

Segmentation of Bulgarian Consumer Market in Times of Economic Crisis: An Empirical Study

* **Katrandjiev, H., Naydenova, E.**

University of National and World Economy, Bulgaria, 1700 Sofia, Students Town, UNWE

Corresponding author E-mail: katrandjiev@unwe.acad.bg

Abstract: *The paper presents the results from a survey-based market research of Bulgarian households. The authors develop market segmentation from the point of view of consumer behavior changes in times of economic crisis. Four segments (clusters) are discovered and analyzed. The similarities/dissimilarities between clusters are presented by the technique of Multidimensional scaling (MDS).*

Keywords: *consumer behavior, economic crisis, market segmentation, cluster analysis*

1. OBJECTIVES

This paper presents the results of an academic research project which is organized and realized within the Scientific Research Program of University of National and World Economy, Sofia, Bulgaria.

The main objective of the project is to study the changes in consumer behaviour in times of economic crises, as well as the direction and sustainability of these changes.

The more specific research objectives include answering the following questions:

- Do changes occur in the quantity and frequency of consumption of certain products and services in Bulgaria during economic crisis?
- Do consumers change their buying pattern by choosing lower quality at lower prices?
- What are the similarities and dissimilarities between fast moving consumer goods (FMCG) and durable goods in terms of the changes in consumer behaviour during economic crisis?
- How do consumers change their attitudes towards savings?
- What are the consumers' attitudes towards credits?
- How the market segmentation does look like from the point of view of changes in consumer behaviour during economic crisis?
- What are the profiles of each segment?
- How this segmentation approach could help managers develop successful marketing strategies?

Due to the volume limitations concerning this paper, we present the research findings partially. The rest of the findings will be published in a separate paper.

2. PREVIOUS RESEARCH

The newest American experience in studying consumer behavior in times of economic crisis is represented by a joint research project conducted by Deloitte and Harrison Group, named "*The 2010 American Pantry Study: the New Rules of the Shopping Game*" [A Joint Report from Deloitte and Harrison Group, 2010]. Besides the numerous facts, published in this study, much noticeable are the four basic types of shopping behavior. The authors of the study defined them as "Four Shopper Decision Strategies: New Rules in a Changed Game" The Deloitte/Harrison Group identified the following market segments regarding consumers' "attitudes and resourcefulness":

- "**Super Savers** manage their resourcefulness at the cash register, hunting for and taking pleasure in savvy price management through extensive coupon collection.
- **Sacrificers** manage resourcefulness at the shelf, selecting among competing products on the basis of unit price, shopping more store brands and eliminating convenience shopping.
- **Planners** address resourcefulness through pantry management where they plan out meals, accept bulk pack discounts and set fixed spending limits.
- **Spectators** are the most loyal to national brands and were the least impacted by the recession, but still strive to be resourceful. Their pursuit of value still allows room for specialty goods, but they learn how to save by taking advantage of in-store discounts." [A Joint Report from Deloitte and Harrison Group, 2010]

European research experience in the field of consumer behavior during economic crises can be presented by an interesting study organized and conducted by McKinsey Global Institute (MGI) and Consumer and shopper insights (CSI). The scope of the research project encompassed Germany, UK, France, Italy, and Poland. In 2008 quantitative and qualitative data was gathered in the 5 countries. The analysis revealed 5 typical consumer reactions or

modifications of consumer behavior in times of economic crises. The team of the project called these modifications “tactics in response to reduced purchasing power” [McKinsey Global Institute, 2009]. The first tree tactics are connected with the purchased volume by shoppers and they are: “control spending”, “replace only when needed”, and “do it yourself”. The other two tactics are oriented towards the price – “shop smarter” and “seek value” [McKinsey Global Institute, 2009].

In 2010 in Bulgaria a research project aimed towards the segmentation of Bulgarian consumers was conducted [Пазарен компас, 2010]. The researchers identified 7 market segments regarding consumers’ life styles. This research partially studied the consumer behavior in times of economic crises. The conclusions of the research project cover the future expectations of Bulgarian consumers, the income change, etc.

Our research objectives include further more detailed analysis of consumer behavior in times of economic crises – i.e. changes in consumption of fast moving consumer goods, as well as durable goods, changes in consumer behavior, future expectations, etc.

