as an intangible economic activity that generates value and benefits to the customer, the authors also note that during the creation of service it can be associated with a physical product.

After the analysis of concepts of services provided by Lithuanian and foreign authors, it can be stated that definitions of the service vary according to four main characteristics: the form of service expression (*process, activity, exchange, benefits*), the relationship between the business entity and the user, the distinction of unique features of the service and the identification of additional factors (see Table 1).

**Table 1.** Generalized service definitions (Source: compiled by the authors)

Author, year	What it that?	Additional factors	Named characteristic
W. J. Regan (1963)	Satisfaction, benefit	Services may include tangible and intangible assests; Services can normally be associated with goods.	Intangibility
R. C. Judd (1964)	Process	Services can normally be associated with goods.	-
L. Shostack (1977)	Activity	Important what the user is expecting.	Intangibility
T. P. Hill (1977)	Process	The service provider can directly affect the user.	-
J. B. Quinn, C. Gagnon (1986)	Satisfaction, benefit	The value created by the service can not be measured.	-
B. Edvardsson, J. Olsson (1996)	Process	The most important indicator for the provision of services – quality.	-
B. Vengrienė (2006)	Process	Various services are designed to ensure the changing needs of users.	Intangibility
C. Grönroos (2007)	Process	Physical and mental resources become a way of solving customer problems.	Intangibility
C. H. Lovelock <i>et al.</i> (2011)	Activity	Services can normally be associated with goods	Intangibility
S. Kayastha (2011)	Exchanges	The exchange takes place in a fixed or zero time period	-
P. Kotler, K. L. Keller (2012)	Process	Services can normally be associated with goods	Intangibility
M. S. Rosenbaum (2015)	Process	The service provider can directly affect the user	-
A. Vitrenko (2015)	Activity	Service can be considered in three aspects - the kind of action, action directly, the result of action.	Intangibility

After analysing the scientific literature, it can be concluded that the concept of service is rather diversely perceived not only by Lithuanian but also by foreign scholars. Due to continuous improvement, there is no definition of the service commonly acceptable to all scientists and specialists, however, it is obvious that most properties or factors prevailing in definitions are similar. The relationship between the service provider and the user (Shostack 1977; Hill 1977; Vengrienė 2006; Rosenbaum 2015) or a possibility to associate the service with the goods (Regan 1963; Judd 1964, Lovelock 2011; Kotler, Keller 2012) are often highlighted. Besides, in most definitions, immateriality is identified as an exceptional or mandatory feature of a service.

Taking into account the roles of the consumer and the business entity during the creation of service as well as the importance of the unique properties of the service, *the service can be defined as a rapid process dependent on users' needs, technological innovations or competitiveness in the market taking place in the interaction between the customer and the service provider and generating intangible value (benefit), which cannot be acquired as property.*

### Exclusive characteristics of services and contributing factors

The rapid development and dynamism of the service sector promotes the formation of characteristics of new services. They are increasingly given sense to not only in the modern concept of services but also in most phases of the creation of services: installation, provision or further development. According to N. Awara and J. Anyadighibe (2014), each of the characteristics of the service poses additional challenges for company's marketing professionals. According to the authors, by applying specific strategies to unique characteristics of services, marketing specialists can more effectively advertise the service to the target audience. Because of the changing consumer beha-

viour, the development of high technology and the growth of competitiveness among business entities, researchers observe new characteristics of services, however, the following four are considered to be the main ones:

1. **Intangibility.** Unlike a material product that a user can judge rather objectively (in terms of its shape, taste, smell, qualitative image), it is much more difficult for the user to evaluate the service due to its intangible nature.
2. **Heterogeneity.** Service combinations, forms of provision, or benefits to the consumer may significantly differ depending on what, when, where and how it is provided. This depends on the economic period (market trends, price differences), different terms of service, the nature of sales (whether the service is sold separately or provided along with the sold production), different consumer expectations, and the target group which the service is designated for.
3. **Inseparability.** Unlike the product, the service is provided and consumed at the same time. Some of the processes related to the service can be performed without the client, however, it is the part where the client participates and controls the development of the service that is the key. According to C. Lovelock and E. Gummesson (2004), the inseparability of production and consumption highly influences the marketing and operations strategy of a business entity.
4. **Perishability.** It is impossible to accumulate service reserves or to offer services upon demand without the participation of the user.

Researches on exceptional characteristics of the service began over fifty years ago aiming to distinguish essential differences between goods and services. In order to define the concepts of service and service creation in more detail, it is necessary to further examine these characteristics of the service (see Table 2).

**Table 2.** Exclusive service characteristics (Source: compiled by the authors)

Authors, year	Service characteristics								
	1	2	3	4	5	6	7	8	9
	Intangibility	Heterogeneity	Inseparability	Perishability	Customer involvement in the creation of the service	Lack of ownership	Presentation of the service (e-commerce or business entities)	Difficulties in service evaluation	Fluctuating demand
W. J. Regan (1963)	X	X		X					
J. M. Rathmell (1966)	X	X	X	X	X				
V. A. Zeithaml (1981)	X	X	X						
V. A. Zeithaml et.al. (1985)	X	X	X						
C. Grönroos (2007)	X	X	X	X	X	X			
M. Gabbott, G. Hogg (1994)	X	X	X	X					
J. Gadrey (2000)	X			X	X				
C. Lovelock, E. Gummesson (2004)	X	X	X	X					
N. Langviniene, B. Vengrienė (2005)	X	X	X	X	X	X	X	X	
B. Vengrienė (2006)	X	X	X	X	X	X			
T. Abe (2005)	X		X			X		X	
L. Bagdonienė, R. Hopenienė (2009)	X	X	X	X	X	X			
G. Parry et al. (2011)	X	X	X	X					
S. Kumar, K. Mishra (2014)	X	X	X	X		X			
U. Lehtinen, R. Järvinen (2015)	X		X		X		X		
R. Batley, J. Wales (2015)	X	X	X	X	X		X	X	X
S. Chand (2017)	X	X	X	X				X	X

A comparative analysis of authors' opinions revealed that the key features of services still include intangibility, heterogeneity (promiscuity), integrity of production and consumption and non-accumulativeness, however, in the scientific literature these features of services are more and more often supplemented by other features which allow to distinguish differences between goods and services even more precisely: the customer's involvement in the creation of service, the absence of transferred ownership, etc. It can be assumed that the following factors influence the formation of new service features:

**1. Most features of the service affect one another.**

An excellent example is intangibility because of which it is impossible to store and accumulate services and to acquire ownership relating to the process of services. B. Vengrienė (2006) notes that characteristics of services should be treated with caution, since a significant part of supplementary insights found in the scientific literature only repeats and complements the four main characteristics of services.

**2. User's role.** The provision of all services is directed towards the customer and the satisfaction of his/her needs, therefore the main objective of a business entity is to provide a qualitative innovative service that is consistent with today's trends. It is natural that the significance of the customer is also reflected in newly formed characteristics. More and more authors distinguish the role of the customer and his/her relationship with the service provider (e. g.: the customer's involvement in the creation of service, the difficulty in assessing the service before acquisition, the absence of transferred ownership).

**3. Evolution of innovations.** In the development of services, technological and social innovations have a significant impact as they reduce the time needed for the service, improve quality, and promote competitiveness. The emergence of very fast sharing economy, the role of electronic commerce and the importance of social networks create not only the shopping habits of contemporary society, but also stimulate the formation of new service characteristics.

Taking into account the fact that most of the newly formed exclusive features of the service are focused not on a business entity or service but specifically on consumers, it can be assumed that it is the customers that are largely responsible for the success of the service. This implies that during the provision of service or its creation, business entities are forced to take additional measures that would ensure the success of the whole process increasing customer satisfaction, their loyalty, or aiding to draw a portrait of the target customer.

**Concept of creation of service**

It is rather complicated to present a precise definition of the creation of service because of its vagueness. Foreign literature provides the following derivatives of this concept: new service creation (NSC), value/service co-creation, new service development (NSD), service design or even service innovations. More often than not, the concept of service is hidden under the definition of the product since the service constitutes a product of a specific activity. According to R. Drejeris (2015), a product is a more general concept that allows services to be treated as a subset of products that are distinguished by certain attributes.

S. Holmlid (2010) states that the creation of service is a growing and multidisciplinary field that collects knowledge from disciplines such as anthropology, cognitive science, marketing, or computer-based communication. Service Design Network (2017) provides that the creation of services is crucial for all private and public organizations willing to install innovations and improve their service strategies or offers to consumers. M. Stickdorn and J. Schneider (2011) argue that in the course of creation of services either new services are installed, or the existing ones are improved in order to make them more useful, efficient, and meet other needs of contemporary customers.

Most researchers point out that the development of services allows for a stronger relationship between the organization and the user (see Table 3). It is noted that departments of foreign institutions pay considerably more attention to the creation of service, namely European Commission Business Innovation Observatory (2015), Cambridge Service Alliance (2017).

**Table 3.** Comparison of service creation considerations (Source: compiled by the authors)

Author	Year	Service creation
A. M. Smith, M. Fischbacher	2005	Authors quoting A. Johne and C. Storey (1998): This process encompasses the development of tangible and intangible elements of a service, not previously offered by the supplier, including "offer development", i.e. the development of "processes by which the product (or service) is evaluated, purchased and consumed"
D. N. P. Murthy <i>et al.</i>	2008	The authors rephrase the definition of the Product Development and Management Association of USA and defines this process as a disciplined and defined set of tasks and steps that describe the normal means by which a company repetitively converts embryonic ideas into saleable products or services.
M. Erlhoff, T. Marshall	2008	It aims to ensure that service interfaces are useful, usable and desirable from the client's point of view and effective, efficient and distinctive from the supplier's point of view.
S. Moritz	2010	The process, which aims not only to strengthen the relationship between the user and the service provider, but also to create more added value for both market players.

J. C. Aurich <i>et al.</i>	2010	Process of planning and organizing people, technology and material components to enhance the quality of interactions between customers and providers.
J. B. Santos, M. Spring	2013	Authors quoting Johnson <i>et al.</i> (2000): Activities executed and decisions made to develop the concept, analyse the opportunity, implement and launch the service
Business Innovation Observatory	2015	It is a creative, viable and user-centred design process that is used by organisations to create value for their customers or users and serves as a competitive advantage for the service provider.
E. Lee	2016	Iterative process which includes four phases: exploration, creation, reflection and implementation.
G. Mayou	2017	A customer-centric process, where creative solutions are applied to eliminate disadvantages in the service business by improving existing services or introducing new ones.
Cambridge Service Alliance	2017	The application of design methods and tools to the creation of new service systems and service activities with special emphasis on perceptions of quality, satisfaction and experience.

A comparative analysis has revealed that the theoretical complexity of the creation of service is determined not only by the broadness of concepts, but also by variations of this concept frequently confronted with in foreign literature. M. Stickdorn and J. Schneider (2011) propose that the approach to the creation of service is still evolving. Theoretical considerations of the creation of service (see Table 3) reflect the relationship between the client and the user, highlight the importance of the objective, and identify the specific stepwiseness or course of the process. The results of the analysis show that the creation of services can be focused on the introduction of new services or the improvement of existing ones, therefore it can be assumed that this process is influenced not only by such factors as consumer behaviour or the development of technological innovations, but also the prevailing competition in the service sector. These factors encourage business entities to make clearly measured and competitive decisions that would allow to created services in a more efficient way.

Taking into account all these mentioned scientific views, it can be claimed that the creation of the service should be considered as a necessary strategic solution and systematically evaluated by this process. Therefore, it is suggested that service creation can be defined as *a multiple, customer-oriented process, during which managerial decisions are applied to the elimination of deficiencies in business, by improving existing ones or by introducing new services*. This definition creates a good environment for the perception of the development of services from the perspective of a user and from the perspective of the organization as well, and let to search for the effective and optimal solutions in their provision.

**Significance of identification of success factors in the creation of service**

Most of the scholars examining the service sector pay increasingly more attention to success factors, which are reflected in different stages of service creation. Critical success factors are closely related to service quality assurance, customer satisfaction, and increased competitive advantage, and therefore they largely contribute to effective results.

During the study, U. Brentani (1990) interviewed representatives of different companies about internal and external problems that directly or indirectly affected the creation of a new service. After summarizing the results, 17 new factors describing the creation of service were presented. Taking into account the values of reliability ratios derived by the author, the first five places were occupied by the comprehensive process of the creation of a new service, the overall business synergy, the quality of servicing experience, the market competitiveness, and skilled professionals. According to the author, the identification of these factors is an effective way of contributing to the successful implementation of a new service.

After having interviewed representatives of the largest manufacturing companies of Finland, V. Ojanen *et al.* (2008) found that the key factors for creating a new service in this segment are the customer satisfaction, skilled employees, rapid adaptation of the company and its personnel to technological change, security aspects and provision of rental services. According to the authors, the division of success factors into internal and external ones facilitates the elimination of various problems in the enterprise. Success factors are assessed by the authors as a mechanism of self-control which is necessary for the creation of service.

According to D. N. P. Murthy *et al.* (2008), business objectives can be defined as the overall goals of the creation process of a new product or the benefits that a new product is supposed to bring to business. Taking into account the importance of the goal being developed during the product creation, the author distinguished four main factors that could influence its implementation throughout the project: the product strategy; laws, standards and directives; human resources; and competition.

After having assessed the success factors influencing the creation of financial services, M. Nekrep (2009) found that the organizational culture is considered to be the most important factor for success in the creation and development of services. It is followed by the knowledge, presentation of the service to the user, business analysis and marketing planning, as well as idea generation and selection. According to the author, the identification of success factors is necessary for any enterprise in the service sector that wishes to further expand its activities.

After having analysed the role of organizational culture and business ethics in the process of service creation, H. P. Hsu (2017) determines that the creation of new services must be based on the cooperation between the consumer and the business grounded on ethical principles resulting in favourable conditions for ensuring long-term relationships. The author also notes that employee qualification and mutual communication are important success criteria in the development phase of the service, when ideas are exchanged in order to solve the arisen problems.

T. Posselt and K. Förstl (2011) conducted a comparative analysis of scientific publications according to 29 different key-words in *Science Direct* website. Due to the large scope of the study, the success factors identified in the literature were divided into three categories: factors that previously determined success by describing preconditions in the organization contributing to favourable environment for the improvement of services, success factors of the creation of a new service and success factors of a service, i. e. factors describing a successful service (see Table 4).

**Table 4.** Success factors (Source: compiled based on Posselt, Förstl 2011)

Success factor categories	Succession Factors Priority Layout				
	1	2	3	4	5
Service success factors	Unique / Superior service	Product synergy	Employee expertise	Tangible evidence	Cross-functional collaboration
NSD Process Success Factors	Employee involvement	Appropriate formalisation	Management measures	Customer involvement	Market orientation
Antecedents of NSD success	Market orientation	Technology	Knowledge management	Culture	Strategic HRM

Note: From the perspective of this study, only the success factors of a new service are considered.

The research revealed that most of the scientific publications dealing with success factors of new services are not characterised by freshness, and because of the small volume of quantitative and qualitative researches the aspects discussed in the publications are not disclosed in sufficient detail. According to the authors, in the context of modern business services, the research of success factors needs more attention.

During the study, N. Bhuiyan (2011) attempted to determine the key success factors that occur in each of the five phases of the development of a new product. The key success factors include the clear and well-presented strategy (*the strategy phase*), the concentration on user’s needs (*the idea generation phase*), the proper preparation (*the sampling and business analysis phase*), the rapidness and feedback from the client (*the development phase*), the functionality of a product or a service and user’s opinion on the created product (*the test phase*). According to the author, the creation of a new product can also be called a success factor as it forms the success of not only the specific product or service but also of the entire company.

After the survey of respondents of high technology companies, K. Ismail *et al.* (2012) sought to identify success factors in the creation of a new product. The survey revealed that leadership plays a key role in determining the success in the creation of a new product; it is followed by the company’s commitment to maintaining high-quality of products; constant attention to customers in order to find out their needs; the support and direct involvement of the team leader in all stages of the project’s implementation; and the organization of

work on a team principle. According to the author, the process of creating a new product is especially important for the company in the conditions of modern competitiveness, and the identification of success factors is important not only for the project but also for the company as a whole.

Applying the method of comparative analysis, N. Langvinienė and I. Daunoravičiūtė (2015) attempted to identify factors determining the success in the sector of health services. They distinguished the six most important ones: innovations, qualified employees, proper management of customer relationships, technologies, marketing and continuous creation of value. According to the authors, these factors have a positive effect on the development of successful companies in the improvement of servicing quality, the reduction of costs, and timely satisfaction of consumer expectations.

H. Floren *et al.* (2017) conducted a theoretical study in which he sought to identify critical success factors in the creation of a new product. The key success factors include the involvement of managers, the early involvement of customers, and the external collaboration with customers. From the authors’ point of view, the decision to create or terminate the creation of a product must be grounded on a solid definition. It can more effectively disclose to the business entity whether the product to be created has commercial potential.

The results of the analysis revealed that the authors not only distinguish different success factors of the creation of a service, but also differ in their number or priority (see Table 5).

**Table 5.** Interpretation of success factors in creating new services (Source: compiled by the authors)

Author, year	Success factors in the creation of new services (priority layout)			The number of success factors	Success factors are divided into external and internal	Identified the importance of success factors in the creation of new services
	1	2	3			
U. de Brentani (1990)	Detailed service development process	Common business synergy	Quality of service experience	17	-	+
V. Ojanen <i>et al.</i> (2008)	Satisfaction of customer needs	Qualified workers	Adaptation to technological changes	17	+	+
D. N. P. Murthy <i>et al.</i> (2008)	Product strategy	Standarts	Laws and Directives	4	-	+
M. Nekrep (2009)	Organizational culture	Knowledge	Presentation of the service to the user	9	+	+
T. Posselt, K. Förstl (2011)	Employee involvement	Proper formalization	Management tools	5	-	-
N. Bhuiyan (2011)	Well-presented strategy	Concentration on user's needs	Proper preparation	8	-	+
K. Ismail <i>et al.</i> (2012)	Leadership	Quality	Constant attention to customers	10	-	+
N. Langvinienė, I. Daunoravičiūtė (2015)	Innovations	Qualified workers	Proper management of customer relationships	6	-	+
H. P. Hsu (2017)	Organizational culture	Qualified workers	Mutual communication	4	-	+
H. Floren <i>et al.</i> (2017)	Involvement of managers	Early involvement of customers	External collaboration with customers	8	-	+

Note: The summed up success factors for creating new services are highlighted in different backgrounds: customer orientation - ■■■■■■; qualification of employees - ■■■■■■; management tools - ■■■■■■; Innovations - ■■■■■■.

Taking into account the results of the analysis of success factors in the creation of service, the following key factors may be distinguished: focus on customer's needs (Ojanen *et al.* 2008; Bhuiyan 2011; Ismail *et al.* 2012; Langvinienė, Daunoravičiūtė 2015; Floren *et al.* 2017), high qualification of personnel (Ojanen *et al.* 2008; Langvinienė, Daunoravičiūtė 2015; Hsu 2017), adequate management measures (Posselt, Förstl 2011; Ismail *et al.* 2012; Floren 2017) and innovations (Ojanen 2008; Langvinienė, Daunoravičiūtė 2015). To sum up, it can be concluded that the success factor of the creation of service is a specific element that, by applying theoretical and practical knowledge accumulated by the company in the past, creates appropriate conditions for the improvement of the existing or newly created service, eliminating some of the problems which arose during the provision or creation thereof.

The research revealed that, in distinguishing success factors of the creation of service, the authors lack explicit criteria that would allow these factors to be divided according to their intention to solve issues of different nature. In this case, the authors classify the success factors of the creation of service by their importance, however, it is not completely clear whether a particular factor will solve the internal or external problem arisen during the creation of service.

## Conclusions

The results of the analysis of scientific literature revealed that researchers dealing with processes in the service sector lack a unified view on the concept of

service, its features and impact on the contemporary society. After analysing the views of different authors, it was determined that the service is usually defined as a process. Rarely, the service is defined as an activity, a benefit or an exchange, and therefore, based on different paradigmatic approaches of scientists, it can be defined as a process during which the business entity creates the user an intangible asset which cannot be owned as property.

The theoretical analysis of the exceptional characteristics of the service revealed that the rapid development of the service sector, its competitiveness and the change of customers' needs encourage researchers to look for new insights of features of services, which would not only focus on the business entity or the service itself but also highlight the role of the consumer. It is noted that, unlike in the past, when service features were used to highlight the essential differences between goods and services, more and more authors are currently examining them in the context of the creation of service.

The results of the theoretical research analysis revealed that success factors of the creation of service could be used more efficiently if a system of specific selection criteria was created. This would help the business entity to select success factors and apply them to solving specific (internal or external) problems.

Although, in the 21<sup>st</sup> century, success factors are given more and more importance in the creation of service, they are only fragmentedly examined in the scientific literature. Success factors are addressed by many authors only in the context of the overall creation

of services with much less attention to their research at each stage of the creation of service. This implies that in order to create a new service, it is necessary not only to form an effective strategy for achieving the goals but also to identify the key success factors that appear in each of the stages.

After the critical evaluation of success factors, it can be concluded that they play a significant role in the creation of service. It was determined that success factors have a significant impact on the effective development of an enterprise, self-control or even performance results.

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## SELF-EMPLOYED PERSONS AND MICRO-ENTREPRENEURSHIP IN LATVIA

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### Abstract

World experience demonstrates that self-employment of the population in civilised forms is an important condition for the recovery of not only the economy, but also of the entire social life of the state. In Latvia the process of establishing micro business and self-employment of people in various spheres of economic activities is very difficult. One of the main reasons for this state of affairs is the lack of a coherent and consistent system of public and, above all, state support for self-employed persons and representatives of micro businesses. The objective of the article is to evaluate the state of self-employment of the population and micro-entrepreneurship in Latvia, as well as the areas for stimulating the development of this business. The novelty of the research is substantiated by the fact that similar studies of the micro-entrepreneurship cluster, self-employment of people and its impact on employment in Latvia have not previously been conducted. The object of the research: the cluster of micro-entrepreneurship and self-employed persons in the economy of Latvia. The goal of the research is to analyse the state of self-employment of the population, micro business in Latvia and to develop proposals for improving the operating conditions for enterprises in this sector of the economy. Methods of research: the analysis of statistical data and mathematical modelling. Within the framework of the research, all calculations have been performed according to the data of the Central Statistical Bureau of Latvia and according to the data of the State Revenue Service. There is a need to create a special system of state support for micro-entrepreneurship in Latvia. It is necessary to modernise the tax policy, introduce a system of tax reliefs for self-employed persons. The improvement of the banking system in the interests of micro business, the simplified procedure for obtaining loans, especially by novice entrepreneurs, are of great importance for the successful development of micro-entrepreneurship in Latvia.

KEY WORDS: self-employment, micro business, mathematical modelling.

### Introduction

World experience demonstrates that self-employment of the population in civilised forms is an important condition for the recovery of not only the economy, but also of the entire social life of the state. People who undertake independent business activity as self-employed persons and representatives of micro businesses have the opportunity to make a reality of their creative abilities, entrepreneurial spirit, and initiative, thus creating a competitive environment. Under the existing variety of forms of ownership, this allows eliminating the deficit of many types of products, improving public relations and ensuring a more complete employment of the country's population (Kochetkov et al 2016, Kareivaite 2015).

However, in Latvia and in some other countries the process of establishing micro business and self-employment of people in various spheres of economic activities is very difficult and painful. Often, its nature is deformed, acquiring a bureaucratic or criminal character. Micro-enterprises and businesses of self-employed persons do not give the results expected by society but rather cause new difficulties in economic and social life, new social anomalies (Siropolis 1990).

One of the main reasons for this state of affairs is the lack of a coherent and consistent system of public and, above all, state support for self-employed persons and representatives of micro businesses, a modern concept of its formation and development. The economic situation in the crisis and post-crisis period between 2008 and 2010 exacerbated the problem of employment. Therefore, using the potential of self-employment of the population

and micro businesses has become very effective, focusing on new forms and types of this business in order to address Latvia's internal economic and social problems, and improve the living standards of the population.

**Subject and relevance.** Analysing the state of the economy of the Republic of Latvia, as in other countries, it is possible to observe periods of recession, stagnation and economic stabilisation, when micro businesses and self-employment of people become the most acceptable form of economic activity, which has a dominant position in the market (Ivanova 2015, Kochetkov 2015). According to Lursoft, based on the annual reports of entrepreneurs in 2016, no more than 5 persons were employed in each of 82 % of enterprises in Latvia (CSB 2016). The prevalence of micro-entrepreneurship in the economy allows quickly responding to changes in the market and switching to the production of new goods and services. This business contributes to the timely satisfaction of market demand; it is able to survive under conditions of a shortage of raw materials, capital and information (Siropolis 1990).

Today, this sector of micro businesses is developing relatively slowly and controversially in Latvia. The assessment of the real state of affairs in the field of micro-entrepreneurship is very difficult because of the low reliability of information on the problems of entrepreneurs that impedes the development of this economic sector. Despite the urgency and socio-economic importance of this problem for employment of the population, management practices of the labour market and of the economy of the country as a whole, the

tools for developing the self-employment of the population have not yet been fully explored. There is little research conducted on many issues and aspects related to the nature of self-employment of people, mechanisms and forms of managing its development on the part of state bodies that are called upon to exert a positive influence on the labour market and regulate the unemployment rate, create a controlling effect on the economic system adequate to the realities of the present stage of socio-economic development of the country.

According to the laws of the Republic of Latvia, persons engaged in business are divided into employees and self-employed persons. Self-employed person is a person permanently residing in Latvia, undertaking economic activity for remuneration and registered at the State Revenue Service of the country. State registration is carried out as an individual entrepreneur or a legal entity (Law of Latvia... 2000).

Since self-employed people establish their own business, they are referred to entrepreneurs who can lead micro-enterprises where the work of hired workers can be used.

It is known that unemployment is a socio-economic phenomenon, in which part of the economically active population is not engaged in the production of goods and services. The unemployed, along with the employed, form the labour force that is offered for hiring on the labour market, but may not be demanded by employers. A potential employee may not find a worthy, in his/her opinion, job offer with the acceptable characteristics, including the offered salary – the price of labour. There is a situation in which hired labour can be replaced by self-employment.

The fundamental point that distinguishes a self-employed person from an individual entrepreneur or a company owner is the absence of hired workers. As soon as a self-employed person hires an assistant on the basis of a contract of employment, s/he actually buys labour and appropriates surplus value, and consequently passes from personal labour or craft relations to the exploitation of the labour of other people. Moreover, this person is not a self-employed person, acquiring the classic characteristics of an entrepreneur.

A person who has chosen the status of a “self-employed” person finds a job on his/her own, within his/her own business. The self-employed person finalises labour relations in the form of a contract and is responsible for his/her work, organises the labour process, performs contractual work independently, or as part of a group of self-employed persons related by kin or craft relations. Self-employed people perform entrepreneurial activities, not being entrepreneurs in the classical sense, since they do not create seized surplus value. They distribute the income received within the working group, according to their personal performance.

Despite the fact that self-employment of the population plays an important role in the economy of Latvia, there are no plans for the development of self-employment in the Socio-economic Development Strategy of the country, which impedes the effective use of the potential for self-employment. Self-employment of people is not mentioned in the National Development Plan of Latvia for 2014–2020 (National...2014). This is a

systemic drawback, since the development of the self-employment of the population is not only a way of reducing unemployment, but also of developing entrepreneurship, establishing an effective economy in the country, performing its innovative modernisation and structural reorganisation.

*The tasks of the article* are to evaluate the state of self-employment of the population and micro-entrepreneurship in Latvia, as well as the areas for stimulating the development of this business. *The novelty of the research* is substantiated by the fact that similar studies of the micro-entrepreneurship cluster, self-employment of people and its impact on employment in Latvia have not previously been conducted. *The object of the research:* the cluster of micro-entrepreneurship and self-employed persons in the economy of Latvia. *The goal of the research* is to analyse the state of self-employment of the population, micro business in Latvia and to develop proposals for improving the operating conditions for enterprises in this sector of the economy. *Methods of research:* the analysis of statistical data and mathematical modelling.

## Analysis and computations

According to the research conducted by the OECD experts, self-employment in the countries of Western Europe developed very slowly between 1970 and 1980, and then a period of steady growth began. This was due to the restructuring of many economic sectors, rising unemployment, the development of outsourcing services and quite significant tax reliefs in this area. Besides, a significant role was played by the change in the state policy in many countries, aimed at alleviating social problems by attracting the unemployed to the sphere of self-employment. To a large extent, this was facilitated by the use of state programs of development and support of self-employment, providing technical and financial assistance to those who wanted to engage in individual entrepreneurship, as well as facilitating registration procedures and simplifying accounting. Moreover, special attention was devoted to alleviating the conditions for youth and women seeking to engage in individual entrepreneurship in the form of self-employment. The growth of self-employment helped reduce the rate of unemployment and stimulated the development of micro-entrepreneurship in many countries (European 2017, Ivanova et al 2017).

The first models of programs to stimulate self-employment among the unemployed appeared in France and were aimed at acquiring general skills required to start individual activities. Thus, in 1979 France implemented pilot programs of the development of self-employment for the unemployed, based on the formation of seed funding for their individual enterprise with the help of unemployment benefits. Then, taking into account the results of the experiment, in 1980 France adopted the state program “Unemployed Entrepreneurs” (Chomeurs Createurs – CC). The French model provided for a lump sum payment of unemployment benefits, the amount of which allowed the unemployed to generate initial capital sufficient to establish an individual enterprise without employees. This model of self-employment development

was oriented towards people receiving social insurance and unemployment benefits, disadvantaged people and individuals seeking an opportunity for self-employment. The model was intended only for those who used unemployment insurance and were forcibly dismissed or were on the list of persons to be dismissed in the near future. In 1984, this list was expanded, and it included youth and people who for the first time wanted to start working. The French model provided assistance both in the creation of one's own business and in the purchase of an already existing business, as well as provided the possibility of participating in a functioning micro business as a partner.

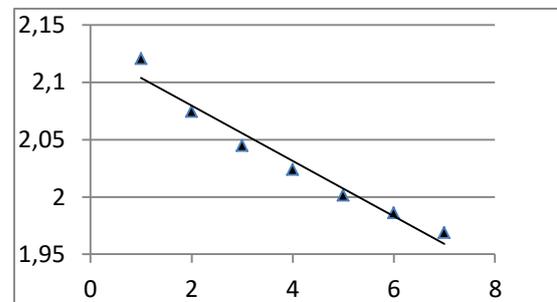
Great Britain was the second country to implement the National Enterprise Development Program (Enterprise Allowance Scheme – EAS). Participants of this program could be people receiving unemployment benefits and additional social benefits. The British model was based on periodic payments of unemployment benefits, allowing the unemployed to gradually receive the necessary qualification and establish their own business. Similarly to the French model, the British self-employment program lacks tools for compulsory selection of applicants for assistance in establishing their own business. However, there are procedures that help the applicants to critically self-assess their plans for establishing their own business. Unlike the French model, in the British model of self-employment development, assistance is provided only to those who intend to create a new individual enterprise. In the British model of self-employment development, applicants for participation in the self-employment program may be persons in the age group from 18 to the retirement age who are unemployed for at least 8 weeks, or have been notified of termination of employment. Additional co-investment from the state budget is provided if the activity of the established enterprise meets the goals and priorities of regional or local socio-economic development. During the period from 1979 to 1990 in Great Britain, active state support for micro-entrepreneurship development combined with the implementation of the national EAS program made it possible to increase the number of self-employed from 1.72 million to 3.25 million people. Their share in the total number of employed population increased from 7.2 % to 11.7 %.

By the mid-1980s, similar programs for the development of self-employment began to be applied in 17 OECD countries (Australia, Belgium, Canada, Denmark, Finland, Spain, etc.). Different countries used different criteria for determining the category of persons entitled to access to self-employment development programs. For example, in Ireland and Germany, an

applicant for participation in the self-employment development program should receive social security benefits or unemployment benefits. In Canada, the applicant should have the right to receive unemployment benefits or social security. In Spain, preference is given to the unemployed and disabled people, people who are unemployed for a long period of time, workers over the age of 45 and former emigrants who have returned to their homeland.

