Gjorgji Manev, PhD

Institute for Sociological, Political and Juridical Research
University "Ss. Cyril and Methodius"

manev@isppi.ukim.edu.mk

THE UNITED KINGDOM REFERENDUM AND KNOWLEDGE MANAGEMENT UTILIZATION FOR OVERCOMING EUROPEAN MISUNDERSTANDING

Abstract

The referendum carried out in the United Kingdom of Great Britain and Northern Ireland for leaving the European Union (EU) revealed the existence of Euro-skepticism and the dilemmas concerning their own future. This paper discusses the development of European integrations and the conflicts arising from existence of varied approaches to the current issues. This paper particularly emphasizes the interest of the United Kingdom (UK) on focusing on its own sustainability and the values acquired by applying the capacities of knowledge management. Aided by the Geographic Information Systems (GIS), this paper gives an in-depth and thorough analysis of the crucial features of the UK and the EU following the referendum outcome. Application of GIS makes it possible to reach better decisions, but GIS are also means that allows gathering, storing, analyzing and presenting these spatial data. Intentions and pursuit to reach a state of self sustainability can not be accomplished unless there is appropriate climate and culture that ensures creation and implementation of knowledge, accompanied by permanent improvements of the applicable knowledge and its usage in new and better products and services.

Keywords: Knowledge management, Sustainable development, Geographic Information Systems, the United Kingdom of Great Britain and Northern Ireland, the European Union

INTRODUCTION

At the end of June 2016, the United Kingdom of Great Britain and Northern Ireland drew the world public attention with its referendum on remaining in or leaving the European Union. The UK is a highly developed country, former owner of a whole host of colonies, located on the island of Great Britain and partly on the nearby Irish island, whose northern part is referred to as Northern Ireland. With its territory Northern Ireland is an integral part of the United Kingdom, thus creating with Great Britain their political union. The Kingdom of Great Britain was established as early as in 1707 by uniting England and Scotland. Both of the Islands are located in the north of the European continent. The United Kingdom (UK) covers the territory of 5.56% of current European Union (EU28). The constituents of the UK are England, Wales, Scotland and Northern Ireland whose area is 243610 km². England's share is 53,47% from the territory of the United Kingdom of Great Britain and Northern Ireland (hereinafter referred to as the United Kingdom (UK), whereas Wales', Scotland's and Northern Ireland's share are 8,51%, 31,98% and 5,8% respectively.

On June 24th 2016 the Electoral Commission of the United Kingdom officially announced the results of the referendum conducted. The referendum was carried out by initiative of the Government of the United Kingdom and its purpose was to establish to which extent the British voters wanted to continue their cooperation and membership in the European Union (EU). The question was very clearly defined, asking the voters whether they wanted their country to remain in or to leave the European Union. According to the data presented by the polling stations, the number of voters was 33577342, out of which 16141241 voters, i.e. 48,07% of the voters who had voted, had wanted the UK to remain in the EU. 51,85% of the voters, i.e. 17410742 voters, had chosen for Britain to leave the European Union. There were also 25359 non-valid ballots. Out of the total number of people eligible to vote, 72,2% had decided to vote. Based on the above mentioned results which reflect the wish of the voters, the conclusive outcome was that the United Kingdom decided to leave the European Union.

On this occasion, a survey was carried out in order to look into the reasons why the United Kingdom of Great Britain and Northern Ireland decided to conduct a referendum, and the likely future consequences thereof. The strategic goals and intentions of the UK, which are associated with successful application of knowledge management for reaching its desirable sustainability, were also studied. The results of the referendum were analyzed and particular emphasis was put on the significance of the application of the Geographic Information Systems (GIS), both for carrying out the referendum and for making crucial decisions. As well as

this, there is a thorough historical depiction of European integrations and British correlation with them

INTEGRATION PROCESSES IN EUROPE AND IN THE UNITED KINGDOM

The idea for current European integration dates back in 1948 with establishment of the European Movement International. Its basic role at that time was to represent a kind of a response to the growing nationalism and to enhance development of mutual trust among European leaders. That was basically a lobby organization whose purpose was coordination of associations and national councils. with a view to promoting European integration and enabling exchange of information. As a matter of fact, the very beginnings date one year earlier, in 1947, by establishing the Anglo-French United European Movement, which was aiming at realizing after World War II the necessary cooperation among the organizations that had been established then.

Work on these ideas continued till 1950, when the French Minister of Foreign Affairs Robert Schuman announced the Declaration for Establishment of the European Coal and Steel Community, which was equally enthusiastically worked on by Jean Monnet (European Commission 2013). In the year to follow, 1951, by signing the Treaty of Paris, the European Coal and Steel Community (ECSC) was officially founded. Its primary purpose was, by application of the international law, to recover the economy on the European continent. It was supposed to act as a preventive measure for future prospective wars that might occur on European territory. It was expected to create and offer conditions for peaceful development, and in the long run, it would contribute to sustainability of European economy. Those were the reasons to encourage and foster coal and steel production in France and in West Germany, pointing out over and over again that it was for mutual industrial benefit for both countries.

The next step was founding the European Economic Community (EEC), which was implemented with the Treaty of Rome dated March 25th 1957. It was signed by its establishers: Belgium, France, Italy, Luxemburg, the Netherlands and West Germany. This Treaty regulated the customs duties, and thus a customs union was formed among the Treaty signees, which basically meant laying the foundations of European integration. Put in other words, this implied that from then on goods, capital and people could move freely and smoothly, which indirectly meant drastic increment in the variety of services and products. Additionally, an Agreement was reached to commence working together on mutual policies concerning European

transportation and agriculture. European Commission and the Social Fund were also established.