3. METHODOLOGY

The **data collection method** includes structured personal interviews. Interviewing gathered data about respondents behaviour and choices as well as changes in their behaviour in a period of economic crisis. The research questionnaire consists of five sections.

- The first section is designed to gather data about households’ consumption. The specific product/service groups which are investigated are the following: food (meat, fish, soups, salads, fruits); clothes; shoes; electricity, water; heating; entertainment, etc.
- The second section of our research questionnaire includes questions concerning the purchases and possession of durable goods (cars, TV sets, phones, computers, refrigerators, etc.). Special topics of interest in this second section are the postponed purchases of durable goods (by product categories) and the decreasing of consumption of FMCG (foods, detergents, tooth paste, cigarettes, etc.).
- The third section of our questionnaire includes questions gathering data about consumers’ behaviour and attitudes towards credits and savings.
- The fourth section is designed to gather data about the practice of preparing homemade foods and drinks by Bulgarian households. Special point of interest in our research is the change of amount and variety of products prepared “homemade” in conditions of economic crises (compared to the times before crisis).
- The final section of our questionnaire asks questions about consumers’ age, education, income and other demographic data.

The **sample size** is 2000 Bulgarian households living in Bulgarian cities. The method of area sampling was applied.

The market segments were defined using the method of **cluster analysis**.

4. ANALYSIS OF CLUSTERS’ PROFILES

In this paper we offer a non-traditional approach to profiling the clusters. Instead of presenting and commenting on numerous figures, plots, and tables we applied a multidimensional scaling procedure and drew positioning maps. We found this approach to be more comprehensible to the reader, space-efficient and (which is the most important) clearly outlining the differences among clusters.

On Fig.3 we present the cluster profiles in relation to the two basic changes in consumer behavior in times of economic crisis: switching to cheaper brands and deprivation of some goods and services. Each of these two variables is presented at 4 levels (extents): high, average, low, and “not at all”. The positioning map on Fig.3 contains additional labels, added after the multidimensional procedure was run, i.e. these labels are not produced by the multidimensional scaling. It also contains data about clusters’ sizes (measured as proportions from the sample): K1 – 15%; K2 – 30%; K3 – 40%; K4 – 15%. After a thorough analysis of the four clusters we gave them names (Fig. 1).

The distances between the clusters on the positioning map indicate their dissimilarities/similarities. Clusters that are close together are more similar compared to clusters that are far from each other. The axes of the positioning map are composite dimensions along which the four clusters differ. Variables placed close to an axis may be viewed as indicators of the meaning of that axis. The variance explained by the vertical dimension (73.8%) and the variance explained by the horizontal dimension (26.2%), indicate that the vertical dimension is more important in explaining clusters’ profiles. The lines that originate from the center of the map and move away from that center express the direction in which a variable increases. The length of these lines indicates the amount of variance explained by the positioning map. In fact a longer line means greater importance of the corresponding variable in differentiating among clusters. To assess a cluster on any variable, we can draw a perpendicular line from the cluster to any variable. The main principle of assessment is the following: the farther a cluster is away from the center of the map (along the line of a variable) the higher is the proportion of customers given the corresponding answer.

