ARE YOU PANICKED? ECONOMIC AND HEALTH CONSEQUENCES OF THE ECONOMIC CRISIS: A PSYCHOLOGICAL APPROACH IN ROMANIAN CONTEXT

Amalia PANDELICA¹, Ionel DIDEA², Mihaela DIACONU³

¹ Faculty of Economics, University of Pitesti, <u>pandelica.amalia@yahoo.com</u>
² Faculty of Law and Administrative Sciences, University of Pitesti, <u>prof.didea@yahoo.com</u>
³ Faculty of Economics, University of Pitesti, <u>mihaela.diaconu@upit.ro</u>

Abstract: During the last few years the entire world experienced one of the most turmoil period in its history. Economic crisis is the most traumatic event leading to a substantial deterioration in the quality of life of the household. Unemployment, inflation rate increasing, freezing or decreasing of the wages, the purchasing power decreasing, the decreasing of the investments value represent only of some economic shocks that hit most of the individuals, in the last few years. The individual well-being is determinate by many things like the level and secure income, labor market status, job stability and characteristics, health status, social relationships, family etc. In some ways and to a different extent all these were affected by the economic crisis, for many people, around the world. Empirical evidence presented in different international studies emphasized a causal relation between all these aspects. The propose of the present study was to identify the economic and health consequences of the economic crisis adopting a psychological perspective. The results of the study emphasize that there is a causal relationship between psychological factors and almost all the dimensions of economic behavior and health status measured. Also, the empirical findings uphold that those who are more risk averse and have the highest perception over the risk exposure are taping the highest values regarding the main stressors measured and present more intense symptoms of stress exposure. The limits of the study come from the fact that health consequences were measured in certain period of time (the last six months), thus, this study do not offer a long term evaluation.

Key words: economic crisis, psychological approach, economic consequences, heath consequences

JEL Codes: I10, D81, D12

1. INTRODUCTION

During the last few years the global economy has been characterized by turmoil, the world facing one of the worst economic crisis in its history. The transformation of the financial crisis in a severe economic crisis and its rapid expansion worldwide, confirms the acceleration of process globalization of economic activities and the interdependencies existing at present between national economies. The negative economic evolutions in all national markets conducted to important changes in the way the people thing, behave, and in their value system.

The mechanism transformation of the financial crisis in an economic one is based on the fact that a certain type of crisis generated the emergence of another type of crisis. For instance, if at the end of 2008, the majority of economic experts provided pessimistic forecasts regarding the evolution of national economies in 2009, they did not suggest anything about the social crisis generated by the effects of the recession, for example. The core mechanism of this phenomenon is considerate the "economy of fear". Due to the exposure to the uncertainty and economic

shocks generated by the level of trust in brands, companies, sectors of activity, and in the anticrisis measures taken by governments, diminished drastically. This is supported by the evolution Consumer Confidence Index (CCI) which, according to Nielsen Global Confidence Index Report 2008, CCI has experienced significant decreases in all national markets in which it was measured, in some national markets taping an absolute record of decrease. In the first half of 2009, CCI continued to decline in 48 of the 50 monitored countries. Regarding the outlook for 2013 and 2014, the forecasts remain reserved. According to World Economic Situation and Prospects, 2012, edited by United Nations, New York, global economy is on the brink of another recession. Even if in this report are expected slight increases in 2012, these increases are considerate insufficient to deal with the crisis of jobs in developed economies and will lead to lower incomes in emerging economies. Also in Global Economic Prospects, edited by World Bank the evolutions in the first four months of 2012 are presented generally positive. But it should be notice that the World Bank warns about a possible further decrease. Regarding the uncertainty, IMF in World Economic Outlook (WEO) sustains that it is not clear if the global economy is hit by another wave of turbulence due to a slow rebuilding of the economic crisis or if the turbulence is a long-term component.

Unemployment, inflation rate increasing, freezing or decreasing of the wages, the purchasing power decreasing, the decreasing of the investments value represent only of some economic shocks that hit most of the individuals, in the last few years. Taking into account that the individual well-being is determinate by many things like the level and secure income, labor market status, job stability and characteristics, health, social relationships, family etc., and in some ways and to a different extent all these were affected by the economic shocks exposure, it is expected that many people around the world to suffer an important deterioration in the quality of life. Thus, taking into account the economic developments, it is clear that, at present, we are living in a transitional period characterized by high uncertainty to a new era defined by drastic changes which cannot be seen with greater clarity now.