The next significant event was the Maastricht Treaty signed on February 7th 1992 by the member countries of the European Community. It is also referred to as the Treaty on European Union (TEU) and it came into effect in 1993. European Union and European citizenship were established with this Treaty. This led to laying the foundations for the three so called European pillars: the European Union (comprising as well the European Coal and Steal Community and the European Atomic Energy Community), Justice and Home Affairs (JHA) and Police and Juridical Cooperation in Criminal Matters (PJCCM), and the third pillar was the Common Foreign and Security Policy (CFSP). This Treaty was amended with the amendments from London Treaty which entered into force in 2007. It considers the constitutional basis of the European Union (EU).

Concerning the United Kingdom, what is of particular significance for it is the Treaty of Lisbon, Portugal, dated December 13th 2007, which took effect the same year. It was signed by the 28 member countries of the European Union, and it is commonly referred to as Reform Treaty. This Treaty strives to establish a more powerful European Parliament, introduces the right for each member state to leave the European Union at its own discretion, offers the European countries the right of re-accession, and a procedure for carrying it all out is introduced (Treaty of the Functioning of the European Union, 2012). It is exactly this right for a member state to leave the European Union, that allowed the United Kingdom, on proposal by its Prime Minister and the Parliament, to announce a referendum regarding this issue for June 23rd 2016, it took advantage of Article 50 which says that "Any Member State may decide to withdraw from the Union in accordance with its own constitutionals requirements." (Treaty on European Union 2012). This was actually a check of the trust of the full age citizens of the United Kingdom in the reformed institutions of the European Union.

Another proof of the United Kingdom's taking advantage of this opportunity is the referendum in 1975 on "whether to embrace further European integration" by accessing the European Economic Community. The results obtained then were totally different from those now – out of 64,62% of voters who used their right to vote, 67,2% voted for accession. However, the latest outcome of the referendum in the UK reflects another situation with the relations between the European Union and the United Kingdom. These are most clearly expressed in the varied views and attitudes of some European states regarding the referendum (Möler and Oliver, 2014).

So, with reference to the referendum conducted, Germany sent a message to the UK that in the course of the negotiations for leaving the EU, the latter will not be

given the right to choose which European privileges it will be allowed to accept and which to reject, even though we speak about negotiations when it is almost always possible to reach mutually acceptable agreements. Italy thinks that negotiations on leaving the Union are possible only after putting into effect Article 50 from the Treaty of Lisbon. This view is supplemented with Vatican's endeavors to find new creative ways of enriching the Europeans' living together. At the same time, there are proposals for giving wider powers and independence to the European Union member states, which would prevent and hinder some secessionist movements in Europe.

The European Parliament invites the UK to commence the process for leaving the EU, which basically means negotiations for the conditions for withdrawal from the EU, with duration of two (2) years (a Declaration was adopted with 395 votes for, 200 votes against and 71 votes abstained, which clearly defines and specifies the position of the EU after the referendum in the UK). In this context fairly important is the official attitude of Scotland which itself conducted a referendum in 2014 for withdrawal from the UK, with support of only 45% of voters, i.e. the majority chose to stay within the UK. Scottish government expressed its opinion that the Scottish Parliament might veto the Uk's withdrawal from the EU, and points out that if Scotland wants to leave the UK, a new referendum will be imperative. Poland, in turn, proposes reaching a new Agreement for sovereign states within the EU.

The view of France has always been of great significance. Its remark is that there are ongoing changes in the world which should be addressed by the EU, and it especially refers to EU's competitiveness. Therefore changes, reconsideration of the current Agreements and addressing the issue of radicalization that is going on in Europe, are a must. France threatened not to obey the Treaty of le Touquet dated 2003, which deals with the bilateral relations between the United Kingdom and France (Blunkett and Sarkozy, 2004). Another comment is that the UK possesses highly developed, advanced and worthy skills and techniques. Canada's comment is that the UK is its important friend and strategic ally. These are two countries that have historically created inextricable bonds. They have always worked on reaching mutual agreement and creating common values, regarding them all as their own capital. Regarding this issue, the position of the USA is of great importance, since the USA has always had a special approach when it came to their European ally. Many of the UK's decedents work and live in the USA nowadays. That is the reason why the USA accepts the UK's decisions with full respect and understanding. The USA perceives its relations with the UK as something permanent and lasting. Quite similar views were expressed by Australia and the Commonwealth.

General conclusion regarding the turmoil in Europe and the referendum conducted by the UK is that there are disagreements and difficulties in reaching

a consensus when talking about accession to the EU by some countries. The same applies to reaching the stipulated European standards, development and enhancement of economic performances, and the ways of reaching consensuses within the European Union. There are some objections with regards to the way of carrying out the reforms (Emerson, 2015), the occurrence of obstructions directed towards the prospective EU member states, instead of developing mutual respect and cooperation. The current situation necessitates clarification of the EU accession criteria, in order to realize the integration processes, and overcoming of the disagreements and differences in the approaches related to the issue of EU expansion.

As well as the above, there is an appreciable rise in EU-skepticism in Europe, which in turn heightens the position of the parties that advocate withdrawal from the EU. This would inevitably lead to carrying out the necessary reforms within the Union. Some of the remarks are concerned with undervaluing and neglecting the fundamental values that underlie the EU, that they are either inappropriately or insufficiently practiced, which might be the major cause for the way the UK voters voted. Investment related problems are also mentioned. There is an obvious irregularity in the development of the EU member states, and some economic sectors have drastically underperformed. Election standards have also dropped, which is reflected in the insufficient (low) number of voters when voting for the European Parliament (in 1997 the percentage of voters was as high as 61,66%, whereas in 2014 it was 42,54%). Another very obvious drawback is the noticeable and indisputable dissatisfaction with the strict saving measures and the fiscal discipline policy, which have resulted into problems with deficiency of profiles for some jobs and inability to reach the desired economic growth.

