



BEHAVIOURAL REACTIONS OF CONSUMERS TO ECONOMIC RECESSION

Katarína VALÁŠKOVÁ¹, Tomáš KLIŠTIK²

*Department of Economics, Faculty of Operation and Economics of Transport and Communications,
University of Žilina, Univerzitná 1,010 26, Žilina, Slovakia*

E-mails: ¹katarina.valaskova@fpedas.uniza.sk (corresponding author); ²tomas.kliestik@fpedas.uniza.sk

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Abstract. The negative effects caused by the economic recession of the recent year, led to the necessity to recognize the changes in the consumer behaviour that may have a lasting impact, and they definitely will. The situation in the Slovak consumer market is described and characterized by the survey which was conducted in 2013. The article also raises three hypotheses considering the basic fact about consumers and their impact on the intensity of behavioural changes. In order to verify our results surveys and studies carried out by many companies in various countries are analyzed in the last chapter.

Keywords: consumer, consumer policy, behavioural changes, trends, consumer policy, recession.

JEL Classification: C12, D11.

Introduction

The economic cycle can have an important impact on consumption patterns, with expenditure usually rising during the periods of economic upturn. When an economy is booming, there is often an upturn in the consumption of luxury goods and consumer durables. And vice versa, during the periods of recession, disposable income is reduced and consumer confidence usually falls. A slowdown or contraction in economic activity often results in fewer luxury purchases being made, for example, lower sales of jewellery, holidays abroad, or other big-ticket purchase, such as cars or furniture (Eurostat European Commission 2009).

European consumers, as well as consumers of every other market, are considered to be a driving force of the market competitiveness, if they seek out the best offers. Indeed, consumer spending is often cited as a key driver for growth and economic integration. Within the particular market there is a huge amount of consumer. In the middle 60th or 70th the population in Europe was quite young, but it is not the same these days. The market is mostly focused on so-called silver generation (55 years old and

more) and on head-to-silver generation, people in the age of 45–54 (Higham 2010). Not only these consumer, but all of them, are oriented on purchasing products which they need and their purchasing behaviour has changed significantly. Consumption of luxury goods is very often postponed or simply deferred. The economic shocks of the past years, since 2008, have created greater requirements on retailers and their suppliers to understand and respond to the new marketplace realities, especially to the new trends in consumer behaviour. They are analysed in details in the fourth chapter also with references.

The novelty of the study is that the article analyses a variety of published surveys and determines new trends in consumer shopping behaviour caused by the economic crisis which puts an important foundation for further research.

The object of this article is changed shopping behaviour of the European consumers. The main aim of the study is to analyze the post-recession consumer behaviour. To achieve the main aim, partial aims were set:

1. to analyse consumer behaviour and its characteristics from a literature perspective,

2. to introduce the European consumer policy of the current period 2014–2020,
3. to present the results of the survey conducted in the Slovak consumer market,
4. to verify the results of the survey by various studies and searches realized in other countries to portray the main changes in consumer shopping behaviour.

In order to describe changes in behaviour of Slovak consumers we conducted a survey which was aimed to describe the key changes in behaviour. The aim was not only to define new trends in consumer behaviour but also to determine the possible correlation between the selected descriptive variables of consumers. For the purposes of this paper, we set three hypotheses and we searched the relationship between changes in consumer behaviour and the age structure of consumers, the length of crisis and disposable income. The intensity of changes in consumer behaviour is classified into five categories: very low intensity, low intensity, no changes, high intensity and very high intensity of changes. Each of them is characterized by different parameters. Very low intensity of changes is described by unstable consumption and conscious savings. Postponing the purchase is typical of low intensity of changes. At high level of intensity consumers seek the shopping benefits and purchase mostly the private label products. The last group is characterized by buying the cheapest products in the cheapest business sales points.

Hypothesis 1

H0: There is no statistically significant dependence between the changes in consumer buying behaviour and the age structure of the population.

H1: There is statistically significant dependence between the changes in consumer buying behaviour and the age structure of the population.

Hypothesis 2

H0: There is no statistically significant dependence between the changes in consumer buying behaviour and the disposable income of consumers.

H1: There is statistically significant dependence between the changes in consumer buying behaviour and the disposable income of consumers.

Hypothesis 3

H0: There is no statistically significant dependence between the changes in consumer buying behaviour and the length of the economic recession.

H1: There is statistically significant dependence between the changes in consumer buying behaviour and the length of the economic recession.

Finding the relation between the selected descriptive variables is crucial to be able to recognize the most important

changes in shopping behaviour of Slovak consumers. The methods used are: logical and comparative analysis of literature, analysis, synthesis, deduction, induction, description, excerption and statistical hypothesis testing.

1. Characteristics of consumer behaviour

Consumer policy and the related consumer protection are parts of the economic policy of every state. They can significantly improve the functioning of the market by providing the information about goods and services and so help consumers make rational selection of the goods or services (Hawkins *et al.* 1991). Consumer policy protects consumers from the market imperfection due to which consumers are in disadvantage compared to suppliers or retailers of goods or services.