In this uncertain global context there were established the research questions:

There is a direct causal relationship between psychological factors, economic factors and health status of the individual?

How does the panic mechanism function?

What are the main stressors in the context of economic crisis?

What are the consequences of the stressors exposure over health?

The present study is divided in three major parts. The first contains the results of the literature review that was done in order to underline the results of previous researches regarding the effects of the economic crisis and presents the way in which the panic mechanism faction in uncertainty situations and modules individual behavior. The second part of the paper displays the empirical findings of a consumer's survey that was done in Romanian context in order to determine how psychological factors are linked with economic behavior and health statues. The third part of the paper, traces the conclusions of the study underling the key aspects of the study.

2. STUDY OBJECTIVES AND METHODS

This study is an empirical one and is based on extensive analysis of international studies that was done in context of different economic crisis episodes. Thus, the purpose of the study was to identify the economic and health consequences through economic shocks exposure in the context of economic crisis adopting a psychological perspective. Also, it was considerate important to measure different aspects of economic behaviour change in order to be identify the relation between economic aspects and health status. The starting premise in this study was that in uncertainty context psychological factors (risk perception and risk aversion) play an important role in individual behaviour alteration. For the purpose of measuring the psychological and behavioral variables a five steps scale was used: 1 - to a low extent, 3 - to an average extent, 5 - to a great extent. For the purpose of analyzing the evolution of the expenses for the main categories of products and services in the last six months, compared to the previous period, a seven steps scale was used where 1 - much less, 4, in-between, 7 - much more. Also, in order to measure stress exposure and health status there was used a seven steps scale. The data were collected during April 2010 at a level of a 527 person's sample. In this research, validity was achieved by reviewing the academic literature in the field about economic crisis, economic psychology, risk theory, consumer behavior etc. In order to check the internal consistency of the measurement scale, there was used Cronbach's alpha for 44 items. The Cronbach's alpha assessed was 0.833, grater then acceptable standard value of 0.70.

3. LITERATURE REVIEW

3.1. INDIVIDUAL BEHAVIOR CHANGE IN TURMOIL PERIOD

Identification of the global consequence of the economic crisis is a very difficult issue taking into account that a precise estimation can't be done because many of these are not visible yet. Still, a complex framework of analysis should contain some certain directions: implications over individual behavior (a less healthy lifestyle, alcohol abuse, marital conflicts, suicides, criminality rate, domestic violence and divorce rate), implications over consumer behavior (changing the consumer behavior with important consequences over market structure), implications over health (mental health and addiction problems, the adoption of a lees healthy food because of the consumption of cheap food, alcohol and nicotine due to stress, poor disease management due to overburdened health care services), implications over beliefs and attitudes (the things in which people believe and they treasure).

A great number of the research works were focusing on the identification of the economic shocks exposure in various crisis episodes. One of the first study belong to Kelly and Schewe (1974) in which was analyzed the American consumers reaction at stagflation. Their analysis was focused in the following directions: the consumption vs. savings, the postponing of the major items, the extensive usage of the credit, the lifestyle changes. Analyzing the same crisis episode, Shama (1981), pointed out that according with his study, the crisis conducted to important changes in the consumers motivations, values, attitudes and expectations. At the level of the behavior, he identified some clear changes: the decrease of the consumption enthusiasm, the postponing of durable goods purchasing, an extra time allocated to the purchasing, a focusing on quality and price comparison, elimination of the waste.

Another important crisis episode that was analyzed by many researchers was The American Latina crisis (Robles et. al., 2002; Friszbein and Giovangnoli, 2003; Laurawicki and Braidon, 2004). The researchers adopted different perspectives in indenting the consumers' response to economic shocks. For instance, Friszbein and Giovangnoli (2003) emphasized three categories of strategies adopted by the Argentinean households during 2001-2002 period, considered the most difficult in the history of this country. The first category of strategies corresponding to a reactive response was based essentially on the consumption reduction (quantitatively and qualitatively). The second category of strategies corresponding mainly to a proactive response contained extra activities in which consumers engaged in order to maintain a certain level of income: the production of goods at home for sealing, one of the new member of the household entered on the labor market, one of the member of the household started to work.