In Latvia, after the financial and economic crisis of 2008–2010, the total population decreased (Fig. 1, Table 1). This is due to a decrease in the birth rate in the country and the departure of a large part of the able-bodied population to work in other countries of the European Union. This partly explains the decline in the rate of unemployment in the state (Fig. 2, Table 1).

Within the framework of the research, all calculations have been performed according to the data of the Central Statistical Bureau of Latvia and according to the data of the State Revenue Service (SRS) (CSB 2017). The regression equations and graphs obtained by the calculations clearly show the trends of changes in the main factors characterising the state and development of the economic situation in the country in the period of 2010–2016 after the economic crisis (Table 1). The coefficients of determination  $R^2$  and correlation  $r$  are greater than 0.7438 and 0.8624, respectively. This indicates that the resulting equations explain almost 75 % or more variations of the factors under consideration in the specified period of time. The corresponding correlation coefficients in all cases are greater than 86 %, which indicates a strong correlation dependence of the considered indicators on time.



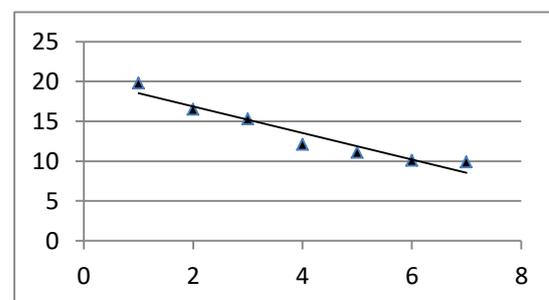
**Fig.1.** Change in the number of the total population in Latvia, 2010 – 2016. The OX axis: 1 – 2010; 2 – 2011; ... 7 – 2016; the OY axis: M.

**Table 1.** The results of computation of factor dependence

No	Dependence, years	Regression equation $y=f(x)$	R - squared	Correlation coefficient <b>r</b>	Fisher Statistics		DW statistics
					F act.	F crit.	
1.	Change in the number of the total population in Latvia, Fig. 1. (2010-2016).	$y = -0.0241x + 2.1279$	0.9634	0.9815	131.56	6.61	1.043
2.	Change in the rate of unemployment in Latvia, Fig.2. (2010-2016).	$y = -1.6679x + 20.214$	0.9255	0.9620	62.13	6.61	1.3204
3.	Change in GDP per capita in Latvia, Fig. 3. (2010-2016).	$y = 0.6607x + 8.3986$	0.9546	0.977	105.1	6.61	0.979
4.	Change in the number of employed people in Latvia, Fig. 4. (2010-2016).	$y = 5.7821x + 830.66$	0.7438	0.8624	14.51	6.61	1.4705
5.	Change in the number of unemployed people actively seeking work in Latvia, Fig. 5. (2010-2016).	$y = -18.393x + 208.44$	0.9219	0.9601	58.98	6.61	1.3583
6.	Change in the ratio of the number of self-employed persons to the number of active unemployed persons in Latvia, Fig. 6. (2011-2016).	$y = 0.0827x + 0.4476$	0.9144	0.9562	42.71	7.71	1.7346

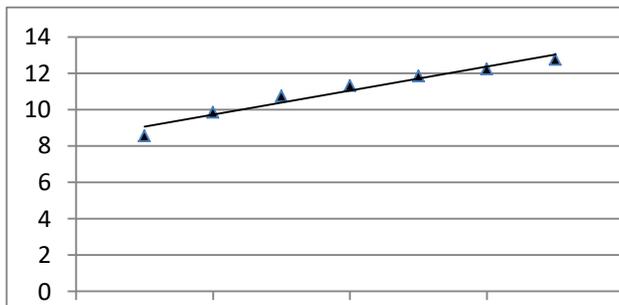
The verification of the obtained regression equations for consistency according to the Fisher criterion has demonstrated that in all cases the actual values of the criterion Fact are greater than the critical values for the considered Fcrit conditions (Table 1). Therefore, the hypothesis H0 on the insignificance of the regression equations is rejected, the equations are considered reliable, statistically significant, and can be used for analysis in the period under consideration.

The dependences studied in the research relate to time-varying series. Therefore, the regression equations obtained have been checked for the presence of autocorrelation of the first order residues by the Durbin-Watson (DW) criterion at the significance level  $\alpha=0.05$  (Table 1). For half of the considered trends (No. 4; 5; 6), it has been established that the DW criterion lies in the zone  $d_U < DW < 2$  and there is no autocorrelation. In other cases (trends No. 1; 2; 3), the criterion falls into the zone of uncertainty  $d_L < DW < d_U$ . However, the graphical analysis of the residuals has also shown a lack of autocorrelation. Therefore, the observed trends of changes in the factors under consideration can be used for analysis and obtaining of practical conclusions.

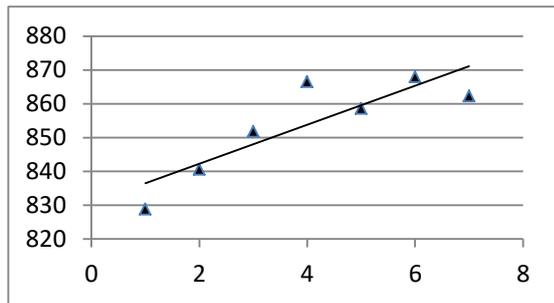


**Fig.2.** Change in the rate of unemployment in Latvia, 2010 – 2016. The OX axis: 1 – 2010; 2 – 2011; ... 7 – 2016; the OY axis: %.

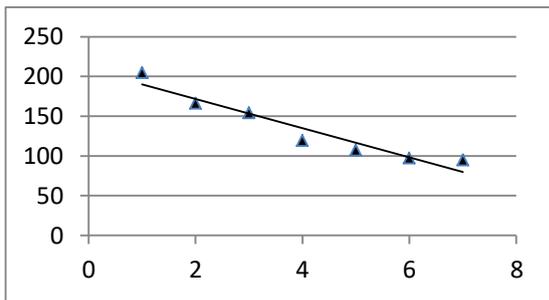
During the financial and economic crisis, the GDP of Latvia was decreasing. However, since 2010, GDP per capita has been steadily increasing (Fig. 3). There is a way out of the crisis, production volumes are increasing, and new enterprises are being established. This leads to an increase in the number of employed people in Latvia (Fig. 4). People find work and the unemployment rate decreases. There is a decrease in the number of active unemployed, i.e., those who do not go abroad in search of earnings, but actively seek and find acceptable jobs in their homeland (Fig. 5).



**Fig. 3.** Change in GDP per capita in Latvia, 2010 – 2016. The OX axis: 1 – 2010; 2 – 2011; ... 7 – 2016; the OY axis: thsd €.



**Fig. 4.** Change in the number of employed people in Latvia, 2010 – 2016. The OX axis: 1 – 2010; 2 – 2011; ... 7 – 2016; the OY axis: thsd.

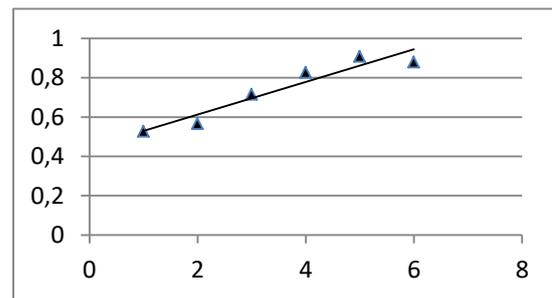


**Fig. 5.** Change in the number of unemployed people actively seeking work in Latvia, 2010 – 2016. The OX axis: 1 – 2010; 2 – 2011; ... 7 – 2016; the OY axis: thsd.

If one considers the ratio of the number of self-employed persons to the number of active unemployed in Latvia, one can say that this ratio increased in the period under consideration (Fig. 6). This was mainly due to a decrease in the number of active unemployed, since the

number of self-employed persons in the period under consideration was slightly changing (Fig. 7).

The total number of people employed in micro-entrepreneurship ranged from 9.7 % to 10.4 % in the period from 2011 to 2016, i.e., about 10 % of all employed in Latvia. The variation in the number of self-employed persons was 6 %: the smallest number was 83322 people in 2016, and the largest number was 88558 people in 2014. Despite the fact that the number of self-employed persons in the country decreased by 6 % from 2014 to 2016, income taxed by micro-enterprises and self-employed persons increased during these years (Table 2). Income to the state budget of taxes from this activity increased by 3.85 times in 2016 in comparison with 2014.



**Fig. 6.** Change in the ratio of the number of self-employed persons to the number of active unemployed persons in Latvia, 2011 – 2016. The OX axis: 1 – 2011; 2 – 2012; ... 6 – 2016.

The economy grows and develops not only thanks to the presence of large business structures, but a significant role in this process is played by micro-entrepreneurship and self-employment of the population. Micro-enterprises positively affect the level of employment in the country, the rate of economic growth and tax revenues to the budget. There are a number of problems on the way to the development of micro-entrepreneurship, the elimination of which would allow such enterprises to compete successfully not only in the domestic but also in the external world market. The main internal problems of micro businesses (lack of necessary economic knowledge, qualifications of employees, proper amounts of financial resources, etc.) can, to a large extent, be resolved through effective management by chief executives.

**Table 2.** Number of employees at micro-enterprises and income from their activities

Year	2014	2015	2016
Number of employees	88558	88329	83322
Turnover or income, thsd. €	532835.9	567522.9	612906.2
Paid taxes, thsd. €	13073.8	17671.2	50357.3

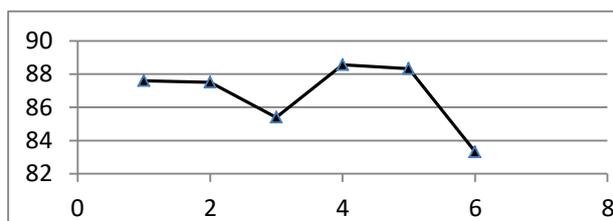


Fig. 7. Change in the number of self-employed persons in Latvia, (2011–2016). The OX axis: 1 – 2011; 2 – 2012; ... 7 – 2016; the OY axis: thsd.

External problems are more significant, threaten to liquidate business and often cannot be eliminated by the actions of enterprise's senior management. Surveys of micro business representatives have demonstrated that the main external problems are the following:

- instability of the tax legislation and the size of the tax burden;
- the possibility of obtaining loans;
- the difficulty of acquiring modern technological equipment at a reasonable price.

There are other less important external problems, which also have a negative impact on the conduct of micro businesses, for example, a lack of the necessary support of this business from the state. It is very difficult to obtain the necessary financial resources for novice entrepreneurs. Most of them do not use borrowed funds due to the lack of opportunity to obtain favourable loans.

Micro-enterprises, compared to large businesses, are characterised by a large proportion of living labour costs per unit of output. At such enterprises, labour-intensive work is often performed by workers holding an average and low level of qualification. To maintain the necessary level of competitiveness, entrepreneurs are forced to save on wages and intensify the work of employees. This causes difficulties in attracting highly qualified specialists to work. A majority of micro-enterprise employees work on a permanent basis, while in more developed EU countries temporary employment is common in such enterprises.

For the successful development of micro-entrepreneurship and self-employment of the population in Latvia, it is necessary to improve the banking system in the interests of micro businesses, to reform the mechanism of relationships between the players of this business and banks.

## Conclusions

The sector of self-employed population and micro-entrepreneurship is an integral part of the socio-economic system of Latvia; it provides relative stability of market relations, thanks to its flexibility demonstrates a prompt response to constantly changing environmental conditions. Self-employment of the population and micro businesses play an important role in increasing the number of jobs and solving problems of employment, especially in those areas where the problem of unemployment is still unresolved. The opportunities of the self-employed population as representatives of micro-entrepreneurship are neither exhausted, nor even used in any serious way in Latvia.

To solve the problem of accelerating the country's economic growth, eliminating the imbalance in the development of the territories, combating poverty and developing innovations, it is necessary to stimulate the population of the country to register their own activities, create new micro-enterprises, increase their competitiveness, and increase the employment of workers in this sector of the economy.

The development of micro businesses should become one of the priority areas of the country's economic development, since it plays an important role in ensuring the stability of economic development, increasing the flexibility and adaptability of the national economy to changing external and internal conditions. There is a need to create a special system of state support for micro-entrepreneurship in Latvia. It is necessary to modernise the tax policy, introduce a system of tax reliefs for self-employed persons.

The improvement of the banking system in the interests of micro business, the simplified procedure for obtaining loans, especially by novice entrepreneurs, are of great importance for the successful development of micro-entrepreneurship in Latvia. This will be facilitated by lower interest rates for loans, easing banking requirements, eliminating bureaucracy in the banking system and, as a consequence, the opportunity for entrepreneurs to invest in the development of enterprises.

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## THE IMPACT OF LEADERSHIP ON CUSTOMER SATISFACTION

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### Abstract

The aim of this study is to demonstrate the relationship between the leadership styles, organizational performance, and customer satisfaction. The literature about the concepts were applied to a research on the employees and customers of a company in the hazelnut industry. The data was collected with a survey form that was compiled from the related literature. The analysis of the data set showed that, the sub dimensions of the leadership behavior as goer attitude, strategic attitude, details focused attitude, and coordinator attitude have statistically significant and positive relationships with each other. Accordingly, goer behavior, strategic behaviors are associated with perceived organizational performance. By contrast, the details focused attitude and coordinator attitude do not have impacts on the perceived organizational performance. On the other hand, the dimensions, coordinator attitude, perceived organizational performance, and customer satisfaction are not significantly associated.

KEY WORDS: Leadership Behavior, Perceived Organizational Performance, Customer Satisfaction.

### Introduction

The leadership styles determines the future of an organization in all of its operational or functional areas. Even, as Pennington, Townsend, Cummins (2003) examined, different leadership styles can result in different cultures.

The types of the leadership styles determine the organizational performance. There are various indications of organizational performance. These can be: profitability, revenues, customer satisfaction, employee satisfaction, quality, product variety or market share. Accordingly, it can be claimed that, the leadership styles strengthen the organizational commitment, which originate the increase in organizational performance. For example, the findings of Steyrer, Schiffinger, Lang (2008) support this claim. The authors found that, the desirable leadership behavior is positively related to the subordinates' organizational commitment, and organizational commitment create a higher organizational performance.

The customer satisfaction is one of the most important criterion of the organizational performance. In this framework, any of authentic, contingent, situational, democratic, participative, transformational leadership styles (Northouse, 2010), can provide the highest level of this satisfaction. There are many studies about the impact of leadership on the performances of firms (e.c., Lieberman and O'Connor, 1972; Elenkov, 2003; Muijs, 2011, Samad, 2012; Steyrer, Schiffinger, Lang, 2008; Hurduzeu, 2015).

This study investigates the impact of leadership styles on the perceived organizational performances, and the relationship between this perception and the customer satisfaction. Accordingly, the field research was conducted on a large company, which has hazelnut related products, in Ordu province, Turkey.

### Literature Review

There are many theories about the bases of leadership. As in many areas, there is no consensus on the definition and the origin of leadership. Some theories like the 'traits approach', and 'skills approach'. On the other hand, the 'style approach' focuses exclusively on what leaders do and how they act. (Northouse, 2010). Furthermore, the 'situational approach' is about leadership in situations, while the 'contingency theory' tries to match leaders to appropriate situations. Equally, authentic leaders respond the societal demands for genuine, trustworthy, and good leadership.

The 'path-goal theory' is about how leaders motivate subordinates to accomplish organizational goals. So, employee motivation leads to enhanced employee performance and employee satisfaction. Again, the 'leader-member exchange theory' defines leadership as a process that is based-upon the interaction between leaders and followers.

The 'transformational leadership theory' focuses on the process of how certain leaders how certain leaders are able to inspire followers to accomplish organizational visions. The transformational leaders are change agents, and perfect role models, who create clear long term goals.

The effects of leadership styles on organizational performance was focused on by many researchers. Muijs (2011) examined the related literature especially on the impact of leadership on student outcomes; and affirmed that, leadership has significant indirect effect on student outcomes. The results of the research made by Melchar and Bosco (2010), indicated that servant leaders can develop a culture of followers who are servant leaders themselves. Again, Elenkov (2003) searched the topic in Russian companies.

Samad (2012) found that, transformational leadership and innovation have significant influence on organizational performance. Similarly, Yanney (2014), identified that, leadership and business strategy statistically significantly affect organizational performance. According to Yanney's findings, transformational leadership has an impact on behaviour. Widiartanto and Suhadak (2013) showed that, there is no relationship between transformational leadership and organizational performance. On the other hand, transformational leadership is associated with market orientation, organizational innovation, and the concept of learning organization. Again, Wongyanon, Wijaya, Mardiyono, and Soeaidy (2015) argued that, transformational, transactional and laissez-faire leadership have statistically significant and positive influence on the organizational performance. Chi, Yeh, Yu, (2015) identified that, transformational leadership, organizational culture and job satisfaction have significant effects on organizational performance. Similarly, Koech and Namusonge (2012) identified statistically significant relationships between the transformational leadership factors and organizational performance. Also, they found that, job satisfaction have a mediating effect on transformation leadership and organization culture; and the job satisfaction has a mediating effect on transformational leadership and performance. Similarly, Muhatar, Rasli, Al-Ghazali, (2015) revealed that, transformational leadership positively influences the organizational performance and learning. Moreover, the findings of Ben, and Agu, (2012) indicated that there is a significant relationship between transformational leadership style and organizational performance, there is a significant leadership between transactional leadership style and organizational performance. In addition, Garcia-Morales, Llorens-Mpntes, Verdu-Jover (2008) argued that, transformational leadership affects the dynamic capabilities of organizational learning and innovation. This topic was also the subject of discussion of the Hurduzeu's (2015) research. The author affirms that, "the transformational leaders inspire individuals within the organizations to work harder and to strive for the highest level of performance".

Khan (2010) showed that, authentic leaders have positive effects on the employees' attitudes and behaviours that increase the organizational performance. Furthermore, Carter, Armenakis, Field, and Mossholder (2012) showed that, the quality of relationships between leaders and employees mediated the influence of transformational leadership on employee task performance and organizational citizenship behaviour. Also, Roberson and Park (2006) claimed the situation that, "firm performance declines with increases in the representation of racial minorities in leadership up to a point, beyond which further increases in diversity are associated with increases in performance".

The results of the research of Miloloza (2015) indicated that, authoritarian leadership style has in general a negative effects on the business performances of Croatian companies, while democratic leadership style has in general a positive impact. Khademfar ve Amiri (2013) discussed the possible association between ethical leadership and organizational performance. Then, Popa (2012) focused on a different dimension and analyzed the link between leadership effectiveness and organizational performance, and contended that, successful organizations are the results of effective leadership styles. On the other hand, Kitonga, Bichanga, Muema (2016) examined the topic from a strategic perspective. The authors analyzed the strategic leadership – organizational performance relationship in not-for-profit organizations, and identified that, organizational performance can be increased by implementing strategic leadership. According to the literature discussed above, the discussion points of this research are the leadership behavior and perceived organizational performance; and the leadership behavior and customer satisfaction.

Thus, the general hypothesis can be:

There is a statistically significant relationship between the type of leadership behavior and the perceived organizational performance.

The type of leadership behavior and the level of customer satisfaction are statistically significantly associated.

## **METHODOLOGY**

### **The Goal of the Research**

The goal of the research is to identify the relationship between leadership styles and the perceived organizational performance and the customer satisfaction.

### **The Scale and Data**

The field research was conducted with a survey form. The data was collected with "The Scale of Leadership Behavior, Percieved Organizational Performance, and Customer Satisfaction." The characteristics of leadership were measured with the scale which was developed by Ekwall & Arvonon. The customer satisfaction was measured with Ugboro & Obeng's (2000) scale. In general, five degree Likert's scale was used. The survey was conducted on both the employees and the customers of the same firm. The firm, which was focused on, is an international firm. It has both national and international operations. Certainly, the customer satisfaction of the firm was measured through taking the answers of its customers.

**Validity and Reliability**

The reliability coefficient (Cronbach Alpha) of the leadership style scale is  $\alpha = .96$ . This value is higher than  $\alpha = .70$ , so, there is an internal reliability (Kalaycı et al., 2010). According to the reliability analysis, the Cronbach Alpha of the sub dimensions (Ekwall&Arvonen, 1991: 21) of the leadership characteristics scale were found as follows: ‘goer attitude’ (GT)  $\alpha = .96$ , ‘strategic attitude’ (SA)  $\alpha = .88$ , ‘details focused attitude’ (DFA)  $\alpha = .79$ , and ‘coordinator attitude’ (CA)  $\alpha = .66$ .

The Cronbach Alpha coefficient of ‘percieved organizational performance’ (POP) is  $\alpha = .93$ . In addition, the ‘customer satisfaction scale’ (CSS) (Ugboro & Obeng, 2000: 267) has a Cronbach Alpha value of .86.

The factor analysis was applied to identify the subfactors of the ‘leadership characteristics scale’. As the Kaiser-Meyer-Olkin (KMO) internal consistency value is  $.86 > 0.50$ , then, the data set is suitable for the

factor analysis. The values which has the Eigen value over than 1, were accepted. The factor values equal and over 0.50 were selected (Kalaycı, 2010: 327). Accordingly, six factors were identified which explain the 70.7 % of the total variance. So, the ‘democratic’ and ‘risk taking’ scales gathered under two different factors. These factors included on one dimension, so they were excluded from the scale. Then, the ‘leadership behavior’ scale divided into four subfactors. Also, the responsibility scale was excluded from the scale, which was out of factors.

**The Sample**

The sample of the study contains 88 employees, and 88 customers (176 in total) of an international company which operates in the hazelnut industry. Again, the sample was randomly composed, in a part. Table 1 includes the demographic characteristics:

**The Model and the Hypothesis of the Research**

Fig 1: The Model of the Researc

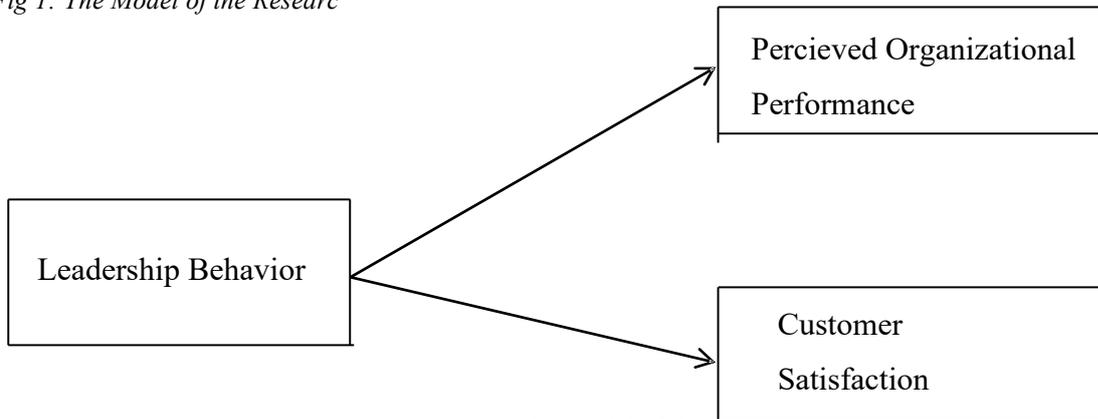


Fig.1: The Model of the Researc

**Table 1.** The Demographic Characteristics of Personnel (n=88)

<i>Gender</i>	$\eta$	%	<i>Marital Status</i>	$\eta$	%
Women	56	63,6	Married	61	69,3
Men	32	36,4	Single	27	30,7
<i>Age Group</i>	$\eta$	%	<i>Monthly Income</i>	$\eta$	%
18-25	12	13,6	1300 TL-2000 TL	67	76,1
26-33	21	23,9	2001 TL-2700 TL	14	15,9
34-41	24	27,3	2701 TL-3400 TL	4	4,5
42-49	21	23,9	3401 TL-4100 TL	...	...
50 +	10	11,4	4101 TL ve üstü	3	3,4
<i>Working Years</i>	$\eta$	%	<i>Education</i>	$\eta$	%
0-1	8	9,1	Primary School	40	45,5
2-5	25	28,4	High School	29	33
6-10	26	29,5	College	11	12,5
11-15	16	18,2	Bachelor's	8	9,1
16 +	13	14,8			

TL : Turkish Liras

The Table 2 includes about the demographic formation about the customers.

**Table 2.** Demographic Characteristics of the Customers ( $n=88$ )

<i>Gender</i>	$\eta$	%	<i>Marital Status</i>	$\eta$	%
Women	46	52,3	Married	53	60,2
Men	42	47,7	Single	35	39,8
<i>Age Group</i>	$\eta$	%	<i>Monthly Income</i>	$\eta$	%
18-25	22	25	1299 TL	12	13,6
26-33	16	18,2	1300 TL-2300 TL	34	38,6
34-41	16	18,2	2301 TL-3300 TL	21	23,9
42-49	14	15,9	3301 TL-4300 TL	13	14,8
50 +	20	22,7	4301 +	8	9,1
<i>Profession</i>	$\eta$	%	<i>Education</i>	$\eta$	%
Officer	24	27,3	Primary School	14	15,9
Worker	23	26,1	High School	15	17
Self-employment	12	13,6	College	17	19,3
Student	11	12,5	Bachelor's	34	38,6
Housewife	10	11,4	Graduate	8	9,1
Retired	8	9,1			

## FINDINGS

The Factor Analysis results of the 'leadership behavior scale' are shown at Table 3.

**Table 3.** The Factor Analysis Results – Subfactors

<b>Goer Attitude (GA)</b>	Factor Weights	Eigen Value	Explained Variance (%)	Cronbach Alpha
<b>L35.</b> New ideas are given by the leader for Daily work.	.847	12.876	35.766	.96
<b>L26.</b> Creates new probabilities to remove conflicts.	.846			
<b>L13.</b> Creates confidence on people.	.845			
<b>L25.</b> Creates a friendly atmosphere, without conflicts.	.844			
<b>L22.</b> Defends her/his subordinates.	.836			
<b>L8.</b> Encourages new ideas.	.828			
<b>L19.</b> Gives importance to other ideas.	.819			
<b>L23.</b> Open to innovations.	.816			
<b>L20.</b> Produces new projects.	.800			
<b>L34.</b> Respects to her/his subordinates as individuals.	.795			
<b>L7.</b> She/he has a transparent and honest style.	.790			
<b>L28.</b> Treats fair to her/his subordinates.	.770			
<b>L36.</b> She/he analysis the events, and never decides without thinking.	.758			
<b>L31.</b> She/he considers the ideas of subordinates in decision making.	.745			
<b>L16.</b> Appreciates the good work.	.724			

L4. Trusts to her/his subordinates.	.692			
L27. Clearly identifies and states the work place requirements.	.973			
L11. Enjoys discussing new ideas.	.666			
L10 . Open to beneficial criticism.	.627			
L1. She/he is friendly.	.597			
<hr/>				
<b>Strategic Attitude (SA)</b>	Factor Weights	Eigen Value	Explained Variance (%)	Cronbach Alpha
<hr/>				
L12. Gives importance to obeying rules and principles.	.799	45.353	14.870	.882
L24. She/he is meticulous in controlling.	.760			
L17. Encourages growth.	.758			
L9. She/he is consistent.	.727			
L29. Decides quickly when required.	.659			
L14. She/he plans.	.633			
L21. She/he is very meticulous in plan implementation.	.614			
<hr/>				
<b>Details Focus Attitude (DFA)</b>	Factor Weights	Eigenvalue	Explained Variance (%)	Cronbach Alpha
<hr/>				
L32. Flexible, and open to change.	.761	52.315	6.431	.80
L30. He is careful in planning.	.565			
L33. Gives instructions clearly.	.506			
<hr/>				
<b>Coordinator Attitude (CA)</b>	Factor Weights	Eigenvalue	Explained Variance (%)	Cronbach Alpha
<hr/>				
L15. Informs about the outcomes of the units.	.761	1.818	5.050	.664
L18. Has clear goals.	.565			
L3. Provides order.	.547			
<hr/>				
Varimax rotated basic components matrix.				
Kaiser-Meyer-Olkin Value: .868		Bartlett test: 2760.211		p=0.00<0.05
Total explained variance (%) : 70.726				
<hr/>				

The results of the factor analysis show that, there are four new sub dimensions of the 'leadership

behavior scale'. Depending on the factor analysis, the research model was revised as Figure 2.

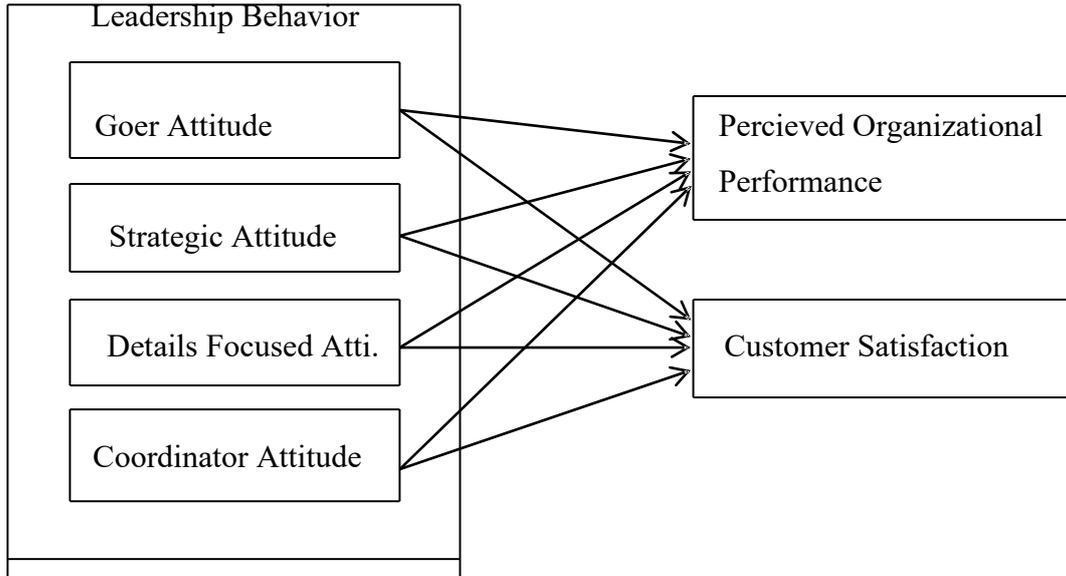


Fig. 2. The Model After the Factor Analysis

The hypothesis of the research are as the followings:

**H<sub>1</sub>:** The goer attitude and percieved organizational performance are statistically significantly and positively associated.

**H<sub>2</sub>:** There is statistically significant relationship between the goer attitude and customer satisfaction.

**H<sub>3</sub>:** The strategic attitude and the percieved organizational performance are statistically significantly and positively associated.

**H<sub>4</sub>:** Strategic attitude will be positively and significantly correlated with customer satisfaction.

**H<sub>5</sub>:** Details focused attitude is positively associated with percieved organizational performance.

**H<sub>6</sub>:** There is a positive relationship between the details focused attitude and the customer satisfaction.

**H<sub>7</sub>:** There is statistically significant and positive relationship between the coordinator attitude and the percieved organizational performance.

**H<sub>8</sub>:** Coordinator attitude is statistically significantly and positively associated with the customer satisfacti

The correlation results are demonstrated at Table 4.

Table 4. Correlation Analysis Results

Variables	Goer Attitude	Stratejic Tavır	Details Focused	Coordinator Attitude	Percieved Organizational Performance	Customer Satisfaction
Goer Attitude	(,96)	,433**	,491**	,319**	,865**	-,118
Stratejic Attitude		(,88)	,688**	,563**	,270*	,041
Details Focused Attitude			(,79)	,538**	,406**	,050
Coordinator Attitude				(,66)	,197	-,058
Percieved Organizational Performance					(,93)	-,129
Customer Satisfaction						(,86)

\*\*p<0.01

\*p<0.05

Note: Parantez içerisindeki değerler değişkenlerin güvenilirlik sonucunu göstermektedir.