Consumer policy monitors and tries to specify objectives, which are also considered to be the key activities: ensure and provide the possibility of supplying food, housing, energy and health services for the best prices; enhance the freedom of consumer choice, improve market transparency by providing necessary information on a given product; protect consumers from adverse effects and health risks of products and production processes; protect the economic interests of consumers in the stores, in e-commerce, financial institutions, etc.; improve the legal position of consumers, protect them from unfair or fraudulent business conditions; ensure competitive supplying by public goods and services; provide consumer information and advice on consumer rights and responsibilities, sustainable consumption, nutrition, rational and energy-efficient household management; improve consumers position in the market by providing functional competitiveness on domestic and foreign markets; defend and promote the interests of consumers in the private sector as well as at all political levels; develop institutional framework of a country consumer policy using consumer information network and various other institutes and improve coordination and cooperation between the EU, consumer organizations and individual countries in law implementing, monitoring and control (Steffens 2006). According to the Economic encyclopaedia (Šíbl 2002), consumer policy defines two main objectives. Firstly, it informs consumers about goods and services, appropriate buying decision can contribute to the functioning of competitive markets and enable consumers to make positive selection. On the other hand, it protects consumer where their position on the market is not strong enough to allow to protect themselves from those who have the power to detriment them. A consumer is generally thought of as a person who identifies a need or desire, makes a purchase and then disposes of the product during the three stages in the consumption process. A typical consumer's utility is dependent on the consumption of agricultural and industrial goods,

services, housing and wealth (Gregová 2009). Consumers may be also organizations or groups in which one person may make the decisions involved in purchasing products that will be used by many, as when a purchasing agent orders the company's office supplies. In other organizational situations, purchase decisions may be made by a large group of people (Solomon *et al.* 2006).

Consumers represent the bearers of consumption. No one of them is the same, as everyone is influenced by different factors which form the consumer behaviour. It can be perceived at the macro and micro level. The macro consumer behaviour is created by social issues but to reach the factors of micro consumer behaviour, so called individual factors, the following indicators have to be considered: cultural anthropology, history, demography, semiotic/ literary criticism, macroeconomics, sociology, social psychology, microeconomics, human ecology, developmental psychology, clinical psychology and experimental psychology (Solomon *et al.* 2006).

Consumer behaviour is an important and constant decision-making process of searching, purchasing, using, evaluating and disposing of products and services (Štašenková 2006). The economists nowadays regard the appropriate consumer behaviour as one of the most important fields of economy. People usually purchase those products and services which are of maximal utility. Samuleson and Nordhaus (2000) claim consumers try to maximize their utility, satisfaction or joy by purchasing consumer goods. Taking the lifestyle and its factors into consideration, consumers are able to create some opinion and attitudes to particular products. The combination of one's lifestyle, different factors and attitudes affect the consumer decision-making process as well as the consumer behaviour. Approaches defined in the consumer behaviour can be divided into the following three groups (Dzurová 2007):

- psychical approach: it highlights the relation between the psyche and behaviour of the consumer. The consumer behaviour is possible to describe by the consumer reactions to the external stimuli, so it may be claimed that the essence of this behaviour are experience and learning.
- sociological approach: it is devoted to the reactions of consumers in different situations or how the behaviour is influenced by various social occasions.
- economic approach: it uses the basic knowledge of micro economy, consumers define their requirements and, on the other hand, companies present the sources for satisfying the needs. Subsequently, the consumer interests are confronted and traded on the market. In the course of time, the behaviour of consumer has changed excessively. In the purchasing process many criteria are considered by consumers which were not in the past, as not such

a huge assortment of products was at the disposal as well as a huge variety of stores. Every consumer prefers something else, mostly the stated measures and their components: supplying: product manipulation (transport, purchase in the group), optimal rate of price and quality, extra services provided in the store; professional assistance: professional services (trustworthiness), formal professionalism, huge assortment in one product category, availability; speed and comfort: speed (orientation, size, service), prompt availability, opening time, specific kinds of assortment (fresh, pre prepared, spirits, sweets), congenial atmosphere, low price sensibility; grocery purchase: taste, price, smell, aesthetics, ingredients, nutrition value, genetic modification, trademark, producer, type of production, package, recyclability, fashion, etc. (Zamazalová 2009).

The internationalization of the market structures makes increasingly necessary for business people to acquire a clear perspective and understanding of cultural differences and similarities among consumers from various countries. Culture, education, purchasing power and other factors (e.g. labelling, information) considerably influence consumer habits, and hence the percentage of income spent on products and services. All social groups do not purchase the same kind of products, the extent to which price affects acceptance will vary according to the type of product and the type of consumer motivation. Better knowledge of the space behaviour of a customer enables the retailers to understand the attractiveness of the sales point and plan the future implantation of a new point of sale. That is why it is of a vital importance for traders and manufacturers to recognize all the factors, trends and conditions which affect consumers in order to meet their needs (Howells, Weatherill 2005).

Consumer protection and consumer policy are also the priorities of the European Union. Consumer policy is a part of the internal market. If the market works smoothly, it creates favourable conditions for entrepreneurship and competition. The single consumer policy brings many benefits, but on the other hand, also some risks (more stringent and effective market control).

2. European consumer policy

At the time when Europe needs new sources of growth, consumer policy is the field which can significantly contribute to meet the Europe 2020 objectives. In Europe there are 500 million consumers and consumer expenditure amounts to 56% of EU GDP. The more consumers are able to make informed and rational decisions, the greater the impact they can have on strengthening the Single Market and stimulating growth. Empowered consumers that are

well-protected and able to benefit from the Single Market can thus drive innovation and growth by demanding value, quality and service (European Commission 2013b). The businesses which respond will be the best-placed to cope with the pressures of the global market. Empowerment is not only a question of consumer rights but of building an overall environment that enables consumers to make use of those rights and benefit from them. It means building a framework wherein consumers can rely on the basic premise that safety is assured and that tools are in place to detect failings in standards and practices and to address them effectively across Europe. It means building an environment where consumers through education, information and awareness know how to navigate the Single Market to benefit from the best offers on products and services. Finally empowerment requires that consumers can confidently exercise their EU rights across Europe and that, when something goes wrong, they can count both on the effective enforcement of those rights and on easy access to efficient redress (European Commission 2013a).

The new Consumer Programme, with a budget of 175 million Euros for the period 2014–2020, will support the general objective of future consumer policy placing the empowered consumer at the centre of the Single Market. European consumer policy supports and complements national policy by seeking to ensure that EU citizens can fully feel the benefits of the Single Market and their safety and economic interests are properly protected.

