

Changes in Consumer Behavior in the EU after its Enlargement and due to the Economic Crisis

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Abstract: Consumer behavior, its changes during periods of economic changes and its similarities within EU countries was analyzed on the basis of available information on household expenditures classified by COICOP. For the assessment of similarities of behavior cluster analysis were used. Their results showed that in the period of economic development (the 27 EU countries analyzed in 2005) clusters form rather appropriately to geographic division of Europe and respecting cultural affinity zone. The results also confirm that the culture of a society, the influence of education in the family and in society, respected habits, lifestyle, among others have a decisive influence on consumer behavior. There was not visible a significant change in consumption due to such transformations as joining the EU, increase in foreign investment, international trade, social system. In contrast, the analysis carried out for year 2011 suggests that strong economic changes in society, the global financial and economic crisis are such intervention in peoples lives, that they resulted in a regrouping of countries. This grouping, however, seems not be sustained in a period of economic stability. Countries seem to return to the behavior of the similarity integrated into groups created on the base of historical, cultural and geographically heritage.

Key-Words: - consumer behavior, EU, culture, cluster analysis, crisis, consumption pattern

1 Introduction

Consumer behavior is one of the most important manifestations of human behavior which is related to economic activities. It is the process of deciding how to use own available resources (time, money and effort) associated with the consumption of specific products and services [1]. This process is influenced by many factors – from the personal characteristics of an individual, to cultural, social and psychological factors and characteristics of goods and services in offer. Immediate influence on consumer behavior can be expected especially from the economic situation of households and the impact of marketing tools. The changes taking place in Eastern European countries, the change of the social system, the economic development of these countries since 1990, not least the economic crisis of 2008 could affect consumer behavior. May these changes have a significant impact on cultural and family consumption habits that are reflected on their consumer behavior?

2 Problem Formulation

This paper aims to answer the question of whether changes related to EU accession and changes due to

economic crisis have a significant impact on consumer behavior of EU countries, or more accurately on the structure of household expenditures. Conclusions could be useful for companies that do business or want to offer their products and services across Europe.

As mentioned earlier, consumer behavior is influenced among others by a variety of personal, psychological, social and cultural factors. From the perspective of this paper it is very important to understand the impact of cultural factors on consumer behavior. Culture represents the values, beliefs and attitudes that are shared by a homogeneous group of people and passed to the next generations [2]. Culture is an everyday part of our lives and affects us in every phase. The differences between cultures don't always coincide with national borders. In many countries the cultural differences are also obvious among social groups, just as much as it is among nations [3]. Changes in cultural habits have the character of evolution; they last several generations and during a life of an individual remain mostly unchanged.

The foundation of the EU has brought many changes, many of them contributing to closer

cooperation. Despite these changes, there are still cross-cultural differences among the EU countries and it is expected that in the future they won't disappear [3]. The following figure represents zones of cultural affinities by Usunier [4].

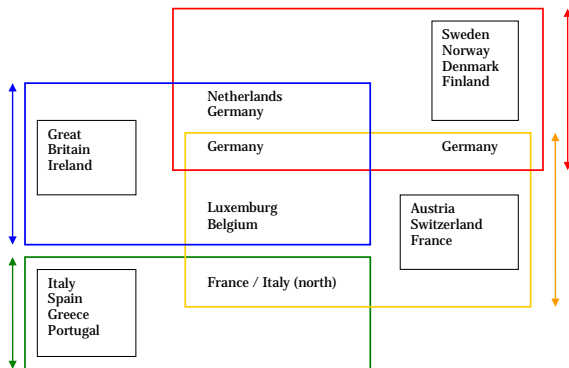


Fig. 1: Cultural affinity zones

Consumer behavior is a manifestation of a certain standard of living and welfare of society. Quantitative indicator of the standard of living is the income situation of households. The income situation of household, or its other characteristics such as the number of households at risk of poverty, material deprivation, the share of social transfers on household incomes, poverty depth, structure of household expenditures and preferences of individual commodities are other quantitative indicators, from which we can deduce future consumer behavior, or the standard of living of the population.