Table 4 includes the correlation analysis results of the dimensions: goer attitude, strategic attitude, details focused attitude, and coordinator attitude. It can be

seen that, there are statistically significant and positive relationships between these variables. Also, there are statistically significant relationships between the percieved organizational performance variable and

goer attitude, strategic attitude, and details focused attitude. However, there is no statistically significant and positive association between the perceived organizational performance and the variables of

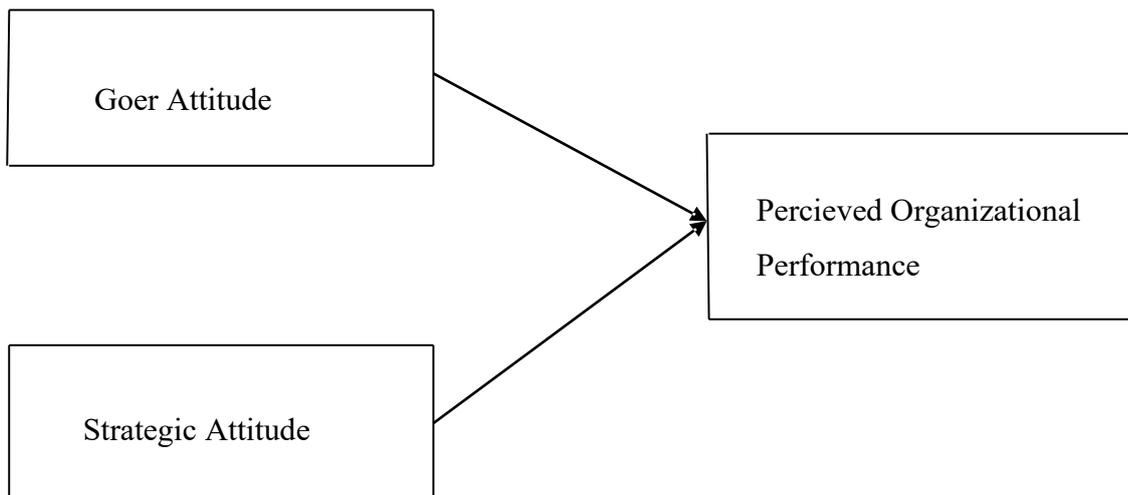
coordinator attitude, and customer satisfaction. In addition, the customer satisfaction variable does not have significant links with the other variables.

**Table 5.** The Regression Analysis Results of the Percieved Organizational Performance

Variable	B	Standard Variable	$\beta$	t	p
Constant	1.926	.254		7.586	.000
Goer Attitude	.773	.048	.937	16.268	.000
Strategic Attitude	-.179	.062	-.166	-2.875	.005
R <sup>2</sup> = .765		F= 8.266		p= .005	Durbin-Watson= 1.833

As it can be seen at Table 5, the goer behavior and strategic behavior factors have direct significant impacts on the perceived organizational performance. Accordingly, the goer behavior and strategic behavior can explain 76% of the change in the perceived organizational performance. Again, the Durbin Watson test value shows that there is no autocorrelation. (Kalaycı, 2010: 267). The F value was tested as 8.266, and the regression model is verified to be significant

( $p < 0.05$ ). Also, the  $\beta$  value demonstrates that, the strategic attitude variable has a higher relative value than the goer attitude variable. Again, the regression model at Table 5, puts forward the details focused attitude and the coordinator attitude factors do not have impacts on the perceived organizational performance. POP= 1.926 + Goer Attitude\*(.773) + Strategic Attitude\*(-.179)



**Fig. 3:** Result Model

**Discussion**

This study has shown that, there are significant relationships between the leadership behavior characteristics, and perceived organizational performance. The results of the data analysis indicated that, there is a high, statistically significant relationship between the goer behavior, which is the subdimension of the leadership behavior, and the perceived organizational performance, at the  $p < 0.01$  significance level. Similarly, there are low but statistically significant relationships between the sub dimensions of leadership behavior: goer attitude, strategic attitude, details focused attitude, and coordinator attitude at the  $p < 0.01$  significance level. Moreover, the strategic attitude, the details focused attitude, and coordinator

attitude have middle level associations ( $p < 0.01$ ). Again, there is a statistically significant but low level relationship between the strategic bahavior and the perceived organizational performance ( $p < 0.05$ ). Also, there is middle level association between the details focused attitude and coordinator attitude; and details focused attitude and perceived organizational performance at a middle level ( $p < 0.05$ ). On the other hand, the dimensions, coordinator attitude, perceived organizational performance, and customer satisfaction are not significantly associated. Equally, customer satisfaction does not have significant links with other variables.

The correlation analysis results showed that, multiple linear regression analysis can be implemented

to test the model which is showed at Figure 2. The regression analysis was applied on the independent sub dimensions of leadership behavior scale as goer behavior, strategic behavior, details focused behavior, and coordinator behavior and the dependent variable perceived organizational performance. Accordingly, independent variables the goer attitude and strategic attitude have direct positive significant impacts on the perceived organizational performance. Consequently, the hypothesis H1 and H3 were supported. By contrast, the details focused attitude and coordinator attitude do not have impacts on the perceived organizational performance. So, the hypothesis H5 and H7 were not supported (Table 2). Again, depending on the correlation analysis results (Table 4), as the customer satisfaction variable does not have relationships with other variable, the hypothesis H2, H4, H6 and H8 were not verified.

The findings can be assessed in the frame of the transformational approach. In other words, the findings support the transformational theory. The goer attitude, the strategic attitude, the details focused attitude and the coordinator attitude reflect the characteristics of the transformational leaders.

## Conclusions

This paper has shown that, the sub dimensions of the leadership behavior as goer attitude, strategic attitude, details focused attitude, and coordinator attitude have statistically significant and positive relationships with each other. Accordingly, goer behavior, strategic behaviors are associated with perceived organizational performance. By contrast, the details focused attitude and coordinator attitude do not have impacts on the perceived organizational performance. On the other hand, the dimensions, coordinator attitude, perceived organizational performance, and customer satisfaction are not significantly associated.

It was demonstrated that, the leadership behavior, that has the transformational characteristics, will have significant positive effects on the organizational performance. Accordingly, leaders should be good role models, create visions as change agents, and inspire followers.

It was also seen in this study that, customer satisfaction does not have association with the variables as goer attitude, strategic attitude, details focused attitude, and coordinator attitude.

The further studies should focus on the sub dimensions of leadership, and their relationships with organizational performance indicators, and customer satisfaction variable. Moreover, various leadership theories can be tested on different samples with different characteristics. More, it should also be searched why and how the leadership styles affect organizational performance.

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## MEASURING THE SOCIAL TRUST OF YOUNG PEOPLE IN THE LIGHT OF COMPETITIVENESS – A CASE STUDY IN HUNGARY

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### Abstract

The theory of competitiveness has been undergoing a significant transition even these days. The competitiveness of nations is measured by several institutions dealing with 'soft' and 'hard' indices separately. Our study examines one of the very important parts of social capital, i.e. trust based on the results of the questionnaire carried on the population of the Hungarian youth. Answers on social trust and subjective social environment were available from 193 Hungarian young adults. Respondents were categorized by age into three groups: aged 17–21 (n = 101), aged 22–25 (n=55) and aged 26–35 (n = 37). Females constituted 67.9 percent of the sample. On the basis of the results it can be concluded that the young adults regard lack of trust in the Hungarian society, dissension and closeness of the society as serious problems. A more detailed analysis of trust shows that law enforcement bodies have the greatest support from the respondents while a low level of trust can be measured in connection with the healthcare system and online media. Based on the international data from round 7 of the European Social Survey (ESS) average social trust is very low in Hungary so the low level of trust typical of the young is not a characteristic due to age or other features, rather, the examined factors hold true for the Hungarian society as a whole. Based on the data of the online survey of the Hungarian young the authors find that the Score of Social Trust is significantly positively correlated with the Score of Subjective Social Environment.

KEYWORDS: competitiveness, social trust, young adults, subjective social environment.

### Introduction

The interpretation of competitiveness has undergone a significant transformation in the past 30 years. The term formerly used to describe companies and industries has started to appear on the national level, as well. The interpretation of macro level competitiveness has generated serious debates nowadays. These debates can, in general, originate from the fact that while in the competition between companies we normally talk about zero-sum games, the competition between nations is not about pushing the others to the back or causing them harm, rather, mutual development is addressed. This development can be detected with the help of the easily measurable, hard social and economic indicators although there are areas (such as social capital and trust) that can only be assessed by surveying opinions. However, these soft areas are of vital importance in the development of a country. In our interpretation these determinants mean the source of competitiveness and the result of it at the same time, as it is a virtuous circle, a self-propelling process. Social capital serves as a solid ground to competitiveness, but, at the same time, well-being as a result of competitiveness strengthens social capital so, consequently, the bases of competitiveness will become better established.

Trust, examined in the study, is an important part of social capital that is analysed on interpersonal and institutional levels. Trust prepares the ground for collaboration without which social development is impossible and subjective well-being is not generated. The state plays an extremely significant role in establishing institutional trust as it operates such systems

(e.g. judiciary or healthcare) that are decisive from the point of view of perceived trust and safety. The present study examined trust as one of the highlighted part of competitiveness and social capital.

### Appearance of soft factors in the measurement of national competitiveness

In the past decades several research institutes and groups have been established that analyse macro level competitiveness. Of these research institutes on competitiveness World Economic Forum (WEF) is one of the leading ones that has prepared the competitiveness rank of the countries all over the world every year since 2003. In 2017 the Swiss-headquartered organisation examined the competitiveness of 137 countries. WEF defines competitiveness as the 'set of institutions, policies, and factors that determine the level of productivity of a country'. (WEF, 2017) The competitiveness analysis is carried out by means of 114 indicators of which 82 derive from questionnaires. In this report the perceived, subjective judgement can strongly be felt which is based on the Executive Opinion Survey.

Another renowned competitiveness research institute is the International Institute for Management Development (IMD) which has regularly published its World Competitiveness Yearbook since 1994. The 2017 annual report of IMD contains the thorough competitiveness analysis of the competitiveness situation of 63 countries. The 2017 competitiveness rank is based on 260 indicators of which 143 are hard statistical data and 118 are soft indicators deriving from questionnaires. IMD interprets the concept of competitiveness in a

different way than World Economic Forum does. The Yearbook 'analyses and ranks how nations and enterprises manage the totality of their competencies to achieve increased prosperity' (IMD, 2016). The IMD publishes another academic definition according to which competitiveness is 'a field of economic knowledge, which analyses the facts and policies that shape the ability of a nation to create and maintain an environment that sustains more value creation for its enterprises and more prosperity for its people'. (IMD, 2014) Competitiveness cannot be separated from prosperity and well-being, so enhancing competitiveness serves social progress in the medium and long term.

IMD published a special competitiveness report in 2017 which presents the preparedness of the national economies for the technology of the future through one of the important phenomena of modern age, i.e. digitalisation. The World Digital Competitiveness Ranking 'measures a country's ability to adopt and explore digital technologies leading to transformation in government practices, business models and society in general'. (IMD, 2017) It is important as competitiveness itself has an extremely important readiness attitude which is connected to a concrete area, digitalisation this time.

A Swiss-South Korean research group (SolAbility) analyses competitiveness from another point of view as their analysis was carried out from the aspect of competitiveness. This analysis stretches beyond the others as it is also built on other competitiveness models and it presents a more complex picture of sustainable social and economic structure. As they put it, 'Sustainable competitiveness means that current wealth levels are not in danger of being reduced or diminished through over-exploitation of resources (i.e. natural and human resources), the lack of innovative edge required to compete in the globalised markets (i.e. education), or the discrimination, marginalisation or exploitation of segments of a society'. (SolAbility, 2017) The sustainable competitiveness model is based on 5 pillars of equal importance: Natural Capital, Social Capital, Resource efficiency, Intellectual Capital, Government Efficiency.

Competitiveness is strongly related to social progress that is to be surveyed by Michael E. Porter's Social Progress Index. This report stresses that traditional indicators such as GDP per capita are unable to measure the social progress of countries. Their index is based on three pillars: Basic Human Needs, Foundations of Well-being and Opportunity. (Porter et al. 2017)

To sum up, competitiveness has an extremely important role in social progress and prosperity. While welfare is rather associated with meeting material needs, well-being includes immaterial parts and the subjective items of social being (such as love, happiness and satisfaction). Subjective well-being (SWB) can be defined as 'a person's cognitive and affective evaluations of his or her life' (Diener et al 2002, p. 63).

Competitiveness is not the result of a short term process; rather, it is such a medium and long term state which is reached mostly by the examined generation. In the present paper the current situation perceived by the young is presented in Hungary in connection with competitiveness and an important compound of social capital, i.e. trust.

The trust of the members of society in the society as a whole and its institutions and also trust in one another are important parts of social capital. Csath et al. (2018) points out that studying from others and fair cooperation requires high level of trust so social trust is also a decisive factor of competitiveness.

According to Putnam (1993) social capital is a cultural phenomenon and regarding its content it stands for the popularity of civic way of thinking, ability for concerted actions that serve national interest and also the power of trust in public institutions.

A wide range of literature (Lange et al. 2018, Putnam, 2002; Schmitt-Beck, 2008, Whiteley, 2000) has coalesced around social trust as a key element of social capital. It can be defined as 'networks together with shared norms, values and understandings that facilitate cooperation within or among groups' (OECD 2001, 41).

The focus of this study is on *impersonal trust* between random people – trust in generalized others, including strangers, which is known as *social trust* or *generalized trust* in the literature (Hardin, 2001; Paxton, 2007, Whiteley, 2000).

Beilmann and Lilleoja (2015) examined the relationship between social trust and human values. The results suggest that the relationship between value similarity and social trust is stronger at the country level than at the individual level.

Helliwell et al. (2016) concluded in their findings on European Social Survey data that 'living in a high-trust environment makes people more resilient in the face of several types of adversity'.

Various authors (Algan & Cahuc, 2013; Hall & Jones, 1999; Bjørnskov & Méon, 2015) approach the question of whether social trust affects total factor productivity (TFP). Hall and Jones (1999) have established a moderate positive relationship ( $r=0.57$ ) between social infrastructure, measured by the rule of law, and a measure of total factor productivity (TFP) for a sample of 62 countries. The value of social trust was measured from the World Values Survey (1981-2008).

Bjørnskov and Méon (2015) have found strong evidence of a causal positive effect of social trust on the level and growth of TFP in a cross-section of 67 countries in the early 2000's.

Valenzuela et al. (2009) using data from a random web survey of college students across Texas ( $n = 2,603$ ) find positive relationships between the intensity of Facebook use and students' life satisfaction, social trust, civic engagement, and political participation.

## Social trust and its connection to social capital and competitiveness

Lashko and Velychko (2016) have found that a fairly high level of interpersonal trust and low level of self-regulation are inherent to the group of students studied.

According to Huang et al. (2011) the college education has a positive role in the building of social trust.

Navickas et al. (2014) investigated theoretically the trust in small and medium sized enterprises. It was identified that trust in a company has a positive impact on the behavioural intentions such as repurchase and positive word-of-mouth. Giedraitis et al. (2016) examined the impact of interpersonal trust on the employee turnover in the business company.

The issues of social trust were included in the following surveys: Eurobarometer, Gallup World Poll, the World Values Survey and the European Social Survey. Social trust is usually measured using a standard question: “Generally speaking, would you say that most people can be trusted or that you need to be very careful in dealing with people?”

### **Trust and future prospects in Hungary**

Trust as an integral part of social capital represents an essential value of the national asset. According to the calculations of Hamilton et al. (2016) in 2010 the value of trust accounted for 9.4% of the national asset in Hungary. Regarding the OECD countries only Turkey produced lower value (5.4%), so these two countries significantly lag behind the OECD’s average of 28.4%.

When reviewing Hungarian literature there are no such examinations that would concentrate on the opinion and experience of the young on areas in connection with competitiveness. However, there is several research in general on youth (Bauer-Szabó, 2011), the prospective of the young (living conditions, starting a family, education, the world of labour, expectations and fears, social atmosphere, migration etc.) or a special group (such as those in a disadvantaged situation). Jancsák (2011) gives a detailed picture on the international tendencies of researching the young. Some national research is also introduced in our paper followed by the analysis of our questionnaire.

The two-volume study compiled on the basis of Hungary 2025 academic research is outstanding (Nováky, 2010). The research was managed by Erzsébet Nováky, the head of the Committee on Researching the Future at that time. Thirty studies are published in the volume. In addition to the opinions of the professionals, the researchers were aiming at presenting the attitude of non-professionals (typically the young) to the world.

Among others, the analyses reflect the opinion of the Hungarian secondary school students and those in higher education of 2025 by using questionnaires. The survey took place in spring 2007 on 980 secondary school students and 501 higher education students, respectively. The same questionnaires were distributed to secondary school students and higher education students. The questionnaire was divided into 6 parts. It should be stressed that in the first part 42 statements on the future were drafted concerning economics, health care, technology and public life. These questions could be

assessed on a 5-grade Likert scale (the likelihood of the events to come true in their opinion and how much they would love these events to come true were separated). Questions were directed at several areas (number of children, language learning, working abroad, euthanasia, the liberalisation of soft drugs, climate change, bureaucracy etc.), so they would rather give a general picture of the opinions of the secondary school students and higher education students on the future instead of focusing on areas. (Dörnyei-Nagy, 2010a,b)

When describing the situation of the young, it is worth mentioning the research entitled Hungarian Youth Research 2016 by the New Generation Centre. In the research the opinions of 8,000 young people aged between 15 and 29 were asked in a representative way. The research has been repeated every four years with the same methodology and sample size since 2000 so the 2016 research is the fifth in the line but the first one that has been extended to the young who live in the Carpathian Basin in addition to the Hungarian sample by including 4000 more young people. (ÚNKP, 2017) One of the results of the research is that 60% of the respondents would not be willing to establish an enterprise of their own; this would only be undertaken by one-fifth of the respondents. The research also examined the attitude of the young to economic-political-social changes. In terms of the economic situation 27% of the respondents indicated improvement and 29% decrease for the past ten years. On the basis of the findings of the research ‘those living in the capital, those with a degree in higher education and the „older”, i.e. those aged between 25 and 29 feel that the economic situation of Hungary has improved while the opinion of those living in tiny settlements, those with a lower level of qualification and the youngest generation is more critical’. (ÚNKP, 2017)

On the basis of the findings of the survey some areas of their current lives are assessed fairly positively by the generation examined. The respondents gave a value of 3.7 on a five-grade scale as their answer to the question of how satisfied they are with their current lives all the things concerned (i.e. with their living standards) in 2016. This question was answered with a value of 3.5 in 2012 and 3.3 in 2008, respectively. On a five-grade scale satisfaction with their relationship to friends was ranked with 4.4, opportunities for studying with 3.8 and satisfaction with their financial situation with 3.4, respectively.

The research also analysed institutional and interpersonal trust. Twenty-five percent of the respondents would definitely trust their neighbours while 56% would rather trust. A total of 19% entirely trusts their colleagues and 53% would rather trust them. The proportion of non-respondents is the highest for all the questions, i.e. 13%. Nineteen percent of them would trust the police, 42% would rather trust; 17% would rather not trust and 9% would not trust at all. Trust in jurisdiction is similar although a few percent lower than that with the police. The trust in education, healthcare and media was not examined.

## Data and methodology

This chapter describes the empirical data and methods used for the present study.

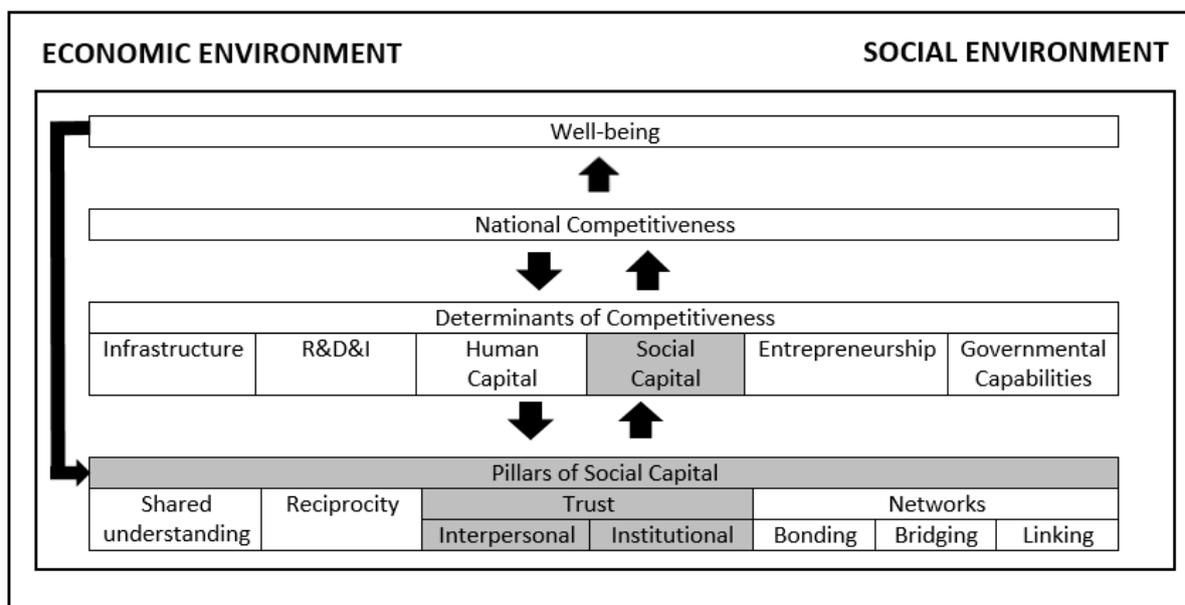
A research group was established at the National University of Public Service, Hungary in 2017 that examines the impacts of national competitiveness and government policies on competitiveness with special regard to the soft parts of competitiveness such as social capital, innovation ecosystem and human assets. The research is performed in the framework of the project 'Public Service Development for Good Governance'. In the first part of the research a survey based on questionnaires was applied similarly to the practice of competitiveness research institutes but instead of asking the corporate managers, our analysis is based on the opinions of the members of society. In the survey special attention was paid to the opinions of the young aged 15-35 taking part in education (secondary training and higher education), who will shape our future.

In the UN's interpretation the young are those aged between 15 and 24. However, this research examines a broader generation, which has been justified by the fact

that in the past 20 years, for example, people become parents later, the period spent in education is also longer similarly to the length of time spent in common household with the parents. Hence young adults are defined as people between 15 and 35 years of age. On the one hand, it corresponds with the generation defined by The African Youth Charter (African Union, 2006), and also a survey carried out in the United Kingdom highlighted that the perceived youth lasts till the age of 35, on the other hand. (Swift et al. 2016)

The research aims at comparing societal factors of competitiveness in Hungary. To fulfil the objectives of this project, an online survey was conducted in spring 2018 among Hungarian college and university students. Answers on social trust and subjective social environment were available from 193 Hungarian young adults. Respondents were categorized by age into three groups: aged 17–21 (n = 101), aged 22–25 (n=55) and aged 26–35 (n = 37). Females constituted 67.9 percent of the sample.

The authors have developed the framework for empirical analysis consisting of four levels as shown in Fig. 1.



**Fig. 1.** The conceptual framework of empirical analysis

Source: Author's construction (2018)

The created Social Trust Score consisted of seven items, each of which determined the level of social trust on the five-point Likert scale ranging from 1= do not trust at all to 5= complete trust. Two items measured the level of horizontal (interpersonal) trust: the trust in classmates and neighbours. Other five items are used to measure the level of vertical (institutional) trust: trust in educational system, police, health care system, justice system and online media. Due to the same item scale used in this study, the individual items were not standardized. The items were averaged by calculating the simple arithmetic mean to create a Score of Social Trust (Cronbach's  $\alpha = 0.783$ , Mean = 2.81, SD = 0.71).

The items used to create the Score of Subjective Social Environment were constructed by using a five-

point Likert-type scale anchored by the bi-polar adjectives (opposite-meaning terms), such as „Closeness – Openness”, „Dissension – Cohesion”, „Passiveness – Conscious actions”, „Irresponsibility – Responsibility”, „Lagging behind – Development”, „Isolation – Cooperation”, „Risk aversion – Entrepreneurial spirit”, „Distrust – Strong trust”, „Hate – Love”, „Unequal opportunities – Equal opportunities”. A five-point response scale ranging from 1 (strongly agree with a negative characteristic of Society) to 5 (strongly agree with a positive characteristic of Society) was used. The items were averaged by calculating the simple arithmetic mean to create a Score of Subjective Social Environment (Cronbach's  $\alpha = 0.885$ , Mean = 2.63, SD = 0.69).

The Spearman's correlation coefficient was used to examine the relationship between the Social Trust Score and the Score of Subjective Social Environment because the Kolmogorov-Smirnov test showed that the Score of Subjective Social Environment had a non-normal distribution ( $p < 0.01$ ).

The European Social Survey (ESS) data from Round 7 (2014) was also used for create the Score of Social Trust for comparing the levels of Social trust of 21 Countries for which data are released. Answers on social trust were available from 10,221 young adults (respondents in the 17-35 age group). The sample sizes varied from 247 (Portugal) to 822 (Israel) individuals per country. Following the example of Beilmann & Lilleoja (2015), Hooghe & Vanhoutte (2011), Kelly et al. (2009), and Von dem Knesebeck et al. (2005), the Social Trust Index based on the data from ESS 2014 was composed of three indicators on a bipolar 11 point scale:

(1) Trust: "Would you say that most people can be trusted or that you cannot be too careful in dealing with people?" (0=You cannot be too careful, 10=Most people can be trusted);

(2) Honesty: "Do you think that most people would try to take advantage of you if they got the chance or would they try to be fair?" (0=Most people would try to

take advantage of me, 10=Most people would try to be fair);

(3) Helpfulness: "Would you say that most of the time people try to be helpful or that they are mostly looking out for themselves?" (0=People mostly look out for themselves, 10=People mostly try to be helpful).

The items were recorded to a 1 to 5 range and then averaged to create an overall score for social trust. The mean of the overall score for social trust was 2.58 (SD=0.84).

Data were analysed by the IBM SPSS Statistics 25 statistical software package.

## Results and discussion

### *Score of Subjective Social Environment*

The following Table 1 summarises some perceived parameters of the social environment, which serves to objective of presenting how young adults see Hungarian society. Of the examined pairs of concepts (bipolar adjectives) the young primarily experience lack of trust in society. As it is an important part of social capital, it has an impact on competitiveness and the business environment. A further problem is the society's dissension and closeness. The least problematic areas include hatred and irresponsibility.

**Table 1.** Descriptive Statistics for Score of Subjective Social Environment based on the survey data (n=193)

	Mean	SD
Subjective Social Environment (Cronbach's $\alpha = 0.885$ )	2.63	0.69
Items for the Score (Characteristics of Society)		
Closeness – Openness	2.45	0.91
Dissension – Cohesion	2.46	1.02
Passiveness – Conscious actions	2.64	0.96
Irresponsibility – Responsibility	2.88	0.96
Lagging behind – Development	2.73	0.99
Isolation – Cooperation	2.67	0.91
Risk aversion – Entrepreneurial spirit	2.74	1.05
Distrust – Strong trust	2.36	1.03
Hate – Love	2.85	0.91
Unequal opportunities – Equal opportunities	2.50	1.03

*Note:* The response option of individual items is same and ranged from 1 (closer to first Characteristic) to 5 (closer to second Characteristic)

Source: Author's calculations based on data from survey of Hungarian young adults (2018)

The Mann-Whitney nonparametric test shows that there is no significant difference between male and female young adults ( $p=0.078$ ) and between the two levels of study ( $p=0.077$ ) in the Score of Subjective Social Environment (Table 2).

According to the Kruskal-Wallis nonparametric test, there is no significant difference ( $p=0.225$ ) between the three age groups of young adults in the Score of Subjective Social Environment.

**Table 2.** Descriptive Statistics for Score of Subjective Social Environment by Gender, Age and Level of studies (n=193)

	Percent of respondents	Mean	SD
<b>Gender</b>			
Male (Cronbach's $\alpha = 0.829$ )	32.1	2.78	0.80
Female (Cronbach's $\alpha = 0.753$ )	67.9	2.56	0.61
<b>Age categories</b>			
17-21 years old (Cronbach's $\alpha = 0.918$ )	53.1	2.72	0.78
22-25 years old (Cronbach's $\alpha = 0.813$ )	28.1	2.55	0.55
26-35 years old (Cronbach's $\alpha = 0.811$ )	18.9	2.48	0.57
<b>Level of studies</b>			
Secondary (Cronbach's $\alpha = 0.797$ )	39.3	2.78	0.80
Higher (Cronbach's $\alpha = 0.780$ )	60.7	2.53	0.58

*Note:* The response option of individual items is same and ranged from 1 (closer to first Characteristic) to 5 (closer to second Characteristic)

Source: Author's calculations based on data from survey of Hungarian young adults (2018)

### **Score of Social Trust**

Of the parts of social capital examined (personal and institutional) trust in the police is outstanding, which has the highest average (Table 3). At the same time, however, the greatest deviation could be detected with the police. Trust in the healthcare system is rather low, which cannot be disregarded in terms of subjective well-being, either. Görgényi Hegyes et al. (2017) points out “nowadays use of social media applications has become one of the most

important factors in the daily life of both individuals and organizations. For newly grown generations this type of communication channels is essential in order to share information with each other.” ‘Being online’ is very popular and the new communication technologies play a remarkable role in their lives. Despite these facts, we found that the youngsters have the lowest level of trust in the online media.

**Table 3.** Descriptive Statistics for Score of Social Trust based on the survey data (n=193)

	Mean	SD
Social Trust (Cronbach's $\alpha = 0.783$ )	2.81	0.71
<b>Items of the Score (personal trust in the ...)</b>		
educational system	3.04	1.04
classmates	3.51	0.96
neighbours	2.83	1.15
police	3.07	1.18
health care system	2.51	1.10
justice system	2.65	1.10
online media	2.07	0.98

*Note:* The response option of individual items is same and ranged from 1 (do not trust at all) to 5 (complete trust)

Source: Author's calculations based on data from survey of Hungarian young adults (2018)

The Mann-Whitney nonparametric test shows that there is no significant difference between male and female young Hungarian adults ( $p=0.122$ ) and between two levels of study ( $p=0.600$ ) in the Score of Social Trust (Table 4).

The Kruskal-Wallis nonparametric test shows no significant difference ( $p=0.113$ ) between three age groups in the Score of Social Trust.

**Table 4.** Descriptive Statistics for Score of Social Trust by Gender, Age and Level of studies (n=193)

	Percent of respondents	Mean	SD
<b>Gender</b>			
Male (Cronbach's $\alpha = 0.908$ )	32.1	2.94	0.76
Female (Cronbach's $\alpha = 0.863$ )	67.9	2.75	0.68
<b>Age categories</b>			
17-21 years old (Cronbach's $\alpha = 0.805$ )	53.1	2.85	0.73
22-25 years old (Cronbach's $\alpha = 0.772$ )	28.1	2.67	0.70
26-35 years old (Cronbach's $\alpha = 0.724$ )	18.9	2.92	0.65
<b>Level of studies</b>			
Secondary (Cronbach's $\alpha = 0.924$ )	39.3	2.85	0.73
Higher (Cronbach's $\alpha = 0.831$ )	60.7	2.79	0.70

*Note:* The response option of individual items is same and ranged from 1 (do not trust at all) to 5 (complete trust)

Source: Author's calculations based on data from survey of Hungarian young adults (2018)

#### ***Social Trust & Environment***

A significant correlation of medium strength could be detected between the elements of social trust and the environment of all the respondents, while a bit stronger

relationship could be noted with the generation aged between 17 and 21 and those taking part in secondary education (Table 5).

**Table 5.** Correlations between Social Trust and Subjective Social Environment (n=193)

	Spearman's correlation coefficient
All respondents	0.421**
<b>Gender</b>	
Male	0.437**
Female	0.397**
<b>Age categories</b>	
17-21 years old	0.500**
22-25 years old	0.320*
26-35 years old	0.363*
<b>Level of studies</b>	
Secondary	0.536**
Higher	0.338**

*Note:* \* Correlation is significant at the 0.05 level; \*\* Correlation is significant at the 0.01 level

Source: Author's calculations based on data from survey of Hungarian young adults (2018)

#### ***The Score of Social Trust based on data from ESS Round 7, 2014***

While examining international data (Table 6) it can be concluded that the Nordic countries take the lead in terms of general social trust where the value of general trust reaches 3. Hungary belongs to the countries with the lowest level of trust but Poland and Portugal reached an even weaker result. In Lithuania it is (2.72) above the

average (2.58). All this depicts an important part of social capital and draws attention to the fact that in order to enhance competitiveness in Hungary, the level of trust must be improved but due to its cultural embeddedness it can only be implemented in the long run.