In the new period the main problems were addressed and they can be grouped in the following categories:

- safety: differences between Member States in enforcing product safety legislation, the presence of unsafe products on the Single Market; risks linked to the globalisation of the production chain; services safety; lack of an adequate coordination structure at EU level to ensure the best value of EU co-financing.
- information and education: lack of robust and good quality data and analysis on the functioning of the Single Market for consumers; insufficient capacity of consumer organisations, including lack of resources and expertise, notably in the new Member States; lack of transparent, comparable, reliable and user-friendly information for consumers, particularly for cross-border cases; poor knowledge and understanding of key consumer rights and protection measures by consumers and retailers alike; inadequacy of current EU consumer education tools, especially with regards to the developments in the digital environment.
- rights and redress: sub-optimal protection of consumer rights, in particular in cross-border situations; need to further improve the integration of consumer interests in EU policies; problems faced by consumers when trying to secure redress, notably cross-border.

- enforcement: CPC Network (network of national enforcement authorities) not used to its full potential; low awareness about ECC-Net (network of European Consumer Centres) among consumers and need to strengthen its effectiveness.

At the same time, the new Programme, with its four priorities of Safety, Information and education, Rights and redress, and Enforcement, needs to take into account new societal challenges which have grown in importance in recent years. They include: the increased complexity of consumer decision-making, the need to move towards more sustainable patterns of consumption, the opportunities and threats that digitalisation brings, an increase in social exclusion and the number of vulnerable consumers and an ageing population.

The problems which should be tackled by consumer policy are of wide range and so the accepted actions have to be targeted on areas where intervention at the EU level can make a difference and add value. The selected areas for actions are actions corresponding to legal obligations imposed by the Treaty and Member states (e.g. providing and operating of RAPEX system), actions which are not or could not be undertaken at national level because of their EU-level character and actions complementing and enhancing the efficiency of measures undertaken at national level.

This Consumer Programme was designed only at EU level. At the level of the Slovak Republic, as it was in the case of the previous programming period 2007–2013, it is absent. Most of the European rules and directives are based on the principle of minimum harmonization, which means that they can be (but do not have to be) more stringent at the level of individual countries. The Slovak Republic implements consumer legislation in accordance with the principle of minimum harmonization. Therefore we must hope that sufficient attention will be given to the consumer policy at the national level.

2.1. Ways of consumer protection at the EU level

The European Commission is trying by various measures and rules to protect consumers not only in their Member State but also out of their borders. In addition, for the free movement of goods is essential to ensure that Member States are properly informed about the situations in other countries, both in terms of the products and provision of adequate services even after the purchase. Two indices are used to measure the level of consumer policy within the European market – Consumer Condition Index (CCI) and Market Performance Index (MPI).

European Commission issues an annual statistic report, based on political directions and regulations that assign better understanding of consumer policy. It helps the policy makers make sure that the policy they adopt is in tune with the expectations of consumers and identify priorities to

focus on in order to improve consumer conditions. Taking the total consumption into consideration, the household expenditures amounts to 56% of GDP in the EU (European Commission 2013c), it is therefore necessary to focus on improving consumer conditions which increase the economic growth.

If consumers feel to be a full member of the consumer market, they can make right decisions based on perfect information and appreciate the efficient and innovative business, contribute to competitiveness stimulation and economic growth. But on the other hand, markets in which consumers are confused and deceived are mostly markets, where there is low competitiveness and frequent clash of consumers with some form of injury. Therefore it is necessary to identify which parts of the European market do not work in favour of consumers. And that is the function of the Consumer Markets Scoreboard. It does not only identify the problem markets it also carries out in-depth market research on sectors which seem to be inefficient. The main aim is to recognize the problem easily and define possible solutions. Most of the data comes from the annual marketing research which measures consumers' experiences and their perception of consumers' conditions in 21 markets of goods and 30 markets of services which amount to 60% of all household expenditures (European Commission 2013c). Conditions in each market are valued on the basis of six criteria: comparability, trust, problems and complaints, overall satisfaction, choice and switching. The research includes all the Member States, Iceland and Norway. Evaluation of all 51 markets is based on MPI Index which takes into account four aspects of consumer experience:

- the ease of comparing goods and services on offer,
- consumers' trust in retailers / suppliers to comply with consumer protection rules,
- problems experienced and the degree to which they have led to complaints,
- consumers' satisfaction (the extent to which the market lives up to what consumers expect).

These components of the index are equally weighted and total possible score achieved is on a scale from 0 to 100 which allows to compare the country markets easily. Consumers' overall assessment of market performance improved slightly between 2012 and 2013 (by 0.3 points). This continues the positive trend observed since 2010. While the performance of goods markets has remained stable since 2012, services markets have improved by 0.5 point. As a consequence the performance gap between the two market groups has slightly narrowed. In general, it may be noted that markets of goods are doing much better than markets of services.

Overall market performance in Slovakia is below the EU28 average, with a difference of 0.9 points. There has been a slight, non-significant, decline by 0.3 points in terms

of overall Slovakian market performance since 2012, which continues a downward trend observed from 2011 to 2012. In terms of goods markets as a whole, Slovakia experienced a decline in performance in comparison to 2012, so that Slovakian goods markets are currently 2.3 points below the EU28 average and 1.1 points below 2012's score. The average MPI on services markets in Slovakia is relatively unchanged since 2012 and it is currently close to that observed for the EU28. When comparing goods markets to the EU28 average, Slovakia performs best in terms of fuel for vehicles, and worst in the markets for clothing and footwear, meat and meat products, fruit and vegetables, second-hand cars, and non-prescription medicines. All of these markets have lower component scores for comparability, trust and expectations. Overall, the top three goods markets in Slovakia are the books, magazines and newspapers, spectacles and lenses and entertainment goods markets. The bottom three are the second-hand cars, clothing and footwear and meat and meat products markets. The non-prescription medicines market is rated in 26th position across the EU28. The clothing and footwear market is in 27th position. Looking at Slovakia's services markets since 2012, there has been an improvement in the performance of mobile telephone services, and vehicle maintenance and repair. Overall, the top three services markets in Slovakia are the personal care services, culture and entertainment, and fixed telephone services markets. The bottom three are the investment products, private pensions and securities, real estate services, and maintenance services markets (European Commission 2013b).