The economic environment of a society is a factor that directly affects consumer behavior. The accession of Central and Eastern Europe countries into the EU has brought many changes. The global economic crisis, ongoing since 2008, affected all economies of the EU. Although most countries have enacted comprehensive anti-crisis measures, virtually no country could avoid the decline in domestic demand and a fall in GDP growth [5]. The impact of the crisis and the economic development both in individual countries, and in the Eurozone and beyond, was very heterogeneous [6]. Differences among EU members remain very strong, both in GDP growth rates (which reflect different economic advancement EU members) and the GDP per capita [7].

If we look closely at the current economic development of the EU 10 (countries joining EU before 1 May 2004) since 2008, we are able to define three groups of countries affected by the intensity of the economic crisis:

- *Countries extremely affected by the economic crisis* – include Estonia, Lithuania and Latvia;

their decline in GDP in 2009 ranged from 14.1 to 18.0% of GDP.

- *Countries relatively less affected by the economic crisis* – including Bulgaria, Hungary, Romania and Slovenia; the economic recession occurred later, in 2009 (in the range of GDP decline from 5.0 to 7.8%).
- *Countries with moderate course of economic crisis* – this group includes development in the Czech Republic, Slovakia, and in particular Poland. Recession in Czech and Slovak economies did not exceed 5%. In the regional context, exceptionally favorable situation was in Poland, whose economic performance in 2009 actually increased, albeit by only 1.7%. The relative stability of the economies of all three countries was also affected by the fact that until 2008 enjoyed significantly increased volumes of exports and the Czech Republic also the inflow of foreign direct investment [5].

Although in 2010 we recorded a growth in domestic demand across European economies, the first half of 2011 showed that domestic demand in the EU weakens again. During 2011, the prospect of growing demand deteriorated again, concerns about the debt crisis in the euro zone increased, especially in Greece, Ireland and Portugal. At the end of 2011 weakened real economy either sent the European economies back into recession or prolonged their stagnation [6]. Similarly, the 2012 has not recorded any relief. The question is how the environment of big economic changes affects consumer behavior, whether these economic changes are so essential that they could influence the strongly determined impact of cultural, psychological and personal factors.

2.1 Methodology

The main source of secondary data that was used for the investigation of the behavior of consumers in EU countries was the data provided by the Statistical Office of the European Commission, EUROSTAT, the years 1996, 2005 and 2011. For the purposes of this article, we used data from individual EU member states, which provide information on household expenditures for each item according to COICOP (Classification of Individual Consumption by Purpose), in percentage terms, to allow comparability among countries, excluding the impact of population size, the size of GDP, the price level and inflation. Thanks to a uniform methodology the data are mutually comparable.

To search for similarities in consumer behavior is used cluster analysis. Application this analysis is

particularly suitable where there occurs a tendency to create natural clusters. The principle of clustering methods is to use a measure of dissimilarity (or similarity) of objects and clusters. The most widely used measure of dissimilarity is the Euclidean distance. For the purpose of this paper hierarchical agglomerative clustering procedure was selected, using the method of Squared Euclidean, which is a way of assessing the distance or similarity between objects and Furthest Neighbor Method at which there is the tendency to form compact but not too large clusters. Results of hierarchical clustering are expressed graphically by the dendrogram in which correlation variables are illustratively captured.

To characterize the external environment in terms of economic development of the EU countries, the EU as a whole and a group of countries joining EU in 2004 indicator of GDP per capita and indicators of individual dimensions of poverty, ie. income poverty and material deprivation, were explored.

3 Problem Solution

From the development of the GDP in the EU as a whole and in individual member countries we conclude tell that the economic crisis has affected all countries most of all in 2009, when only Poland recorded GDP growth of 1.7%. The Baltic countries experienced the biggest drop in GDP. The economic crisis is not overcome, the trend has steadily downward trend since 2007 and trend reversal still has not occurred. GDP of EU-27 countries and newly acceding countries EU-12 have almost identical development in the analyzed years and it is not necessary to further consider the impact of GDP on consumption patterns of the population separately [8, 9, 10].