The present global economic episode, considered without precedent, put the consumers all over the world in the necessity of reevaluation of the purchasing behavior and spending allocation. Anyway the change of consumers' behavior has not the same intensity and do not follow the same directions in all national markets. But, as many researchers already pointed out, the response of the consumers in present economic context is on a great extent an emotional one, that is way Quelech and Jocz (2009) considered that market segmentation using socio-demographic criteria is less relevant in present context, but a psychological segmentation is more useful and reflects better the market mood.

On the other hand, international literature suggests unemployment can be considerate the most traumatizing economic shock that an individual can faced in a turmoil period. Thus, many studies analyzed the impact of rising unemployment on individuals' behavior. For instance Rosenfeld (2009) studied the property crime and homicide in USA between 1970 and 2006. He emphasized that unemployment rate, the evolution of GPD and index of consumer sentiment are correlated with each other and with acquisitive crime and homicide. Economic crisis increases acquisitive crime and this in turn increase homicides by exposing more people to risky situations.

Also, the relationship between unemployment and health has been analyzed in several studies. It has been demonstrated empirically that there is a positive correlation between unemployment and mortality rate (Brenner, 1983). Moser (1984) demonstrated that men that are looking for a job had a mortality rate higher than standard level. His study showed also that there is a strong correlation between unemployment and health, but has not revealed which factors actually lead to this effect of unemployment. Another interesting aspect pointed out in the studies, is the connection that exists between loose of job' security and health. Bobak (1998) pointed out that poor health is related to a certain extent with political and economic events, arguing that.

3.2. THE PANIC MECHANISM IN TURMOIL PERIOD – HOW DOES IT WORK?

In order to frame the panic mechanism, and to identify how panic feeling works, it was started from a broader context with the purpose to determine the core factors that generate the change of consumers' behavior in nowadays global context. There was analyzed several studies that was done in the context of various crises: economic crisis (the crisis in Latin America (2001-2002), Asian crisis (1998-2000), the present crisis, 2008-2013); food security crisis (contamination with salmonella, avian flu); terrorism crisis (USA, 2001); public health_security crisis (AH1N1/swine flu, 2009). The purpose of this analysis was to discover to what extent these situations with negative impact on people (risk-generating situations) have some common aspects. The results of the analysis pointed out that obviously no crisis is similar to another as no two similar crisis are alike considering generating factors, evolution, outcomes, etc. But, it was established the fact that in all risk-generating situations the psychological factors play an important role in determining the change of human behavior with consequences over health statues and social capital.

Risk concept is a commune denomination, very often used nowadays in various circumstances: health, investments, terrorism, economic trends, food security, strategy, and long lasting business. In psychology, risk is defined as a subjective construct influenced by how the event is interpreted (Weber, 2004). As Hillson and Murray-Webter (2007) point out, there is a great range of definitions for risk-concept in the academic literature. Nevertheless, there is consensus within various approaches as to the fact that risk is associated with uncertainty and generates consequences. The current crisis is labeled as uncertain and risk generating situation (economic shocks) with significant effects on individuals. Zurawicki and Braidot (2004), defined the economic crisis from consumers' perspective as the most traumatizing event that affects family's life and brings a sudden and substantial deterioration of economic situation.