THE RELATIONSHIP OF THE UNITED KINGDOM WITH THE EUROPEAN UNION

The very size of the EU area (EU28,4381376 km²) is a factor that by itself causes turbulences and a feeling of uncertainty. The changes introduced in the past, the acceptance of the insufficiently clarified relations in the EU itself, the occurrence of the Middle East crisis with the surge of refugees, the internal migrations within EU and the increased need for wider and deeper know-how (with a view to reaching self sustainability and better position at the market), these were all the causes that made the UK conduct the referendum. On proposal of the Prime Minister of the United Kingdom (which was announced by him previously in the course of his election campaign), a referendum was conducted for the UK's leaving or remaining within

the EU. The position of official London was to remain in the European Union. Namely, even the ruling party itself got interested in conducting a referendum so as to clarify and resolve the differences in addressing some of the problematic issues in the EU. The citizens of the United Kingdom were put in a position to decide on the steps to take, since the EU was "insufficiently prepared" for changes, i.e. to decide whether to continue accepting further degradation of the UK's sovereignty, whether to stick to their own currency or to opt for the Euro etc.

The reasons for the referendum conducted might also lie in the wish of the United Kingdom of Great Britain and Northern Ireland to be able to control its development and future itself, to make higher investments in its economy and to create grounds for implementation of its own policies that would match its own needs and interests. In that way the UK would be able to protect and defend its welfare and wealth acquired, based on its historical background, and consequently to foster its own economy. The outcome of application of such a policy should be higher number of job vacancies, provision of its own financial autonomy, improved care for and control of its businesses, housing, family planning, transportation, healthcare and justice.

Other reasons for conducting the referendum and voting for withdrawal of the UK from the EU could be considered as a protest against increased migration, constant banking policy, dissatisfaction with the efficiency and effectiveness of the European institution and their policies, as well as due to redefining the relation towards the globalization processes and the steps taken regarding handling the Greek debt (in less than a year, the debt in 2016 grew by 8%, i.e. amounting about 188% of GDP). Furthermore, there is a substantial growth in the number of businesses closed down, feeling of uncertainty concerning the issues related to Scotland and fluctuations in the real estate prices. In addition to this, some citizens expressed their dissatisfaction regarding the extent of protection from the migrants, expansion of the European Union towards East, social expenditures, and in particular reaching and maintaining sustainable development.

Accordingly, some of the British voters got a feeling that the EU acted as an authoritative organization that constantly imposed measures which, as per the opinion of the voters, did not meet the wishes, requirements and interests of the UK. Therefore a referendum was conducted, aiming at taking control over its interests, reducing the feeling of being disempowered and downtrodden, heightening its sovereignty and deciding itself on its own headway. Thus, in a way, the United Kingdom of Great Britain and Northern Ireland wanted to show that it had serious intentions to work on its own sustainability and capacity for competition.

The country in question, the UK, has been a member state of the European Union since 1973. It is known to be the third (3) nuclear power in the world, a country

with a huge number of colonies in the past, a country famous for its mariners who had discovered and conquered many countries. In addition to that, the UK is the fifth (5) industrial power in the world, former imperial country which currently cooperates with a number of overseas territories, some of which it owns (Bowden, 2007). Table 1 below presents the major features and data concerning the UK's relations with the European Union.

Table 1: Major data concerning the relations of the United Kingdom of Great Britain and Northern Ireland with the European Union

| | Total in EU 28 | The United Kingdom of Great Britain and Northern Ireland | Put in % |
|---|-------------------|--|----------|
| Citizens | 5082933581 | 64767115 ¹ | 12.74 |
| Employed at European Central Bank ² | 2650 | 160 | 6.04 |
| Number of European Parliament seats ² | 751 | 73 | 9.72 |
| Employed at the European Commission ² | 30009 | 1126 | 3.8 |
| Contribution to EU budget in 000000 € ³ (Oliver, 2013) | 143940 | 11341.6 | 7.88 |
| Expenditures from EU budget for the EU member states and the UK, in 000000€³ | 128564.9 | 6984.7 | 5.43 |
| The difference between how much Britain gives and receives from the EU budget, in 000000 €³ | 209.34 | 4356.9 | 3.38 |

Source:

The crisis in the Union was perceived by the citizens of the UK as a threat arising from the migrants' surge with problems in application of Dublin Regulation (Schulz and Shater, 2013), cases of misunderstandings regarding the directions of development of the UK (i.e. those who regarded domestic issues more important

¹ Eurostat, Estimate for 2015: http://ec.europa.eu/eurostat/tgm/table. do?tab=table&init=1&language=en&pcode=tps00001&plugin=1;

² Official Journal of European Union: European Commission;

³ Georgieva, 2015;

⁴ UK Corection for 2014.

than international ones), and emphasis on the differences concerning competencies over policies that directly affect the citizens. There are also significant differences in Gross Domestic Product (GDP) between the bigger and the smaller EU member states, cultural differences, drain of funds from the UK, as well as differences that are concerned with human development, welfare, employment, income etc. Apart from that, there are expectations which are associated with different competencies of the EU, UK's reserved behavior as regards Euro zone and Schengen zone whose member it is not, the position of the powerful British currency, the UK's geopolitical position and future status of the English language in the EU. The British public also feels uncertain in regard to the possible accession of Turkey to the EU, and Germany's welcoming treatment of the refugees.

Unlike the opponents of the withdrawal from the EU, those who ran the campaign to leave the EU were apparently delighted and thrilled, maintaining that this meant regaining independence and that it was a historical victory. What basically happened was that, for the first time in modern history, one highly developed and former colonial country expressed its desire to leave multiethnic EU, which was founded after World War II in order to keep peace in Europe. Immediately after announcing the voting results, the withdrawal supporters came up with comments that it was a "Freedom Victory" (words used by the leader of an opponent party in France), adding that similar referendums are to be held in other EU member states. This comment confirmed the indications and warnings that there was Euro-skepticism within the European Union itself.