Development of GDP shows the economic performance but it is inappropriate, or rather imperfect indicator of the standard of living of households and their ability to meet their needs and decide freely on household expenditures. Special attention should be paid to the characteristics that identify households at risk of poverty, depth of poverty of households and efficiency of social transfers as a basic instrument of social policy of the state to mitigate the effects of the unequal distribution of income. The risk of poverty combines three dimensions: monetary poverty (expressed by household income), material deprivation (expressed by degree of material deprivation) and access to the labor market (expressed as the number of unemployed in %).

3.1 People at risk of poverty

The second dimension of poverty, material deprivation, is evaluated according to several indicators. Indicator of housing quality shows on improving situation within these analyzed years. The cost of living for most households are only an issue, but manageable. The positive trend is observed for the next indicator: availability of household durables. Without any change remained the indicator of meeting the basic needs of households. Interesting are the survey results of subjective perceptions of households, as how they are able to cover all necessary with their income. They show that the number of households with extreme opinions is decreasing and perceptions of both extreme groups are moving to a group that views the income to cover all necessary expenditures with only minor difficulties or quite easily.

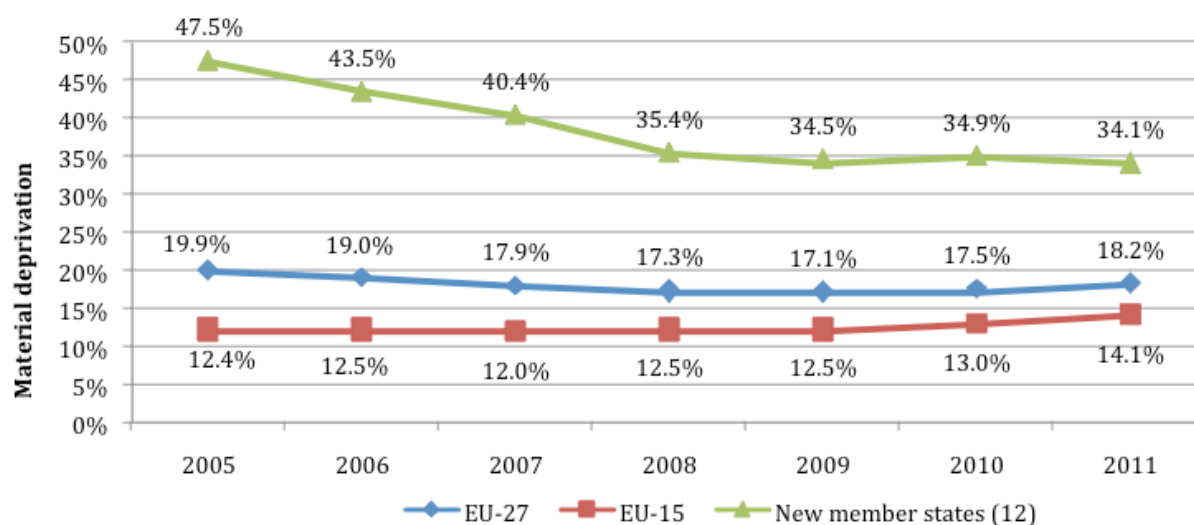


Fig. 2: Material deprivation in EU-27, EU-15 and 12 new member states

As materially deprived households are considered those that lack 3 or more of 9 items defined by EUROSTAT. Share of these households in the EU is presented in Fig. 3. It is clear that material deprivation constituted a serious problem for the new member countries. In 2005 as much as 47.5% of the population was classified as materially deprived. By 2011 the situation had improved, and the share was 34.1%. In the case of the EU 15 there was a slight, but not radical deterioration from 12.4% in 2005 to 14.1% in 2011.

3.2 Material deprivation

Unemployment is a phenomenon with deep economic and social consequences. The year to year comparison show that the number of unemployed in

Europe is growing. Currently, it reaches about 10%. Unemployment is threatening the most the category of young people [11]. For the monitoring of consumer behavior, we use data that reflect household expenditures for individual commodities. Data on household expenditures are broken down into individual categories according to COICOP, as obtained from EUROSTAT [12]. The comparison is based on data for the years 2005 and 2011. This data was supplemented by the results of an earlier study for year 1996, the period preceding the significant enlargement of the EU. It is therefore the period of integration of Central and Eastern Europe into the EU and subsequently the financial and economic crisis.