**Table 6.** Sample size and Descriptive Statistics of Score of Social Trust based on the data from round 7 of the ESS for young adults, aged 17–35 years

Country	N	Cronbach $\alpha$	Mean	SD
Austria	457	0.801	2.71	0.89
Belgium	513	0.633	2.61	0.75
Switzerland	433	0.671	2.83	0.81
Czech Republic	578	0.790	2.44	0.97
Germany	694	0.688	2.66	0.75
Denmark	390	0.681	3.12	0.76
Estonia	536	0.727	2.70	0.81
Spain	518	0.645	2.48	0.77
Finland	475	0.722	3.15	0.71
France	467	0.575	2.47	0.76
United Kingdom	463	0.763	2.74	0.83
Hungary	413	0.765	2.29	0.96
Ireland	605	0.776	2.88	0.86
Israel	822	0.718	2.51	0.93
Lithuania	507	0.833	2.72	0.92
Netherlands	426	0.727	2.85	0.67
Norway	395	0.656	3.11	0.68
Poland	485	0.668	2.16	0.89
Portugal	247	0.663	2.11	0.82
Sweden	487	0.657	3.08	0.68
Slovenia	310	0.758	2.34	0.91
All Countries (21) taking part in ESS round 7	10221	0.706	2.58	0.84

*Note:* The items for the Score of Social Trust were recoded to a 1 to 5 range and then averaged by calculating the simple arithmetic mean, Post-Stratification and Population size weights were applied to the countries' averages

Source: Author's calculations based on data from round 7 of the ESS (2014)

The Mann-Whitney test shows that there is no significant difference ( $p=0.961$ ) between male and female young Hungarian adults in the Score of Social Trust based on the data from ESS round 7 (Table 7).

The Kruskal-Wallis nonparametric test shows that there is no significant difference ( $p=0.123$ ) between the three age groups in the Score of Social Trust based on the data from ESS Round 7.

**Table 7.** Descriptive Statistics for Score of Social Trust by Gender, Age and Level of Education for Hungarian young adults, aged 17–35 years

	Percent of respondents	Mean	SD
Gender			
Male (Cronbach's $\alpha = 0.779$ )	44.1	2.28	0.98
Female (Cronbach's $\alpha = 0.751$ )	55.9	2.30	0.95
Age categories			
17-21 year old (Cronbach's $\alpha = 0.694$ )	25.7	2.48	0.89
22-25 year old (Cronbach's $\alpha = 0.803$ )	19.6	2.33	0.93
26-35 year old (Cronbach's $\alpha = 0.775$ )	54.7	2.18	0.99
Level of studies			
Non-higher (Cronbach's $\alpha = 0.773$ )	81.7	2.29	0.94
Higher (Cronbach's $\alpha = 0.728$ )	18.3	2.29	1.02

*Note:* The items for the Score of Social Trust were recoded to a 1 to 5 range and then averaged by calculating the simple arithmetic mean, Post-Stratification and Population size weights were applied to the countries' averages

Source: Author's calculations based on data from round 7 of the ESS (2014)

## Conclusions

Several attempts have been made to interpret national competitiveness but a standard, universally accepted definition still does not exist. Despite of it, some common points of different interpretations can be found. The competitiveness of the economy cannot be separated from the competitiveness of society as the human factor has a significant impact on economic growth. In addition to easily measurable areas such as the proportion of those with higher education qualification, expenditure on education, participation in lifelong learning the so-called 'soft' determinants that are difficult to measure are gaining more ground. Such an area was investigated by the present study, i.e. social environment and trust and it was stated that in an international comparison Hungary has a low level of trust. This decreases social capital and increases transaction costs as lack of trust results in more contracts and administration between economic players. In our examined area the Hungarian youth lacked trust primarily in the healthcare system and online media. This underpins the necessity of development as a higher standard of services raise satisfaction level and the perceived well-being and in the case of the media, ensuring an authentic source of information.

Nonparametric examinations (Mann-Whitney & Kruskal-Wallis tests) between the different groups formed on characteristics (gender, age, level of studies) did not show significant difference. This raises the possibility that the examined factors are 'encoded' in society so regardless of their parameters they universally hold true for everybody.

On the basis of the analysis of social environment according to the young people the two most serious problems of the Hungarian society are dissension and closeness. The present phase of the research examined the single subjective social environmental items in Hungary but in the future an international comparison is also planned that can justify our statement according to which a detectable positive relationship could be seen between subjective social environment and trust. This does not only determine the following phases of the research but also shows a tendency towards a sustainable and competitive social environment.

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## THE ASPECTS OF INNOVATION WITHIN THE EU REGIONAL POLICY

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### Abstract

Innovation is an important improvement and development element in all areas of economic and social life, business environment as well as regional processes. EU Regional policy has a significant impact on many areas of economic and social life throughout the European Communities. Investments in terms of innovation being executed through different tools help EU achieve the EU objectives within the particular type of policies in the fields of education, employment, energy, environment, single market, research and innovation. This paper will analyze how innovation is implemented into EU Regional policy processes, how important role it plays within the regional development to assure sustainable economic growth in European Communities and enhance the EU competitiveness within the international economics environment. By means of analysis, comparative analysis methods followed by logical deduction the main goal of this paper is to figure out how and in what way the technology and innovation implementation processes in EU Regional policy can affect the sustainable economic growth in terms of the social and economic development promotion measurements. The aim of the European regional policy is to contribute to the development of backward regions in particular, the restructuring of declining industrial areas, and revitalization of deprived neighborhoods. The emphasis is focused on creating sustainable jobs and improving the economic, social and territorial 'cohesion' of the Union. It is necessary to highlight that the EU Innovation policy implemented into European Union's regional policy plays very important role within the current financial framework 2014-2020 and Europe 2020 Strategy to assure sustainable economic growth in the EU and enhance its competitiveness within the environment of the world economy triad. Innovations and innovation policies and strategies implementations are one of the most important aspects of current international economics and business development issues.

KEY WORDS: regional competitiveness enhancement, international economics, technology and innovation, social and economic development.

### Introduction and Theoretical Background

Regional Policy can be characterized as the EU's main investment policy. Regional Policy targets all regions and cities in the European Union in order to support job creation, business competitiveness, economic growth, sustainable development, and improve citizens' quality of life. In order to reach these goals and address the diverse development needs in all EU regions, € 351.8 billion – almost a third of the total EU budget – has been set aside for Cohesion Policy for 2014-2020 (European Commission, 2017; Balaz, (2010).

Regarding the funding management EU Regional Policy is delivered through three main funds: the European Regional Development Fund (ERDF) and the Cohesion Fund (CF) and the European Social Fund (ESF). Together with the European Agricultural Fund for Rural Development (EAFRD) and the European Maritime and Fisheries Fund (EMFF), they make up the European Structural and Investment (ESI) Funds. Overall financial impact has been lead through Cohesion Policy as a catalyst for further public and private funding, not only because it obliges Member States to co-finance from the national budget, but since it also creates investor confidence. Taking into account national contributions and other private investment, the impact of Cohesion Policy for 2014-2020 is expected to be about € 450 billion (Blecharz, Stverkova, (2014); Jovanović, 2005).

Hitiris (2003) highlights that Regional Policy underpins European solidarity. The bulk of Cohesion Policy funding is concentrated on less developed European countries and regions in order to help them to

catch up and to reduce the economic, social and territorial disparities that still exist in the EU. EU regional policy is an investment policy. It supports job creation, competitiveness, economic growth, quality of life and sustainable development. These investments support the objectives of Europe 2020. Koisoiva & Haviernikova, (2016) argue that Regional policy is an expression of the EU solidarity with less developed countries and regions. It is used for concentration of resources in the areas and sectors where investments have maximum impact. Regional policy is designed to reduce the significant economic, social and territorial disparities that still exist between European regions (Bohac & Lipkova, 2016).

Europe 2020 is the European Union's ten-year growth strategy. It is about more than just overcoming the crisis which continues to afflict many of EU economies. It is about addressing the shortcomings of EU growth model and creating the conditions for a different type of growth that is smarter, more sustainable and more inclusive. To render this more tangible, five key targets have been set for the EU to achieve by the end of the 2020 decade. These cover: (1) employment; (2) education; (3) research and innovation (3% of the EU's GDP to be invested in R&D); (4) social inclusion and poverty reduction; and (5) climate/energy. The strategy also includes seven 'flagship initiatives' providing a framework through which the EU and national authorities mutually reinforce their efforts in areas supporting the Europe 2020 priorities such as (1) innovation, (2) the digital economy, (3) employment, (4) youth, (5) industrial policy, (6) poverty, and (7) resource efficiency (European Commission, 2017; Dubravská, & Mura, & Kotulič, & Novotný, 2015).

Innovation provides real benefits for us as citizens, consumers, and workers. It speeds up and improves the way we conceive, develop, produce and access new products, industrial processes and services. It is the key not only to creating more jobs, building a greener society and improving our quality of life, but also to maintaining our competitiveness on the global market (Brakman, 2006). According to Okręglicka, & Mynarzová, & Kaňa, (2015) Innovation policy is about helping companies to perform better and contributing to wider social objectives such as growth, jobs and sustainability.

Obadi, & Korček, (2015) state that EU Innovation policy is about helping companies to perform better and contributing to wider social objectives such as growth, jobs and sustainability. The main current European Union's innovation policy is the Innovation Union, as one of the seven flagship initiatives of the Europe 2020 strategy for a smart, sustainable and inclusive economy. Its aim is to boost Europe's research and innovation performance by speeding up the process from ideas to markets (Miklošik, & Hvizdová, & Žák, (2012). According to European Commission (2017) the Innovation Union plan will aim to do three things. Firstly to make Europe into a world-class science performer; secondly to remove obstacles to innovation like expensive patenting, market fragmentation, slow standard-setting and skills shortages – which currently prevent ideas getting quickly to market; and finally to revolutionize the way public and private sectors work together, notably through Innovation Partnerships between the European institutions, national and regional authorities and business.

According to Reinert (2012) technology offers opportunities to business organizations to increase their profits and growth through the introduction of new and improved goods and services and through changes to their production processes. Technology also helps firms to restructure their global patterns of production through investment in low cost locations or by sub-contracting to cheaper suppliers. However, technology can also pose threats and challenges for firms particularly if they allow themselves to fall behind their competitors. Technological advance, because it involves change in products or production processes, is a risky business particularly for firms that do not manage change well (Fojtíková, 2016). Finally the external environment offers business the means to protect its intellectual property although the degree and cost of protection can vary significantly from one country to another. In countries like China and some other South East Asian countries, where the level of protection is low, there are significant problems with the theft of IPRs (intellectual property rights), the counterfeiting of goods and the piracy of films, music, and books. Attempts to provide protection internationally have been slow to progress and are relatively underdeveloped (Balaz, 2013).

### **Problem Formulation and Research Methodology**

This paper will discuss how the EU Innovation policy is implemented into EU regional policy, how important role it plays within the current financial framework 2014-2020 and Europe 2020 strategy to assure sustainable

economic growth in the EU and enhance its competitiveness within the world economy triad in international economics system environment. By means of analysis, comparative analysis methods followed by logical deduction the main goal of this paper is to figure out how and in what way the Strategy 2020 within the technology and innovation implementation processes in EU Regional policy can affect the sustainable economic growth in terms of the social and economic development promotion measurements.

### **Findings and Discussion**

The most important issue, by taking into account the strategic linkage of EU Regional policy and Strategy 2020, is that the Cohesion policy aims to promote cross-border cooperation (between regions and states), to which there would be no assistance provided under cohesion policy. Types of funded projects falling under this policy are such as: common share of natural resources, protection against risks, transport infrastructure improving, networking between universities, research institutes, etc. Therefore the objective European territorial cooperation is aimed at strengthening cross-border cooperation through joint local and regional initiatives, strengthening transnational cooperation by means of actions linked to Community priorities and contributing to integrated territorial development and to strengthening interregional cooperation and finally to exchange of experience at the appropriate territorial level. As it follows from the issue mentioned above, the main principle of the EU regional policy (cohesion policy) is financial solidarity in favor of the less developed regions, but also social groups. It helps to maintain regional competitiveness and facilitates to convergence the poorer regions to more advanced ones. Based on the analysis of the fundamental principles and objectives of EU regional policy their previous level of efficiency in the overall EU regional policy has been set, in succession to a possible further increase of regional policy impact on the EU socio-economic development. We can reason that the complex mechanism of the EU regional policy fundamental principles and objectives is set to use them to eliminate regional disparities, to increase socio-economic development of the regions and then states, which will complete this process by increasing the EU competitiveness as a subject of international economics.

There are some important strategic collaborative linkages between the EU Regional policy and Strategy 2020 in terms of EU Innovation policy necessary to be met. The definition of activities with high added value, which offer the best chance of strengthening the competitiveness of the region, needs strategic information. To resources for research and development and innovation have the greatest impact, must reach its critical value. They must be accompanied by measures to improve skills, increase education levels and knowledge infrastructure (Wild, John, 2006). The national and the regional governments should develop smart specialization strategies to increase the impact of regional policy in combination with other the Union policies to the maximum. The Smart specialization strategies can ensure the efficient use of public resources and stimulate private investment. They can help regions that concentrated

resources on a few key priorities. They can also be the key element in the creation of multi-level governance for integrated innovation policies. In addition, require a strong understanding of regional sites in relation to other regions as well as the potential benefit for interregional and transnational cooperation (Taušer, & Čajka, (2014). The strategy of smart specialization involves businesses, research centers and universities that cooperate to define the most promising areas of specialization of the region, but also the weaknesses that hamper innovation. It takes into account the different capacities of regional economies, in terms of innovation. While leading the regions invest in advancing a generic technology or service innovation, for others it is often beneficial to invest in its application in a particular sector. The sustainability of the strategy will depend on the time frame and the coordination of policy measures, also from the administration, including ways of engaging stakeholders. It must also include mechanisms for acquiring the information on policies, in particular through peer review, and involving public officials, experts and stakeholders at the regional level. The Smart specialization needs to exploit regional diversity and must stimulate transnational and interregional cooperation and create new opportunities by avoiding fragmentation and ensuring freer flow of knowledge across the European Union.

By discussing the issue we can say that the innovation policy implemented into EU regional policy plays very important role within the current financial framework 2014 -2020 and Europe 2020 Strategy to assure sustainable economic growth in the EU and enhance its competitiveness within the environment of the world economy triad. Innovations and innovation policies and strategies implementations are one of the most important aspects of current international economics and business development issues. It is the key not only to creating more jobs and improving quality of life, but also to maintaining companies' competitiveness on the global market and states'/economies' competitiveness enhancement within the international economics system.

The synergy of EU Innovation and Regional policies must show how technology refers to ideas and knowledge that business can exploit commercially and assure the world economy sustainable development. The sources of new ideas on which companies can call are many and varied, ranging from universities and research institutes to competitors, customers and suppliers, and to employees. The EU economies are following a long-established trend of restructuring away from the primary and secondary sectors and towards services and high value-added products. But manufacturing is still an important economic sector of the Community for production, trade and employment. In recent years the industry has operated against a background of slow growth of demand, rising unemployment, increasing international competition and rapid changes brought about by technological progress (Baldwin & Wyplosz, 2009). Although these are problems which to some extent are shared by all members of the Community, industrial policy still remains largely a national responsibility. The Community has taken steps to ensure that, in accordance with a system of open and competitive markets, the

conditions and the legal framework necessary for speeding up the structural adjustment and competitiveness of European industry will develop. The Community's industrial strategy in particular regions consists of policies aimed at improving the business environment, by working towards integrating the European market, promoting the necessary changes in industry's structure, and coordinating the activities of the member states. The single market has given a welcome boost to cross-border mergers, acquisitions and joint ventures which are shaping a new structure of production and distribution (Grencikova, & Spankova, & Karbach, (2015).

As a crucial parallel between the of EU Innovation and Regional policies is the outcome issue to maximize regional and social benefits. To avoid an "innovation divide" between the strongest innovating regions and the others, the Commission will assist Member States to use better the remaining part of the €86 billion of structural funds programmed for 2014-2020 for research and innovation projects (Eurostat, 2017). The Innovation Union aims to involve everyone in innovation. This is particularly true in terms of ensuring employees themselves can influence the way businesses and public authorities innovate and also when it comes to social innovation. In 2014, the Commission launched a major research program on public sector and social innovation and pilot a European Public Sector Innovation Scoreboard. Next there is the European Innovation Partnerships which appear to be a new way of bringing together public and private actors at EU, national and regional level to tackle the big challenges we face such as climate change, energy and food security, health and an ageing population. These challenges also represent opportunities for new business and the Partnerships will aim to give the EU a first-mover advantage in these markets.

Within the Strategy 2020 the Community has also launched several integrated programs of research to help the EU to catch up with its rivals in the application of modern technology. In general, R&D expenditure and the rates of industrial production and productivity achieved by most EU member states are persistently below those of its main competitors, such as the USA and Japan (Hamilton & Wepster, 2009). An implication of these differences in performance is that in external markets the Community is rapidly losing ground in high-technology innovation and trade (Obadi & Korcek, 2016). Market integration and coordination of regional policy and research are expected to have a favorable impact on the competitiveness and performance of EU industry without the need to resort to any form of aggressive and confrontational strategic trade policy. This will contribute to the efforts to reduce unemployment and increase growth and welfare.

The important issue is that Regional Policy cushioned Europe's regions and cities from the worst effects of the crisis. By supporting public investment and deploying EU investments flexibly, for example through the reprogramming of funds or by raising the co-financing rate in countries like Cyprus, Greece, Hungary, Ireland, Portugal and Romania, regional policy mitigated the impact of the financial crisis which started in 2008. Also

at a time of sustained fiscal consolidation EU Regional Policy has become of critical importance. Without Cohesion Policy, much needed public investment in the less developed Member States would have collapsed by an additional 45% during the crisis (European Commission, 2017; Neumann, 2013).

Globalization, in general, and multinational companies in particular, are important vehicles for the international diffusion of new knowledge through their trading, investment, and competitive strategies (Rupert, 2000). Their influence is illustrated by the international spread of lean manufacturing in the car industry. This sets out to eliminate waste and to decrease the time between receipt of a customer order and delivery.

Allen, E. Roy (2009) argues that globalization and technology make foreign sources of new ideas more accessible and have made it easier for business tap in to foreign sources through, for example, cross-border R&D partnerships. Innovations tend to be concentrated in big firms operating in the high-tech manufacturing sector. The rate of innovation varies from firm to firm, sector by sector and country to country. Companies in Japan generally spend more on R&D and take out more patents than firms based elsewhere. Firms are motivated to innovate by increasingly fierce competition from rivals, both domestic and foreign, other elements in the supply chain, developments in the ICT sector, and the policies pursued by governments (Delgadova, & Gullerova, 2016).

The last issue to be debated regarding the EU Innovation policy within the Regional policy is a following question. What are supposed to be the particular benefits of the Innovation Union policy for EU citizens, entrepreneurs and researchers? It will contribute to innovations and breakthroughs to improve quality of life and create jobs for European citizens. According to Vojtovič, & Navickas, & Gruzauskas, (2016) in this case the Innovation Union means a smarter economy to support standard of living, a better use of public money, empowering citizens thanks to social innovation, innovative solutions to live longer and healthier lives and a greener Europe. Hnát, & Zemanová, & Machoň, & (2016) point out that the Innovation Union will make it easier for entrepreneurs to commercialize their ideas and grow companies. In this case the Innovation Union means improved access to finance, innovation-friendly rules and regulations, accelerated interoperable standard-setting, cheaper patenting, innovation supported by the public sector, innovation Partnerships to give EU businesses a competitive edge and easier participation in EU research and innovation programs. Mitchel & Muysken & Van Veen (2006) argue that Innovation Union will make it easier for researchers to conduct their research in Europe. It means attractive careers for researchers, high-standard training, improved cross-border mobility, a more open access to research results, enhanced public-private collaboration and easier participation in EU research and innovation programs.

## Conclusion and Further Implications

As conclusion we can say that the EU Innovation policy implemented into EU regional policy plays very important role within the current financial framework 2014-2020 and Europe 2020 Strategy to assure sustainable economic growth in the EU and enhance its competitiveness within the environment of the world economy triad. Innovations and innovation policies and strategies implementations are one of the most important aspects of current international economics and business development issues. It is the key not only to creating more jobs and improving quality of life, but also to maintaining companies' competitiveness on the global market and states'/economies' competitiveness enhancement within the international economics system. It has been shown how technology refers to ideas and knowledge that business can exploit commercially and assure the world economy sustainable development. The sources of new ideas on which companies can call are many and varied, ranging from universities and research institutes to competitors, customers and suppliers, and to employees.

In this paper we have shown how Europe can succeed if it acts collectively as a Union. EU needs a strategy that will help to make sure the Union comes out stronger from the crisis - a strategy that will help make the EU a smart, sustainable and inclusive economy delivering high levels of employment, productivity and social cohesion. The Europe 2020 Strategy is a vision of Europe's social market economy for the 21st century and it acts as a main synergic issue coming out of EU innovation and regional policies interaction.

Finally we can summarize that two pillars form the underpin of Europe 2020 Strategy: The thematic approach, combining priorities and objectives, and reporting on Member States, which will help them to develop their strategies to return to sustainable growth and sustainable public finances. At the EU level there are adopted integrated guidelines covering the EU objectives and priorities. Member States are determined taking into account the recommendations of their particular situation. In case of disproportionate reaction warnings could be issued at the policy level. The reporting of Europe 2020 and assessment of the Stability and Growth Pact are done simultaneously, while keeping the instruments separate and integrity of the Pact.

Regarding the further vision associated with this kind of research as the follow up issues that will be necessary to be taken into consideration and be assessed are the areas such as the impact of EU innovation strategy and EU Regional policy on Slovak regional development and regional discrepancies issue; to analyze the linkage of Innovation Union and cluster policies / clusters development in terms of technology advance and their impact on EU regional development; and Strategy 2020 assessment regarding its impact on EU economy competitiveness enhancement versus the US economy in terms of the TTIP agreement (Transatlantic Trade and Investment Partnership).

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## NOVEL CONCEPTS IN THE HEALTH TOURISM INDUSTRY

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### Abstract

As of today, there is a growing demand for health tourism services in the tourism industry; and according to the forecasts, the cooperation between high quality health service providers and international tourism has a huge potential. The trends within health tourism are affected not only by the quality of the services, but also by the increase of health awareness. Due to the different development paths within the health tourism system, a wide variety of services and destinations is available for consumers. In the past decades, specialisation has been the most important feature of health tourism development; and as a result, there are significant differences in the services, venues and destinations offered by tourism businesses. While the health tourism industry in Asia mainly focuses on high-profit surgery services, the industry within the European Union offers services that are based on the traditions and the history of the region. Health tourism has become one of the most versatile industries, and with the results of the digital revolution, we can predict the emergence of further new and innovative solutions. E-Health and other digital services are opening new horizons for the industry; and there is also a huge potential in re-thinking the exploitation of the already existing resources. Creativity and innovation are just as important in health tourism as in any other industry. In the digital era, there is a huge opportunity in combining the fragments of already existing solutions, and create novel products in order to maximise their benefits.

KEY WORDS: health tourism, medical tourism, Asia, Europe, e-Health.

### Introduction

Health tourism is an enormous international business industry, where continents, countries, regions, destinations and thousands of service providers compete with each other. Health tourism covers a wide range of activities, and there are differences in the quality of the services at the destinations. Health tourism service providers might specialise in multiple fields, but as of today, medical tourism is the fastest developing and more profitable sector out of the two main branches of health tourism (Table1).

Unlike the national social security systems in Europe or the private insurance model in North-America, medical tourism offers medical procedures and services based on the demands of the market, and without the inclusion of insurance companies. The fastest growing countries that probably make the highest profit in the medical tourism industry are in Asia: India, Singapore, Taiwan and Thailand offer increasingly higher quality services at more and more affordable prices.

Beyond the Asian countries, Brazil, Turkey and Russia are the newest competitors in the industry. In these countries, patients have the opportunity to try unconventional and experimental procedures at their own risk. These untraditional methods are quite popular, especially when by opting for experimental therapies, patients can skip the long waiting lists in their home countries. Another great advantage of these services is the different legislative background, which enables patients to participate in the therapies easier.

**Table 1.** Ranking of most popular medical tourism internet searches (2005 and 2015)

Ranking	2005	2015.
1.	Cosmetic surgery	<b>Organ, cell and tissue transplantation</b>
2.	Dentistry	Cardiology/cardiac surgery
3.	Eye surgery	Dentistry
4.	Cardiology/ cardiac surgery	Fertility/ reproductive system
5.	Bariatric surgery	Eye surgery
6.	Orthopaedic surgery	Cancer treatment
7.	Fertility/ reproductive system	Weight-loss surgery
8.	Liposuction	Cosmetic surgery
9.	Diagnostics and check-ups	Orthopaedic surgery
10.	<b>Organ, cell and tissue transplantation</b>	Bariatric surgery

Source: International Medical Travel Journal<sup>1</sup>

The health tourism industry has to be able to adapt to a continuously changing environment, where the sudden economic and social changes can modify the whole scheme overnight. The real challenge does not lie in the day-to-day operation of the services: but to be able to keep their advantage in the competition, stakeholders

<sup>1</sup> <https://www.imtj.com>

need to have an in-depth knowledge of their market. The processes of health tourism cannot be measured or forecasted by traditional methods, because of the constant changes.

Although the future changes of the health tourism industry can be predicted based on the existing trends, knowing how to read the signs does not guarantee success. Nevertheless, stakeholders need to keep an eye on the trends, because even a small partial success can make a huge difference in the fierce competition.

### **Research method**

Due to the increasing impact of digital solutions in all service sectors, the exploitation of novel digital innovations is in the best interest of the health tourism industry. The good practices of health tourism destinations clearly show that the high quality of health tourism services itself does not guarantee that the region will be ranked among the world's top destinations. To be among the best, it is necessary to provide tailor-made solutions, exploit the latest ICT developments and have an in-depth and up-to-date knowledge on the market demands.

My research focuses on the examination of an innovative hospital<sup>2</sup>, which uses a novel approach towards health tourism services. The questionnaire survey explores the market acceptance of Hungarian health tourism business ideas. The case study presented in this paper reveals some important conclusions and offers ideas for further research.

### **Dilemmas of health tourism in the European Union**

Unlike in the Asian and North-American countries – which are the most interested in health tourism –, health tourism is affected by different processes in the European Union. The tourism destinations of the Europe Union are among the most successful tourism attractions in the world, and Europe as a continent is a very popular destination itself. The leading position among tourism destinations is a result of a long and conscious planning process, and the EU is willing to do everything in its power to keep its top ranking.

By using revolutionary solutions, technological innovations and exploiting of the newest trends in the field of tourism, the European Union sets an example for other nations. However, it is not clear how the EU intends to enter the fierce global competition of health tourism services.

As for global tourism, the EU is surely a trendsetter, but when it comes to health services, the differences between the member countries' individual legislative systems seems to hinder the development process.

In tourism as a whole, the combination and interoperability of related industries had opened the way for the development of novel tourism trends. The European Union sets a great emphasis on the growth of tourism-related incomes and employment rate within the industry.

Health tourism in the European Union is based on the various national health insurance schemes of the member countries. Within this system, health tourists can access the most convenient and cost-effective services in the EU, and have the costs of their treatment covered by their national health insurance system. This financing scheme has its own limitations, because the health service systems of the member states operate with different conditions, and it is not likely that the individual systems would be harmonised in the near future, due to the differences in the legislative and quality assurance practices of the countries.

As it is in the member countries' interest to protect their health professionals and workplaces, there is also a strong political intention to keep the individual public health systems at national level.

Although in theory, EU members can use the national health services of other member countries, the current trends clearly indicate the preference of self-financing schemes. Private health insurance companies – that can offer tailor-made solutions and control the quality issues of health services abroad – could be an alternative for health tourism within the EU.

There are existing international standards developed by private health insurance companies; however, their services mainly focus on medical therapies than health tourism offers.

### **The prosperity of medical tourism in Asia**

In Asia, medical tourism is the most profitable segment of the health tourism industry. However, it is important to note that the national databases in the Far-Eastern countries should be analysed very carefully, because the vast majority of health tourism services and international health tourism destinations are operated by private businesses.

Because of the fierce competition and the opposing interests of service operators, health tourism institutions are not interested in the open publication of the statistical data; furthermore, due to business-related reasons, these privately published datasets cannot be relied on as a valid resource of information about the whole industry.

According to the experience of Dr. KK Agrawal, president of the Indian Medical Association, the Asian health tourism market primarily focuses on the competitive value-for-money ratio of medical services, and they also offer complementary health tourism services for the people accompanying the patients. When talking about Indian health tourism, the requested medical services are offered for the patient at lower prices, with only their travel expenditures as additional cost.

It is important that health tourists typically do not participate in any other travelling during their stay and they usually spend their rehabilitation period somewhere else, too.

As for rehabilitation, the majority of health tourists prefer to spend the healing period in their 'home environment'.

As the whole period of the therapy is divided into the two phases of the medical procedure itself and the rehabilitation period afterwards, Asian health tourism

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<sup>2</sup> Hotel + Hospital = Hospitel

providers prefer to transfer their marketing costs to the state, claiming that the profit and tax revenue generated by the health tourism industry accounts for a large portion of the total governmental income.

Regardless of the logic behind this reasoning, a closer look will reveal the fact that while the profits generated by the private medical services providers will remain at the private businesses, the expenses of the industry's sustainability is borne by the tax payers.

To understand the whole picture, the principles of marketing cost effectiveness and the possible positive social effects need to be clarified. The costs of the branding activity of individual health tourism businesses are calculated to be around 10-15% of their profit; and while this type of expenditure mostly affect the income of the owners, their marketing activity will differ from the public tourism marketing schemes that mainly focus on the development of the country image<sup>3</sup>.

It is simply not in the interest of private medical businesses to invest in the national tourism image marketing of their country, and spend on something that will not generate direct income for their services.

It is among the biggest challenges in the health tourism industry to decide which stakeholder should invest in which sector if the industry and how their spending can return.

Due to the opposing interest of the stakeholders, the problems of financing health tourism marketing in Asia are likely to remain in the near future: health tourism businesses will be interested in selling their medical services, while governmental stakeholders will handle the national image of the country as a priority.

In the future, with the digital revolution and the development of ICT solutions, the growing demand for personalised solutions and quicker communication may bring forth simpler and more effective marketing structures based on the use of Big Data systems.

#### Growing demand for health tourism

In 2015, 1.172 billion travels, 5.985 billion guest nights and 408.306 billion EUR income were registered in tourism in the European Union (EUROSTAT 2017). Inter-European travels between the member states accounted for a large proportion of this huge total income.

The various forms and seasons of mass tourism represent a stabile demand for service providers; however, there is an increasing demand for non-seasonal and sustainable business models, too.

Although the system of mass tourism works quite efficiently in Europe, there is an increasing competition by 3<sup>rd</sup> countries where the lower wage costs and social compensations allow tourism businesses to operate more cost-effectively.

Another huge difference in the tourism industries of these countries is that some European countries rely on the income of their tourism as a main resource of their

budget, while it should be considered only as a complimentary sector within the national economy.

In order to balance the aforementioned inequalities, the tourism experts of the European Union work on the development of solutions that will focus on the exploitation of the inner reserves of the EU markets and integrate further resources into the system.

Due to the demographic changes, the number of senior citizens is growing throughout the EU. Taking into account the whole population of the European Union, the number of senior people – the age group of 65 plus years – reaches almost 90 million; this means that every 3<sup>rd</sup> resident of the EU belongs to this demographic age group.

Beyond senior citizens, the demographic group of people with disabilities represent another target group of health tourism. Senior citizens and people living with disabilities account for a huge economic potential, and not only for the tourism industry.

With regards to their consumer habits, senior citizens and people with disabilities are very similar to the rest of the consumers; moreover, because of their special circumstances, they are likely to spend more under some specific circumstances (Zsarnoczky, 2016a).

Within the European Union, there are no local differences regarding the characteristics of disabilities; therefore, none of the member states have a priori advantages in the competition for this consumer group. In accordance with the principles of the European Union, the tourism businesses and destinations of the member states offer the same types of services, including accommodation and hospitality services, Conference and health tourism packages and other complimentary programmes.

The large-scale seasonal programmes and single events are important income-generating resources in this special sector, too. For example, in the case of the Paralympic games, not only the athletes will participate at the events, but their accompanying staff members and the audience will also spend time (and money) at the destination.