Carrying out the referendum for the UK to leave the EU brought about a whole lot of consequences, some of them being resignation of the UK Prime Minister and appointing a new one, disagreements in the major opposing party, heated discussions and misunderstandings in the European Parliament, drop in the rate of the British pound in relation to the Dollar and the Euro, and instability of the financial markets. The event was accompanied by a variety of emotions, starting with disbelief, shock, protests and advocating a new referendum in the UK (which was supported with a few million signatures), i.e. appeal to remain within the EU. There were also comments supporting the need to strengthen and heighten the European identity, at the same time having full respect for the differences existing among all the EU member states.

The referendum conducted in the EU spurred the other EU member states to reconsider the idea for conducting an identical referendum in their own countries. For instance, the Netherlands carried out a survey regarding the people's wish to have a referendum on leaving or remaining in the EU, and the survey showed that 54% were in favor of carrying out such a referendum, whereas only 48% of the Italian citizens had supported that idea. Unlike these countries, as to the Balkan

countries, 60% of the citizens in Serbia, for instance, had made it clear that they would support their country's accession to the EU, with an additional comment that UK's leaving the EU might affect the Serbian citizens' views.

REFERENDUM FOR THE UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND'S LEAVING THE EUROPEAN UNION

The major features of the United Kingdom of Great Britain and Northern Ireland are presented in Table 2, featuring: name of the country and its constituents, its size in area, its population, nominal gross domestic product per capita, share of ethnic groups in per cent, and the per cent of votes for and against leaving the EU. The data presented refers to the United Kingdom and its constituents. From the separate results provided, it is possible to obtain the consolidated results for its constituents, where England with 53,4%, Wales with 52,5% and South East parts of England with 51,8% have voted for leaving the EU, whereas Scotland with 62%, Northern Ireland with 55,8% and the capital of Britain, London with 59,9% have voted for remaining in the EU.

Table 2: Major features of the United Kingdom of Great Britain and Northern Ireland with the results of the referendum conducted

| Name of state and Constitutive Units | Area ¹ (in km ²) | Population ¹ (Cen. 2011) | Nominal GDP Per Capita ² | Ethnic Group ³ (Cen. 2011) | Remain ⁴ | Leave ⁴ |
|---|---|-------------------------------------|--|---|---------------------|--------------------|
| United Kingdom of Great Britain and Northern Ireland | 243610 ⁵ | 630225326 | \$437712-1 | 87.1% White 7% Asian 3 % Black 2 % Mixed 0.9%Other | 48,1% | 51,9% |
| England | 130281 | 53012456 | \$50566 ²⁻² | 85.4% White 7.8%Asian 3.5% Black 2.3% Mixed 1% Other | 46,8% | 53,2% |
| Wales | 20732 | 3063456 | \$26008 (£17573 ²⁻³) | 93.2% White 1.3% Asian 0.6% Black 1.02% Mixed 3.88% Other | 48,3% | 51,7% |

| Scotland | 77925 | 5295400 | \$39244 (£26516 ²⁻⁴) | 96% White 2.6 % Asian 0.7% Black 0.4% Mixed 0.3% Other | 62% | 38% |
|---------------------|-------|---------|-------------------------------------|---|-------|-------|
| Northern Ireland | 14135 | 1810863 | \$26982 (£23700 ²⁻⁵) | 98.28% White 1.06% Asian 0.2% Black 0.33% Mixed 0.13% Other | 55,8% | 44,2% |

Gross Domestic Product (GDP)

Source:

£1=\$1.48 (USA) - 23.06.2016, Sterling against the dollar, DBS Research GF Group report titled 'Brexit – First Impact' dated 24 June 2016; GBP USD chart Financial Time.

€1=1.1385 (USA) - 23.06.2016, Bloomberg Markets 2016 Euro USD Spot Exchange Rate, http://www.bloomberg.com/quote/EUROUSD:CUR.

do?tab=table&init=1&language=en&pcode=tps00001&plugin=1;

The data indicates that there is a significant discrepancy among the citizens of the United Kingdom regarding their role and function in the European Union, as well as the future course of development of the country. That is why it was essential to elaborate the reasons that had made the British take this step, and which voters had voted for and which ones against leaving the EU. The data presented is official and was obtained from the United Kingdom Electoral Commission and the institution in charge of keeping British statistics – Office of National Statistics.

¹ Encyclopedia Britannica, Inc., https://www.britannica.com;

² International Monetary Fund, 2016; England GDP estimation for 2009; Welsh Government; Scottish Government 2016; Eurostat, 2016.

²⁻¹ International Monetary Fund 2016 Report for Selected Countries and Subjects. World Economic Outlook Database. Retrieved 15 April 2016.

²⁻² England GDP estimation for 2009.

²⁻³ Welsh Government.

²⁻⁴ Scottish GDP for 2015 including a geographical share of all offshore and overseas activity, Scottish Government 2016 Economy and Labor Market. *Quarterly National Accounts* 4-2015. A National Statistics Publication for Scotland Retrieved 01 September 216.

²⁻⁵ Eurostat (2016) Eurostat Regional GDP, Eurostat. Retrieved 12 April 2016.

³ UK Home Office 2015 2011 Census Analysis: Ethnicity and Religion of the Non-UK Born Population in England and Wales, Office for National Statistics 18 June 2015; Tim Ellis 2014 Scotland's Population: The Registrar General's Annual Review of Demographic Trends. National Records of Scotland, 160th Edition, 20 August 2015; Northern Ireland Statistics and Research Agency 2012 Census 2011: Key Statistics for Northern Ireland, Department of Finance and Personal, December.

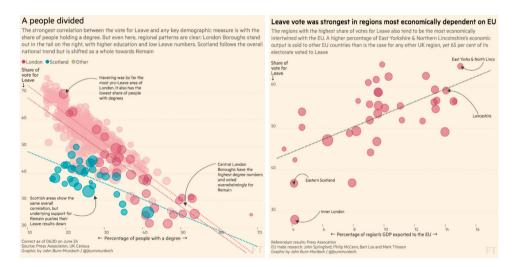
⁴ Official result of the EU Referendum is declared by Electoral Commission in Manchester – http://www.electoralcommission.org.uk/i-am-a/journalist/electoral-commission-media-centre/news-releases-referendums/official-result-of-the-eu-referendum-is-declared-by-electoral-commission-in-Manchester;

⁵ Central Intelligence Agency, http://www.cia.gov, (includes Rockall and Shetland Islands);

⁶ Eurostat, http://ec.europa.eu/eurostat/tgm/table.