The Consumer Conditions Scoreboard shows how the single market is working for European consumers and warns them of possible problems. The data available in the annual reports allow political leaders of both the EU and the Member States to estimate the impacts of their policies on consumer welfare and to compare the performance of consumer policy over time. Consumer-oriented single market contributes to economic growth and, moreover, demand stimulation is essential to get the EU out of the current economic crisis (European Commission 2013c). If there are informed and assertive consumers in the market who understand their rights and are sufficiently protected, they improve not only their own welfare but also stimulate competitiveness, innovation and integration of the internal market. Consumer Conditions Scoreboard primarily looks at the integration of the European retail market to see if consumers are willing to purchase anywhere in the EU with the same level of confidence and protection as at the national level. Secondly, it focuses on the quality of national consumer conditions. Key indicators are related to the enforcement of consumer and product safety legislation, the effectiveness of redress as well as consumer awareness, empowerment and information. The data are derived from a large-scale EU wide research of consumers and retailers, data by Eurostat

and the information received by the Member States and the European Consumers Centres. The Consumer Condition Scoreboard takes into account data from all EU Member States, Iceland and Norway and consists of 12 indicators (together they form CCI index – Consumer Conditions Index), which relate to consumer trust, economic and product safety enforcement, consumer complaints and redress. The total possible score achieved is 100, and its value varies considerably depending on the individual Member States. CCI index is positively correlated with gross disposable household income per capita in the Member States and negatively correlated with the amount of the most economically vulnerable consumers in the population. As the countries with the best consumer conditions are considered Finland, Great Britain, the Netherlands, Luxembourg, Ireland, Denmark, Austria, Sweden, Belgium, Germany and Portugal (CCI is in all of them above the European average 55%). Consumer conditions seem to be the less favourable in the Member States on the east and south part of the Union, in Greece, Croatia, Bulgaria and Cyprus, where the index reaches the lowest value. CCI index depends also on the socio-demographic groups. In general, the value of the index worsens the older the population, the lower levels of education, the higher the number of unemployed people, blue collars and those who do not have internet at home (European Commission 2013c).

The CCI index in Slovakia reaches 57% and it can still be described as good and consumer-oriented, although it is only slightly above the EU average (55%). The Slovak Republic has the second highest EU percentage of consumers' correct answers to all questions relating to basic consumer rights and Slovak consumers are considered the second best informed about the guarantee validity right. Therefore, an increase in consumer confidence should translate into higher rates of consumption in the future, leading to a possible rise in economic growth (Celik, Ozerkek 2009). On the contrary, awareness of retailers of prohibited commercial practices is the third lowest in the EU and in the period 2009–2012 decreased significantly the knowledge of retailers about the legal period to have a defective product repaired. Slovaks are the fourth most likely in the EU to take action in case of any problems. The percentage of consumers whose behaviour is affected by the information from the media has gradually grown since 2009. The level of consumer policy annually increases which shows that the level of consumer policy improves. But there still is much room for improvement compared to the best EU countries.

3. Research on behavioural changes of Slovak consumers

Consumers make purchases even in times of economic recession. The size of the crisis, the crisis factors of activity

are ascertained by taking into consideration the evaluation indices of the condition of the enterprise and various indices; they allow selecting the prevention measures out of the possible leading set of internal and external measures. In the time of crisis consumers purchase products of different prices and usually there are several reasons to decide about the purchase. They refuse to buy at higher prices if the product does not have qualitative advantage. So the role of e-commerce has increased since the beginning of the last recession. If consumers are loyal to a particular brand name they are willing to wait to the price cut of these products (Korčoková 2006). However, it is essential to follow not only the consumer's perspective and their changes in purchasing behaviour but it is also necessary to monitor the development of business enterprises. The companies on the market should realize that the situation will never be as good as before, at the time before the recession, and they have to accept changes in consumer behaviour if they want to succeed in the market. The economic crisis has significantly changed consumer behaviour: in the recent research 72% of consumers claimed that their buying behaviour changed as a result of the new economic environment, only 7% did not register any changes (Kantar Retail and... 2010). Consumers try to have minimum expenditures and maximum savings. A number of tools, techniques and programs can be used to achieve these goals, for instance prepare a shopping list, plan meals, use coupons, vouchers and compare prices in different stores. Here is the scope for traders because they can build loyalty by knowing the customers' needs and adapt them which lead to an increase in their own income.

3.1. Methodology of the research

In 2009 the economic crisis fully hit the Slovak trade. The commodity prices stagnated, consumer demand decreased and in addition the behaviour of shoppers and overall structure of the retail chains changed. Consumer sentiment had never been worse on the Slovak market than in 2012. Relatively stable development of Slovak companies was enacted on the background of turbulent changes in purchasing behaviour of the Slovak customers. As shown in the studies of INCOMA GfK, in 2012 few short-term and long-term trends were blended together. The strong impact of the economic crisis, evident in the field of buying psychology, influenced mainly the buying behaviour. Consumers' doubts about the future meet the long-term behavioural changes – with greater emphasis placed on quality than on quantity of food and the overall reasonableness of purchasing decisions. Sales (in particular the ones communicated directly at the store but also the leaflet ones) become one of the strongest impulses for selection of products and stores.

In order to describe changes in behaviour of Slovak consumers we conducted a survey which was aimed to describe

the key changes in behaviour. The aim was not only to define new trends in consumer behaviour but also to determine the possible correlation between the selected descriptive variables of consumers.