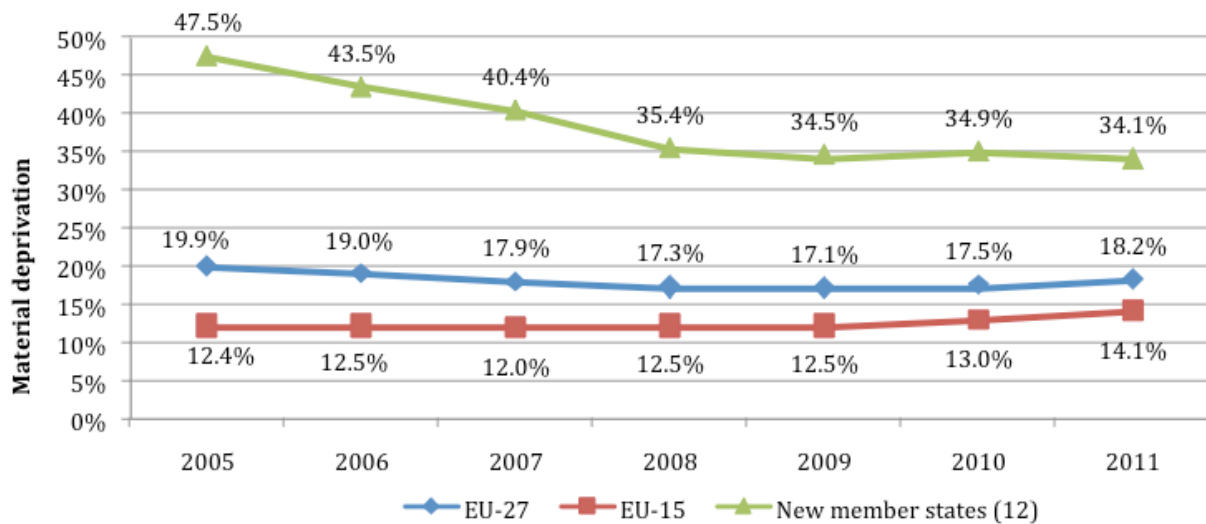


Fig. 2: Material deprivation in EU-27, EU-15 and 12 new member states

It can be assumed that the enlargement of the European Union of 10 countries acceding in 2004 (or even the period preceding entry into the EU) was accompanied by a number of significant changes. The consequences of these changes, we assume, had an impact on consumer behavior. Cluster analysis performed on data from 2005 (Figure 4) created three larger clusters. One group – the largest one – consists mainly of original EU-15: Belgium, Germany, France, Denmark, Sweden, Netherlands, Great Britain, Austria, Luxembourg, Finland and the only country of the original “Eastern Europe” in this group ranks the Czech Republic. The reason may very well be the underlying economic situation in the country.

The second cluster consists mainly of southern European countries – Portugal, Malta, Cyprus, Spain, Italy, Greece, Slovenia, Hungary and

Estonia. The third group joined countries of South Eastern Europe – Slovakia, Poland, Lithuania, Latvia, Romania and Bulgaria. These are the countries where the process of transition from planned to free market economy management was carried out slowly. The result of the aggregation on the basis of expenditures for individual commodities fully respects the geographical perspective, which shows a difference between the northwestern and central European countries, southern European countries and the countries of central and Eastern Europe. All three clusters can be seen also on the map of cultural affinity. It should be noted that 2005 is the year of relatively stabilized period made after social changes and a period of positive economic developments in Europe.