In many cases, their whole family of the athletes will travel to support them, and their stay will generate further income for the tourism service providers. With the increasing importance of accessible tourism, both stakeholders and decision makers are likely to have to pay more attention to this segment.

According to UNTWO, the world's population is far more affected by disabilities than it had been thought before. At least 15% of the global population is involved somehow, which accounts for at least 1 billion people (UNWTO, 2013).

Disability is the umbrella term for impairments, activity limitations and participation restrictions, referring to the negative aspects of the interaction between an individual (with a health condition) and that individual's contextual factors (environmental and personal factors) (WHO, 2011). Disabilities can appear in various forms, covering the whole spectrum of the accessible tourism market.

The term disability not only refers to reduced mobility, visual impairment, hearing impairment, developmental disabilities, mental disabilities, learning

<sup>3</sup> <https://incredibleindia.org/>,  
<https://www.tourismthailand.org/>,  
<http://www.malaysia.travel/en/intl>, etc.

disabilities or long-term health related disabilities: people with prostheses, allergies or other sensitivities, invisible disabilities and even the elderly all belong to this group. Among elderly people, the possibility of developing some form of disability is increasing with age (Zsarnoczky, 2016b).

It is important to note that not all types of disabilities are registered in the statistics: the numbers only show the visible forms of different impairments (mobility, hearing, speech, developmental and mental disabilities), while hidden (visually not recognisable) disabilities like surgical removals or prostheses are not recorded officially. Experts estimate the number of people living with hidden disabilities as least the same as those of with visible impairments. It means that the whole group of disabled people accounts for a lot more than the size of the group of people living with visible disabilities.

The market demand side of accessible tourism in Europe consists of senior citizens, people living with disabilities or any other health restrictions and single parents as well (Zsarnoczky, 2017a). Accessible tourism organisations are very active in Europe and can greatly support service providers who are willing to develop their businesses for accessible tourism purposes.

With regards to intra-continental tourism, the EU puts an emphasis on the wide availability of Accessible Information Systems (AIS). The central directive of the European Union aims to provide a standard and uniform set of signs, pictograms, and going further, suggests the standardisation of mobile applications, fonts and colours in accessible tourism for easier understanding for all (UNWTO, 2016).

According to the recommendation, the standards and uniform use of signals would make it easier for the target group to enter the accessible tourism market. In the EU, the development of tourism products is primarily the task of service providers; however, there are several central incentives that support the joint exploitation of capacities within Europe (EC, 2015).

### **Innovative digital solutions in health tourism**

The e-Health platform offers innovative and cost-effective solutions in digitalised medical and clinical services. The e-Health<sup>4</sup> system is not a medical term, but a developing and innovative approach.

Based on the idea of e-Health, further versions are emerging, like for example m-Health, which refers to public medical practices that are supported by mobile phones, patient monitoring devices, personal digital assistants (PDAs) and other wireless equipment. With the development of healthcare devices, patients are also 'digitalising'.

The term 'e-patient' was introduced in 1996 as a definition in global healthcare (Ferguson, 1996), and in accordance with the technological development, today patients who rely on their smartphones in their healthcare are referred to as 'smart patients'. These people – who use the latest digital innovations to monitor their health –

can use various solutions to get information about their health status, diseases, possible treatment options and can also keep in touch with other patients.

Mobile apps hold a great opportunity both for the healthcare and the health tourism industry. The three main groups of the most popular health applications are related to information and knowledge sharing; treatments and diagnosis (Soós, 2017).

The information and knowledge sharing applications are typically used for information research and health education, and their target groups can be professional users or lay persons. Treatment-related applications support prevention, rehabilitation, and the treatment of acute or chronic diseases. As for the third group of diagnostic applications, there are two main types: simple health applications that operate by using the built-in sensors of mobile devices, and the ones that use 'external' tools that are connected to the various programmes downloaded to the devices. All of the aforementioned types of applications can be used in health tourism effectively.

According to recent studies, the visitors of health tourism websites mostly search information on services and doctors, and make appointments online. Unlike the common opinion of health tourists, the frequent use of health related websites does not substitute but only complements real life healthcare and medical services (Andreassen 2007).

With regards to patients' openness towards ICT solutions, research results suggest that the main factors that affect their 'digital openness' are: younger age, the less people living together in the same household and early diagnosis. As for the gender ratio, the number of female users is significantly higher, especially when it comes to interaction and communication about health related issues (Petty, 2014).

E-Health and its variations do not only cover the fields of healthcare and health tourism, but also deal with health and physical condition in general (Zsarnoczky et al., 2018).

In close relationship with the increasing importance of health awareness, the popularity of health-conscious applications is also growing. Due to the user-friendly features of these applications, they are not only used by younger generations, but widely accepted by elder generations, too.

With the spreading of smartphones, there is a growing market demand for personalised services. Users are mostly interested in tailor-made diets, the availability of organic food in their proximity, and also use their smart devices for storing their health-related personal data. These fields of interest are basically identical to the major fields of health tourism (Fig. 1.).

<sup>4</sup> Note: e-healthcare or electronic healthcare, today more likely referred to as 'digital healthcare'



Fig. 1. Health Tourism 2.0 Source: Zsarnoczky 2017b

## Results

The versatile tourism industry of Europe, the redefined concept of health tourism – consisting of a variety of similar fields – represents a sector with emerging possibilities. The novel concept of health tourism includes the re-definition of several complex processes.

The general objective of accessible tourism is that, regardless of their physical condition, all people can have access to all tourism services in all tourism destinations. To reach the concept of full accessibility, the implementation of a universal design planning concept is necessary (Darcy et al., 2009).

The research introduced in this study focuses on the case study analysis of a promising Hungarian tourism business: the Matra Resort health tourism group. The Matra Resort, including various institutions and services, is an individual health tourism destination located in Parádsasvár in Northern Hungary.

The destination offers special health tourism products like accessible guest houses or apartments that were developed especially for senior citizens for short and long term rehabilitation purposes.

The Matra Resort is fully committed to answer the newest requirements in health and accessible tourism, and has started several developments in connection with elderly care and nursing services. To increase international visibility, in 2017, the project – first among Hungarian tourism businesses – was successfully registered as a member of Europe for All<sup>5</sup> and Pantou<sup>6</sup>, a users' group operated by the

European Committee. These expert organisations collect a wide variety of information resources, guides and offers from accessible tourism service providers and destinations from all around Europe.

The Matra Resort launched its hospitel service – a term combining hotel and hospital, referring to the services provided - in 2017. According to their vision, the Mátra Resort offers the services of the nearby Parádfürdő Hospital, the Mátraderecske mofetta and the Thermal spa in Bükkszék for the guests who stay in the apartments.

The joint guest apartments of the Mátra Resort has been operating since 2015, offering their services based on the unique natural resources of the location (i.e.: the complex is located in a protected natural area) and high quality health tourism programmes, in line with the priorities laid down in the AIS directive of the European Union. Beyond the existing possibilities, further services like Matra Resort Independent Living, Assisted Living, Nursing Home and Hospice are under development.

The Mátra Resort operates a sufficient website<sup>7</sup>, provides on-demand transportation between the location and the home of its visitors, and offers high quality apartments and health tourism services.

They provide easily accessible and user-friendly information on all their services, and put an emphasis on the proficiency and open-mindedness of their staff.

The research aimed to explore the success of the hospital concept by conducting a questionnaire survey among professionals who work within the project. The number of completed and valid questionnaires is 65, 78% of the total number of questionnaires (83). Because the number of respondent is relatively low in relation with the total number of the population, the result of the survey is not representative (Fig. 2.).

- Gender of respondents: 74% female, 26% male
- Home settlement of respondents
- Domestic tourists: Budapest (48), Debrecen (11), Gyöngyös (3) Szeged (2), Kecskemét (1)
- International tourists: -
- Age of respondents: the majority of the respondents belonged to the 51-65 yrs age group (51%),

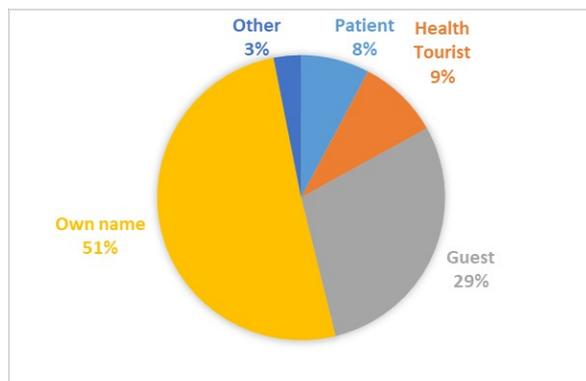
<sup>5</sup> <http://www.europeforall.com>

<sup>6</sup> <https://pantou.org/>

<sup>7</sup> <http://matraresort.com/>

followed by the 36-50 yrs (26%), 21-35 yrs (13%), 6-20 yrs (4%) and 65+ yrs (6%) age groups.

- Highest degree of education of respondents: higher education degree: 4%, secondary education degree: 80%, primary education: 16%.
- Marital status of respondents: Single: 41%, single and in a relationship: 21%, single and living with family: 14%, married: 10%, living in a partnership: 8%, unmarried: 6%.

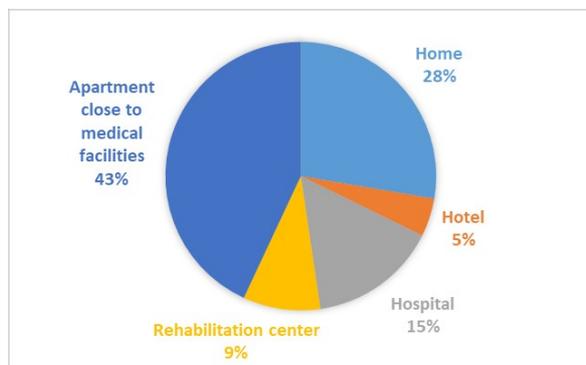


**Fig. 2.** Whilst attending health tourism programmes, how do you define your status as health tourist?

74% of the respondents claimed to have been health tourist; 21% have never participated any health tourism programmes and 5% could not decide whether they have (due to the similarities between active tourism and health tourism).

It is interesting to note that the vast majority of health tourist like to be referred as health tourist and they definitely try to avoid being called patients while at the destination.

Figure 3 indicates that health tourists prefer to spend their rehabilitation period in ‘home-like’ apartments connected to the healthcare facilities instead of the conventional concept of hospital or home rehabilitation.



**Fig. 3.** In what type of environment would you prefer to participate in a 1 week as a health tourism programme after a medical treatment?

The answers suggest that there is a high demand for healthcare services in the proximity of health tourism accommodation facilities. The comfort level and hominess of the accommodation are important factors in the decision making process of health tourists. When consuming health tourism services, tourists try to avoid having to spend their rehabilitation period in hospitals or rehabilitation centres.

## Conclusions

Innovation and digitalisation are the most effective tools to bring forth a new momentum in the emerging industry of health tourism. Novel ICT concepts like e-Health can contribute to effective information flow between the demand and offer sides of the market. The digital revolution has already brought many changes into the health tourism industry; however, with the spread of the new technologies, special attention has to be given to the emerging ethical and legal issues as well.

Regarding the geographical distribution of health tourism services, the Asian region primarily focuses on highly profitable medical procedures, while in the European Union, the main priority is the development of an effective health tourism system between the member states. As for the future of health tourism in Europe, the largest opportunity lies in the strengthening of the internal resources and the expansion and diversification of the services. Innovation in health tourism does not only mean technological novelties; it should also include new ideas and concepts. To be able to fully exploit the opportunities of the hospital concept and accessible tourism, creative ideas and professional experts are required.

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## ANTHROPOLOGICAL EDUCATION AS A STRATEGIC PSYCHOLOGICAL PRECONDITION FOR A GREEN SEAPORT

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### Abstract

The nature of a skilled seaport worker should have an opportunity of sustainable and universal expression, so that a green port, characterized by harmony between techno-economic and socio-ecological processes, could be developed. Professional expression of the personality in practical activities depends on the quality of a human being. Anthropological education, based on awareness, contributes to the constructive professional expression of a future skilled seaport worker and gives a psychological opportunity to provide a green seaport. High level of employees' awareness can compose one of most relevant goals of the nowadays maritime leadership. The purpose of the research is to conduct theoretical investigation of aspects of the anthropological education of a future skilled seaport worker and to suggest the strategic psychological precondition for a green seaport. The objectives of the research: 1) reflection of the anthropological level of creativity; 2) discussion of human spiritual materialization; 3) characterization of pan-hoministic illusion; 4) development of significance of the anthropological symbolism; 5) revelation of value of the human nature universality. The main methods such as heuristic analysis, extrapolative method and philosophical interpretation were used in the research. KEYWORDS: anthropological education, psychological precondition, green seaport.

### Introduction

**Relevance and novelty of the problem.** Preparation of seaport professionals in Eastern Europe is characterized by the noble tradition of the system of higher education to bring up the personality who can implement his/her cognitive interests regarding the comprehensive development. It does not allow the personality at the professional preparation to limit oneself only by technocratic and economistic self-expressions that orient to exploitation of nature.

One of the most important dimensions of the comprehensive development is the anthropological education that is basically characterized by the level of the substance and expression of human nature. Human nature, which is usually ideologically oriented to a certain direction, determines the development of the personality of a future skilled seaport worker in regard to - or despite - the green port policy.

At present, this policy is characterized by a high value (ESPO: Time for IMO to Deliver 2016). The nature of a skilled seaport worker should have an opportunity of sustainable and universal expression, so that a green port, characterized by harmony between techno-economic and socio-ecological processes, could be developed.

Professional expression of the personality in practical activities depends on the quality of a human being. Anthropological education, based on awareness, contributes to the constructive professional expression of a future skilled seaport worker and gives a psychological opportunity to provide a green seaport together with the usual legal level of ecological education on the basis of threatening sanctions.

High level of employees' awareness can compose one of the most relevant goals of the nowadays maritime leadership in general.

Number of comprehensive scientific investigations of the personality's anthropological education throughout the world, regarding the professional preparation of skilled seaport workers in higher education institutions, is low.

There are several episodic and indirectly related ecologically anthropological studies (Corbin 1994; Jovaiša 2001; Beresnevičius 2002; Goldschmidt 2003; Kaufmann 2006; Schmid-Höhne 2006; Tenzer 2007; Chiesa 2014; Khusainov, Biktimirov, Shigapova 2015; Lileikis 2011, 2015; Mega 2016; O'Connor 2016 etc.). It is appropriate to identify some ideas as the methodological possibilities of anthropological education as a strategic psychological precondition for a green seaport.

**The object** of the research is the anthropological development of a future skilled seaport worker.

**The purpose** of the research is to conduct theoretical investigation of aspects of the anthropological education of a future skilled seaport worker and to suggest the strategic psychological precondition for a green seaport.

**The objectives** of the research:

1. Reflection of the anthropological level of creativity.
2. Discussion of human spiritual materialization.
3. Characterization of pan-hoministic illusion.
4. Development of significance of the anthropological symbolism.
5. Revelation of value of the human nature universality.

**The type** of the research is theoretically descriptive.

**The main methods** such as heuristic analysis, extrapolative method and ontological interpretation were used in the research.

**The methodological principles** are as follows:

- *The Green Port Policy* is an aggressive, comprehensive and coordinated approach to reduce the negative impacts of port operations; it serves as a guide for decision making and established a framework for environmentally friendly port operations; the policy's five guiding principles are:

- 1) Protect the community from harmful environmental impacts of port operations;
- 2) Distinguish the port as a leader in environmental stewardship and compliance;
- 3) Promote sustainability;
- 4) Employ best available technology to avoid or reduce environmental impacts;
- 5) Engage and educate the community (Green Port Annual Report 2005; Green Port: Balancing Environmental Challenges with Economic Demands 2017);

- *Symbolic interactionism* analyses human behavior, which at the level of a seaport depends on the meaning of a seaport; perception of this meaning is a result of the social interaction, for example, in higher education institutions; meanings are applied and changed in processes of interpretation depending on situations;

- *Analytical psychology* as a direction of psychoanalysis provides the basis for the development of symbolic approach, by relating human nature to life events, dreams, nature phenomena and myths, which grant meaning and help cognize oneself (in this case - the personality of a skilled seaport worker) from the broader and deeper point of view (The Earth Has a Soul 2016);

- *Humanistic psychology* emphasizes spirituality that is an inherent basis for education of the personal spiritual culture; the internalization of the ecological self-concept allows better understanding of existential human dignity from the humanistic point of view of the personality freedom;

- *The paradigm of the universal upbringing* indicates the development of all powers of the personality; the context of biological, psychological and spiritual needs (Jovaiša 2001) determines development of ecological self-concept of the entire personality.

It is appropriate to anthropologically show creativity and spiritual materialization of the personality, pan-hoministic illusion, symbolism and universality of human nature in order to identify the aspects of the future skilled seaport worker's anthropological education, which are valid for providing the strategic psychological precondition for a green seaport.

### The anthropological level of creativity

In the beginning, the pagans imagined God in phenomena of nature, from which they raised their powerful but undeveloped creativity from the humanistic point of view.

Later, Jews declared monotheism that was basically developed by Christian humanism, and God was not perceived as a phenomenon of nature but as a great creator of all nature or the universe. He is an absolute

being that manifests himself in love, by creating a human being in his own image and likeness, providing his/her nature with the ability to love and create.

God creates nature, in which a person creates the seaport in terms of universal creativity. Ancient myths partially and symbolistically reflect the historical reality that a human being was walking and has stopped by the sea because he/she could not go on.

He/she stayed on the seashore and eventually has built a port in regard to his/her creative nature and utilitarian needs. A person, being created by God and resembling him at the level of creativity, naturally helps God to continue creating the world, building seaports and cities from the monotheistic point of view of a creative aesthetics in a broad sense.

Human creativity composes and expresses the *essence* and *vitality* of the personality in general at the level of ontology and current psychotherapy (An Interview with Natalie Rogers <...> 2015).

The dimension of creation of the seaport is like an *anthropological architecture* of the seaport in the perspective of the anthropological education of future skilled seaport workers for the development of a green seaport. The knowledge of this dimension, by applying erudition and creative insights, helps develop a deeper humanistic perception of the seaport and its nature - the origin, intention, aim and traditional continuity of the human activity.

The cartoon makers are characterized by the creative expression of seaport buildings (cranes and other port facilities) at the spiritual level of a human being from the cinematographic and pedagogical point of view. They provide visual opportunities to children for their development in accordance to the professional worldview of a skilled seaport worker on the basis of humanism. Children can watch attractive harbor cranes that are imagined in animal form, for example, a crane as a bird or giraffe (Fig. 1), and colorful anthropomorphic ships or lighthouses in animated films.



**Fig. 1.** Giraffe Crane at Stockholm Harbor (Bertram 2013)

Psycho-pedagogical popularization of a real seaport, which is friendly to the natural and socio-cultural

environment, appears with real cranes painted with flowers resembling the colorful fur of giraffes. The number of such cranes is growing all over the world. They are located in the seaports of Scandinavia, of the Middle East etc.

Generally, the purpose of the port crane activity is cargo handling. However, the anthropological motive and character of creation and of construction of a crane (encoded in a building essence) are a noble activity of architects and builders at the ideal case who developed their own creative nature. This activity is oriented to the quality and ecological harmony between the crane and future processes of its operation. The combination of economic profit and humanism is the basis for implementing the conception of a green port.

It is generally known, that the abstract creative thinking, which is inevitably associated with symbols (they will be discussed later), reduces aggression and does not allow to work carelessly. Abstract and creative reflection of the essence of the port, which is associated with anthropological symbols, provides psychological conditions to a future and current skilled seaport worker to develop his/her sustainable relationship with the port. Thus, in length of time, it can be realized in the form of a green seaport through anthropological education from the point of view of the science of education.

### Dimension of human spiritual materialization

A human has created and continues to create a seaport in relation to his/her natural form. However, the form is not only an external form of the port but first of all it is the human essence of the port genesis and its purpose with reference to anthropology. A person (with respect to his/her internal human essence and needs) is able to perceive the shortcomings in nature, in order to solve them by knowing the nature of things and properly implementing them in his/her own creative process.

The most important thing is that he/she - being managed by his/her own mind, knowledge and good will - creates a techno-cultural reality, which is worthy in combination with his/her internal (spiritual) form. A human enriches natural reality with useful and beautiful things (in this case - with port complexes) in ideological and technological processes of creativity from the point of view of the correct knowledge and good will.

A human lies in objects he/she did. A valuable human approach is encoded in them. The personality as a creative value as if materializes oneself in the created things and reveals himself/herself to others who are watching these things, using them and noticing, that they were made well, and responsibly applying them in their work activities.

It is appropriate to learn to appreciate not only a thing but also the creator of a thing at the mentioned level of the traditional succession of the work, so that this work would responsibly accomplished.

We can assume that the evaluation of a creator of a thing at the educational level by learning from a former creator and by feeling gratitude to him/her mainly determines the genesis of responsible relationships between a successor and the things and his/her entire material (technological) environment. This succession of

human nature and experience is characterized by social value, and it is very important from the humanistic point of view of anthropological education.

The human naturally observes the human essence in his/her own environment since ancient times. An ancient person has provided a human form to various imaginary and real things in accordance to his/her nature:

- Gods, for example, anthropomorphic gods of the ancient Greek pantheon;
- Natural phenomena, for example, thunder was perceived as if it were a humanized god driving the carriage in the sky;
- Waters, for example, a small lake, formed by the base of springs, has been called by Lithuanians the eye, etc.

A modern human is not as primitive as an ancient one. Nevertheless, he/she is naturally called up to the human expression and is able not only to create things of living- and inanimate nature and of material culture (civilization, namely technology) but also to respectfully understand in them their sociocultural essence, which can be seen in the seaport, too.

Skilled seaport workers adapt to the working conditions in the port. They constitute the main viability of the seaport. The fact that the working conditions meet the natural needs of a person (for example, technological equipment, which is convenient to use, and protection from harmful substances, etc.) expresses the anthropological essence and purpose of the port reality, as well. Perhaps the most significant process of spiritual materialization of a human being was the construction of seaports and protection oneself from the threat of the sea in the Calvinist Holland in the new times. Protestants positively changed their theological approach to the sea. They experienced the fear of absolute predestination and devoted their whole life to hard work, maritime affairs and construction of vessels and ports. Development of shipping and ports in Holland was supported by the mentioned spiritual motive that overwhelmed all natural human potential. The extreme and excessive spiritual motive was a high psychosocial problem. However, a higher problem was/is the traditional economic unbalanced and irresponsible approach of societies to the port in accordance with the benefits despite the exploitation of nature and a high level of pollution.

This utilitarian approach is based on illusions of a post-religious person in modern times. It is the desire to recklessly bend entire nature under the techno-culture, which is almost not characterized by humanistic spirituality as the main precondition for a green seaport.

### Pan-hoministic illusion

The mentioned utilitarian approach, which develops the illusion of the desire to recklessly bend entire nature under the techno-culture, composes the pan-hoministic illusion (Šliogeris 2011). A person who is completely in his/her own space of cultural symbols created by him/her tends to forget, that the basis of the human world differs from the world itself. The basis of culture is nature.

A human believes in the illusion, that everything is culture. It means, that all things, which exist, are or can be managed by a human being. Being itself is identified

with culture. Everything can be allegedly dedicated to a person. Human nature is characterized by the trend to cultivate and humanize everything that exists. It is particularly appropriate to emphasize, that it means a deification and a tendency to believe in the omnipotence of science and technology, forgetting about the being itself, which always remains on the other side of the technological culture. Allegedly everything is possible for a human.

However, when nature is recklessly cultivated at the level of technology (at the case of pollution, disease or an atomic bomb), and when a person techno-culturally takes possession of nature, nature turns against a person. When culture begins to deny nature, nature denies culture (Šliogeris 2011).

This scientific position is suitable by discussing the strategic psychological possibility of a green seaport by applying anthropological education of a future skilled seaport worker. The utilitarian desire to overcome nature during the last 200 years destroyed almost all that, what as the nature and the source of human life was evolved from the first source for billions of years.

Nowadays higher education is applied and becomes pragmatic without the spiritual level of academic culture. It loses the feeling of existential essence, creative joy, love and a sense of professional activity and of life from the point of view of academic culture. The conventions and directives of the Bologna process reduce higher education for the development of narrow competencies only (Duoblienė 2010), business and labor market.

It does not allow to express:

- The natural cognitive interests of young people,
- Development of youth's erudition and insights,
- The joy of non-standard and comprehensive knowledge,
- Creative (not pragmatic) personal self-expression,
- Love for work as a noble socio-cultural self-expression in society,
- The opportunity to learn something more in professional life than only materialism, hedonism and utilitarianism.

The natural cognitive interests, erudition, insights, the joy of knowledge and love as a professional self-expression of a future skilled seaport worker determine his/her professional awareness and psychological motivation for the implementation of a green port. And in opposite, rules, standards, conventions and laws with the threatening sanctions for disobedience promote fear, primitiveness and defense reactions. It develops the inability to act at non-standard conditions, that often characterize the environment of the seaport, and it does not contribute to a conscious motivation for developing a green port. So, it is appropriate to reflect symbolism as a methodological possibility *to create but not destroy* by developing the political idea of a green port in terms of anthropological education.

### Significance of the anthropological symbolism

Visible physical symbols are a link to a more sublime - metaphysical - reality reflection, which provides a worthy opportunity of a deeper knowledge for the personality of a future skilled seaport worker.

The symbolic reflection helps stop and go deeper with the abstract and associative consideration, develop one's own erudition and professional awareness, based historically, that allows to creatively decide in any situation.

This reflection does not allow *to come, to see and to conquer* in a primitive, spontaneous and forthright way. Generally, symbols are classical connections to the spiritual existence, which can help us escape from terrorizing psychological gripes of the consumer society (Biedermann 2002).

Intellectual and noble skilled seaport worker can enjoy his/her own deep perception by observing, for example, a simple stone, which is the basis of construction of the seaport because the stone in many cultures is symbolically associated with endurance and eternity. The stone symbolizes the divine power (Biedermann 2002).

Although this is unusual, but young people can develop their professional feeling of the world, namely so perceiving the material environment surrounding them. It seems, that the thing is just the thing. However, an educated person perceives the things as a noble connection with a more noble spiritual world (based historically and mythologically because of his/her appreciated ancestors), in the perspective of which a skilled seaport worker is capable to sustainably express oneself in his/her professional activities (in this case, regarding the implementation of the idea of a green seaport) through his/her own erudition.

Symbols abound in psychology, especially - psychoanalysis, in which, for example, the house symbolizes the mother's protective uterus (Biedermann 2002). The seaport, at the level of extrapolation, is not only a symbol of security and protective reality, but it also symbolizes the mother's protective uterus, especially when ships appeared as "port children" and began their journey in the seaport. A ship was built in the port and then it leaves the port to fight sea waves (Fig. 2).



This is a very realistic symbol, which should be anthropologically assessed as universal from the point of view of children who leave their parents' home and go to live autonomously and to mature. Then, ships return to the port, to their home, to their first existence but their goal is to fight sea waves, carrying goods from one city to another.

The city psychologically symbolizes the permanent center of life, which can often be found only after long wanderings, when achieved a high level of spiritual maturity and consciously opened the gate to the territory of spiritual life (Biedermann 2002). This allegory of the city is valid for the seaport as a port city, especially when long wanderings are associated with long seafaring, after which a higher level of maturity of a seafarer was achieved.

A seafarer, returned to the seaport, has already acquired a unique experience of maritime work activities, which determines the professional maturity of his/her personality. Higher studies of future skilled seaport workers are worthy, that such professional symbols would be wider known because they enrich the personality of a student.

Some parallels, when a person is compared to a seaport, can be developed. The nature of the seaport and of a human being is characterized by duality as a tension of the relationship between body and soul like the relationship between sea and land, conflict and struggle etc.

More intelligent people use beautiful metaphors of the seaport in their conversation. These metaphors are associated with the most important issues of human life. For example, the Germans have a traditional saying about marriage: "*Steuern den Hafen der Ehe an*" (to enter the marriage port). For example, Lithuanian sayings reveal the symbolism of the seaport with the concept of the coast, especially - two coasts, a bridge or bridges, which are used in the names of TV shows, radio programs and magazines. Intellectual part of Lithuanian society uses psychological and poetical utterances, which usually show feelings, for example, "*ramybės uostas*" (a peaceful port), "*mano uostas*" (my port) and symbolize a good person (who helps find a solace) or a special state of life.

The port material anthropologically expresses itself as a symbolic reference to the human spiritual life, which is manifested in the literature. One of its empirical indicators is a nobly motivated realization of a green seaport. Universal human nature helps perceive and creatively develop this idea in the professional development of the personality of a skilled seaport worker.

### Universality of human nature

Expression of the natural needs of a healthy person is characterized by universality and integrity from the anthropological point of view. All levels of human life - physical, mental and spiritual - should be harmonized. So, the professional preparation of a skilled seaport worker is a great help, that a person showed himself/herself harmoniously at work and in his/her life.

Trends of European higher education show the problem of professional schizophrenia when a person is separated from a professional in the same human being. There is no political ability to perceive the basic meaning of general competencies of the individual for the development of a professional from the anthropological point of view.

Scientific theory and practice are often divided by focusing on practice. However, the theory namely meets the needs of practice from the scientific point of view. The object of the research in science is presented in a broader socio-cultural, political and educational context, in which a practitioner is not interested usually. The scientific theory can help the practitioner develop his/her thinking including the implementation of a green seaport if he/she wants to get a higher education.

It is noticed, that the physical functions of work in the port are emphasized. However, the valuable and psycho-emotional activity determines them. Namely the wealth of the internal culture of the skilled seaport worker's personality based on the ideals of his/her personal and professional life determines the quality of physical functions in the port. If only the spiritual or technological level is emphasized in vocational training, then such projection of the student's relationship to his/her career is contrary to human nature, which is characterized by integrity.

The ideals, that are the most appropriate promotion of life and activities, create *dynamo-genic feelings* in the personality (James cit. The Heart of William James 2010). A person is able to manage himself/herself in a difficult situation and crisis, to maintain internal balance, to develop valuable ideals (*on the basis of which it is appropriate to live, to work, to make efforts, to experience difficulties and to limit oneself*) when he/she is independent, does not require the attention of society, does not follow fashion, has a strong sense of his/her personal dignity and experiences positive feelings because of his/her own ideals (Płużek 1996). This is very important when working in a seaport, where work is characterized by stressful situations.

Scientists notice, that the content of the Bologna process is over formalized. It is based on control and standards too much. Professionals, who are characterized by narrow thinking and limited competence, are developed by control. However, very fast technologic and social transformations require prompt response. It means that a professional should be able to quickly change his/her skills and to think analytically and creatively. Thus, globalization provokes a resistance to the development of narrowly defined competencies and requires more and more attention to draw on the preparation of analysts and creators. This is in contrast to standardization in general (Duoblienė 2010).

The possibilities of personal prosperity are encoded in human nature. Universal, integrated and comprehensive vocational preparation of a skilled seaport worker based anthropologically from the complex point of view can help in developing the sufficiency of an individual, which would allow himself/herself to pursue not only materialistic but also humanistic goals, for example, the implementation of a green seaport. A skilled seaport worker, feeling the insufficiency, without the opportunity to universally develop his/her nature cannot be involved in ecological self-expression at work.

### Conclusions

The aspects of anthropological education of a future skilled port worker, that are valid as a strategic

psychological precondition for ensuring of a green seaport, are revealed. Reflected humanistic perspective provides an opportunity for the development of ecological self-concept of the personality of a skilled seaport worker. The anthropological level of creativity shows the essence of the personality and his/her humanistic expression. A person is naturally called up to the humane expression and he/she can - not only create things but also - respectfully perceive their socio-cultural essence.

A comprehensive approach and concerns related to appropriate and sustainable relationships between technological culture (as a superstructure of the nature or an infrastructure of the seaport in this case) and nature itself should be a contrast to a pan-hoministic illusion. Anthropological symbolism guides future skilled seaport workers to learn to evaluate the port not only as a thing but also as a historically socio-cultural phenomenon by perceiving the material of the port as a symbolic link to the human spiritual world. One of its empirical indicators is a nobly motivated implementation of a green seaport. Universality of human nature bases the appropriate ecological education in regard to the physical, mental and spiritual needs of a person.