Set of statistics consists of consumers and as every citizen of a country is a kind of consumer, we focused the survey on the age group of 15+. Statistical unit is a Slovak consumer who is over 15 and realizes its shopping behaviour in one of the Slovak stores. Statistical features is the shopping activity in which the statistical units meet their needs, the needs of their family members, friends and acquaintances. To obtain the necessary data the method of questionnaire was used. The survey was conducted in the period from 1.9.2013 to 31.12.2013. To find the relevant sample size, we used the formula for determining sample size (Creative Research Systems 2013). According to the last census in 2011 (Statistical office... 2012) there are 5,397,036 inhabitants in Slovakia. If we subtract the number of those under 15, the total number of inhabitants is 4,570,520 inhabitants, which are the potential consumers. Using the mentioned formula we calculated the necessary sample size. The formula considers three key variables: confidence level, confidence interval (permissible margin of error) and population size. The confidence level was determined at 95%, which means that 95% of the survey results are valid for a given population. Permissible margin of error was determined at 5%. Necessary statistical sample size represents 384 respondents. As the questionnaire was conducted largely in electronic form, we received 458 completed questionnaires.

3.2. Statistical hypotheses testing

Statistical hypothesis testing procedure is one of the most important statistical inference. To accept or reject the hypotheses it is appropriate to follow statistical hypothesis testing methodology, which consists of the following steps:

- 1) Formulation of the null hypothesis (H0)
- 2) Formulation of the alternative hypothesis (H1),
- 3) Determination of the significance level (α),
- 4) Calculate of the test statistics and P-value,
- 5) Decision about the acceptance or rejection of the null hypothesis (Rimarčík 2007).

The null hypothesis (H0) is a statement that expresses the independence of variables. The alternative hypothesis (H1) is the logical opposite of the null hypothesis and it explains the existence of dependence between variables. The third step in testing statistical hypotheses is to determine the level of significance. This is the probability of errors which we accept if we reject the null hypothesis, which is in fact true. Traditionally it is set at the level of 5% (or 1%). Subsequently, the statistical hypothesis is tested and on that basis it can be decided about its acceptance or rejection. In our case we examine two ordinal variables with qualitative attributes, so we use contingency tables. The rows of

contingency represent the categories of one attribute and the columns of the other one. The field presents the number of objects which belong simultaneously into both categories (Luha 2006).

Table 1. Contingency table of the hypotheses

		Length of the economic recession					
Intensity of behavioural changes		0-1	2-3	4-5	5 and more	Σ	
	Very low		5	22	19	36	82
Low		30	17	3	0	50	
No		15	2	3	3	23	
High		60	55	30	11	156	
Very high		58	53	23	13	147	
Σ		168	149	78	63	458	
		Disposable income					
Intensity of behavioural changes		< 250€	251-500 €	501-750 €	751-1000 €	> 1000 €	Σ
	Very low	13	17	20	21	19	90
Low	42	3	1	0	0	46	
No	0	0	4	0	16	20	
High	50	53	38	6	0	147	
Very high	59	54	24	14	4	155	
Σ		164	127	87	41	39	458
		Age structure					
Intensity of behavioural changes		15-30	31-45	46-60	61-75	over 75	Σ
	Very low	7	5	21	39	0	72
Low	4	28	45	0	0	77	
No	34	30	0	0	0	64	
High	6	33	27	7	14	87	
Very high	26	36	35	24	37	158	
Σ		77	132	128	70	51	458

We used the software program Microsoft Excel with its complement Contingency Table (v. 2010).xlam for the most relevant statistical tests used in the analysis of contingency tables (Table 1). For the calculation of the test statistics and of probability we used Kendall correlation coefficient which is designed to measure the dependence between two ordinal variables. If one variable takes a different number of unique values than the other (contingency table $m \times n$), we use the tau-c, which is also called Stuart's tau-c or Kendall-Stuart tau-c (Table 2).

Kendall's ordinal correlation coefficient allows to test the significance of the tau coefficient, which we use in the last step of statistical testing. If the P-value is lower than the chosen significance level, the null hypothesis is rejected.

Table 2. The results of the statistical hypotheses testing

Measures of ordinal association	Hypothesis 1	Hypothesis 2	Hypothesis 3
Kendall's tau-b	0.018 598 196	-0.164 292 587	-0.170 542 548
95% CI	-0.062 472 089 to 0.099 668 481	-0.243 724 487 to -0.084 860 688	-0.250 505 289 to -0.090 579 807
Two-sided P-value	0.652 969 854	0.000 050 358 567	0.00 002 912 024
Kendall's tau-c	0.017 984 497	-0.151 491 676	-0.164 400 628
95% CI	-0.060 410 649 to 0.096 379 643	-0.224 734 613 to -0.07 824 874	-0.24 148 359 to -0.087 317 666
Two-sided P-value	0.652 969 854	0.000 050 358 567	0.00 002 912 024
Goodman-Kruskal's gamma	0.023 405 872	-0.216 545 427	-0.231 515 629
95% CI	-0.078 621 268 to 0.125 433 013	-0.321 240 439 to -0.111 850 414	-0.340 066 981 to -0.122 964 277
Two-sided P-value	0.652 969 854	5.03 586E-05	2.91 202E-05

This means that the difference between the coefficients calculated from the sample and the zero is too high to be only the result of the selection, therefore it is statistically significant – there is the relationship between variables. If the P-value equals to or is greater than the chosen significance level, the null hypothesis cannot be rejected. This means that the difference can be only the result of the selection, therefore it is not statistically significant – there is no relationship between variables. In 1988 Cohen created a simple tool for the interpretation of the correlation coefficients: the correlation below 0.1 is considered as trivial, 0.1 to 0.3 small, 0.3 to 0.5 medium and large above 0.5 (Rimarčík 2007).