Akerlof and Shiller (2009) emphasized that a growing number of economists recognized that a psychological perspective is necessary in economic analysis. Unemployment, inflation raise, the freezing or decrease of salaries, the decrease of purchasing power, the decrease of deposits represent economic socks that individuals have to cope with in the last few years, risks respectively, as long as such evolutions represent "uncertainties that matter" (Hillson and Murray-Webter, 2007) having important effects on individuals' lives. Each risk is perceived and interpreted (represented) differently by each and every individual, which is the assessment of the degree of situational uncertainty, controllability of the uncertainty, and confidence in these estimates (Sitkin and Weingart, 1995). Risk perception is the interpretation that an individual makes with a view to the chances to be exposed to risk content (Pennnings et al., 2002) and to the estimated capacity to control the exposure, for example, the extent to which the individual considers himself liable to unemployment and the control degree of this situation. This personal interpretation generates emotions such as panic, anxiety, stress, fury, etc. On the other hand, each individual likes/ dislikes in a certain measure the risk-generating situation, reflecting each person's risk-attitude that leads to certain feelings such as panic, confidence/ lack of confidence in brands, companies, government, media, future. Risk-attitude is a hypothetical construction reflecting whether the individual likes or dislikes risk-generating situation and risk aversion. Thus, risk aversion is a mental projection of a certain situation (Hillson, Murray, 2007). Finally, in uncertain situations the change of individual' behavior is determined by risk perception and risk generating situations aversion. Also, in the uncertainty context the extent to which an individual considers that he/she will manage the risk exposure play an important role in alternating the behavior.

Certainly not all individuals are alike, they do not react identically in a risk-generating situation, such as economic crisis because their perceptions over risk generating situations are varying on a great extent .Thus, the change of individuals' behavior is not expected to have the same intensity and follow the same patterns, and the consequences of stress exposure to have the same intensity in all cases. In the international literature was empirically shown that people make different appreciations about the chance of being exposed to the content of the same risk, but also regarding the risk management at personal level. In this sense Pennings et al. (2002) and Lusk and Coble (2005) presented some models of individuals behavior change taking into account two psychological dimensions: risk perception and risk aversion. These models underline that the two psychological dimensions varies on a certain scale in case of each individual.

4. STUDY RESULTS

Regarding the economic shocks that the respondents faced: 12,7% experienced a period of unemployment, 53,1% experienced wages decrease, 12,1% experienced the wages freezing, 44,0% declared that they faced with the decrease of the purchasing power, 24,7% with the decrease of the investment/savings value and 15,0% appreciated that they were not affected by the economic crisis.

In order to fulfill the purpose of the study and to find reliable answers to the research questions, it was decided to be used K-means cluster analysis based on two clustering variables: risks perception and risk aversion. The number of initial clusters, settled according to Pennings et al. (2002) and Lusk and Coble (2005) models, was 4. After six reiterations, the final convergent value was reached according to the results below:

| Psychological factors | Clusters | | | |
|---|-----------|-----------|-----------|-----------|
| | Cluster 1 | Cluster 2 | Cluster 3 | Cluster 4 |
| Perception on the outcomes of the | | | | |
| depression generated by the evolution of | 4,38 | 2,42 | 3,70 | 1,67 |
| the national economy | | | | |
| Aversion to the evolution of the national | 4,70 | 4,64 | 2,43 | 2,33 |
| economy | | | | |

Table 1. The centroids of the final clusters generated by SPSS

Source: Authors' work

The clusters obtained was profiled and measured in total sample, according to the table no.2.

| Clusters | Number of cases | Percent | Profile |
|-----------|-----------------|---------|---------------|
| Cluster 1 | 282 | 53,51 % | The Panicked |
| Cluster 2 | 145 | 27,51 % | The Concerned |
| Cluster 3 | 67 | 12,72 % | The Cautious |
| Cluster 4 | 33 | 6,26 % | The Rational |
| Total | 527 | 100 % | 100 % |

Table 2. Clusters dimensions and profiling

Source: Authors' work

4.1. CLUSTERS PROFILING

Using the final results of the reiteration process as well as crosstabulation there was established the profile of each cluster:

The Panicked

The Panicked are those consumers thinking that within the next six months they will be highly affected by the consequences of the economic crisis and they dislike the evolution of the national economy on a great extent. This cluster is made up of employees with a low income (53,5%); retired persons and unemployed persons considering that out of 67 of the respondents 49 are Panicked who acknowledged that they were affected by unemployment in the last six months. Thus, 73,1% from those who experienced such period are part of this cluster.

Most of The Panicked are individuals with a low level of education, graduated secondary schools and vocational schools, they come from rural area considering that 67,0% of the respondents coming from rural area on the entire sample are concentrated on this cluster.