Techno-legal mechanisms of ecological education prevail but they have no significant value in higher education. They cannot help create the ecological behavior of young people who are looking for meaning. Anthropological education should help them realize their own ecological aspirations in their professional port activities. It could also help others, who do not seek meaning, to understand their life style more deeply by developing ecological self-concept regarding the vision of the development of a green seaport as their noble and worthy self-expression.

The results of the research can be applied by preparing skilled seaport workers at the anthropological and ecological levels.

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## EFFECTS OF ECONOMIC CRISIS: A REGIONAL EXAMINATION BASED ON TOURISTIC REGIONS IN GREECE

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### Abstract

The economic crisis affected Greece more than other countries in the European Union. In 2010 it appeared that huge public deficits could no longer be covered by the markets. As a consequence Greek government requested the financial support of the European Union and the International Monetary Fund. The financial support was followed by serious economic and social commitments by the Greek state towards its lenders described at the memorandums of understanding. The accomplishment of commitments incurred further consequences to the Greek economy. The crisis' effects appear to almost all macroeconomic indicators but to a different level within regions in Greece. This study examines the fluctuations of some main economic indicators that are unemployment, bank deposits, gross value added and declared income. The study has a regional character; it focuses on the prefectures of Greece, (Greece is divided into 54 prefectures, including the four prefectures in the capital of Greece). A study can offer more significant conclusions on the economic consequences if it is based on a regional and particularly in a more decentralized examination as the prefecture. The study gives a particular emphasis to the prefectures depending on tourism. The significance of tourism is examined according to its share to the gross value added, as calculated by the national statistical service on a prefecture basis. The study compares the evolution of economic indicators between touristic and non touristic departments for the time period 2006-2016. It appears that prefectures with important touristic activities tackled more efficiently the economic consequences of the crisis, especially on the employment level.

KEY WORDS: Crisis, tourism, region, Greece, macroeconomic indicators.

### Introduction

Greece faces a long period of economic crisis that began just after the international financial crisis and continues till now. The financial crisis was not translated in Greece to a banking crisis from the very beginning as in the case of other countries, for example the case of Irish banks, (see Whelan, 2013). Contrary to other foreign banks, Greek banks were not involved in risky financial activities, having followed a more conservative credit policy. On the contrary, Greece suffered from high public debt and public deficit. The financial crisis created a huge problem on the financing of the deficit and the debt of the country. Private investors refused to finance the Greek debt, or accepted to do so under very high cost for Gree-

ce. Greek governments had to ask the financial support of the European Union and the International Monetary Fund (IMF). As a consequence to this financial help, the Greek economic adjustment program was decided, (see on this issue, **Bank of Greece, 2014**). This program required a specific austerity policy with the aim of reducing deficits and hence reducing public debt in the long run. Macroeconomic consequences of this policy appear on **the table 1**. Long after the international crisis, Greek economy suffers from a continuing economic downturn that is evident on the reduction of gross domestic product (GDP), investments and consumption and, on the other hand, on the rise of unemployment and non paid loans.

**Table 1.** Evolution of macroeconomic indicators, (rate change, %)

	2009	2010	2011	2012	2013	2014	2015	2016
1. Gross Domestic Product (GDP)	-2,3	-4,2	-9,2	-7,3	-3,2	0,4	-0,3	0,0
2. Private consumption	-1,8	-4,1	-9,9	-7,9	-2,7	0,6	-0,3	1,4
3. Public consumption	7,6	-9,0	-7,0	-7,2	-5,5	-1,2	0	-2,1
4. Investments	-11,4	-17,4	-20,7	-23,4	-8,3	-4,4	-0,2	0,0
5. Percentage of Unemployment	9,6	12,7	17,9	24,4	27,5	26,5	24,9	23,5
6. Non-performing to total loans	7,7	10,5	15,9	22,5	31,2	35	35,7	46,3

Source: Bank of Greece, 2016 and 2017 and Bank of Greece, 2017a, (author's calculations)

The crisis does not affect all regions or sectors to the same extent. Some of them present better macroeconomic results compared to the national level or the rest of regions or sectors.

The paper tries to investigate the consequences of the crisis on a regional basis. It focuses, in particular, on administrative departments, (prefectures), characterized by tourism activities and tries to compare macroeconomic results obtained in these prefectures to the national level. The investigation is based on such macroeconomic indicators as unemployment, GDP, bank deposits, declared revenue and number of tax payers. Touristic departments are distinguished by the importance of tourism to the gross value added (GVA). The investigation is based on a prefecture level because we obtain more accurate results. Greece is divided administratively into 54 prefectures placed in 13 regions. The time period begins before the crisis, in 2006, and continues till the year of 2016 for most macroeconomic indicators. The time period is crucial, since Greece is still subject to fiscal policy constraints and suffers from the economic adjustment programs. To our knowledge, this is the first study comparing the effects of the crisis, through the mentioned economic indicators, between prefectures depending on tourism activities and the others who do not rely on tourism for their GVA. After the introduction, the paper discusses some previous studies related to the regional effects of the crisis; section 3 examines the evolution of the macroeconomic indicators used in this study on a prefecture level; it is followed by the conclusions.

## Previous studies

The consequences of the crisis have been examined in several cases including the Greek case. Karafolas and Alexandrakis (2015) examined the effects on the unemployment in Greece for the time period 2009-2012 on a regional level. They found that prefectures depending on tourism and agriculture had better results. Petrakos and Psycharis, (2015) examining the GDP per capita in the 13 regions of Greece during the time period 2008-2012, found that regions with higher specialization in sectors oriented to export were less affected by the economic crisis. Monastiriotis and Martelli, (2013) examining the unemployment in the period 2000-2012 in the 13 regions found that the decrease in the demand of employees was largest in urban regions and the north and north-eastern periphery. Psycharis et al. (2014) examined the GDP per capita in two periods, 2005-2008 and 2009-2011 in Greek regions; they found that the most urbanized and high income level regions were more affected by the economic crisis. Marelli et al. (2012), interested on the regional unemployment in the EU in the time period 1999-2012, concluded that sectoral specialization, long-term unemployment or reliance on temporary workers had conditioned the regional reactions to the crisis. Dokic et al. (2016), working on the case of Croatia in the period 2008-2012 concluded that crisis negatively affected the national economy but also

regional ones, leading to significant regional disparities. Cuadrado-Roura et al. (2016), focusing on specialization and productivity, concluded that Spanish regions having a specialization on dynamic and productive industries performed better than the other regions during the crisis period. Fratesi and Rodriguez-Pose, (2016), interested on sheltered regional economies in Europe in the periods 1995-2007 and 2008-2012 concluded that regions with more sheltered economies had more difficulties in absorbing the consequences of the crisis on the employment, contrary to regions that generated dynamism in employment during the pre-crisis period.

## The evolution of main macroeconomic indicators

### Methodology and data

Our study is based on the departmental - prefecture level. Greece is divided into 13 regions; every region has a number of prefectures, 54 in total. The use of prefectures was chosen because such a study gives more specific and accurate results compared to national but also regional level. The time period extends from 2006 to 2016. It is a time period before the crisis and goes into the crisis period that continues till the end of 2016.

The investigation is based on five macroeconomic indicators, distinct from each other. In order to pinpoint the prefectures influenced by tourism we used the GVA produced in every prefecture; we considered the GVA of distinct activities in comparison to the total GVA produced in the same prefecture. In this study touristic areas are considered those which have at least 30% of GVA produced by activities related to tourism; in the whole country, tourism activities offered about 24% of GVA in 2014.

The following macroeconomic indicators are examined:

a/ The unemployment rate at the time period 2006-2016 for the whole country and for prefectures based on tourism. Data is offered by the national statistic service (Hellenic Statistical Authority - ELSTAT).

b/ The annual growth of bank deposits is examined for the time period of 2006-2016. Data is provided by the Bank of Greece.

c/ The declared revenue and d/ the number of tax payers. These two indicators permit considering the revenue created in the departments. By the number of tax payers we can also have an picture of new legal and physical entities created on prefecture level and, thus, if a local economic dynamism appears. The time period is from 2006 to 2015, (last year with available data). Data is provided by the tax national services.

e/ The gross domestic product considered for the time period 2006-2014; 2014 is the last year we have data by prefectures. The annual development can show the consequences of the crisis on the production. Data is provided by ELSTAT.

### The prefectures characterized by the tourism activities

Tourism is one of the most important activities for the Greek economy. On a national level activities related to tourism contributed 24% of the total GVA in 2014, followed by activities related to public administration (21%), real estate (18%), mining and manufacturing (13%), agriculture (4%), while 21% of GVA is offered by a number of activities not specified by the Hellenic Statistical Authority (2016). In some of

the Greek prefectures tourism contributes more than half of the total GAV; these include the islands of Andros, Thira, Kea, Milos, Mykonos, Naxos, Paros, Syros, Tinos and Zakynthos, table 2. More than 40% of the total GAV is produced by tourism activities in the islands of Ithaki, Kefallinia, Lefkada, Kalymnos, Karpathos, Kos, Rodos, Kerkyra, the department of Chalkidiki, and this of Thesprotia. On table 2 we have the departments for which tourism activities represent more than the average of the country, (24% in 2014).

**Table 2.** Part of tourism (\*) on GVA, by prefecture, on 2014, (%) (\*\*)

Prefectures	
Andros, Thira, Kea, Milos, Mykonos, Naxos, Paros, Syros, Tinos	54%
Zakynthos	52%
North Aegean (region)	49%
Ionian Islands (region)	46%
Ithaki, Kefallinia	46%
Lefkada	46%
Kalymnos, Karpathos, Kos, Rodos	45%
Chalkidiki	44%
Kerkyra	43%
Thesprotia	41%
Rethymni	39%
Aegean Islands, Creta (region)	38%
Peiraias, Islands	36%
Chania	36%
Creta (region)	35%
Irakleio	33%
Lasithi	33%
Thasos, Kavala	33%
Ikaria, Samos	32%
Pieria	31%
<b>Greece</b>	<b>24%</b>

Source: Hellenic Statistical Authority, 2016, Gross value added by industry (A10) - NACE REV.2, (author's calculations)

(\*) Tourism activities are referred on "Trade, transportation, accommodation and food service activities"

(\*\*) Only departments with tourism's part on GVA higher than the national level (Greece)

### The effects of the crisis on unemployment

The crisis particularly influenced unemployment in Greece. **Table 3** presents the progress of unemployment during the time period 2006-2016, which includes the pre-crisis and the crisis period, mainly after the agreement of the first Memorandum of Understanding (MoU) in 2010. On a national level we observe that during the crisis period the unemployment was multiplied by 2,3 times; it rose from 9,5%, (average of the period 2006-2010), to 22,5%, (average of the period 2010-2016). During the crisis period, (2010-2016), out of 29 prefectures with the lower average rate of unemployment eleven are based on tourism activities; further on, we find eight of them in

the top 15 prefectures with the lower unemployment, **table 3**. One can notice that the annual data on unemployment rate does not give the precise picture because particularly during the touristic period the unemployment rate is significantly lower in touristic areas.

**Table 3.** Unemployment rate by department, (%)

	Average 2016/06	Average 2010/06	Average 2016/10
Zakinthos*	10,2	10,9	11,3
Lakonia	9,2	5,7	12,1
Ilia	11,3	8,5	14,2
Chalkidiki*	11,6	7,7	15,5
Rodopi	11,7	6,9	15,7
Argolida	12,2	7,8	15,9
Dodecanisos*	13,7	12,3	16,5
Trikala	13,2	8,0	17,2
Kyklades*	13,3	7,7	17,7
Preveza*	15,0	12,1	18,5
Kerkira*	14,9	12,2	18,6
Kavala	15,1	11,1	19,0
Chios*	14,0	6,2	19,2
Lesvos*	14,9	9,6	19,2
Larisa	15,3	10,3	20,0
Korinthia	14,7	8,3	20,0
Serres	14,3	6,2	20,0
Karditsa	14,9	7,5	20,6
Rethimni*	15,7	10,4	20,6
Arkadia	16,2	11,4	20,7
Messinia	15,2	7,1	20,9
Imathia	16,7	11,6	20,9
Chania*	15,2	6,6	21,3
Ioannina	16,2	10,1	21,3
Pella	15,9	8,1	21,3
Viotia	16,8	11,3	21,4
Irakleio*	15,8	8,4	21,7
Fokida	17,5	12,4	21,9
Fthiotida	15,4	5,2	22,1
<b>Total Greece</b>	<b>16,8</b>	<b>9,5</b>	<b>22,5</b>

Source: Hellenic Statistical Authority, 2017, (author's calculations)

\* Departments having as major activity the tourism

### The effect of the crisis on the evolution of bank deposits

Bank deposits all over Greece were influenced by the crisis since 2010 and for almost all those years. During the time period 2006-2016 deposits in the Greek banking market decreased on average by 3,0%. Aggregate of the period was especially influenced by the fall during the crisis period 2010-2016, (-8,3%) since at the pre-crisis period, 2006-2010, deposits grew by 5,0%, (Bank of Greece, 2017b, author's calculations).

The negative evolution of bank deposits characterizes in particular the years 2010, 2011 and for specific reasons the year 2015. The years 2010 and 2011 the implication

of the MoU agreements affected savings as well. 2015 is characterized by the political problems of the summer of 2015 that incurred the capital controls in June 2015. Negative political and economic expectations resulted in the withdrawal of deposits. The year 2016 is a very interesting case; while total deposits decreased by 2% compared to 2015, in most of the departments based on tourism deposits rose considerably. Between the fifteen departments with the highest rise of deposits in 2016 ten are based on tourism activities, while the top two departments with the highest rise of deposits (7%) are in the island of Crete, table 4.

**Table 4.** Fifteen prefectures with the higher growth of deposits in banks on 2016 compared to 2015, (%)

Department	2016/15
Rethimni *	7%
Irakleio*	7%
East and West Attiki	6%
Zakinthos *	6%
Dodecanisos *	6%
Chania *	5%
Lasithi *	4%
Kerkira *	4%
Larisa	3%
Karditsa	3%
Lefkada *	2%
Preveza *	2%
Kyklades *	2%
Rodopi	2%
Evros	2%
<b>Total Greece</b>	<b>-2%</b>

Source: Bank of Greece, 2017b, (author's calculations)

\* Departments having as major activity the tourism

#### The effects of crisis on the progress of tax payment

We took into consideration two parameters to examine the effect on the tax payment, the revenue declared and the number of taxpayers, legal and physical individuals. An increase or decrease of taxpayers may indicate the creation or the closure of business regardless of the progress of revenue declared. One has to notice that the attempt to reduce tax evasion may have caused a

small increase in taxpayers during the crisis period. On **table 5** we observe that during the crisis period, 2010-2015, on a total of 21 prefectures with the highest increase of tax payers, 13 of them are related to tourism activities. Additionally, within the first 10 departments with the highest increase of taxpayers, 7 of them are in the tourism business, **table 5**.

**Table 5.** Growth of taxpayers by department, average of period, (%)

	Average 2015/10
Rethimni*	4,4%
Lefkada*	4,2%
Zakynthos*	3,7%
Preveza	3,4%
Thesprotia	3,2%
Rodopi	3,2%
Chalkidiki*	3,2%
Xanthi	3,1%
Dodecanisos*	3,0%
Ileia	2,9%
Chania*	2,9%
Arta	2,8%
Drama	2,8%
Irakleio*	2,8%
Kerkyra*	2,8%
Lasithi*	2,8%
Kefalinia*	2,7%

Achaia	2,6%
Evrytania	2,6%
Messinia	2,6%
Pieria*	2,6%
<b>Total Greece</b>	<b>1,7%</b>

Source: General Secretariat of Information Systems, 2017 and Independent Public Revenue Authority, 2016, (author's calculations)

\* Departments having as major activity the tourism

The crisis affected the declared revenue that fell drastically during the crisis as a consequence of the economic downturn. In the period 2010-2015 the total declared revenue dropped of 5,4%; in the pre-crisis period, the total declared revenue rose to 5,7%, (Independent Public Revenue Authority, 2016, author's calculations).

A similar development but on a different level was observed between Greek departments. Table 6 shows the progress of the declared revenue for 29 departments in Greece. These departments fared better in comparison to the national level during the crisis period. In the top ten we find 7 departments mainly based on tourism and in the first twenty we find 12 of them, **table 6**.

**Table 6.** Evolution of the declared revenue by department, average of period, (%)

	Average 2015/10
Chalkidiki*	-2,8%
Lakonia	-3,3%
Lasithi*	-3,5%
Chania*	-3,7%
Dodecanisos*	-3,8%
Zakynthos*	-4,0%
Thesprotia*	-4,3%
Drama	-4,5%
Thessaloniki	-4,5%
Chios*	-4,6%
Lefkada*	-4,6%
Messinia	-4,6%
Kastoria	-4,7%
Pella	-4,7%
Kerkyra*	-4,8%
Irakleio*	-4,9%
Rethimni*	-4,9%
Pieria	-5,0%
Preveza*	-5,0%
Ioannina	-5,1%
East Attiki	-5,1%
Xanthi	-5,2%
Kavala	-5,2%
Larisa	-5,2%
Argolida	-5,3%
Athens	-5,3%
Arta	-5,3%
Evros	-5,3%
Trikala	-5,4%
<b>Total Greece</b>	<b>-5,4%</b>

Source: Idem, table 5, (author's calculations)

\* Departments having as major activity the tourism

### The effects of crisis on the progress of gross domestic product

The economic recession is evident in the progress of the GDP; during the crisis, period 2010-2014, its fall reached 5%, on average, for the whole country; this fall negatively influenced the decade 2005-2014, (-1,1% the average progress of total GDP); in contrast to this period, during the sub-period 2005-2010 the total GDP increased by 2,7% on average (Hellenic Statistical Authority, 2017a, author's calculations). In the period that followed the agreements between Greece and its lenders the progress of GDP by prefecture shows that

during 2010-2014 for 35 prefectures the fall of GDP is lower than the country's average; within them, the economy of 11 prefectures is based on tourism activities. One can notice that a/ data for 2105 and in particular for 2016 could offer better results because of economic improvements, see table 1, and b/ informal economy is more important in the touristic areas characterized by seasonality. If we consider the mentioned parameters we would expect better results for touristic areas than these appearing on **table 7**

**Table 7.** Evolution of gross domestic product (GDP) by department, (%)

	Average 2014/10
Florina	0,0%
Thasos, Kavala*	-0,7%
Kilkis	-3,2%
Preveza*	-3,6%
Trikala	-3,6%
Lakonia	-3,9%
Kozani	-4,0%
Arkadia	-4,1%
Rethymni*	-4,2%
Lasithi*	-4,2%
Grevena	-4,3%
Larisa	-4,3%
Kyklades *	-4,4%
Pella	-4,4%
Chalkidiki*	-4,5%
Kalymnos, Karpathos,	-4,5%
Kos, Rodos*	-4,8%
Messinia	-4,8%
Karditsa	-4,8%
Lesvos, Limnos*	-4,8%
Anatoliki Attiki	-4,9%
Serres	-5,0%
Aitoloakarnania	-5,0%
Imathia	-5,0%
Chania*	-5,1%
Magnisia	-5,1%
Drama	-5,2%
Voiotia	-5,2%
Pieria	-5,2%
Kastoria	-5,3%
Kerkyra*	-5,4%
Ioannina	-5,5%
Chios*	-5,5%
Argolida	-5,6%
Fthiotida	-5,7%
Dytiki Attiki	-5,7%
<b>Total Greece</b>	<b>-5,8%</b>

Source: Hellenic Statistical Authority, 2017, (author's calculations)

## Conclusions

The paper aimed to investigate the crisis effects on the Greek economy using a regional examination focusing on the prefectures of Greece. The main question was whether touristic areas had better results than others during the crisis period. The time period focused on 2010-2016, (after the first agreement of the MoU between Greece and its lenders), but it extended also to the time period before the crisis in order to have a comparative view. The investigation used the annual evolution of some macroeconomic aggregates that are unemployment, the gross domestic product, the bank deposits and fiscal indicators as the declared revenue and the number of tax payers. All these aggregates were applied on a prefectural and national level.

We observed that the crisis affected the whole country on all macroeconomic indicators. We also observed important differentiations within the Greek prefectures for almost all indicators. It appears that

areas based on touristic activities had better results compared to the national level but also compared to most of the other departments. This observation indicates the importance of tourism in particular in the Greek economy. Greece benefited from the rise of tourism after 2012; arrivals of foreign tourists reached 27,5 million in 2016, marking an increase of 1,5 million compared to 2015. Part of this rise is due to the lower cost of the tourist product in Greece during the crisis period; it is also due to the political problems of the neighboring and competitive countries of the Mediterranean. This evolution was translated to an improvement of the economic situation in particular to touristic areas, as is evident through this study. Nevertheless tourism remains one of the sectors most influenced by the economic and political environment that has to be considered in any strategic economic policy.

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## CIRCULAR ECONOMY 3.00: TOURISM SERVICE CASE

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### Abstract

“Circular economy“ initiative reflects mainly physical approach to cut use of materials and energy in production and consumption chain, mainly related to repair, reuse, remanufacturing, refurbishing, and recycling. The try to apply existing approach to tourism service providing by SME met significant methodological and practical troubles to use it. If repair and reuse is easy everyday practice of tourism service, remanufacturing, refurbishing and recycling frequently are out of tourism service cycle, they require specific knowledge, investments, founding, additional expenses and specific work not directly connected to tourism service. They sometime look like try to return to a Subsistence farming, when a family implement all scope of home works. When nowadays business moved towards to specialisation very far. It's very difficult to motivate tourism SME to reduce their profitability seeking of abstract social benefit of CE. Applied holistic approach to circular economy in tourism SME business enabled to synthesize holistic concept CE 3.00, which uses overall qualitative leap from linear to circular economy through steps of physical, economical, green, sustainable and smart innovations and enables to reduce office, manual work, materials and energy consumption. Created life cycle, indicators, principles and solutions of CE 3.00 in tourism service enabled foreground significant benefits for business and society. Created and validated virtual Self-assessment tool iSAT „Innovation circles“ enables to use CE 3.00 concept for tourism service innovations.

KEY WORDS: circular economy 3.00, tourism service life cycle, SME, Self-assessment, virtualics, sustainable innovation.

### Introduction

Increasing of tourism demands and business service especially in coastal areas is one of challenges of EU Innovation Union and blue and green growth strategic initiatives. Coming after Production and Service quality stages European Innovation culture resulted creation of many methodological approaches and practical schemas to achieve overall goals of EU 2020 strategy towards competitiveness and sustainable development of the community. “Circular economy” (CE) as one of such approaches primary serves to reduce consumption of materials and energy by return and reuse such resources back from the end of production and consumption cycles. EU is awaiting of great numbers of economy such resources and increasing profitability and sustainability of business, especially in SME's, which are samples of increasing work productivity as indicator of societal progress.

During initiation of South Baltic programme project “CIRTOINNO - Circular economy tools to support innovation in green and blue tourism SMEs” the number of special tools were planned to create: Market handbook, Self-Assessment virtual tool, learning programme and advisory means to support tourism SME's towards CE.

**The main problem.** However, analysis of existing CE approach enabled to discover, that existing concept of CE is enough new and not formed finally. The main purpose of CE was mainly physical approach to cut use of materials and energy in production and consumption chain, mainly related to repair, reuse, remanufacturing, refurbishing, and recycling. Considering that scope of business resources is much wider and near materials and

energy includes large scale of intellectual, job, manual and high-tech work, finances, etc., the subject must be named as “Circular economy of materials and energy” and no more. Moreover, that some authors include into Circular economy concept other resources also.

The try to apply such approach to tourism service providing by SME met significant methodological and practical troubles to use it. If repair and reuse is easy everyday practice of tourism service, remanufacturing, refurbishing, and recycling frequently are out of tourism service cycle, they require specific knowledge, investments, founding, additional expenses and specific work not directly connected to tourism service. They sometime look like try to return to a Subsistence farming, when a family business implements all scope of home works. When nowadays business moved towards to specialisation very far. It's very difficult to motivate tourism SME to reduce their profitability seeking of abstract social benefit of CE.

Detailed analysis of CE approaches and practical projection to different fields was made by project CIRTOINNO team in 2017 year [Jesper Manniche and other]. CE 1.00 and CE 2.00 were defined as steps toward circular economy. In next stage holistic approach enabled to state, that existing CE concept isn't enough positioned in overall scope of EU methodological culture and EU2020 strategy and its initiatives of smart, inclusive and sustainable growth. Holistic methodology requires to consider saving of not only materials and energy, but of all scope of business resources: material, energy, information, time, intellectual, manual work, high-tech,

etc. Physical approach to business innovation is too low, considering increasing number of feed-back loops related to economical, green, sustainable and smart circularity. Enlarge of CE concept towards all kinds of resources and to higher levels of innovation culture aren't not only natural such concept development tendencies. CE 3.00 as holistic approach was synthesised and implemented in practice of project CIRTOINNO. It includes motivation and means for tourism service business to go towards CE in natural way of business development.

**Main subject** of the article is the synthesis of holistic concept of CE at the basis of its application in tourism SME business.

**Main aim** of the article is to position of CE concept in EU innovation culture in scope of main resources to be saved during business practice.

**Main tasks** of the article are:

1. To position of CE 3.00 concept in EU Innovation culture.
2. To present tourism service holistic concept scope, innovation trends and principles.
3. To present tourism service CE 3.00 solutions and benefits to business and society.
4. To design, create and validate tourism service SME's virtual Self-Assessment tool.

## 1. Towards EU Circular Economy

Faced to stagnation and destruction challenges European Union second decade composes strategic methodologies, programmes and tools, which targeted to increase growth and competitiveness of EU in global market. The Lisbon strategy for last decade and current strategy EU2020<sup>1</sup> European Union is targeted to become smart, sustainable and inclusive growing community, which uses innovations as sustainable development engine. They aren't buzzwords, because they have deep sense and should be used as methodological tools for growth. However, here is lack of understanding of holistic system and structure of EU growth methodology in qualitative and time scales.

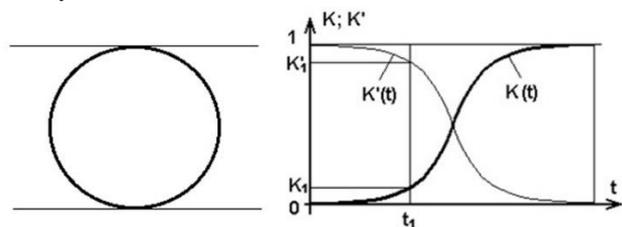
„A circular economy<sup>2</sup> is a regenerative system in which resource input and waste, emission, and energy leakage are minimised by slowing, closing, and narrowing material and energy loops. This can be achieved through long-lasting design, maintenance, repair, reuse, remanufacturing, refurbishing, and recycling. This is contrast to a linear economy which is a 'take, make, dispose' model of production.”

However, the state of development of Circular economy concept is enough draft and partial, because it accents only two circles – loops of material and energy resource flow. These loops can't be excluded from loops of other business resources, like time (human, communication, etc.), finance, legislation, knowledge and other. Practical implementation of CE solutions requires

to consider also other business cycles. As an analogy: not a disease, but a person needs to be treated.

## 2. Circularity as general principle of economy

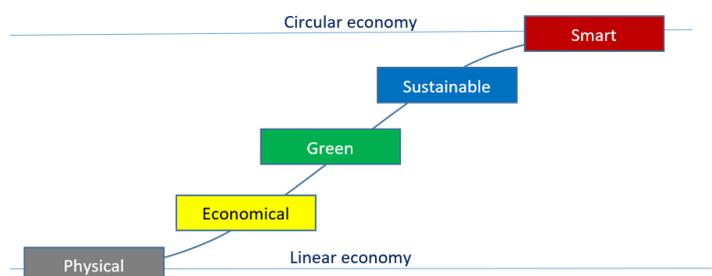
Circularity is global feature of a Universe, life and business. The world is circular and developing system. Everything has the beginning and the end. In time scale a circle is a qualitative leap. Life is going as qualitative spiral. Circular model of any reality is a virtual Leap. Virtualics is methodology of virtual modelling of reality. Linear acceptance of circular world is simplification and reduces opportunities to use it in practice. So, circularity is measure of efficiency of modelling of reality and practical action. So, as more of circularity, as closer to reality, as better.



**Fig. 1.** The circle and its projection in to time scale on basis of dichotomic virtual model. (S. Paulauskas) Where:  $K'(t)$  – Linear economy quality;  $K(t)$  – Circular economy quality,  $K(t)=1-K'(t)$

Circular economy as business activity firstly is smart, because it is grounded on feed-back loop activity cycle. Businessmen is involved in such cycle as innovator, interested to increase profitability of business.

Dyping into sence of Circular economy gives opportunity to see its internal qualitative steps as hystoric paradigms of human economical activity (Fig.1). The hystorical path from Linear economy to Circular economy goes trough Physical, Economical, Environmental (Green), Sustainable and Smart steps. From ancient time physical deals with material things during production of other things hasn't unified methodological frames. Only individual human smartness was a handbook for economical activity in natural economy.



**Fig. 2** Qualitative leap of circular economy paradigms (S. Paulauskas, 2017)

Some hundreds year ago occurred economical theories enabled to change physical language of natural economy to economical language of value and large system of quantitative and qualitative micro and macroeconomic indicators. Environment or ecological and Green economy paradigm occurred in end of last century as antithesis to poluting economy. Sustainable

<sup>1</sup> EUROPE 2020 A European strategy for smart, sustainable and inclusive growth, [http://ec.europa.eu/europe2020/index\\_lt.htm](http://ec.europa.eu/europe2020/index_lt.htm)

<sup>2</sup> [http://ec.europa.eu/environment/green-growth/index\\_en.htm](http://ec.europa.eu/environment/green-growth/index_en.htm)

development paradigm synthesised economical, environmental and social priorities with responsibility against future generations. Smart growth paradigm was declared in EU2020 strategy as official strategic methodology of European community in current decade.

One of the most significant feature of growth loops is spreading of business resources (Table 1.) For physical

level materials and energy are main resources of business. Economical paradigm adds to them office and manual work. Green growth is impossible without clean technologies. Sustainable growth requires of health technologies. Artificial intelligence is necessary for smart quality of circular economy.

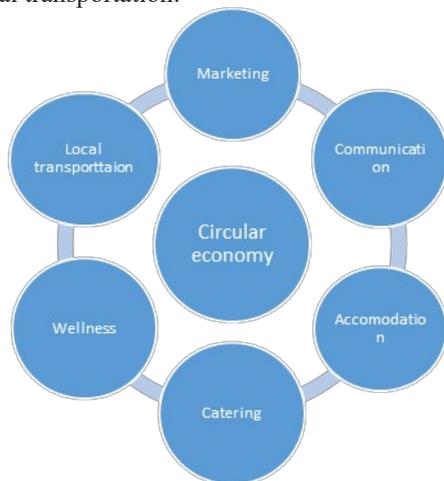
**Table 1.** Used business resources by paradigms

Paradigm	Physical	Economical	Green	Sustainable	Smart
Resources	Materials and energy	Office and manual work	Clean technologies	Health technologies	Artificial intelligence

Different economy paradigm forms different understanding of economy growth. Here is the reason of some misunderstanding in contacts between people and overall countries used different economy paradigms, including scientists and developers. European community take care for common understanding of current paradigm through strategic documents, which are obligatory for all actors of EU. Achieving of highest Smart growth methodology is the main benefit of Circular economy.

### 3. Tourism service scope, innovation trends and principles

According to tourism circle a tourism service consumption business arranges own activity, which consist mainly from the most important activities: marketing, communication, accommodation, catering, wellness and local transportation.



**Fig. 3** Tourism service cycle (S. Paulauskas, 2017)

#### 3.1. Tourism service efficiency indicators

A life is an innovation – permanent flow of changes, which are going circularly and by development spiral. As in any business in tourism sector is quantitative and qualitative growth. Sustainable innovation of tourist service requires of scope of business, technical and social changes, taking into account sustainability criterias. Taking into account circular qualitative growth character of any social activity, tourism service business is modeling as repeating smart cyclic feed-back process,

operating in dependence from such cycle of tourism service consumption.