3.3. Results of the research

Discussing the first hypothesis, we follow the P-value of Kendall tau-b (as there is the same number of attributes of both variables). The P-value is greater than the chosen significance level ($0.65 > 0.05$), so we accept the null hypothesis. Alternative hypothesis is therefore rejected, and we can claim that the changes in consumer buying behaviour and the age structure of the population have no statistically significant dependence. It means that changes in consumer behaviour are not dependent on the age of the population and the economic recession has affected the consumers of all age categories. More important is the results of the other ordinal variables; the amount of the

disposable income and the length of the economic recession. In the second hypothesis we also follow the P-value of Kendall tau-b. The P-value is lower than the chosen significance level ($0.000\ 050\ 358\ 567 < 0.05$), so we reject the null hypothesis. Alternative hypothesis is therefore accepted, and we can claim that the changes in consumer buying behaviour and the disposable income have statistically significant dependence, and the mutual correlation is low. The changes in consumer behaviour are dependent on the income of consumers. The last hypothesis, searching the relation between the intensity of changes of consumer buying behaviour and the length or the crisis, follows the Kendall's tau-c. The P-value is lower than the chosen significance level ($0.00\ 002\ 912\ 024 < 0.05$), so we reject the null hypothesis. Alternative hypothesis is therefore accepted, and we can claim that the changes in consumer buying behaviour and the length of the crisis have statistically significant dependence, and the mutual correlation is again low. The changes in consumer behaviour are dependent on the length of the economic recession.

To sum up, the longer the crisis, the more vigilant the consumers. They focus strongly on the purchase of products, whether food or non-food, on sale and discounts and consistently compares prices. That's why the huge amount of consumers prefers the purchase of private label products. Regarding the disposable income of consumers, large purchases are made once a month, the number of items per purchase in the long term decreases (considering the consumers with the low level of income, below 500€). The average number of items per purchase is 30–40 items in a case of big purchase and up to 20 items of smaller one (Lehutová, Gregová 2012). Consumer purchases thoughtfully, mostly with shopping lists to avoid impulsive buying behaviour. Consumer purchases are planned to be able to save some financial sources for the future. Based on the survey three new types of consumer behaviour can be defined: benefit-seeking shopping behaviour (typical for age category from 15 to 45, with disposable income at the level 501–750€ and if the recession has lasted for more than 4 years), limited shopping behaviour (as for the age category over 61, with the income lower than 500€ and in the first phase of crisis) and saving shopping behaviour (it describes the age category 46 to 60, with the highest income and if the length of the crisis is about three years). Benefit-seeking shopping behaviour is defined by consumers using sales, coupons, comparison of prices and purchase of products at the place where they can get the best price for best quality (e.g. standard price for products of higher quality and low price for products of normal quality). It can be assumed that this type of consumer behaviour persists even after the recession in a form of some trend. Limited shopping behaviour is presented by consumers who only buy necessary items, postpone

purchases, buy fewer things (the number of items per purchase decreases), and in some cases the frequency of purchases increases. This form of behaviour is typical for the lower income consumers. Saving shopping behaviour is typical for consumers who choose carefully and responsibly the trader, product and the brand in advance. This behaviour is typical for consumers who prefer private label products.

Any change in social and economic situation changes also the way of consumer behaviour, but especially what and why consumers buy. Slovak consumers started to purchase purposefully, economically and responsibly. They consider various possible aspects of the products, their design, packaging, safety, cost, etc. Thus, consumers have become cautious and their behaviour influenced by the regime of savings in the time of economic recession will certainly continue in the post-recession time. Demonstration of rational behaviour is that the consumer with the given income and given prices purchases the volume of goods, which taking their budget into account, brings the maximum utility.

4. Recent studies on behavioural changes

Various researches were carried out by many companies to find the main changes in shopping behaviour of consumers. For the purposes of this paper, the following studies were analyzed: statistical data from Eurostat, articles by Ang, Leong and Kotler (2000), Consumer Behaviour Report (Rodrigues 2009), Sellsumers trend-watching report (Trend Briefings 2009), Understanding the Post-recession consumer (Flatters, Willmott 2009), Retail & Consumer Insight (Kantar Retail and... 2010), McKinsey research (Bohlen *et al.* 2010), Survey of POPAI CE Association (POPAI Central Europe 2011), Retail Systems Research (Cunningham 2011), Post recession Retailing (Raidoo *et al.* 2011), new trends that shape consumer behaviour (Barkworth 2014), the research on social effects of recession (Kay 2010), the study on keeping customers in a recession (Latham, Braun 2010) or study by Zurawicki and Braidot (2005).

Most of them were realized in different countries at the beginning of the economic recession as it was necessary to describe the key changes in the consumer market. Since then, no more relevant studies have been carried out (in Slovakia no research was carried out on changes in consumer behaviour caused by recession) and the economy is on the next wave of the economic downturn, the above mentioned researches, surveys and reports can be considered as crucial and relevant also in the current economic conditions.

The facts are confirmed by one of the last surveys of POPAI CE Association (Global Association for Marketing

in retail), in which it was found that the current buying behaviour is characterized by the following variables: the group of consumers older than 35 realizes more than 69% of all consumer spending. Seven out of ten purchasing decisions happens in the shop, despite the fact that the consumer made a decision before entering the store, in 47% is the behaviour changed due to various factors in the store – communications, affordability, news, special offer, product placement, offer private brand products, etc. (POPAI Central Europe 2011). The point of sale is, was and will be an effective mean which may confirm, modify and change buying behaviour and also provide a unique opportunity to influence consumers' behaviour. The question is whether it is possible to work effectively with the point of sale and communicate with customers so that they are willing to buy products and listen to traders. The customer is willing to devote 30 seconds to move down the aisle and choose goods, which they want to buy. It means that in 30 seconds they find the right place in the store, assess the relevance of the offer, identify the brand and decide to purchase. During this process the customer is willing to pay two seconds to any advertisements so it is very important what and how companies present and whether it is consistent with what the customer wants. Understanding the consumer is the key to success. The average purchase in the supermarket takes about 30 minutes, a customer purchases 10 to 11 items on average of 6–7 product categories (Stahlberg, Malta 2010).