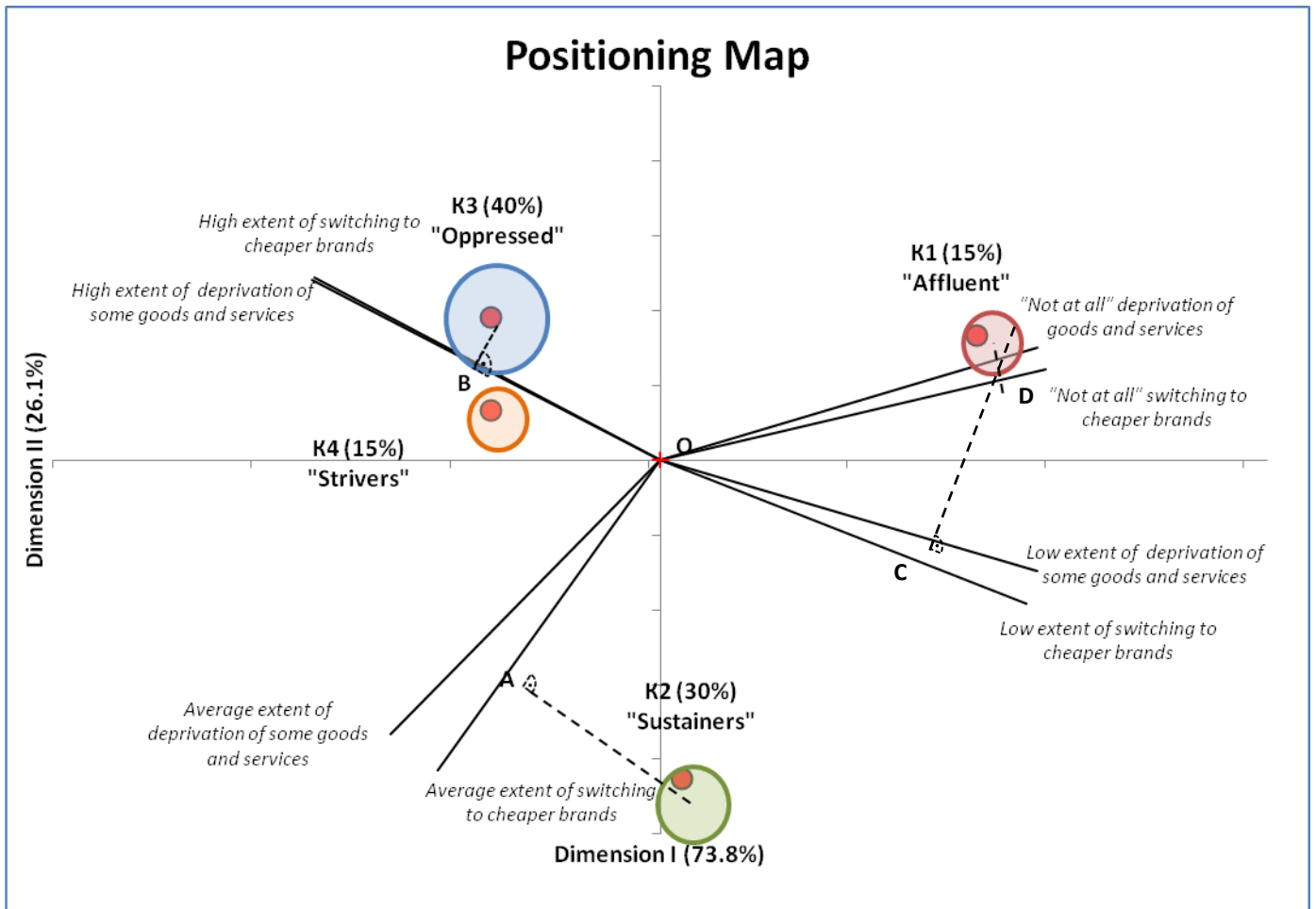


Figure 1: Clusters' sizes and profiles

If we throw a look at Fig. 3 we can see that a differential characteristic of Cluster 1 (K1) is the high proportion of consumers who do not “switch to cheaper brands” (indicated by the length of line OD) while the differential characteristic of Cluster 3 (K3) is the very “high extent of switching to cheaper brands” (line OB). The positioning map clearly shows that Cluster 2 (K2) has an “average extent of switching to cheaper brands” as well as an “average extent to deprivation from goods and services” in times of economic crisis. The fourth cluster (K4) is similar to cluster K3 but there is a difference – the propensity to “switching to cheaper brands” and to “deprive of goods and services” is not as severe as in cluster K3.

5. SUMMARY AND MANAGERIAL IMPLICATIONS

In our analysis we defined four clusters (market segments) regarding consumer behavior in times of economic crisis. Cluster K1 is passing through the crisis with ease and without troubles. The income of consumers in that cluster is high and these people did not change their consumer behavior significantly during the period of economic crisis. They neither switch to cheaper brands, nor deprive themselves of goods and services. Their income and their expenditures are relatively steady. Some of them even declare that their income has increased since the beginning of the economic crisis. These consumers are very optimistic about the end of the crisis – a great proportion of them believe that the crisis is already over or it will be over by the end of 2011. We called Cluster K1 “*Affluent*”. The proportion of that cluster is 15%.

The consumers belonging to Cluster K2 declare an average extent of switching to cheaper brands and deprivation of goods and services. Their income is relatively high, but not as high as the income of consumers from Cluster K1. These people changed their consumer behavior slightly in the period of the crisis. In fact they live without serious troubles and deprivations. We called that cluster “*Sustainers*”. The proportion of Cluster K2 is 30% of the sample.