The Concerned

The Concerned are those consumers thinking that in the next six months they will be scarcely affected by the consequences of the depression and the evolution of the national economic situation is deeply dissatisfactory. This cluster encompasses firstly, employees with a monthly low and medium income (66,2%), students (17,9%), entrepreneurs/ freelancers (10,3%), retired persons (11%). The majority of the Concerned graduated high-school (41,4%), a higher education institution (41,4%) or postgraduation courses (6,2%). An interesting aspect is the presence of respondents acknowledging that they were not affected by the consequences of the depression. Thus, 36 respondents belong to this cluster out of 79 of the entire sample.

The Cautions

The Cautious are those consumers thinking that within the next six months they will be highly exposed to the consequences of the depression and the evolution of the national economic situation scarcely displeases them (high risk aversion). This segment encompasses employees (67,3%) with a medium and high monthly income as well as entrepreneurs considering that 18,4% from the total number of entrepreneurs of the sample belong to this cluster. The presence of entrepreneurs shows the impact of the depression on business environment and the difficult problems they have to cope with for surviving in the context of depression. Most of them graduated high-school (55,2%), and higher education institutions (28,4%).

The Rational

The Rational are those consumers thinking that within the next six months they will be scarcely affected by the consequences of the depression and have a low aversion for the evolution of the national economy. The respondents belonging to this cluster are employees with a high monthly income as well as those who professed that they were not affected by the consequences of the depression. Most of the Rational come from urban areas (95,6%). They graduated high school (40,0%) and a higher education institution (48,9%).

4.2. THE ECONOMIC BEHAVIOR CHANGE AT THE CLUSTERS LEVEL

The profile of behavioral change for each cluster was made with the help of cross-tabulation.

| Directions of evaluating behavior | Mean value at the level of clusters | | | |
|-------------------------------------|-------------------------------------|-----------|----------|----------|
| change | The | The | The | The |
| | Panicked | Concerned | Cautious | Rational |
| Migration on demand curve (MDC) | 3,7801 | 2,4069 | 3,1045 | 2,2424 |
| In the process of choosing products | | | | |
| the price comes first (PC) | 4,2199 | 3,1724 | 3,6418 | 2,7576 |
| In the process of choosing | | | | |
| trademarks/ product quality comes | 3,3723 | 3,9793 | 3,9701 | 4,2121 |
| first (QC) | | | | |
| Aggressive search for options | 4,0567 | 3,4000 | 3,6269 | 2,8182 |
| (ASO) | | | | |

| Table 3. Descriptive statistics – the mean value of the economic behavior change at the level of |
|--|
| clusters |

Source: Authors' work

As it can be notice, the most intense economic alteration it can be found at the level of the Panicked cluster. Thus, most of the panicked people migrated on the demand curve, switching products. This is sustained by the fact that in choosing the products, price comes first. Also, it can be notice that members of this cluster are engaging in an extra search options in order to find the lowest price. This means that a quality reduction strategy was adopted in order to cope with economic crisis. The effects of this reduction can be found in the health status and quality of life, in general. Thus, it can be expected in this particular group on a long term to be recorded more health problems because of the less healthy food consume. Anyway, as it can be notice in the table above, in case of all clusters there is a certain economic behavior alteration, this alteration varying from one cluster to another. The highest alteration can be found in Panicked cluster, while a slight alteration can be found in Rational cluster.

4.3. HOUSEHOLD BEGET ADJUSTMENT AT THE CLUSTERS LEVEL

As the results of the research emphasized, and as it was expected based on the previous experienced crisis, the main tendency at the sample level was the reduction of consumption, thus, 67,4% of the respondents sustaining this aspect. The consumption reduction was done in order to

increase savings (14,6%) or to survive (52,8%). The fact that most of the respondents, although they consumed less they did not manage to save money almost at all, is due to a higher inflation and prices during the period analyzed as well as to a freezing or decrease of incomes as a consequence of the measures taken by the Romanian employers.

The analysis of the evolution of the expenses in the last six months compared to the previous period was made for the main categories of products and services according to COICOP classification at the level of the clusters.