Traditional consumers were usually not involved in production, defined as conformists and most often uninformed. Their behaviour was largely motivated by a need for comfort. Bohlen *et al.* in research done for McKinsey in August 2009 found that, in any given category, an average of 18 percent of consumer-packaged-goods consumers bought lower-priced brands in the past two years. Of the consumers who switched to cheaper products, 46 percent said they performed better than expected, and the large majority of these consumers said the performance of such products was much better than expected. As a result, 34 percent of the switchers said they no longer preferred higher-priced products, and an additional 41 percent said that while they preferred the premium brand, it was not worth the money (Bohlen *et al.* 2010).

As it may be seen in the Figure 1, if consumers perceive enough value in a premium-brand product (Product A) they will favour it over the product of a more basic brand (Product B), despite the premium product's higher price. In a recession, though, consumers become less willing to pay more and the preferences of some consumers begin to shift from Product A to Product B (Bohlen *et al.* 2010). For companies attempting to address the change in consumer behaviour, understanding the economic theory can help to inform decision making. Changes in the relationship between how much consumers are willing to pay, on the one hand,

and their perception of the value they are receiving, on the other, supports behavioural changes.

It can be declared by the recent report by Retail Systems Research (Cunningham 2011) listed the biggest changes in purchasing behaviour retailers are facing nowadays. They can be summarized as following: keeping up with evolving consumers shopping patterns, getting consumers to engage online, maintaining growth rates, managing the online assortment, uncertain consumer demand being difficult to anticipate and plan for, providing more ways for consumers to connect to their brand, stemming cart abandonment and balancing online growth against poor store sales.

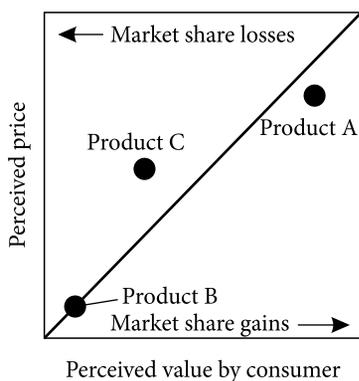
The information found on the Eurostat proves that the latest figures in the Central and Eastern Europe has improved and this region starts to recover from the global financial crisis. Despite that, the consumer behaviour did not change and consumers continue in the trends acquired in the recession time.

The research published in Consumer Behaviour Report noted some changes in American consumer behaviour due to changed economic conditions. The most significant ones are to be named. Some consumers started to practise

“sellsuming” – it means that the increased need for cash forced them to sell their own extra space unwanted private services or product. Not surprisingly, information is the force that operated the consumers. Technology adoption and the recession are two key factors that have likely impacted consumer’s definition of necessity (Rodrigues 2009). Due to expansion of information technology and the Internet, information is now cheaper and available to almost all consumers. It is no wonder, that more and more consumers are buying online and online services and social media have become the main source of information. Smart shopping needs to be mentioned as many consumers more often look for bargains. On the other hand, consumers are less likely to visit entertainment centres, eat out, etc. and they incline to stay at home and spend time there.

As a consequence of all the economic changes, several new trends in shopping behaviour were set in Retail & Consumer Insight (Kantar Retail and... 2010). They concluded that the economic recession has caused many changes that led to a new type of consumer behaviour. The wasteful and impulsive behaviour was replaced by the rational, responsible and socially acceptable one.

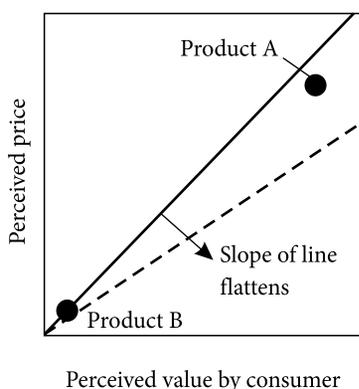
Before the downturn



- Consumers are indifferent at any point on the diagonal “demand line”, where perceived value and price are equal;
- Product A is preferred because it is seen as a better value for the price;
- Product C is at a disadvantage because its perceived value is too low given its perceived price.

After the downturn

Change in willingness to pay



--- Downturn effect

Change in perceptions

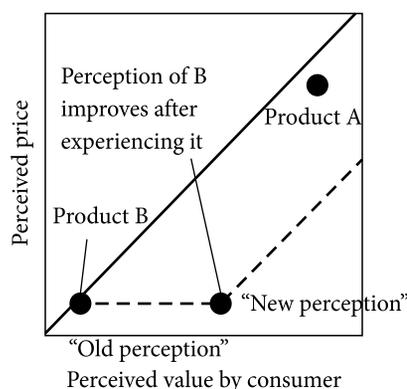


Fig. 1. Changes in consumer behaviour (Bohlen *et al.* 2010)