Quantitative growth means increasing of number of visitors, income and market geography. Qualitative growth shows positive changes in rates and relative indicators, such as work productivity, profitability, etc. Work productivity is the most important indicator of progress. It shows which amount of profit was generated by one employee. In tourism business is a lot of manual work, which could be transferred to equipment/robots, smart solutions and virtual informational systems. Employees could change manual work to more qualified jobs. Reduction of low qualified manual work is global Humanity occupation change. In the short period employees should be involved in service innovation process through requalification for high-tech work with smart systems. Further robotisation and virtualisation of tourist services should be operated providing payment to all citizens Universal Basic Income or Dividend<sup>3</sup>.

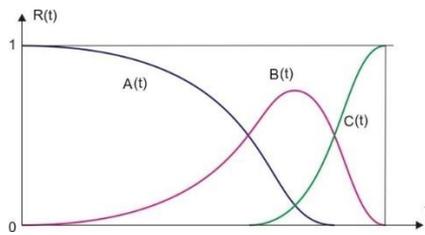
Work profitability shows overall SME efficiency of tourism business. At first extent transition to green, blue or smart growth requires investments, which let increase service efficiency through rise of attractiveness of service thanks to better environment and health quality of service.

#### 3.2. Tourism service innovation trends

Tourism is traveling with purpose of information, wellness and entertainment. The demand for travel is grounded on geographical deconcentration of tourism sources in different continents, regions and countries. Informational character of tourism forms two main tourism directions: physical and virtual. Covering of tourist demands is very expensive for tourists and for planet. Tourist spends a lot of money. Planet meets problems related to air and water pollution by travelling and accommodation. Last year become evident risk of travel to some exotic countries due to local climate disasters and terrorism.

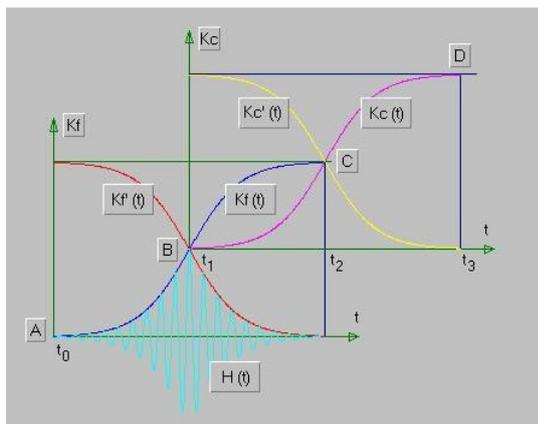
Internet technologies are developing in direction of transfer virtually information related to all 5 human senses: eyesight, hearing, touch, smell and taste. First two of them are implementing easy through TV, radio, movies, etc. Scientists still working on transferring of rest senses. And they have success on that.

<sup>3</sup> The European New Deal. <https://diem25.org/end/>



**Fig. 4** Tourism transition trichotomy (S. Paulauskas, 2016)

Transition from physical to virtual tourism is going through trichotomy (Fig.4): A) Physical tourism is wellbeing (thesis); B) Physical tourism is too polluting and risky for travellers; C) Virtual tourism lets to achieve all tourist demands avoiding travel and pollution of environment.



**Fig. 5** Virtual model of tourism innovation (S. Paulauskas, 2016)

Nowadays tourism is mostly economic  $K_f'(t)$  phenomenon, wide field of tourism business, related to travel, accommodation, catering and SPA (Fig. 5). Large marketing tools are used for attracting travellers and visitors in all countries. Due to transition from biogenic to demand of safety and health (A. Maslow) humans start take care for save environment and stop climate change. Economical paradigm is replacing by Sustainable development paradigm  $K_f(t)$ .

The contradiction  $H(t)$  between economic and sustainable approaches will increase accordingly resonance sinusoid. In not far future the physical  $K_c'(t)$  tourism will start to be replaced by virtual tourism  $K_c(t)$ . Each informational demand could be covered trough internet avoiding expensive and danger travel. But this will be a bit in Future.

**3.3. Tourism service circular economy innovation principles**

Circular economy innovation of tourism SME’s business requires to understand and follow to number of the best theoretical principles, raised from great EU strategical growth initiatives and documents: dialectic, sustainability, complexity, holistic, smartness and applicability.

**Dialectic.** Tourism service provider and consumer are two opposites, but always united parts of communication. Frequently consumer looks like passive side seeking for impressions and convenience. Service provider is active

side and he leads on organising and assuring the best communication and satisfaction of the consumer. No secret, that businessmen seeks to earn profit from his service. The principle of dialectic means the balance between service provider and consumer. Disruption of such balance from one or other side reduces efficiency and quality of the service.

**Sustainability.** Tourism SME’s innovations should be in accordance to sustainable development criteria. Economic – should result higher work productivity and reduce manual work of tourism service users and providers. Ecologic –not polluting of environment. Social – should result longer full-range life span and happiness of tourism service providers and users. Responsibility – no leave problems for people around and next generations.

**Complexity.** Tourism service should provide and assure covering all complex of consumer needs, which are obligatory during tourism service cycle. Communication – exchange of information between service provider and consumer during overall service cycle. Accommodation – to assure hotel service. Catering – to assure meal and drinks. Wellness – to assure opportunities for SPA. Local transportation – to assure opportunities for choice of convenient transportation in service location.

**Holistic.** Considering A. Maslow’s human demand growth pyramid holistic approach requires to consider and create opportunities to satisfy all level needs of tourism service consumers. Biogenic – needs on meal and water. Safety and health – avoidance of risk for body and mind. Communication – assure wished contacts with other people. Self-esteem - to protect disturbing of achieved self-assessment level. Self-expression – opportunities for expression of a creativeness.

**Smartness.** Considering different quality levels of business growth, SME should give priority to higher of them starting from lower to higher. Physical growth – increasing of technical facilities to give service for bigger number of visitors and higher complexity of service. Economic growth – increasing of work productivity and profitability through automatization and virtualisation of business service. Green growth – introduction clean technologies seeking to reduce pollution of environment and expenses related to waste treatment and recycling. Sustainable growth – introduction healthy and secure for employees and consumers work conditions. Smart growth – assuring permanent growth through introduction of cyclically operating technical and social Self-Management system included software, artificial intelligence and innovation service.

**Applicability.** CE solutions must be applicable, based on scope of rationales. Technically implement ability – must exist technical solutions of an innovation considering hardware and software equipment. Practical use – must be applied in business practice of some places of the World. Interest of consumers – consumers must be interested in an innovation considering tourism service scope and elements, price and delivery conditions. Interest of SME’s – tourism service providers SME’ must be interested on an innovation, considering profitability of business and covering other demands of businessmen. Interest and legislation of a society – European

community or/and a State must be interested, and EU/local legislation must be friendly for an innovation.

#### 4. Tourism service circular economy innovation solutions and benefits

Innovation is the bridge between the past and the future. In this investigation the past is liner economy, and the future is circular economy. Absolutely necessary to forecast and provide how will looks tourism SME in quality of circular economy. Nobody knows and can't to provide the future exactly. However, use of existing development trends and advanced practical applications gives opportunity to talk about circular economy solutions and benefits of its applications in tourism sector.

##### 4.1. Tourism service circular economy innovation solutions

**Global marketing.** Globalisation of tourism enlarges geography of visitors and unification of services. Tourism globalisation is connected to transition of physical booking to large internet marketing and booking networks, as booking.com. Holders of such networks keeps close direct links to consumers and realises promotion and feed-back loops on tourism service through polls of visitors on matter of satisfaction of received services. Participation in global tourism marketing and booking networks lets to increase work productivity, reduce local marketing operation, expenses and manual work.

**Virtual communication.** Transition of competition to global market raises needs of tourism service provides to be in line with nowadays innovations and service culture. Face-to-face contact less booking of tourism services, making of payment and receiving of invoices is available in many developed countries. The process of booking virtualisation is going on very rapidly. Seems not far the time, when will be not necessary to have any contacts with service administrators.

**Smart accomodation.** Accommodation is one of main parts of tourism service. Accommodation service needs significant manual work related to cleaning of apartment and bad room, replace of materials and bed-clothes. Assurance of lighting, heating, cooling, ventilation and other conditions is enough big challenge to employees of a hotel. Here are few parts, which needs sustainable innovations from vision of nowadays: Contact less of administration access and leave a room. A++ and higher energy class of buildings. is subject of construction new one's buildings according to EU legislation and renovation old ones with help of EU energy efficiency funds. Assuring automatic lighting, heating, cooling, ventilation of a room. Replace of bed-clothes. Assuring cleaning of apartment. Replacing sanitary materials in bad room and apartments. Waste water and heat recycling. Sanitary and visitor's safety monitoring and support.

**Smart catering.** Supply of catering service in hotel and its restaurant is obligatory component of whole tourist service. Special attention should be done to

planning of a meal according to individual needs. Convenient buffet has weak side related to up to 40% of waste food. Virtual booking systems enables to book nourishment according to personal need and request of visitors. Considering local specialities of food, hotels could do good work if they could take care for to avoid health problems for visitors from some known countries. Easy communication by internet could give opportunity to reduce waste food amounts. Use of automatic drink preparing equipment and 3D print food solutions in living rooms could avoid necessity to have expensive restaurants and breakfast rooms.

**Smart wellness.** Health monitoring and support devices in rooms and special SPA, sport and wellness procedures become obligatory part of whole tourist service. This assure increasing income of service provider due to additional services. Also, this asks to take care on automatization of lighting, heat, cool, air, water supply and use. Traditional use of paper, towels, cosmetic materials should be replaced by electronical solutions. Waste water and heat should be taken off from water, cleaned and reused. SPA visitor emergency and trauma prevention equipment should be used in SPA.

**Smart local transportation.** Some attractiveness and additional income tourism service provider could earn by propose to visitor's local transportation means: bicycles, rollers, wheel chair, bus shuttles, etc. All polluted fuel used transport means should be replaced by natural or electric vehicles. Driver-less transportation is the most appropriate from point of view of circular economy, especially for people with special needs.

##### 4.2. Benefits of circular economy innovation for tourism SME's business and society

Circular economy, same as other European innovation initiatives and strategies isn't buzzword. They targeted to decide global and local development problems. At same time circular economy gives direct additional profit for tourism SME's trough increasing of service complexity, saving of materials, energy and indirect – trough increasing of benefit for society. Any way tourism SME's erns many times through circular loops of innovations.

**Work productivity.** Work productivity is one of main economic indicators of progress and development of a society. It shows efficiency of human work -which economic value is created by one employee or worker. Stagnation of work productivity growth results destruction and crisis in a society. So, only increasingly growing productivity is indicator of welfare of a society. Talking about increasing of work productivity it's necessary to state, that higher work productivity results not absolute exclude of people from job places. Human are operating two kinds of job: manual and intellectual. First of them is hard, mostly physical and it's not wished by human, operating him mainly for salary. At other hand, the price for manual work permanently is increasing. Naturally, that this unwished manual work is replacing by machines, robots and virtual systems.

**High-tech jobs.** Intellectual work has wished character and it is connected to highest human demand – self-esteem and self-expressions, which are increasing. So, raise of work productivity freeing people from hard

manual work and creates opportunities for high-tech intellectual jobs. Human are obligatory to seek increase intellectual abilities for high-tech jobs through permanent self-improvement. No other ways exist. Tourism business nowadays is related to large manual works on assuring clean rooms, beds, SPA and healthy nourishment. Automatization and robotisation of tourism services result reduction of manual work demand, work places. However, the need for high-tech jobs related to innovations of tourist service will create new high intelligence work places.

**Business profitability.** It's any secret, that business historically is dedicated for profit. No body can't take back from SME's this purpose. However, European Community declares being society of social market. It means that not only economic, but social capital also are values of interaction of service providers and consumers. Social market orientation gives for businessmen to use social market orientation as marketing opportunities to attract more visitors and earn additional income. Seeking to increase service complexity SME can add to its e.g. only breakfast service the nourishment during all day or local transportation opportunities.

**Social responsibility.** Social responsible business brings new feature into social market activities. Because socially responsible businessmen earns not direct additional income, but increasing of self-esteem for doing good deals, which anyway return to them earlier or later.

**Clean environment.** Cleaner environment and reduced climate change become undisclosed good deals for planet. Large tourist flows, and huge amounts of energy, food and other materials are related to enormous amounts of waste and pollution of environment. Circular economy ecological benefit is evident and not doubtful. Tourism SME's has opportunity to take part in great ecologic initiatives and help to do our planet more acceptable for life.

**Longer life span of people.** Cleaner environment, safer food, more healthy tourism services results the most important indicator of human wellbeing – full-range life span and wellness. According to World Health Organisation, combustion related pollution of environment reduces human life span on 17-20%. So, humans could live longer on 20 years if combusting and polluting of environment will be stopped.

## 5. Design, creation and validation of tourism SME's virtual Self-Assessment tool

CE 3.00 methodology was approved through virtualisation and validation of principles, solutions and applications on virtual Self-Assessment tool, which is accessible at – <http://www.virtualika.lt/iSAT>. 17 tourism

service providers SME's participated in trial test of the tool in December of 2017 mainly in Lithuanian regions.

Total evaluation of the CE 3.00 methodology and tool was positive. Average rate is 2,5 (from max 5.0) – „I understood and become interested“. Self-assessment showed average *economical* level of tourism SME's CE in Lithuania regions. The economic innovation culture and growth are aimed at increasing business profitability by expanding the scope of services and reducing costs. Expert practical look to self-assessment results shows adequacy between testing results and real state of circular economy innovation in Lithuania.

## Conclusions

Holistic approach enabled to state, that existing CE concept isn't enough positioned in overall scope of EU methodological culture and EU2020 strategy and its initiatives of smart, inclusive and sustainable growth.

Holistic methodology requires to consider saving of not only materials and energy, but of all scope of business resources: material, energy, information, time, intellectual, manual work, high-tech, etc.

Technical innovation approach to business activity is too easy, considering increasing number of feed-back loops related to economical, green, sustainable and smart circularity. Enlarge of CE concept towards all kinds of resources and to higher levels of innovation culture is not only natural such concept development tendencies.

CE 3.00 as holistic approach was synthesised and implemented in practice of project CIRTOINNO.

On the basis of CE 3.00 were synthesised tourism service business scope, innovation trends, principles, implementation of which in Self-assessment virtual tool iSAT „Innovation circles“ enabled SME's to innovate their business and significant benefits to society.

Main tourism innovation trend is transition from physical to virtual tourism what results total reduction of all kind of resources.

Main CE 3.00 principles defined as: dialectic, sustainability, complexity, holistic, smartness and applicability.

Main CE 3.00 solutions in tourism recognised as: global marketing, virtual communication, smart accommodation, catering, wellness and local transportation.

Main benefits stated as: work productivity, high-tech jobs, business profitability, social responsibility, clean environment and longer full-range life span of people.

Created CE 3.00 methodology was approved through validation of tourism service SME's Self-assessment tool iSAT. Economical level of tourism service SME's CE innovation in Lithuanian regions was recognised.

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## APPEARANCE OF CONSCIOUS CONSUMERS IN SHARING ECONOMY

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### Abstract

Sharing economy is a relatively new business model and it is continuously extending dynamically due to the rapid development of digital technology, importance of sustainable development and change of customer behavior. Sharing economy can also build trust among individuals which is a really important factor in Hungary, because there is a lack of trust among people due to the historical background. Previous studies mainly focus on definitions, conditions of successful operations, regulation issues but less on customer behavior. The objectives of this article are to identify and specify the main features and economic, social and environmental forces of sharing economy and present the main motivation factors and general customers' attitudes of sharing economy's users based on two researches in Hungary. As motivation incentives, prompt and flexible service, trust and personal interaction, as well as ease of use are listed by sharing economy consumers, besides certain economic benefits. Online qualitative survey in Hungary has revealed that people participating in the sharing economy have much greater consumer awareness, are much better promoters of sustainability and show increased level of trust when dealing with unknown partners compared to their peer consumers who are not new to online shopping, yet have never used sharing-based community services.

KEY WORDS: sharing economy, conscious consumer, customer behaviour, sustainable development.

### Introduction

With the development and worldwide spreading of digital technologies and devices, the number of transactions between digitally connected private individuals is on the rise. People unknown to each other get in contact in this environment; they close deals primarily based on mutual trust, typically without entering a contractual relationship known as a basic requirement in the traditional business environment.

Business transactions between private individuals can occur in multiple ways, either by buying/selling second-hand products or by sharing a product, i.e. when the owner of a product shares the particular product with someone else. In both cases, the first point of contact is facilitated by a digital platform. This was first defined by R. Botsman and R. Rogers (2011) in their best-seller book as 'collaborative consumption', which is an umbrella term that incorporates sharing-based community services or sharing economy as a key element.

In this study, we essentially focus on sharing economy. This relatively new business model is definitely expanding. Several definitions have emerged for the sharing economy over time but there has been no consensus about a commonly accepted definition, supposedly due to the dynamic development of the new model. Other terms often used are 'gig economy' (Sundararajan, 2015), 'peer to peer markets' (Einav et al, 2016), or "mesh economy" (Gansky, 2010). Further approach, often called access (platform) technology, has also gained ground lately (first mentioned by Bardhi-Eckhard in 2012). This model is aimed at the

successful running of the platform, so that its value increases in time for the benefit of the platform's owner, while facilitating transactions between individuals is simply less of a priority.

Based on a thorough review of the international (scientific) literature and authors' point of view, the following definition could be an appropriate starting point that fairly captures the substance of sharing economy: "Users share their unused capacities or untapped resources (e.g. tangible assets, services, money) with each other on an on-demand basis, i.e. immediately when the need arises. They usually do this through an IT platform, on the basis of mutual trust, with special consideration given to personal interaction and communal experience, while striving for sustainability." (PWC study, 2015) The IT platform, where supply and demand first meet, is typically operated by an independent legal entity for profits.

Furthermore, knowledge and information could be mentioned next to the unused capacities and resources in the above definition. The sharing of information and knowledge is getting more and more widespread, so this can well become part of the sharing economy model, though there is no or relatively restricted monetisation in this case. Due to continuous development more and more businesses are classified under the sharing economy umbrella. Metcalf (2015) stated that repair cafes, community gardens and many other community-led activities rely on sharing and merchant, as do AirBnB and Uber, but the purpose, governance and expected outcomes are unequivocally different from their famous peers.

For this reason, Monoz és Cohen (2017) examined various companies which built their business in sharing

and/or peer-to-peer activities along seven different dimensions. Based on these seven dimensions they defined five different business models finally. Following dimensions were set up: 1) platforms for collaboration 2) under-utilized resource 3) peer-to-peer interaction 4) collaborative governance 5) mission driven 6) alternative funding and 7) technology reliance. 36 different companies were surveyed along these dimensions and scored based on pre-defined scoring criteria. As a result, five different business models were defined: crowd-based technology, collaborative consumption, business to crowd, spaced-based, low-tech sharing and sharing outlier. Crowd-based technology is “seeking scalable solutions aligned with angel and venture capital investor expectations” (eg. Etsy, AirBnB, Taskrabit, Skillshare). Collaborative consumption is “driven by an underlying efficiency logic, seeking to optimize under-utilized resources” (eg. BlaBlaCar, Share your meal, etc). Specific of Business to crowd model is “the recognition of efficiencies that can be gained from company owned resource optimization models” eg. Cargomatic, FON. The fourth business model is the spaced-based, low tech sharing one which focuses “the desire for optimizing resources at a local level” (eg. Talent Garden, Prep Atlanta). The fifth one is sharing outlier model where “founder with nearly altruistic motives of applying technology to facilitate social and/or ecological impact”, eg. Kiva.

It is important to highlight that different models started to spread in different cultures. Mair és Reischauer (2017) proposed an agenda to analyse “how the sharing economy manifests and involves across various economic systems and has the potential to refine and recast existing management theory”. They also noted that “studying the culturally rooted pluralism of the forms and practices of sharing economy organizations provides the key to capturing the dynamics of the sharing economy”. They emphasized three different features which characterize the dynamics of the sharing economy. Dynamics of the sharing economy can involve the following features: 1) process of market change 2) process of market emergence and 3) intended and unintended consequences. Furthermore, it was also defined that there are several challenges related to the social and economic life, eg. rethink the distinction between full employment and casual labour, or sharing economy defies the boundary between private and public. Cultural question was also raised whether they have profit or non-profit organisation. Eg. US hosts a wide range of for-profit organisation, meanwhile Germany hosts several sharing economy organisations that operate on a non-profit bases.

For all these models it is commonly true and it becomes a matter of fact that when a new activity is being launched, private individuals first share their unused capacities with each other on an occasional basis, but later, as the model turns successful, new participants will also join the model and they will start sharing their assets for profit, on a commercial basis, not just occasionally like people did at the beginning. This can raise fiscal and regulatory issues; most of the

countries are trying hard to properly address them, but this subject is out of the scope of this study. (In case of Hungary, Uber pulled out of Hungary after changing regulation of passengers’ transport. New legislation requires transport and communications authorities to block the apps of passenger transport companies that do not use a traditional dispatch service.)

The success of sharing economy lies most of all in the fact that an extraordinarily large number of people can get in contact with each other through a digital platform, where supply and demand can meet quickly and efficiently, allowing a genuinely dynamic pricing. All these success factors, along with the relatively easy entry to and exit from this market segment, make it clear that sharing economy – within its own limits – is fairly close to meet the criteria of perfect competition (Buda-Lehota, 2016).

**Relationship between sustainable development and sharing economy:** Sharing economy supports sustainable development (Demailly-Novel, 2014). To achieve sustainability, we must balance the environmental, social and economic pillars of sustainability while additional support like cultural, infrastructural, and political factors are needed to benefit the whole society (Beke-Fehér, 2013). The *environmental benefit* of sharing economy definitely comes from renting of products instead of buying and recycling of several products. Sharing economy also supports *social sustainability*. It can build trust among individuals which is really important factor, because there is a lack of trust among people in Hungary due to the historical background (Baranyai et al, 2011). Trust is largely guaranteed by the evaluation systems operated by the digital platforms. These systems ensure that both sellers and buyers keep having a good conduct; otherwise they will be disqualified for future transactions according to the logic of the system. The creditworthiness built up this way will allow for lower transaction costs which lead to *economic sustainability*. The existence of transaction costs was first mentioned by R. Coase (1937) and his concept has by now become one of the key principles of institutional economics. Obviously in agreement with Coase, the authors’ opinion is that a part of the transaction costs disappears in the case of sharing economy, and transactions get regulated again by the market.

**Customer behaviour:** Many consumers increasingly turn toward alternative forms of sustainable consumption in times of financial crises and growing scepticism toward capitalistic structures. (Möhlmann, 2015; Rifkin, 2000; Albinsson et al., 2010)

Besides the digital technology development and the growing importance of sustainable development, the customer behaviours’ change also supports the expansion of sharing economy. Customers use more and more apps, social media become the first information and communication channel and consumer buy products and services more conscious way. In case of sharing economy J. Hamari et al (2005) listed

enjoyment of the activity, and economic benefits as main motivation factors. Importance of sustainability was defined as attitude, but it was not confirmed as motivation factor by sharing economy users.

Möhlmann (2015) examined utility, trust, cost saving and familiarity as main factors which influence the satisfaction and the likelihood of choosing a sharing option again. Environmental impact, internet capability, smartphone capability and trend affinity had no influence on satisfaction.

**Categories of sharing economy:** Wide range of sharing activities is known and activities can be categorized on several dimensions as were presented previously. Taking into consideration several studies (Rogers and Botsman, 2011, Gansky, 2010, Bardhi-Eckhard in 2012) we present an approach where the categorisation viewpoint is the shareable assets, capacities or knowledge. Table 1 provides an overview of the models based on mentioned categories.

**Information sharing:** Although sharing information is not commonly classified as sharing economy, it is worth to mention, as this kind of solution has started to evolve. Information sharing has been spread in the social media first when private persons has started to share with each other their experiences, photos or video contents (Facebook, Youtube). Later private persons have started to share the information about their professional life (CV through LinkedIn). It belongs to consumer to business model. However, these types of services are not considered sharing economy services by international scientific literature, the main reason behind it that information sharing being in a non-business basis among private persons.

**Sharing economy:** in 2009, however, the first sharing was released when people have started to share with each other objects through Internet platforms. In almost the same time, the revolution of home- and car-sharing began to spread through different Internet platforms. However, from monetization point of view, we differentiate two different types of activities. In the

first case people share with each other such a capacities or assets which are used otherwise by the owner. Assets are shared mainly due to own cost reduction. These are classical sharing economy services, well-known examples are Couchsurfing, BlaBlaCar. In the other case people share own assets which are not used otherwise by themselves. They already bought that type of assets (flat, car) for profit. AiBnB and Uber has started as classical sharing economy services, but it has become so successful among private persons that people has started to buy new flats and cars to gain more profit. Due to profit for gaining in the previous few years these types of activities have started to distinguish themselves from classical sharing economy services and started calling on-demand services (Frenken-Schor, 2017, Hennessy, 2017). As a result of digital revolution, more and more new IT platforms have emerged to harmonise demand and supply between individuals. People can share with each other not only assets, but also knowledge (Skillshare), time (TaskRabbit) or even money (Kickstarter, Transferwise). In addition to the C2C model, C2B model has emerged within sharing economy, one of the most typical example is crowdspring.com where freelancers provide web design, logo or any other type of creative to companies or organisations. Building on the success of the initial operating logic, a new direction has also emerged in the economy: the so-called “business to consumer” (B2C) model, in which the company not only operates the platform, but it also provides the products and services as supplier, replacing the individual owners. However, this is not any more just about sharing the already existing assets or the unused capacity of properties, but it’s more about ensuring the best utilization - typically through short-term renting as long as demand effectively exists - of a product portfolio specifically set up for this purpose (Mol Bubi, ZipCar, Car2Go, DriveNow, ReachNow owned by BMW car sharing, Netflix, Spotify). These are portfolios meant for community use and shared on on-demand basis.

**Table 1.** Categorisation of sharing economy model, edited by the authors

Name	Social media - Information sharing		Sharing economy as umbrella						
	social activities		classic sharing service	on-demand services					
Development			C2C	C2C		C2B	B2C		
Model	C2C	C2B	C2C	C2C		C2B	B2C		
Monetization	○	○	◐	◐			◐		
Subject of sharing	information, knowledge, music, video	information	assets, devices	assets, devices	time, knowledge	money	time, knowledge	assets, devices	knowledge, musci
Examples	Facebook, Wikipedia, Youtube	LinkedIn	Couchsurfing Telecar systems (eg. BlaBla Car) FB groups	Uber AirBnB Rent a boat/dress/etc	Taskrabbitt Skillshare	Kickstarer Transferwise The Lending Club	Crowdspring	MOL BUBI Hertz Kaptár	Learnlight, Spotify, Netflix MOOC

**Objectives and method**

Main aims of the researches were to analyse consumer behaviour in order to identify what motivates consumers to use sharing-based community services on one hand, and to investigate what makes an on-line shopper consumer who has already used sharing economy different in socio-demographic features and

general attitude from a consumer who has not yet used such services on the other hand. The study consisted of two parts:

The first qualitative research involved 18 in-depth and 2 focus group interviews (focusing on customer motivation).

The second one was completed by conducting an online quantitative survey in Hungary that targeted customers with online shopping experience. Using the

results of the qualitative survey the goal was to identify some differences of social-demographical features and general customer attitudes among sharing economy's users and non users. The research was carried out on a sample of 420 respondents. All respondents have already purchased on-line previously, it was a criteria in the survey. The responses were asked according to age, sex, residence, level of education, income and material status. 11 variables of the research model contained Likert scale questions on consumer opinions about the favourable prices, promotions, social media appearance, sustainability and general trust toward other individuals. In terms of socio-demographical data crosstables were performed and in terms of variables factor analysis was executed using SPSS software.

## Results

**Qualitative survey:** Based on in-depth and focus group assessments all in all, as already established in authors' previous article (Buda-Lehota, 2016), community services – that are globally widespread, thus also present in Hungary – are well known and generally accepted among certain consumer groups since they are true alternatives to services provided in the traditional business model.

While conducting the interviews, identification of consumer drivers were focused on that it was later used in the country-wide quantitative on-line research. Based on this work, following motivation factors were identified: better price, flexible system, immediate or very quick reaction/response, easy and transparent use, fairness, reliability, credibility, trendiness, personal experience, cashless settlement, traceability.

Sustainability, as a motivation factor, has not been separately mentioned by participants, but when asked as a general matter whether they find it important and if they do, what they would be willing to do for sustainability, it turned out that most of the respondents not only find it important, but are also actively supporting it (e.g. through selective waste collection, use of public transport, etc.).

Another important finding of the research is that people using sharing economy typically belong to those internet users who are open to novelties, frequently use applications, and regularly use their bank card for purchases. Furthermore, they are flexible, extroverted, cost-sensitive and environmentally conscious people.

**Country-wide quantitative survey:** based on the results of the qualitative survey, following categories were set for the country-wide online survey as general attitudes: cost-sensitivity, trust towards private individuals, activeness on social media, attitude towards sustainability

The average age of the respondents was 39.54 years, with a deviation of 9.5 years among 420 respondents of on-line shoppers. Women were overrepresented: 287 women filled in the questionnaire, compared to just 133 men. The vast majority (63%) of participants live in Budapest, while 30% live in county towns and other cities, and 7% of the respondents reside in villages. University graduates accounted for 81% of the sample population, being

largely overrepresented but we assume that this is exactly the segment that typically uses sharing-based services; in fact, this is the primary target segment in the sharing economy, so the results can fairly reflect the consumer behaviour patterns.

For the purposes of the analysis laid out below, this group was then further split into 2 subgroups depending on whether the respondent has ever used sharing-based community services or not. This led to 150 participants who have - at least once - used sharing economy services (within the C2C business model). These respondents have used the following sharing-based services: AirBnB, Oszkár (peer to peer Hungarian car-sharing), BlaBlaCar, Couchsurfing, Kickstarter, BeeRides, Rukkola (peer to peer Hungarian book-sharing), Yummeer, Transferwise, Uber (pulled out of Hungary). The remaining 270 people have never used sharing-based services, yet they have purchased online.

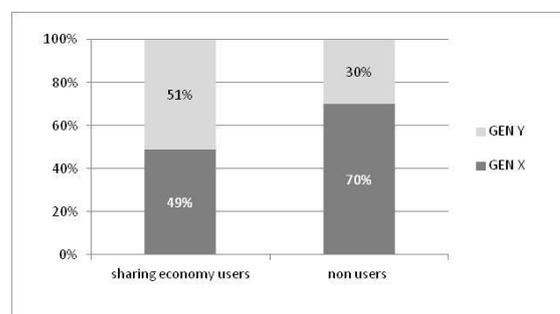
First **sociodemographic hypotheses were examined** based on the following dimensions for sharing economy users and non-users.

H1 – Among sharing economy users Generation Y are represented larger extent than Generation X compared to non sharing economy users

H2 – There is no difference between sharing economy users and non-users in terms of their place of domicile/residence.

H3 – Respondents with high (above average) income make use of sharing-based services to the same extent as respondents in other income categories.

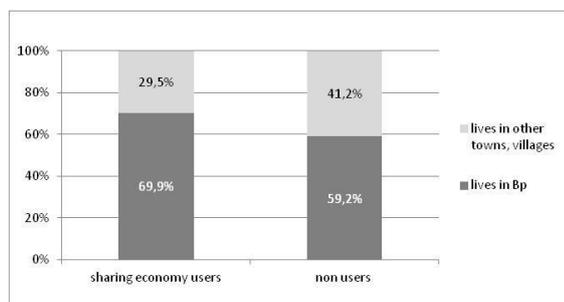
**Differences by generation:** as illustrated in Figure 1, 51% of Gen Y (aged 18-37) people use sharing-based services, while in Gen X (aged 38-57) only 49% use such services. Consequently, hypothesis 1 (H1) is accepted. (For this particular assessment, we disregarded responses by participants belonging to neither Gen X, nor Gen Y.) Correlation was analysed between the 2 variables in a crosstab, using Pearson's chi-squared. The test led to significance with  $\chi^2=17,553$  and  $p=0.000$ , though the correlation was poor, Cramer's  $V=0,209$



**Fig. 1** distribution of respondents depending on generation

**Domicile:** hypothesis 2 was derived from the assumption that the benefits of the digital world are available to all internet users all over the country and most of the community services are also accessible everywhere across Hungary. Nevertheless, our survey

revealed that respondents living in the capital (Budapest) use sharing-based services in a higher proportion than their peers living outside Budapest. The correlation was analysed between the 2 variables in a crosstab, using Pearson's chi-squared test. The test led to significance with  $\chi^2=5,369$  and  $p=0,020$ , though the correlation was poor, Cramer's  $V=0,113$ . The results are shown in Figure 2. It shows that significant higher ratio of the sharing economy users live in the capital compared to non users group. Thus **hypothesis 2 (H2) is rejected**.