The cross tabulation process emphasized a general tendency in reduction of the consumption and in rationalization of the consumption by eliminating waste.

| Categories of products and services | Mean value of the expenses at the level of clusters | | | |
|---|---|------------------|-----------------|-----------------|
| | The Panicked | The Concerned | The Cautious | The Rational |
| Basic food products (meat, diary products, bread and pastry products, fruits, vegetables, etc.) | 3,8546 | 4,1724 | 4, 1045 | 4,3939 |
| Other food products (sweets, soft drinks, coffee, etc.) | 2,8759 | 3,5793 | 3,5522 | 3,6364 |
| Alcoholic drinks and tabacco | 2,0248 | 3,0621 | 2,9851 | 3,0606 |
| Personal care products | 3,3688 | 4,1310 | 3,7313 | 4,3636 |
| House maintenance and improvement | 2,6348 | 3,4966 | 3,1493 | 3,8788 |
| Transport (gas, tickets, seasonal tickets) | 3,3582 | 4,0069 | 3,4030 | 4,1515 |
| Water, gas, electricity | 3,9433 | 4,2828 | 3,9552 | 4,2121 |
| Magazines, newspapers, books | 2,2447 | 3,1655 | 2,4925 | 33939 |
| Garments and shoes | 2,7128 | 3,6000 | 3,3284 | 3,8788 |
| Appliances and tools (household appliances, electronics, furniture, etc.) | 1,8369 | 2,9517 | 2,8060 | 3,0606 |
| Journeys, holidays, leisure | 1,7482 | 2,8897 | 2,6119 | 3,2727 |
| Pharmaceutical and medical care products | 3, 8723 | 4,2000 | 3,8507 | 4,1515 |

| Table 4. Descriptive statistics – mean value of the expenses at the level of clusters based on |
|--|
| COICOP classification |

Source: Authors' work

As it can be notice from the table above, the central tendency regarding spending allocation, is the rationalization of expenses, by keeping the expenses at almost the same level for strictly necessary products (basic food products) and decreasing the expenses for almost all the other categories of products and services. Panicked people reduced spending in almost all categories of products. Based on this results, it can be concluded that in case of this group it was adopted a quality but also a quantity reduction strategy in order to manage the crisis. Anyway the reduction is slightly in basic food products and is more intense in all other categories, the intensity varying from one category of products to another. An interesting aspect is the fact that, the expenses for alcoholic drinks and tabacco were dimineshed at the level of all clusters; Paniked people were done the highest cut of these expences. It can conclude that, the pattern of individual behavior change in case of Romanians, do not follow the same direction identfyed in the context of perviouse crisis, respectively the increase of alchool consumption.

4.4. THE HEALTH STATUS AND THE STRESS GENERATING FACTORS

At the entire sample level 42,1% of the respondents sustained that they confronted with different heath problems generated by stress. In case of those who experienced a period of unemployment, 56,7% had different heath problems because of the same cause. This emphasizes that unemployment has adverse impact on psychological function, and the unemployed become more anxious and depress.

Looking at the clusters level, Panicked people present higher value of symptoms associated with mental health problems determine by stress exposure. Taking into account that a long exposure to stressor had consequences over health on a long term, it can be expected that Panicked people to have more health problems in the future the members of the others clusters.

| Directions of evaluating the | Mean value at the level of cluster | | | |
|------------------------------------|------------------------------------|-----------|----------|----------|
| consequences of stress exposure | The | The | The | The |
| | Panicked | Concerned | Cautious | Rational |
| The extent to which the respondent | 4,8729 | 4,3841 | 4,0909 | 3,7000 |
| felt angry | | | | |
| The extent to which the respondent | 4,6220 | 4,1333 | 4,1091 | 4,0464 |
| felt anxious | | | | |
| The extent to which the respondent | 3,8213 | 3,5298 | 3,7333 | 3,2364 |
| had insomnia | | | | |
| The extent to which the respondent | 4,6564 | 4,2384 | 4,2727 | 4,3333 |
| felt exhausted | | | | |
| The extent to which the respondent | 4,1821 | 3,9205 | 3,6000 | 3,5000 |
| lost the concentrating capacity | | | | |

Table 5. Descriptive statistics - mean value of the consequences of stress exposure