The documents published by "Financial Times" do not include the correlation coefficients, although they are said to be important.

Graph 1 shows the type of correlation dependence existing between the percentage of voters who had voted for leaving the EU, and the percentage of voters as per their qualifications who had voted for leaving the EU. This type of correlation dependence was studied and presented for the capital of the country London, the North of Great Britain – Scotland, as well as the other regions of the United Kingdom. From the data presented it is obvious that most of the voters who had voted for UK's leaving the EU come from those electoral points where the voters have lower qualifications. This applies to all the constituents of the UK, whereas in those electoral points where the majority of the voters have higher qualifications, the voters have voted against leaving the EU, although their number is not very high. This correlation tendency as per Graph 1 for Scotland amounts Y = -0.606X + 54.84, and for the other regions of the United Kingdom it is about Y = -1.055X + 83.87. Y denotes the variable which shows the percentage of those who had voted for leaving the EU, whereas X denotes the variable that shows the percentage of those who have appropriate qualifications. On the Graph each of the circles stands for one voting area. The research was made monitoring 382 voting areas.



Graph 1: Type of dependence between the qualifications of the voters and the choice made when voting

Graph 2: Dependence between the voters who had voted for leaving the EU and the level of regional GDP exported in EU.

Source: http://blogs.ft.com/ftdata/2016/06/24/brexit-demographic-divide-eu-referendum-results/

Similar tendencies have been registered with the relationship between those who had voted for UK's leaving the EU and the voters' average pay. Namely, it is noticeable that there is a correlation between the voters' average monthly pay and their way of voting, i.e. the voters with lower monthly pays have predominantly voted for leaving the EU. In this case, that correlation is Y = -0.416X + 92.67.

Accordingly, it is easy to draw a conclusion that if the level of qualification of the British voters were higher and if they were better acquainted with the European issues, since the difference between the leave votes and remain votes is quite tight, the outcome might have been different. However, the result is such as it is, and it may contribute to deepening the misunderstandings within the EU. In the case of voters aged about 30, most of them had voted for leaving the EU. This is in accordance with the previous conclusion that the youth, who are at present gaining their qualifications and are not employed yet, are mostly the ones that are dissatisfied with the relationship between the UK and the EU. On the day of voting this correlation was approximately Y = -X + 2,67.

Graph 2 presents the choice made by the voters coming from regions that in the past had exported goods (maybe even funds) to the EU, presented as part of the regional GDP. The Graph clearly shows that the export realized had varied and had depended on the regional exporting activity. In other words, those regions of the United Kingdom which had been economically better connected with the EU member states (particularly those that had reached an export between 9-15%), had shown higher tendency toward leaving the EU, and this correlation amounts Y = -0.416X + 92.67.

The results of the referendum can lead to occurrence of a number of consequences, such as economic consequences, consequences affecting the EU budget, consequences for the macroeconomic situation of the UK etc. Economic consequences may refer to future reduced export from the UK to EU, decline in the trading of the country, drop in the value of the pound, and general turbulences on a global level. As to the budget of the EU, it is well known that each member state of the EU is obliged to pay in certain funds in the EU budget. There are clearly defined and agreed mechanisms for further distribution of this budget, and in the case of the United Kingdom, the exchange rate with the UK is negative and it is presented in Table 1. In other words, the UK was a member state that allocated to the EU budget more funds than the former received, and the UK was among those countries that made very regular contributions to the EU budget.

Macroeconomic situation in the UK features drop in unemployment rate from 7.8% in 2010 (Johansson and Lang, 2012) to 5.2% in September 2015 (Allen, 2016) and the percent of unemployed under-25-aged is 13.5%. In fact, the UK succeeded in

reaching the unemployment figure of 5.4% from the year 2000. Unlike the UK, the EU 28 unemployment rate for the year 2014 was 10.1% (Brandmüller and Onnerfors, 2015). The United Kingdom has a high level of Gross Domestic Product (GDP) which for the year 2014 was 1817234 million GBP. All this was achieved with government deficit of 4.4% from GDP for the year 2015, and government debts amounting 89.2% from GDP (Allen, 2016). Export rate in correlation to the import rate amounts 1.65 for the year 2013, i.e. the UK has a surplus in its trading activities of 89 billion Euros. This rate is 1.33 in the EU, i.e. the EU has a surplus in its trading activities of 173.2 billion Euros for the year 2013 (Coyette, Montaigne, and Standell (Eds), 2015).

Possible consequences for the UK as a result of its leaving the EU might be losing jobs that are connected with activities throughout the European continent, more restricted access to the European financial markets, and drop in the index at London stocks market. Immediately after announcing the results of the referendum, there was a drop in the shares value of the UK's leading banks (on average by 12.6%) and there was a temporary break in trading with them. This resulted in loss of the market capital of the leading corporations, which at that time was higher than the net contribution of the UK to the EU.

Additionally, taking into consideration the recent events with the referendum in Scotland, thee are possibilities for occurrence of disagreements within the United Kingdom alone, regarding European integrations. Another possibility is recession followed by drop in gross domestic product caused by increased uncertainty, which, in turn, might affect the extent of investments. Further on, chances are that trading conditions will deteriorate owing to reduced growth of world economy, GDP of the Euro zone, poor growth of the American economy and retaining of low interest rates, even though the UK is bound to do its best to avoid this situation.