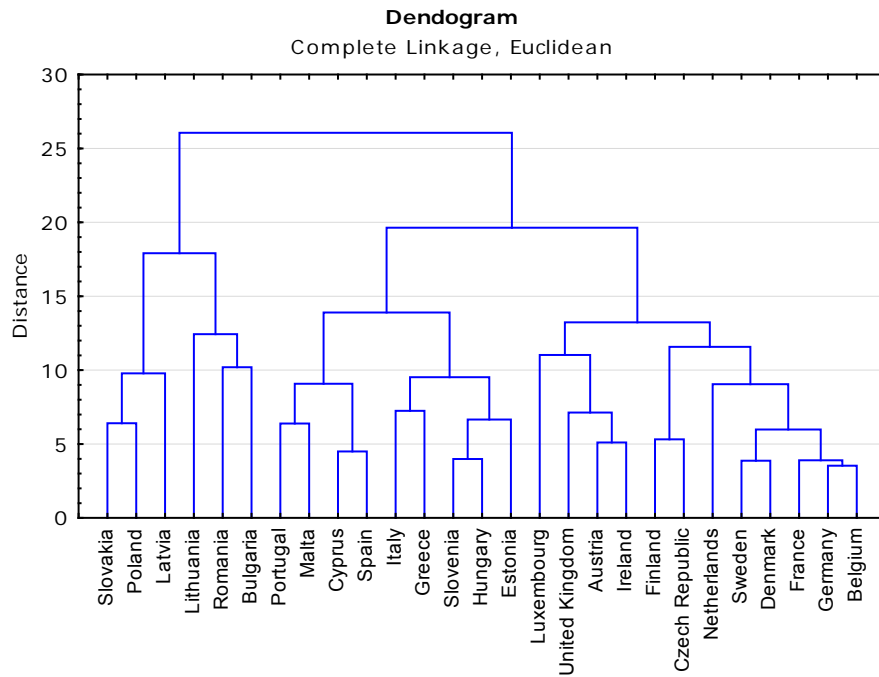


Fig. 4: Dendrogram of EU household expenditures in 2005

In 2011 (Figure 5), the year of noticeable manifestation of the economic crisis consequences, some regrouping of countries in clusters occurred. Data for 2011 for Bulgaria, Romania and Lithuania were not available, so these countries are not included in the cluster analysis. Southern European countries – Portugal, Malta, Greece, Spain and Cyprus along with Ireland, formed an independent cluster and their consumer behavior receded yet even more the advanced EU countries. It is no coincidence that in these countries the economic crisis affected household expenditures the most. The biggest difference is evident between sub-cluster of Portugal and Malta and sub-cluster of Greece, Cyprus, Spain and Ireland.

Another significant change occurred among the countries of “Western” Europe. Luxembourg, United Kingdom, Austria and Italy are separated from the rest of northern and western Europe. On the contrary, they created larger sub-cluster with Slovenia, Hungary, Latvia and Estonia.

Among western and northern countries there was a convergence of consumer behavior of households, as can be seen from Figure 5. These advanced European countries showed similar characteristics of household expenditures structure as at the same year the Czech Republic, Poland and Slovakia and they created a significant cluster that links the countries of Central, Western and Northern Europe.

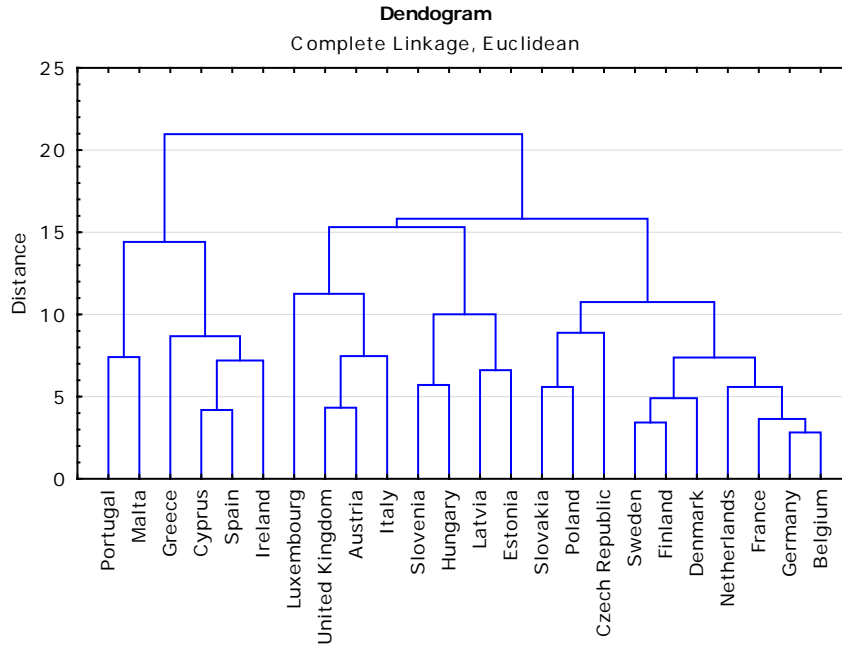


Fig. 5: Dendrogram of EU household expenditures in 2011

4 Conclusion

In order to draw some general conclusions about consumer behavior resulting from clustering based on household expenditures for individual

commodities according to COICOP, we used results of cluster analysis of household expenditures in 1996 [13].