**Fig. 2** distribution of respondents depending on domicile

*Income level:* in-depth interviews and focus group evaluations demonstrated that not only people with average or lower income use sharing-based services, but also those being in the high income, explicitly wealthy consumer segment. The analysis based on the respondents' income level has confirmed in the quantitative survey that there is no significant difference attributable to financial condition between sharing economy users and non-users. Hypothesis 3 (H3) is therefore accepted.

After the socio-demographic features general customers' attitudes were examined between sharing economy users and non users. The following hypotheses were set preliminary for a division along this dimension:

- H4 – Sharing economy users are more open to novelties than non-users.  
 H5 – Sharing economy users visit social media websites more frequently than non-users.  
 H6 – Sustainability is much more important to sharing economy users than to non-users.  
 H7 – Sharing economy users are more cost-sensitive than non-users.

In order to identify the consumer attitudes that make sharing economy users different from those who have not yet used such services, though regularly purchase online (which is basically entrance to the world of sharing economy), and we make this distinction by taking not only sociodemographic but other variables into consideration.

The general attitudes of the 420 respondents were examined, and reduced dimensions through the exploratory factor analysis (EFA) method. 4 dimensions were uncovered. The following values were taken into consideration when the results were

accepted: the value of KMO (the Kaiser-Meyer-Olkin measure of sampling adequacy) was 0.617, which is close to the required threshold of 0.7. The communalities – required to be 0.3 – exceeded this floor for all variables. The explanatory power of the 4 factors was 60.34%, which is far above both the required and the ideal level. Based on the combined assessment of these 3 indicators, we are confident that the results of the survey are appropriate and indicative. Based on the responses' answers, we named the 4 latent variables as follows:

*Factor 1: conscious consuming (responsible conduct: cost, environment, innovation)*

Key variables:

- I am open to novelties
- The best possible price is important to me (in general)
- I am doing a lot for sustainability
- I often buy products or services on sale
- Due to financial reasons, I am constrained to look for best-priced products

*Factor 2: trust towards other private individuals*

Key variables:

- I am not afraid that a private person would deceive me when I buy from him/her through the internet
- I like owning things so that I don't have to borrow or rent a certain product from anyone else when I need it

*Factor 3: activeness on social media websites*

Key variables:

- I regularly share information with others on social media websites.
- I often visit social media websites (Facebook, Instagram, blogs, etc.).

*Factor 4: importance of sustainability on the level of attitude (but not acting accordingly)*

Key variables:

- Sustainability is important to me
- I am fine with buying used products as long as their quality is reasonably good (negative correlation).

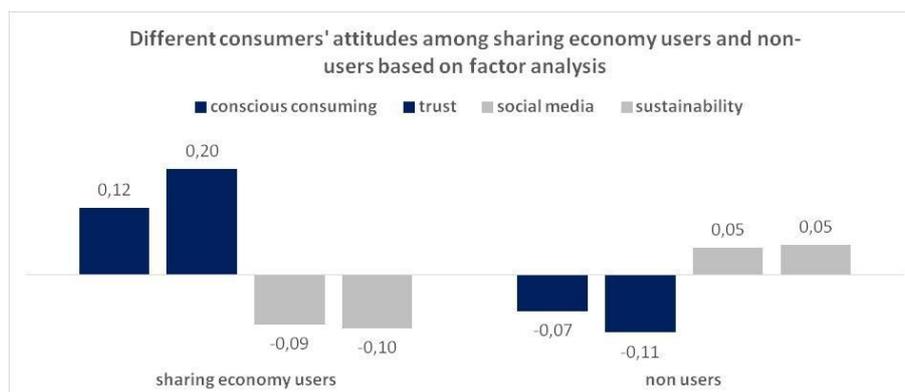
In light of these factors, we evaluated the users of sharing-based services next to those who have not yet used such services, assessing whether there is a significant difference between the 2 consumer groups from the perspective of the latent dimensions. The outcome is presented in Figure 3.

**Significant difference was found between sharing economy's users and non users in terms of conscious consuming and trust (at 5% significance level).** Correlations were tested by t-test. For cost-consciousness  $t(362)=-2,015$  and  $p=0,045$ , while for trust  $t(421)=3,032$  and  $p=0,003$ . As far as consumer awareness is concerned, this means that consumers who have already used sharing-based services are typically more conscious and more responsible consumers who want to buy products or services at

good prices, often on sale, while they feel they are doing a lot for sustainability and are open to innovation (compared to non users of sharing economy). Furthermore, sharing economy users are much more trustful to other people, and they don't mind if they need to borrow or rent things from others. Based on these findings, we consider our hypotheses H4 and H7 confirmed.

*As opposed previously, the presence on social media and the theoretical importance assigned to sustainability do not show a significant correlation.* This means that among all respondents with online shopping experience both sharing economy users and

non-users are active on social media websites to comparable extents. Similarly, sustainability – as a theoretical concept – is equally important to both subgroups. Sustainability is important to all online shoppers but while sharing economy users also act accordingly (and they don't mind if a product they acquire is not brand new as long as its quality is acceptable), consumers who refrain from sharing may not be prepared yet to do everything for sustainability, even if they also consider it important on the level of attitude. Based on these results, hypotheses 5 (H5) and hypothesis 6 (H6) are rejected.



**Fig. 3** assessment of significance based on consumer attitudes among sharing economy users and non-users, conscious consuming and trust are significant (at 5% significance level), (own source)

## Conclusions

This study was meant to deliver a fair view on the substance of sharing economy, which allows for sharing not only unused capacities or assets, but also other resources in a broader sense, such as knowledge and information. The main goal of our research was to identify and describe consumer behaviours, attitudes and motivation factors. The results of our country-wide online survey led us to the conclusion that sharing economy users are much more conscious and responsible consumers, they are more inclined to trust other private individuals, in contrast with their peers who can find their way in the digital world as they shop online, yet have never used sharing-based services.

Conscious consuming is an extremely important finding in our opinion. We believe that as the consumer society develops towards a conscious and responsible lifestyle, the number of people using sharing-based services will increase in time and that will definitely promote sustainability in the world.

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## THE IMPACT OF CREDIT AND CAPITAL RISK ON THE BANKING PERFORMANCE: EVIDENCE FROM SYRIA

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### Abstract

Banks as financial institutions cannot make profits without dealing with different risks. This study aim at investigating the impact of credit risk and capital risk on the performance of Syrian private banks for a period of eight years (2009-2016) depending on a sample of 6 Syrian private banks. The results have been consistent with the ones of previous studies in term of a negative relationship between performance represented by the return of equity (ROE) and credit risk represented by non-performing loans to total loans, while have differed with previous studies in terms of the negative relationship between performance and capital risk represented by capital adequacy ratio. In order to enforce sustainability and soundness of private Syrian banks. Several recommendations have been presented by the end of the study.

KEY WORDS: Credit risk, Capital adequacy, ROE, Syria.

### Introduction

Financial performance plays a critical role in the banking industry as a sign of the bank's success in achieving stakeholder objectives at the micro level, as well as good banking performance indicates the healthy and strong financial system at the macro level.

Otherwise, banks are exposed to many risks during the practice of their activities that affect performance and determine the efficiency of resource use. Thus, literature have concerned the study of the relationship between various risks and banking performance. On the other hand, banking industry has witnessed many developments after 2000 within the economic opening-up policy pursued by Syrian government to rebuild the economic sectors, where it has allowed the establishment of private banks owned and managed by the private sector in 2001, as well as reorganization of the central bank's role in the control of banks. The first private bank was established in 2003, and the number has increased annually. (EMFIP, 2006)

By the end of 2009, the number of private banks achieved 14, added to 6 public banks. The Syrian private banks achieved a quick growth and acquire a significant market share in Syrian market compared with old public banks during a few years.

However, this growing performance is naturally accompanied by increased levels of risk, due to the structure of banks as a financial institution faced by a set of risks play a primary role in banks success, in other words, banks results depend heavily on risk. Accordingly, this study aims to analyze the effect of two types of risks

“credit and capital” on the performance of Syrian private banks during period 2009-2016 by reason of the economic importance of these banks in the stability and development. In addition, studying the relationship between risk and performance can be a good entry point to enhance control activities in the banking sector. Also, to develop banking performance depending on risk management mechanisms is to be considered.

### Literature review

The risk, in general, is the possibility of loss or damage and any likelihood of undesirable events (Brigham and Ehrhardt, 2005), which affected the achievement of project objectives (Chapman and Ward, 2003).

Since banks deal with risks when they offer their productions as financial institutes (Anthony, 1996), while banks are exposed a possible loss directly in revenues or banks capital, also indirectly through some restrictions that effect negatively on goals achieving, continuing activities and exploit opportunities in the banking market. (FSR, 1999)

In spite of the risk commensurate with the returns in the banks in profit case, but they may threaten bank's survival in case of high level of losses, So today the banks aim to achieve two objectives, the first is profit and second is to continue in the market. (Marrison, 2005)

Joel (2000) classified losses resulting from the risks in banks into three categories, according to their recurrence values:

1. Expected losses: they occur frequently with low value, and it is hedged by the various provisions within the operating expenses.

2. Unexpected losses: they occur slightly with high value, bank capital absorbs these losses and protects deposits.

3. Exceptional losses: they occur rarely with huge value more than capital; it may lead to bankruptcy of the bank.

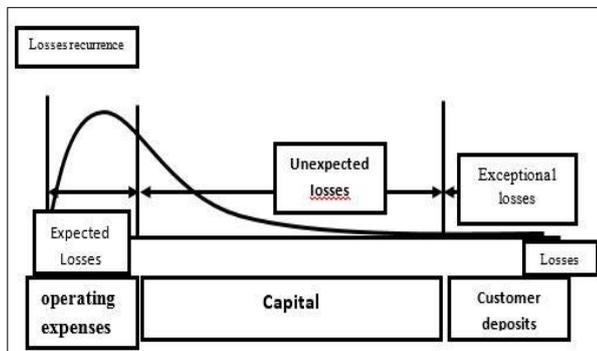


Fig. 1. Losses resulting from the risks in banks.  
(Source: Joel, 2000)

Banking risks arise as a result of external causes related to the external environment and economic conditions in general, which are identified as systemic risks, and be unexpected as well as unavoidable. Risks may also arise from within the internal environment of the bank which is called unsystematic risk, which is related to the bank's activities. (Ahmad and Ariff, 2004)

Furthermore, there are several categories of banking risk according to their characteristics, nature and components, where are categorized into financial and non-financial risks as one of the most used classification, under each one there are some kinds of risks (Gleason, 2000).

- **Financial risk:** includes all risks connected with banking assets and liabilities management, it consists primarily of four types:
  - Credit risk: reflect that debtor's inability to meet his obligations towards the bank.
  - Liquidity risk: rise when bank's inability to meet its maturing obligations.
  - Market risk: related with volatility in the prices of financial instruments and assets which are traded in the market, and are classified to: price stocks risk, interest rate risk, exchange rate risk and commodity price risk.
  - Capital risk: Describe the ability of bank's equity to cover risky assets.
- **Non-financial risks:** they are Synonymous with operational risk and have three sources that come from human faults, technical faults and operations faults. Likewise, Basel Committee added legal risk and regulatory risks to operational risk (BCBS, 2001), also divided into several groups: Financial fraud (embezzlement), forgery, currency counterfeiting, theft and robbery, electronic crimes and occupational hazards (Altaweel, 2000). The typology of banking risks is included in the table (1), as proposed by the researchers.

## Credit risk

Lending is the bank primary activity and contributes to the largest part of profit, therefore the credit risk is the most important risk facing bank (Joseph, 2006) Many banking assets include the likelihood of defaults, whether inside or outside the balance such as loans and Letters of credit, but the largest of which is a loan when borrower cash flows are affected by as a result of many of the general conditions and internal operations, and hence debt service payments, this defaults directly affects the bank net income and Equity market value, It can be harder forecasting, the banks use credit analysis of each case separately, In addition to diversification of credit portfolio in accordance with law of large numbers. In general credit risk increases as a result of four factors: Concentrations of credit, lack of credit portfolio diversification, credit portfolio growth and when Credit analysis procedures are less strict (Koch and Scott, 2005).

Moreover, credit risk associated with non-performing assets issue, where banking system soundness depends on assets quality, and banks need to manage this problem to survive in the market (Arunkumar and Kotreshwar, 2005).

In Syria, Central Bank of Syria issued a number of resolutions concerning the segmentation of loans which included instructions and forms of debt classification according to risk level coupled with required provisions and reserves for each class (CBS, 2009). Many studies tried to analyze the relationship between credit risk and banking performance Foos et al (2010) showed that Loan growth leads to an increase in risky assets and related negatively with Interest income and hence profitability and solvency of banking. Likewise, Kargi (2011) examined the relationships between level of non-performing loans and profit in Nigerian banks between 2004 - 2008 found that adversely correlation, but Kitthinji (2010) showed that amount of credit and non-performing loans had no correlation with profit to the same period in Kenyan commercial banks (Felex and Claudine, 2008) measured profitability by return on equity and return on assets, it turned out that both indicators adversely linked to non-performing loans ratio. Kolapo (2012) also has proved that profitability represented by return on assets is a function of credit risk represented by non-performing loans ratio, the ratio of total loan and advances to total deposit and the ratio of loan loss provision to classified loans. Therefore, in this research, the credit risk was measured by non-performance loans to total loans, while the performance was measured by return on equity.

**Table 1.** Typology of banking risk

Financial risk		Operational risk		Business risk		Events risk	
systemic	Un systemic	systemic	Un systemic	systemic	Un systemic	systemic	Un systemic
credit	Market		Internal systems	Country	Reputation	Market collapse	
Liquidity			Technology		Legal	natural disasters	
Capital			Miss-Management			Political events	

### Capital risk

Banking capital is calculated by the difference between the market value of assets and liabilities, which equal equity. Capital plays an important role against the potential risk, especially in the case of provisions inadequate, for this reason, the central banks have moved to increase banks' capital to provide a margin of safety for stakeholders and principally depositors (Saunders and Cornett, 2002). Briefly, the volume of capital inversely proportional to risks (Thomas, 2015). Since 1976, Basel committee through three versions focused on identifying suitable ratio of capital adequacy to ensure banking stability, It has developed the components of the capital adequacy ratio in response to international banking developments, so that the ratio should not be less than 8% in Basel 1 and Basel 2, and the percentage was increased to 12% in Basel 3 (Hassan et al, 2016).

Central Bank of Syria also issued Resolution No. 253 for 2007, which determined elements of capital adequacy in each of numerator (capital Tier 1,2) and denominator (weighted assets risk), as well as the ratio, should not be less than 8% , and these forms must be submitted quarterly to Central Bank of Syria (CBS, 2007).

On another hand, the impact of capital risk on the banking performance has been researching in a number of directions, Berge (1995) compared the relation between capital and profit in USA banks through two periods (1983-1989) and (1990-1992), he founded a strong positive relation on the first when capital was less than optimal level, on the contrary there was a negative relation on the second period when capital was more than optimal. Altayb and Shahateet (2011) examined the effect of capital adequacy on profitability measured by twelve ratios in whole commercial Jordan banks, the results showed that capital adequacy had no statistical effect on profitability. In general, Brewer et al (2008) and Memmel and Raupach (2010) documented the importance of keep higher level of adequacy ratio at various times during crisis and other times, Ben Moussa (2013) concluded that in spite of positive correlation between capital measured by equity at total assets ratio and performance measured by each of the return on assets, return on equity and net interest margin, but significant relationship had been limited between capital and return on assets over the period of 2000-2009 in Tunisia. Ravindra and Manmeet (2008) discussed the capital adequacy roll in banking profit measured by three ratios: return on assets, on-interest income and net interest margin in Indian banks, the results indicated that

adequacy improved performance using the three measures. Based on these literature, this research used capital adequacy to measure capital risk.

### Credit and Capital Risks

There are many studies tried to analyse the relationship between risks and performance in banking industry besides of other variables, Al-Khoury (2011) studied the impact of some financial risk on banks performance through profitability in GCC countries for 11 years ended on 2008, study found difference result in case of return on assets as a measure of profitability where he founded the risk of credit , liquidity and capital effect on performance, but in case of return on equity as a measure of profitability liquidity risk only effect on performance. Ben-Naceur and Omran (2008) found that credit risk and bank capital positivity impact on Performance measured by profitability, net interest margin and cost efficiency in MENA countries. While Epure and Lafuente (2012) concluded similar results regarding the impact of capital risk on net interest margin, and differ with respect to the negative impact of credit risk. As well as another research have focused on credit risk role in particular in banks performance. Rina and Yovin (2016) examined the impact of capital adequacy and non-performing ratio addition to other factors on return on assets in government and private banks in Indonesia during 2004 – 2013, the result pointed out that capital risk influence on performance in private banks, while credit risk influence on government banks performance.

Whatever, these previous studies are consistent in many objectives, particularly in testing the relationship between banking risk and performance but differed in the used indicators of examined variables, as well as the results, in addition to these studies applied in various environments during different periods. Therefore, the purpose of this study is to develop a model for banking performance function of credit risk and capital risk in Syrian environment, further determining the nature and direction of the relationship can be an approach to improve the performance of banks depending on appropriate levels of risk.

## Methodology

To test the impact of credit and capital risk on banking performance in Syria, this study used the methodologies adopted in earlier related studies. Six Syrian private banks out fourteen were selected as sample: The International Bank For Trade and Finance, Bank of Syria and Overseas, Banque Bemo Saudi Fransi, Bank Audi Syria, Arab Bank-Syria and Byblos Bank Syria, which are the first private established banks in Syria, simultaneously their facilities and loans exceeded 50% of total private banks loans in the whole period of study. This research depends on secondary data for sample banks through their quarterly published financial reports at Syrian commission on financial markets and securities (SCFMS) for period between 2009 to 2016 contesting of 12 sub-periods, 2009 year is chosen as beginning of period because it is the year of adoption the new classification of banking loans by central bank of Syria.

The regression method was used to examine the relationship between the variables as well as descriptive statistics for analysis of data, based on Statistical Package for Social Sciences (SPSS) version 21.

## Model Specification

According to relevant reviewed literature (Al-Khoury, 2011), (Felex and Claudine, 2008) and (Ben Moussa, 2013), the study used return on equity (ROE) as the dependent variable to measure banking performance. This ratio is exhaustive measure refer to bank capability to generates profits through its own funds (Yilmaz, 2013).

As well as there are two independent variables: The first is credit risk measured by non-performing loans to total loans (NPL/TL) (Kargi, 2011 and Kolapo, 2012), the second is capital risk measured by capital adequacy ratio. Therefore the model is expressed mathematically as:

$$ROE = F [(NPL/TL),(ADQ)]$$

$$ROE = \alpha_0 + \alpha_1 (NPL/TL) + \alpha_2 (CAAdq) + e$$

Here, ROE is the ratio of net income to equity.  $\alpha_0$ ,  $\alpha_1$ ,  $\alpha_2$  are coefficients. NPL/TL is the ratio of non-performing loan to loan. CAAdq, a capital adequacy ratio, is an error term.

## Descriptive Statistics

The descriptive statistics for all variables in table (2) showed that the mean of NPL/TL ratio is 3% and stander deviation is 0.023, this low average refers to a good quality of loans in sample banks during the period under study, likewise the mean of capital adequacy (CAAdq) is 14.46% Which is morethan Basel and central bank of Syria requirements in 8%, as for dependent variable (ROE), the mean is 0.082 and stander deviation is 0.08 showed that for every dollar invest of capital, 0.08 was earned as profit in banks sample during the studied period.

On the other hand, the low values of standard deviation indicating that there is no much difference in the three variables of sample banks.

**Table 2.** Descriptive statistics

Variab le	Rang	Minim um	Maxim um	Me an	Std.Deviat ion
NPL /TL	.07	.01	.08	.03	.02247
CAAd q	.08	.12	.20	.14	.02261
ROE	.06	.05	.11	.08	.01391

(Source: own)

## Results of regression

Table (3) shows that a good significant correlation between NPL/TL and return on equity (ROE), the coefficient of correlation is 0.742 and the coefficient of multiple determinations (R2) is 0.55, this means that 55%(adjusted R2 50.6%) of the variations in banking performance (ROE) are explained by dependent variable a credit risk (NPL/TL).

In the same manner, CAAdq correlates with return on equity (ROE) by coefficient of 0.775 and the coefficient of multiple determinations (R2) is 0.60, which refers to 60% (adjusted R2 56%) of the variations in banking performance (ROE) are explained by dependent variable capital adequacy (CAAdq). the rest of these percentages of return on equity variations (45%, 40%) is affected by other factors other than non-performing loans ratio and capital adequacy ratio.

## Models fit

Models fit between banking performance and independent variables are measured by F and T-tests as in table (4), where the significant value of F is 0.006 for credit risk variable, it is less than 5%, which refers to linear relationship between two variables, respectively T-test statistics results show that statistically significant negative correlation between independent and dependent variables. The calculated value of F\* is less than 5%, this refers to the linear relationship between two variables, which was confirmed by T-test result according to the following model:

$$ROE = 0.096 - 0.467 (NPL/TL)$$

The model displays that in every unit increase in ROE, a 0.467 unit decrease in (NPL/TL) ratio. As a result, there is a significant relationship between credit risk and performance of Syrian private banks.

Also with regards to capital risk measured by capital adequacy (CAAdq), Fisher's and T-test statistics results show that statistically significant negative correlation between capital risk and banking performance measured by ROE, according to the mathematic model:

$$ROE = 0.151 - 0.477 (CAAdq)$$

Where in every unite increase in ROE, a 0.477 unit decrease in (CAAdq).

As a result, there is a significant relationship between capital risk and performance of Syrian private banks.

**Table 3.** Results of regression between variables

Independent Variable	R	R Square	Adjusted R Square	Std. Error of the Estimate
NPL/TL	.742a	.551	.506	.00978
CAdq	.775a	.600	.560	.00922

Dependent Variable: ROE

**Table 4.** Models fit

		B	Std. Error	Beta	T Sig	F Sig
Credit risk	consent	.096	.005	-.742-	.000	.006b
	NPL/TL	-.467-	.133		.006	
Capital risk	consent	.151	.018	-.775-	.000	.003b
	CAdq	-.477-	.123		.003	

Dependent Variable: ROE

### Discussion

The aim of this study is to examine the impact of credit risk and capital risk on banking performance in Syrian private banks, from the findings: the performance is negatively affected by percentage of non-performing loans from a total loans portfolio, this is because of the non-performing loans losses which increased in conjunction with an increase of lending level. Besides that, Syrian banks had increased the provisions and reserves to cover loan risks, which in turn led to increased expenses, this result is consistent with the results of (Felex and Claudine, 2008), (Kargi, 2011), (Altayb and Shahateet, 2011) and (Epure and Lafuente, 2012). More findings show that capital risk measured by capital adequacy affects inversely on return on equity as a measure of banking performance due to increasing percentage of risky assets that were more than the increasing percentage of profit in Syrian banks during the period under study. A low level of return on equity because of uninvested liquidity during the same period, It is different from all previous studies findings such as Altayb and Shahateet (2011), Ravindra and Manmeet, (2008).

Generally, non –performing loans ratio in Syrian private banks was acceptable during the period under study, ranging between 1 to 8 percent, in an average of 3.3 percent. Furthermore, capital adequacy ranging between 12 to 20 percent, in an average of 14.46 percent, it may be acceptable evidence of Syrian private banks soundness in that period.

### Conclusion and recommendations

In accordance with the results of applied analysis, banks management and the central bank of Syria should be concerned with enhancing credit risk management practices and policies to maintain the stability Syrian banking industry, on the other hand it is importance to issuing periodical rating reports to rank the Syrian banks according to risk levels either from regulatory authorities or other specialized parties as companies of financial consulting and services, in addition to Strengthen and developing risk disclosure methods which can be supports the investors decisions and contributes to financial market stability especially

that all Syrian private banks are listed in Damascus securities exchange.

For future research, we recommend further research on factors that may affect on banking performance in general and other types of risks in particular, additional analysis of the impact of the Syrian crisis on banking performance after 2011, furthermore of the nature of the relationship between risk and performance during the crisis.

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Scruton, R. (1996). The eclipse of listening. *The New Criterion*, 15(30), 5-13.

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Henry, W. A., III. (1990, April 9). Making the grade in today's schools. *Time*, 28-31.

###### Cituojama iš knygos:

Autorius, A. A. (Leidimo metai). *Pavadinimas: Paastraštė*. Vieta: Leidykla.

###### Cituojama iš vėlesnių leidimų:

Helfer, M. E., Keme, R. S., & Drugman, R. D. (1997). *The battered child* (5th ed.). Chicago, IL: University of Chicago Press.

###### Cituojama iš internetinių šaltinių:

Autorius, A. A., autorius, B. B. (publikacijos data). *Pavadinimas. Internetinio šaltinio pavadinimas, numeris/tomas* (jeigu yra). Paimta iš <http://www.someaddress.com/full/url/>

PASTABA. Išsamiau apie APA stiliaus metodinius reikalavimus žr. OWL, Purdue for a complete listing of sources and formats, <http://owl.english.purdue.edu/owl/resource/560/01/>

8. Autorių trumpas CV, kurį sudaro: autoriaus vardas, pavardė. Mokslinis laipsnis. Darbovietė. Pareigos. Mokslinių tyrimų kryptis. Adresas. Telefonas. Kita informacija apie autorių. Autorių CV turi sudaryti **ne daugiau kaip 3000 spaudos ženklų**.

- Anotacijos: teksto dydis – 8 pt, pavadinimas – 10 pt, **Bold**. Po paskutinio pagrindinio žodžio taškas nededamas.
- Skyrių pavadinimai: mažosiomis raidėmis, kairėje, dydis – 11 pt., **Bold**.
- Žodis *literatūra* – 10 pt, literatūros sąrašas – 9 pt dydžio.

**Reikalavimai straipsnio surinkimui ir sumaketavimui**

- Straipsniai turi būti parengti MS Word programa A4 formato lapuose.
- Dokumento paraštės: viršuje – 2,0 cm, apačioje – 2,0 cm, kairėje – 2,0 cm ir dešinėje – 2,0 cm.
- Straipsnio tekstas: mažosiomis raidėmis lygiuojamas pagal abu kraštus, dydis – 10 pt, šriftas – Times New Roman, pirma pastraipos eilutė įtraukta 0.5 cm.
- Straipsnio pavadinimas: didžiosiomis raidėmis, kairėje, dydis – 14 pt., **Bold**.
- Autoriaus vardas, pavardė: mažosiomis raidėmis, kairėje, dydis – 12 pt., **Bold**.
- Institucijos pavadinimas: mažosiomis raidėmis, kairėje, 10 pt., *Italic*.
- Elektroninis paštas: mažosiomis raidėmis, kairėje, 10 pt., *Italic*.

- **Paveikslai ir diagramos** turi būti aiškūs, brėžiniai – sugrupuoti į vieną objektą.

**Lentelės ir schemos** turi būti sunumeruotos, ir turėti pavadinimus.

1. Lentelių pavadinimai rašomi virš lentelės centre.
2. Paveikslų pavadinimai rašomi po paveikslu centre.

**Pateiktas tekstas papildomai redaguojamas nebus.**

***PASTABA. Patogu naudotis parengtu straipsnio šablonu.***

## Requirements for the authors, who want to publish their articles

The founder of a scientific journal “Vadyba / Journal of Management” is Lithuania Business University of Applied Sciences. Since 2000, the journal publishes technology, social sciences and physic sciences-related articles. The main goal of the scientific journal articles and conducted research is to emphasize the problems and present possible solutions for the public and private organizations of the region. The articles can be both empirical and theoretical.

The submitted articles must be original, previously unpublished. It is prohibited to publish the articles of this journal in other publications.

### General requirements

- Articles submitted to the Editorial Board must be professionally edited, without spelling, punctuation and style errors. The articles must use scientific language.
- Articles shall be written in English.
- **The article shall be up to 10 pages long. The last page should take at least half a page, i.e. about 2/3 of the page.**
- The structure of the article must have a structure of a scientific article. It must contain the following:
  1. The **title** of the article. Article’s **author, institution**, which the author is representing. **E-mail** of the author of the article.
  2. **Abstract** with the main words in the language of the article. The Abstract should briefly cover the contents of the article; specify the aspect of how the problem will be analyzed. The text of the Abstract must be clear and concise. **The Abstract must contain at least 2000 characters.**
  3. **Keywords** – these are the words that express the most important features of the topic. Five or six keywords of the article must be included in the Lithuanian National M. Mazvydas library records of authoritative names and subjects. It is possible to check if the keyword is included in this list in the website of the library: [http://aleph.library.lt/F/UYSMKM4NY8C9H33SP6PV8F2585NQU59CEEBJVCYCA3HUQNQCR5-31681?func=find-b-0&local\\_base=LBT10](http://aleph.library.lt/F/UYSMKM4NY8C9H33SP6PV8F2585NQU59CEEBJVCYCA3HUQNQCR5-31681?func=find-b-0&local_base=LBT10), by specifying the “topic, subject (lit)” (in Lithuanian) and “topic, subject (eng)” (in English) in the search field.
  4. **Introduction**, which formulates the purpose of the scientific study, discusses the question of the study, its novelty and degree of research, specifies the object of the study, objectives and methods.
  5. **Analysis – article material**. The sub-sections of the article are *unnumbered*.
  6. **Conclusions**. *Unnumbered*.
  7. **References**. *Unnumbered*. References in the body of the article should be cited in parenthesis by indicating the surnames of the authors and year, e.g. (Cooper 1994), (Cleland J.; Kaufmann, G. 1998). If an internet source does not have an author, the link is placed only in the main text in parenthesis. Letters “p” and “pp” are not written next to the pages.
  8. Examples of referencing:

### Books

Valackienė, A. (2005). *Crisis Management and Decision-making*. Technology, Kaunas.

Berger, P. L., Luckmann, Th. (1999). *The Social Construction of Reality*. Pradai, Vilnius.

### Journal articles

Boyle, T. (2003). Design principles for authoring dynamic, reusable learning objects. *Australian Journal of Educational Technology*, 19(1), 46–58.

### Book articles

Curthoys, A. (1997), History and identity, in W. Hudson and G. Balton (eds), *Creating Australia: Changing Australian history*, 25 - 84. Allen and Unwin, Australia.

### Web documents

Wiley, D. A. (2003). Learning objects: difficulties and opportunities. [Retrieved March 18, 2009], <[http://opencontent.org/docs/lo\\_do.pdf](http://opencontent.org/docs/lo_do.pdf)>.

### Statistical information and web resources

Lithuanian Emigration Statistics. (2009). Statistics Lithuania to the Government of the Republic of Lithuania. [Retrieved February 16, 2009], <<http://www.stat.gov.lt/lt/news/view/?id=6819&PHPSES SID=5b1f3c1064f99d8baf757cde1e135bc0>>.

9. **Summary with the keywords** is written in English. **The summary should include at least 3000 characters.**
10. Short CV of the authors, which consists of: name, surname of the authors. Degree. Work. Occupation. Research direction. Address. Telephone. Other information about the author. The author CV must include **up to 3000 characters**.

### Requirements for the outline and layout of the article

- The articles must be written in MS Word A4 pages.
- Document margins: top – 2 cm, bottom – 2 cm, left – 2 cm and right – 2 cm.
- Full text: in lowercase letters, aligned to both margins, size – 10 pt, font – Times New Roman, first line of the paragraph indented by 0.5 cm.
- Title of the article: in capital letters, left alignment, size – 14 pt., **Bold**.
- Author’s name, surname: in lowercase letters, left alignment, size – 12 pt., **Bold**.

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- E-mail: lowercase letters, left alignment, 10 pt., *Italic*.
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- Section names: lowercase letters, left alignment, size – 11 pt., **Bold**.
- Word *Literature* – 10 pt, literature list – 9 pt.
- **Figures** and **diagrams** must be clear, schemes – grouped into a single object.

**Tables** and **schemes** have to be numbered and titled.

1. Table titles are written above the table in the centre.
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**The text will not be further edited.**

***NOTE. It is obligatory to use the prepared template for the article.***





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