One of the issues that will matter for the remaining EU member states (taking into consideration the present way of communication) is the usage of the English language in the EU. For professionals, it will be most interesting to see how Article 50 from Treaty from Lisbon will be activated and whether the UK will at all commence the process of leaving the EU. The first official announcements are that the UK citizens' decision will be obeyed and that the UK has no intentions of leaving Europe.

SIGNIFICANCE OF THE GEOGRAPHIC INFORMATION SYSTEMS (GIS) AND THE REFERENDUM IN THE UNITED KINGDOM

In the process of elaborating the causes and consequences of the United Kingdom's leaving the EU, data previously obtained and analyzed by Geographic Information Systems (GIS) was used. This system allows access

to the data, their integration, as well as linking the data with the voting results obtained from the regions throughout the UK (Fotheringham and Wegener, 2001). This system made it possible for the professionals in charge to have an insight into the data and to access it in a manner that will reveal the reasons why the voters had voted for leaving the EU. Additionally, it was possible to understand and analyze the changes in the UK's approach to the EU and the former's aspirations toward new challenges that are expected to bring the UK to the desired future sustainability.



Graph 3: GIS and the referendum results related to the UK's constituents.

Source:

https://www.washingtonpost.com/news/worldviews/wp/2016/06/24/this-map-shows-britains-striking-geographical-divide-over-brexit/

Geographic distribution of the voting results obtained, per constituent units of the United Kingdom, are presented in Graph 3. GIS was applied with the purpose of providing support in the process of presenting the distribution of the voters (depending on their voting for or against leaving the EU) in the UK regions, exemplifying the capacities of GIS when there is a need of integrating the political and developmental processes in the EU, and highlighting the speed with which GIS is able to provide specific information for elections and other political processes.

This research was also aimed at pointing out and clearly presenting the way know-how is obtained, applying both the electoral and spatial basis, and in this case it refers to the United Kingdom (LeGates, 2005). During the process, the referendum results were localized, which made it possible to realize the associations deriving from the data available. They are useful for further processing and analysis of the future intentions. In order to do this, some commonplace geographical attributes were applied, such as the data concerning the location of the electorate.

By reaching knowledge and information based on available referendum results, this data can be grounds for construction of strategic values and knowledge which can later be stored in databases. They will be highly valued by the government leadership in deciding on the future strategic directions (Cambell and Masser, 1995). Exploitation of GIS is based on computer based information systems and their application. The intention was to explain the possibilities that GIS offers of managing the spatial data obtained from the British referendum. Application of GIS allows better decision making and offers ways how to gather, store, analyze and represent the spatial data. Based on GIS data and offered analyses, discussions and data, an ambitions reader would be able to draw his/her own conclusions that would allow him to get familiar with the current economic and political reality in Britain and the surroundings it exists in.

In fact, we are talking about a technology that supports the mobile needs of its user. It uses the computers for organizing and using data, but at the same time it is used as a means for making decisions based on the data associated with specific geographic locations on the Earth (Masser, 2004). It can be web-based and linked with other applications, which makes it possible to appropriately present the spatial referendum data and the associations derived from them. Nowadays they are successfully applied and used when presenting voting results related to spatial data.

GIS systems can also be used as means for developing access and statistic models that can be used for predicting future developments (Moore, 2001) and movements or for valuing the results obtained. Thus the public can be acquainted with the events going on in the EU. Nowadays GIS is widely and successfully used for the needs of spatial (physical) planning, for research projects (including those financed by government institutions and for their needs), as well as for the needs of economic and political-election processes, which is in fact the case with the UK.

Based on data arranged and organized by applying GIS, it is possible to boost the process of making decisions and analyses which necessitate a definite location, i.e. a site where the events happen (Crossland, Wynne and Perkins, 1995). GIS provides visual display and thus it acts as cognitive guidelines, i.e. a tool enabling coupling of the spatial to the attributive data. The objective is storage and later usage of this data, with a possibility of having it additionally virtually presented in

the form of maps that would be supplemented with a variety of graphs, tables and figures. During the process of making analyses, GIS allows connecting the location with the relevant data, allowing thus finding solutions which, in turn, would ensure sustainability of the organization.

GIS allows visual presentation of the data, which helps in establishing the location of the entities, presenting them like dots, polygons and lines, and then later additionally connecting them with the attribute dimensions, such as, for instance, the information on base entities and objects. This ensures making all sorts of decisions, such as non-structured, semi-structured or structured ones. Apart from this, GIS enables operational, tactical, strategic and management control, improved and more efficient operational planning, strategic planning, identification of various regions, offering aid in emergency cases, assessment of potential risks, appraisal of future needs, network analyses and spatial and statistical analyses. All these activities can be performed by processing the information and analyzing the spatial and attributive data, which additionally can later be complemented by mathematical, statistical, geographical and mapping methods. These are activities that are taken when searching for answer to questions regarding a specific location.

For the needs of this research, information from a number of sources was used, such as city, regional and voting points. The objective is to present the data on variability of the votes in some particular regions and voting points. Put in other words, it was possible to quantify the outcome and to see how the variations in the responses were managed, following a number of criteria: education, geographic location, export, region and income. Additionally clarifying, an analysis was made identifying the interconnections among the British commitments, their promotion and the geographical location, using in the process some of the demographic data such as the size of the British area, the time, allocations of funds for the EU activities as well as feedback benefits, the UK's direction of movement, its processes which are proposed for development etc.

This paper also makes a brief analysis of the efforts made by the UK for its inside and outside sustainability, by including the world trends, the differences that had occurred among the voters, their location, the needs of the electorate, the pressure imposed by the refugees, migrants and foreign employees. The paper specifies the knowledge related to the geographic location and its surrounding areas which affect the planning based on the results of the referendum obtained, with some variations of the voters in the UK regions, marking these regions and penetration of the European ideas. They are important in the decision making process, simultaneously performing the operation control (which becomes obvious with improved management of its people, property and services), the management control (which is related to various needs, charging of the services, a wide range

of promotional activities, control in emergency cases and the like) and strategic planning related to spatial distribution of British interest, mutual relations and achieving demographic control.