Source: Authors' work

| Table 6. Descriptive statistics – m | ean value of the stress | generating factors |
|-------------------------------------|--------------------------|--------------------|
| Tuble of Descriptive statistics in | call falae of the seless | Seneraling factors |

| Stress generating factors | Mean value at the level of cluster | | | |
|--|------------------------------------|-----------|----------|----------|
| | The | The | The | The |
| | Panicked | Concerned | Cautious | Rational |
| Family atmosphere | 3.6564 | 3.5563 | 3.0727 | 3.3333 |
| The capacity to ensure a decent living | 4.8110 | 4.1060 | 4.2000 | 3.5000 |
| for the family | | | | |
| The financial status | 5.3024 | 4.5497 | 4.6182 | 3.7333 |
| The unemployment fear | 5.2845 | 4.2541 | 4.5000 | 3.4231 |
| The general well-being | 4.6426 | 4.4437 | 4.0727 | 3.5000 |
| The evolution of national economy | 5.2680 | 4.8146 | 4.7818 | 4.0667 |

Source: Authors' work

According to the results of the research, at the entire sample level, the most stressful factors in the analyzed period were essentially from economic nature. The evolution of national economy, and the uncertainty associated this evolution, seems to be the most stressful factor at the level of the all clusters. The financial status and the fear of unemployment, as well as the incapacity to ensure a decent life to the family, are important stressors in case of Panicked people. It can be observe that there is a correlation between the profile of the cluster and the main stressors. The membership of this cluster is associated with low income and

unemployment. Because unemployment generates multiple consequences affecting the financial situation of the household/individual, the financial status is the second stressor as value, in case of this group.

5. CONCLUSIONS

The world today is facing the most important changes in its history. The present global economic crisis is only a part of the change. A precise estimation of the economic, health and social consequences of these changes is a difficult issue because some of these will become visible many years from now on.

The point of the present study was to identify the role of the psychological factors in the individual behavior alteration and to make an analysis of the mental health considering the exposure of stress. Thus, the present study focused on identification of the impact of the psychological factors over individual behavior. In this study, the starting premise was that in uncertain conditions, as present economic is, the individual behavior was determine on a great extent by psychological factors as risk perception and risk aversion over the situation and evolution of the national economy. In order to achieve the purpose of the study, K-mains analysis was used and four clusters were determined.

The analysis regarding economic behavior and health statues was done at the level of the clusters. The results of the study supported the fact that those who are more risk adverse and have a higher risk perception presented the most intense behavior alteration and confronted on a higher extent with different health problems generated by stress, presenting different symptoms of stress exposure.

As the results of the study showed, there is a direct relation of causality between psychological factors and economic behavior change. Those with the highest risk aversion and risk perception presented the highest values of economic behavior alteration.

Regarding the relationship between psychological factors and the signs of mental health problems, the results of the study emphasized that risk perception and risk aversion were in a relation of causality, considering that Panicked people presented higher values of stress exposure symptoms. Also, the results supported the fact that those who were exposed to a period of unemployment presented such signs on a greater extent than those who had not experienced such a period. This supports the empirical findings of previous researches, between unemployment and mental and physical health problems there is a significant association. The important stressors were of economic nature, the results of the study placing the general situation of the national economy as the most important stress generating factor.

The results of the present study bring additional insights into individual behavior in uncertain conditions, underling that in the context of uncertainty, as economic crisis is, the psychological factors play an important role in individual behavior alteration and over heath status.

REFERENCES

- 1. Ang SH (2001). Personality Influences on Consumption: Insight from the Asian Economic Crisis. J. Int. Consum. Market., 13(1): 5-21.
- 2. Ang SH, Leong SM, Kotler P (2000). *The Asian apocalypse: crisis marketing*, Long Range Planning, 33(1): 97-119.
- 3. Brenner, M.H., Mooney, A. (1983). Unemployment and health in the context of economic change, Soc. Sci Med., 17(16):1125–1138.
- 4. Brand JE, Becca L, William TG (2008). Effects of Layoffs and Plant Closings on Depression among Older Workers. Res. Aging, 30(6):701-721.