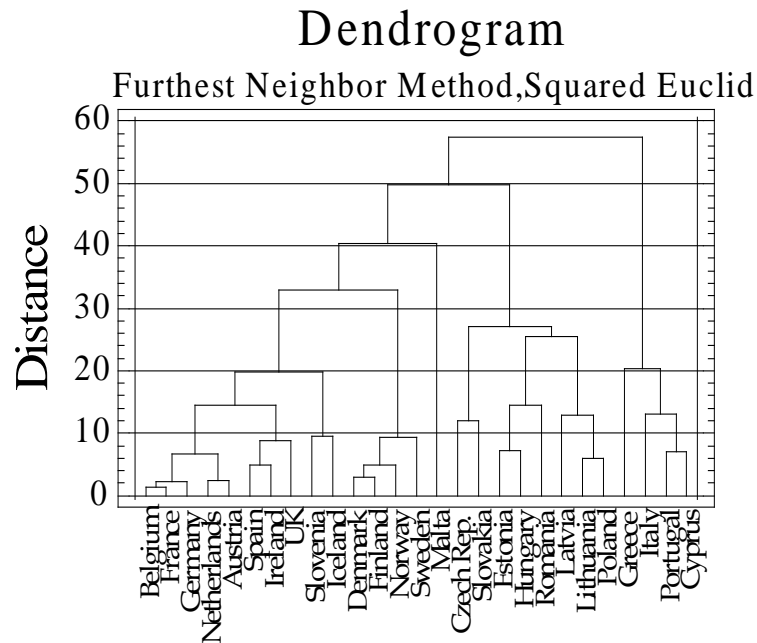


Fig. 6: Dendrogram of expenses of European households in 1996

The year 1996 was the first year since 1989 (a year of radical social changes in Central and Eastern Europe) for which the underlying data on household expenditures for each country available. The application of cluster analysis showed that all the EU candidate countries (with the exception of

Slovenia) clustered into one of four sub-clusters. This sub-cluster is made up of several smaller clusters of lower degree differing in the speed of social and economic transformations. The rapidly reforming countries such as the Czech Republic, Slovakia, Hungary, Poland, with more or less

radical position to restructuring of their economies, have been quite successful in eliminating the major market distortions, in building a legal framework for private business and in stabilizing the domestic currency. In contrast, countries such as Romania, Bulgaria almost stopped the transformation process in 1996 due to inconsistency of reform concepts.

In Baltic countries there was a greater problem due to coherence to the former Soviet Union. Ongoing social changes could not yet be reflected in changes of consumer behavior. The desire and effort to return to cultural roots and way of living, including its reflection in consumer behavior, requires a longer period of time to integrate the countries where they belong from their geographic and cultural perspective. Three other sub-clusters correspond with Nordic countries and their similarities in behavior (Denmark, Finland, Norway, Sweden), the southern countries where the closest similarities in behavior are the Italy, Portugal, Cyprus and Greece. The core of similarities of the largest cluster includes countries with the most developed economies, i.e. Belgium, France, Germany, the Netherlands and Austria, with an added cluster of lower degree consisting UK and Ireland.

The year 2005, which represents a period of economic stability and a sufficient time gap from social changes, based on the structure of clusters formed on the basis of household expenditures confirms the efforts of post-communist countries to integrate into groups consisting of countries with similar behavioral and quality of life given by their history, culture and geographic location.

Results of cluster analysis of household expenditures in 2011 (the year comprising all the consequences of the economic crisis) confirm that economic factors have influence on consumer behavior. But it can be assumed that this effect is limited in time, based on the magnitude of changes. The results also suggest gradual return and adherence to the countries historically, culturally and geographically related.

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