Introduction of GIS was with a view to presenting the results of the UK referendum in a more sophisticated graphical manner, which offers visual clarification of the events going on in the UK and its surroundings. It was made possible by presenting the geographic map of the UK, usage of the database which was created during the process of preparation and realization of the referendum, as well as the spatial analysis. Additionally, there was processing of the data which was already announced and presenting it like a graphical presentation (where the problems and differences in the UK are visually presented), aiming at enabling further improved interaction with the object of the research.

The benefits of the referendum results and of application of GIS can generally result into future better planning (Tomlinson, 2007). This particularly refers to the approaches and manners of its investing and exploitation of its potential. As to the referendum results, they clearly express the wishes of the majority of the UK population, the priorities imposed and the actions taken. All this will support the leadership in making proper future decisions that will foster sustainability.

The proposed way of storing spatial data enables integration between the clients' applications and physical storage of such data. The methods used in tracking the spatial data have the dimension of the location (in this case it is the regions of Great Britain, London, the geographic area and its size). Using the information on the location helps in directing sustainability, which is associated with provision of continuous markets, development of the markets, enlargement of the range of products and services offered, both for domestic and for foreign (EU) needs and even wider.

Reaching added value is associated with application of spatial components when analyzing a problem, with usage of the Global Positioning System (GPS) and digital mapping. That means linking the location to the attributive data, the purpose of which is becoming profitable and reducing external pressures. This shall be supplemented with strategies for networking, constant measuring of the achievements, prediction and understanding of its own capacities which in the case in questions could take the UK to new values, with the support of the usage of digital networks.

The referendum conducted made it possible to gather (quickly and in a short period of time) information about how the British public responds to the changes and the developments going on in the EU. This especially refers to the investments happening in the EU, the introduction of new products and services, the cultural events and the new European relations resulting from the enlargement of the EU,

migrations of the labor within the EU member states, migrants' crisis etc.

This was accomplished by means of the spatial data bases which make possible linking the data with its geographic location which is accurately defined with its coordinates. Thus, efforts were made to explain the support for the referendum process and the chances for further making decisions crucial for the country. They are usually used for operational needs, but for strategic and tactic purposes, as well. In that way it is possible to identify the issues that require research, geostatic analysis and connection of the geographic data. Generally speaking, we tried to explain how GIS is used for making better decisions which involve space, location and time data, i.e. data that involve distances and there is not direct contact with these locations, but there is an indicator that can lead us to certain data regarding the object being researched, as well as the location from where this data is to be provided.

KNOWLEDGE MANAGEMENT AND THE EUROPEAN SUSTAINABILITY

The events that had been happening in the EU since its establishment to date were intended to shift European economy from industries based on capitalism towards knowledge-based industries (Jacob, 2014). These processes were accompanied by development and application of information-communication technologies (ICT) as a response to the needs of the modern European society that was striving to accomplish its predefined targets of reaching self sustainability and acquisition of advantages on a global level. Those were the grounds for creating of approaches and strategies that would allow application of knowledge and information managements. Hence the need of developing people and their knowledge, commonly referred to as human capital (Becker, 1993). In order to reach this state, it is a must to develop a comprehensive learning process culture in the companies which are active in Europe and in the society itself, being simultaneously aided by the technologies for sharing knowledge.

The United Kingdom is fully aware of the fact that in order to be able to achieve such goals, it is of crucial importance to find and involve people with outstanding capacities, people who possess the know-how and skills needed, people fitted with the identities and values required for performance of complex tasks in a constantly competitive international environment. Additionally, the UK realizes the necessity of involvement of individuals with an extraordinary ability to respond to the requirements regarding preservation of the sustainability of the European, but in particular, of the British companies. This would mean provision of appealing gains

and job perks, apart from remarkable fees and impeccable working conditions for those contemporary employees, all that in exchange for the plethora of knowledge and capacities they are armed with.

Nevertheless, Britain is equally conscious of the fact that possession, investment in and usage of highly talented individuals with exceptional knowledge is by itself not sufficient for reaching goals related to its long-lasting sustainability. Britain insists on that knowledge that is being applied in the international processes of doing business, and the competition which leads to creation of acceptable competitive challenges at the international markets. This, in turn, means working on products that incorporate advanced knowledge. And in order to achieve this, there must be cooperation and application of multidisciplinarity and its functionality. For practical realization of this, it will be necessary to coordinate the employees' knowledge based on knowledge related to work processes in multinational companies which are geographically distributed and are supported by such working systems and processes. Therefore it is an imperative to implement different organizational forms and working processes.

The British point out that these commitments and endeavors are unlikely to be reached without provision of appropriate climate and culture (one that provides creating and implementation of knowledge) of successful employees management based on knowledge which is basically to underlie the sustainability of its international companies. That is why it is very important to strive to keep this profile of employees, having in mind that the demand for them has drastically grown and the competition on a global level has also risen. This profile of employees are not only armed with enormous knowledge and ready to apply it wherever needed, but are also capable of intensive upgrading themselves and expanding their knowhow which will, again, be used for the needs of the country they serve. Succinctly put, they are highly educated individuals capable of putting into practice scientific theories and achievements and applying complex data in situations when more often than not they are expected to make their own decision on fairly complex issues.

Another equally valued view is that realization of this type of sustainability on a global level is impossible with mere application of traditional sources such as the location, availability of the facilities or of natural resources, which are generally supported by hierarchy systems and structures; all these have to be complemented and supplemented with constant improvements in applicable knowledge in new and advanced products and services. Accomplishment of these goals is possible by application of integrated systems for upgrading which have to be associated with the work and the peoples' individual capacities. All this has to be enabled and supported by the design and the structure of the organization, as well as by the organization's performance. Such activities should contribute to development of new products and

services. The outcome of these transfers and applications is supposed to result into achieving of the desired sustainability of the UK companies. They are increasingly based on knowledge and know how to upgrade their employees who are competing on the world markets.