- 5. Brand JE, Burgard SA (2008). Job Displacement and Social Participation over the Life Course: Findings for a Cohort of Joiners. Soc. Forces, 87(1): 211-242.
- 6. Dutt P, Padmanabhan V (2009). When to Push the Panic Button? Impact of Currency Crisis on Consumer Behaviors. http://faculty.edu/dutt/Research/Paddy_Pushan.pdf
- Fiszbein A, Giovagnoli PI, Aduriz I (2003). *The Argentine crisis and its impact on household welfare*, CEPAL review 79. http://www.ceclac.org/publicationes/xml/0/20140/lcg2200i-Fiszbein.pdf.
- 8. Hillson DA (2002). *What is risk? Towards a common definition*, J. UK Institute Risk Manage., April 2002, 11-12.
- 9. Hillson DA, Murray-Webster R (2004). *Understanding and managing risk attitude*. Proceedings of 7th Annual Risk Conference, held in London, UK, 26 November 2004.
- 10. Kelley EJ, Schewe LR (1975). *Buyer behavior in a stagflation-shortages economy*. J. Market., 39: 44-60.
- 11. Linn H, Stein S (1985). *Effects of unemployment on mental and physical health*. American Journal of Public Health, Vol. 75, No. 5:502-506.
- 12. Lusk JL, Coble KH (2005). *Risk Perceptions, Risk Preference and Acceptance of Risky Food.* Amer. J. Agric. Econ., 87(2):393-421.
- 13. Miller D, Reilly J (1994). *Food scares in the media*, Glasgow: Glasgow University Media Group Pearson C, Clair J (1998). Reframing Crisis Management, Acad. Manage. Rev., 23(1): 59-76.
- 14. Pandelica, A., Pandelica, I, 2011, The change of consumers' behavior in crisis conditions: A psychological approach to the empirical evidence from Romania, African Journal of Business Management, DOI: 10.5897/AJBM11.266, pp. 11399-11412
- 15. Pennings JME, Wansink B, Meulenberg M (2002). A Note on Modeling Consumer Reaction to a Crisis: The Case of the Mad Cow Disease. Int. J. Res. Market., 19: 91-100.
- 16. Pernia EM, Knowles JC (1998). Assessing the social impact of the financial crisis in Asia, Asian Development Bank, Economics and Development Resource Center, EDRC Briefing Notes, Number 6, http://aric.adb.org/pdf/edrcbn/edrcbn06.pdf
- 17. Quelch JA, Jocz KE (2009). *How to market in a Downturn*, Harvard Business Review. http://hbr.harvardbusiness.org/2009/04/how-tomarket-in-a-downturn/ar/1.
- 18. Shama A (1980). *Marketing in a slow growth economy: the impact of stagflation on consumer psychology*. Praeger Publishers, New York.
- 19. Shama A (1978). Management and Consumers in Era of Stagflation, J. Market., 42(3): 43-52.
- 20. Sitkin SB, Weingart LR (1995). Determinants of risky decision making behavior: A test of mediating role of risk perception and propensity. Acad. Manage. J., 38: 1573-1592.
- 21. Slovic P, Finucane ML, Peters E, MacGregor DG (2004), *Risk as Analysis and Risk as Feeling:* Some Thoughts about Affect, Reason, Risk and Rationality. Risk Analysis, Vol. 24(2): 311-322.
- 22. Stiglitz J (2008), *The fruit of hypocrisy*. The Guardian, 16 September, 2008. http://www.guardian.co.uk/commentisfree/2008/sep/16/economics.wallstreet.
- 23. Urbonavicius S, Pikturnien I (2010). Consumer in the face of economic crisis: Evidence from two generations in Lithuania. Econ. Manage., 15: 827-834.
- 24. Global Consumer Confidence, Concerns and Spending A global Nielsen consumer report (2009).

http://pt.nielsen.com/documents/tr_0905NelsenGlobalConsumerConfidenceReport1stHalf09.p df.

- 25. Global Consumer Confidence, Concerns and Spending A global Nielsen consumer report (2010), http://lk.nielsen.com/site/documents/CCI1stQuater10.pdf.
- 26. World Health Organization (2011), Impact of economic crises on mental health, http://www.euro.who.int/__data/assets/pdf_file/0008/134999/e94837.pdf
- 27. World Economic Situation and Prospects as of mid-2012, http://www.un.org/en/development/desa/policy/wesp/index.shtml
- 28. World Economic Outlook (WEO). *Coping with High Debt and Sluggish Growth* (2012), International Monetary Fund, http://www.imf.org/external/pubs/ft/weo/2012/02/pdf/text.pdf