Consumers belonging to Cluster K3 are in the most difficult situation: their income is very low, so is their optimism about crisis ending. The economic crisis has put the consumer in Cluster K3 in a very challenging situation – their income has decreased and their expenditures have increased since the beginning of the crisis. They desperately try to adapt to the new conditions by changes in their consumer behavior characterized by “a high extent of switching to cheaper brands” and even “deprivation of some goods and services”. These consumers are very pessimistic about crisis’s end – they believe the crisis is here to stay. Cluster K3 is the largest cluster among all – its proportion is 40%. We named this cluster “*Oppressed*”.

Consumers in Cluster K4 receive a lower income compared to clusters K1 and K2 but higher compared to Cluster K3. These people have adopted a consumer behavior of “switching to cheaper brands” and “deprivation of goods and services”. They are also careful shoppers. They declare that their expenditures have decreased since the beginning of the crisis. This is due to their attempt to protect from the worsening economic conditions by saving money for “rainy days”. Their resources are scarce and they save some money with great sacrifices. We named this cluster “*Strivers*”. Its proportion is 15%.

On the basis of our analysis we can draw some conclusions from a marketing viewpoint. *First*, the managers of relatively expensive brands and luxuries can count on a relatively small part of the population. In fact this part of the population is represented by the consumers belonging to Cluster K1 or the so called “*Affluent*” market segment. These consumers do not switch to cheaper brands neither deprive themselves of any goods and services. Obviously their income is high and their expectations are optimistic. Bearing in mind the fact that the proportion of this segment within the sample is 15% we can expect that some of the marketing managers could introduce cheaper versions of their products targeted to other market segments. *Second*, the introduction of cheaper versions could be realized by the launching of “cheaper brands” and positioning them in the low levels of the price-quality pyramid. If we point a look at Cluster K3 and Cluster K2 or the so called “*Oppressed*” and “*Sustainers*” we can see that their proportion within the sample is 70% (“*Oppressed*” – 40%; “*Sustainers*” 30%). As we discussed earlier one typical change of consumer behavior of people belonging to Cluster K2 and Cluster K3 is “switching to cheaper brands”. Having in mind this fact as well the substantial size of the two segments we can state that the strategy of launching new inexpensive versions of established brands could be a profitable option for the categories where switching to cheaper brands is most likely to occur such as laundry detergents, toiletries and other fast moving consumer goods. One could argue the introduction of a new brand would lead to additional expenditures (registration fees, advertising, package design, marketing research, etc.). When introducing a new brand these expenditures are inevitable but in spite of that we recommend the approach of introducing new cheaper brands instead of lowering the price (as well as the quality) of existing brands. The reason behind our confidence while making this recommendation is the inherent risk of harming the brand image of well established brands. These brands are expected to recover their sales after the crisis and keeping their image is an important factor for their recovery. *Third*, the orientation towards smarter shopping implies that customers are now expecting more value for their money and are less willing to pay for product features they don’t really need. Companies need to carefully evaluate the new priorities of their target customers, focusing on the product attributes that are most important to them and motivate their purchases. *Fourth*, changes in consumer behavior bring also the need for additional information and search efforts – clarity, transparency and predictability should be an integral part of companies marketing strategies.

References:

1. A Joint Report from Deloitte and Harrison Group, The 2010 American Pantry Study: The new rules of the shopping game, , http://www.deloitte.com/assets/Dcom-UnitedStates/Local%20Assets/Documents/Consumer%20Business/US_CP_American%20Pantry%20Study_Executive%20Summary_2010.pdf. (accessed 12 April 2011).
2. McKinsey Global Institute, Beating recession: Buying into New European Consumer Strategies, April 2009, http://www.mckinsey.com/locations/swiss/news_publications/pdf/beating_recession_buying_european_consumer_strategies.pdf. (accessed 12 April 2011)
3. Българите – начин на живот 2010. Пазарен компас, http://www.pazarenkompas.com/bg/images/Pazaren_kompas_2010_Lifestyle_v_kriza_11_03_2010.pdf, (accessed 12 April 2011).
4. Маринов, Кр., За печалбата от лоялните клиенти, Икономически алтернативи, брой 5, 2011, с. 95-106.
5. Младенова, Г., Маркетингово планиране, УИ „Стопанство”, С. 2006.