This, in turn, creates conditions for complete realization of the knowledge processes such as gathering the companies' knowledge, enhancement of the research capacities of the UK's international companies and designing new products that match the market needs. These operations are impossible to perform without application of advanced knowledge databases. This is something the UK is aware of and is striving to reach. And in order to create advanced knowledge databases, it is necessary to use the social capital (Sherif, 2008) and organizational forms which support patenting, licensing, and enable cooperation, joint investments, new achievements, coalitions and projects that tend to foster the UK's sustainability. It must rely on continual adjustment to the new environment and to enhance internal cooperation and cohesion.

As a matter of fact, it is even impossible to structure this type of organizations without previously providing such culture that will suit the needs for provision of knowledge and its development. It is culture that will constantly enable and support organizational learning, aided by the information systems that manage the organizational contents (Holsapple and Joshi, 2002), knowledge preservations, knowledge transfer and management, all that aiming at reaching the desired sustainability of the organization. It is the UK's intention to cultivate and advocate individual capacities for its employees, so that they could get better acquainted with their organization and would approve of development of such culture that promotes the organization's performance. This can be achieved by dedication to gaining such knowledge, its further deepening and expanding, by development of one's own and shared knowledge, by understanding the processing going on in the organization and occasionally reviewing them, as well as by confirming the knowledge already acquired.

Due to the above mentioned, the international organizations operating nowadays are surrounded by constantly changing and developing environment, which requires from them an ongoing adaptation to the market needs. This situation makes an imperative the existence of knowledge management. In fact, people management will have to be able to address all the issues and perform all the functions related to knowledge management. Examples for this are training sessions for the managers, development of organizational culture needed for knowledge management, monitoring of the everyday operation processes of the organization, their design and working structure.

Britain's development direction will be structuring organizations that will successfully incorporate international trends, development of skills indispensable

for sustainability of the organization and their appropriate motivation. What also matters are the processes of people management in conditions of changes in knowledge management, such as development of the career of those employees who deal with knowledge, creation of an appropriate design of the complex working processes related to knowledge, monitoring the management of group and individual capacities of the employees. Attention must be paid to the need of constant increase in their knowledge and remunerations arising from it, as well as cultivation of culture associated with such performances. Accomplishment of these goals and commitments necessitates application of the principle of knowledge management (Geisler and Wickramasinghe, 2015).

This human knowledge management is basically focused on knowledge itself. Consequently, the organization itself can be perceived as something possessing a variety of types of human capital significant for its performance and achievement of the organization's goals. These are commonly identified as human capital which can be found in some individual employees, in some teams or within the organization itself, as well as in its relations towards its surroundings. Therefore it is especially important to apply and encourage agreements when the young want to use some advanced knowledge. As previously mentioned, they are particularly important for the companies' and the economy sustainability, where special attention is paid to widening the knowledge possessed by the youth (Becker, 1962). However, chances are that there might arise problems related to nonstandard employment, such as temporary employment, employment with non-standard (fewer) working hours, or some types of self-employment.

In any case, monitoring knowledge development by younger people who are very well familiar with know-how and proficiency, as well as their engagement of these young people, are of crucial significance. The youth usually get involved in organizational processes aimed at creation of organizational values and in defining the specificity of the organization. Therefore it is necessary to assess and then upgrade the needed knowledge, skills, capacities and findings which are decisive for sustainability of the organization, in conditions of continual high international competition. There are the reasons why the UK will concentrate on designing and further application of such sophisticated and state-of-the-art tools and knowledge which will be indispensable for further development of the UK society.

They are supposed to allow meeting the needs of the organization for creation of new knowledge, which will further be needed to be shared with the rest of the employees in the organization, i.e. for the new jobs (Nonaka and Krogh, 2009). This is actually related to the issue explaining which the ways to create new ideas are. They commonly cover the products and the organizational processes, followed

by sharing them within the organization. In such case, particular attention must be paid to the complex character of the working environment, domestic working conditions, commitment to the tasks and assignments, individual upgrading and social environment.

The conditions for upgrading and development of new knowledge need to be well organized. This is definitely possible by applying ICT, which allows coding, sharing, storage, easy access to it and tracking all this knowledge and data. Further step is their interpretation and explanation, as well as its application in the complex structure of the organization.

CONCLUSION

Based on all the considerations presented above, it is clear that the United Kingdom is determined to continue to play a competent role on a global level, with apparent goal being obtaining self sustainability and welfare for his people. The UK intends to accomplish these goals in a number of manners, some of which being its active participation and involvement in the global challenges, personal technological advancements and application of those advances which have not point in being created unless used for knowledge management. It is the UK's strategic intention to provide for an appropriate retrieval of the investment made and self sustainability, by means of reaching and maintaining high performance of its economy.

The UK is fully conscious of the fact that they posses unique and highly valued know-how which has taken time to achieve, and therefore it can now be considered as the UK's advantage. If we additionally take into consideration the UK's rich history in designing machines, its financial capital it has at its disposal, the way human capital is valued there, and the already developed relations it has with other countries throughout the world, it becomes more than obvious that in the North of the European continent there is a country that is seriously engaged in creating well-being for its citizens.

The results of the referendum conducted for the United Kingdom of Great Britain and Northern Ireland leaving the European Union clearly imply the significance of the social capital in determining the strategic courses of a country. This more exactly applies to the British relations to the world, as well as to its highly technological relations, which is all together supported by suitable level of organization. In addition to this, the UK's cognitive state matters, too, such as the extent to which British language and culture are spread throughout the world. And last but not least, we must mention the UK's special identity, the already established

norms in the British society, and undoubtedly the highly valued trust it has among its historical allies and friends. These are all advantages it posses that can help the UK to preserve its sustainability and well-being in the days to come.

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