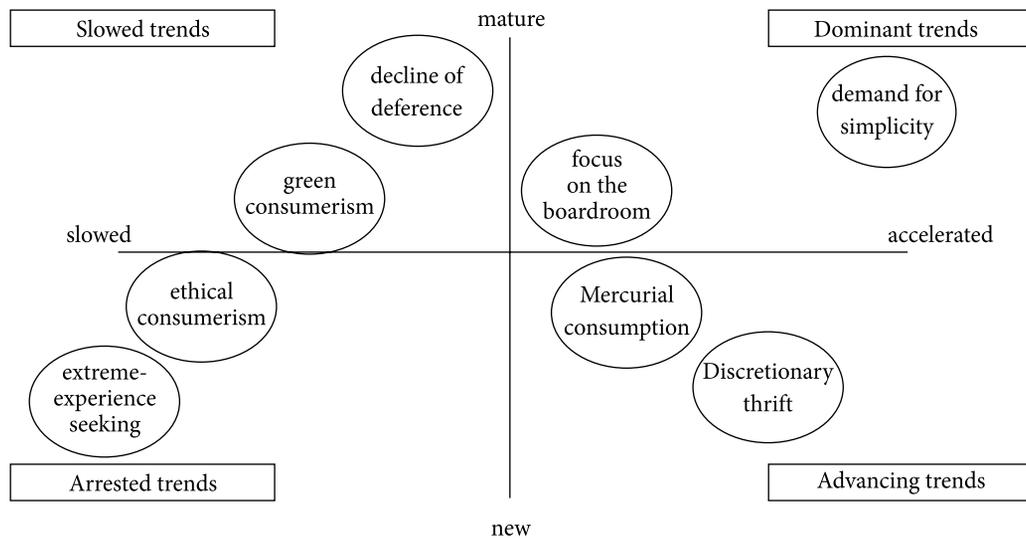


Fig. 2. Impact of recession on trends (Flatters, Willmott 2009)

According to the research, which was by devoted by Raidoo *et al.* (2011)¹, consumers demand higher value. The greatest challenge for traders is to understand consumer trends and gain invaluable information for future planning. New market situation is characterized as the age of thrift. The mentioned research was conducted in South Africa and it revealed that 69% of consumers is more cautious about their spending than a year ago, while 58% say that their financial situation is worse than in 2010. The trend of more modest lifestyle of consumers can be claimed by the fact that 55% of consumers purchase in cheaper stores than before, while 68% of respondents state they consider several options before making a final decision about purchase. However, consumers purchase less due to the recession, but the frequency of purchases increases. More frequent buying is typical for those consumers who pay less to buy the same products than before and so they shift some proportion of their consumption expenditure to savings.

Ang, Leong and Kotler (2000) believe that the changes that must happen at any financial crisis are focused on the need of products of cheaper brands, price cuts and use of information in the market. In the recession and in the post recession period the most important business tools are promotion and products themselves. Private label products combined with a well structured strategy based on lower prices and aggressive promotion can help traders achieve maximum profit. In the time of economic recession constant communication with customers and various loyalty programs play an important role. Communication must be appropriate and thought-out to encourage the consumer to purchase. People also prefer information about products

they want to be able to trust the company and its product before purchase. Price is the easiest and relative cheap tool to use in practice. Ang, Leong and Kotler determine in their literature two different pricing strategies that can be used in the recession. One of them is to maintain the quality by charging normal prices to higher quality products. The second strategy should help the company to maintain or increase its market share by low prices for the products of standard quality.

Flatters and Willmott (2009) in their study proved that the impact of the recession on consumer attitudes and trends is critical. Some trends are advanced by the recession, while the others are slowed or completely arrested. Figure 2 shows the impact of the recession on trends. Dominant trends include: the demand for simplicity, which indicates that consumers seek uncomplicated and consumer-oriented products and services that simplify their lives and focus on the pursuance of a company (consumers are outraged by the unlawful conduct and unethical company behaviour). Mercurial consumption and discretionary thrift are trends that are driven by the recession in a positive sense. Even those consumers are knowingly thrifty who do not need to save. Mercurial consumption is characterized by easy access to information and shopping without any disputes makes consumers more active and less loyal. Arrested trends are formed by two trends, too. There are ethical consumerism (altruistic consumption and expenditure, such as eating only cage free eggs or support any charity, fall and consumers focus on solving their own life situation) and extreme – experience seeking (expensive, frivolous and risky recreational experience popular during the economic growth is not so popular any more). The last group, slowed trends, consist of green consumerism (consumers give up expensive organic products and instead they limit waste cheaply and prudently) and decline of deference to institutions and authorities.

¹ Despite the fact that this research was conducted in South Africa, its results confirm that consumers are more cautious in consumption, purchase carefully and look for the most affordable products we quote it in this paper.

The Cultural Insight team (Barkworth 2014) conducted a research to determine the 2014 global trends. Consumers are increasingly expecting things to do more that involves interacting with all their senses. It is no longer enough to immerse the viewer in an experience, and people are rejecting the idea of passive on-lookers, they are craving active participation. One of the most important trends of the last year is the era of the new industrial revolution. We are in a new form of industrial revolution where technological advances are enabling people to make the transition from users to creators. Consumers expect more from every type of experience. Due to the advanced technologies producers and retailers are able to read consumers and give them what they want. To sum up, the cultural shifts show a move towards the wholehearted and intense. People want all aspects of their lives to be rich and full. These trends give us a clear sense of where culture is heading and brands have to work hard to meet consumers' demands and expectations.

Zurawicki and Braidot (2005) identify two types of reactions among consumers; reactive and proactive. The reactive reaction comprises the adaptation of the consumption. Consumers give up on or postpone some expenses that are not necessary, they reevaluate their own needs by changing their priorities. Now the basic needs take the lead in most of the consumers' lives. The proactive reaction refers to temporary measures such as the liquidation of assets, using the savings, different types of credit or finding a second job or, the extreme, taking in account illegal activities.

The study published in 2019 in *Journal of Business Strategy* (Latham, Braun 2010) reveals that changes in consumer behaviour happen very fast in times of recession. Also, they state that recessions do not affect people in the same way. The effects can be direct and indirect or financial and psychological. The main reactions of the consumers are that consumers defer major purchasing decisions, are more price-sensitive, they can be resistant to the attempt of the companies to reinstate pre-crisis prices and they can temporarily give up on buying from the usual place or person, due to budget constraint.

Recessions are certainly a crucial period for many people, requiring changes in habitual spending and consumption patterns (Kay 2010). They have changed consumers not only economically but also mentally. They started to be interested in their future, they do not want to spend money on premium products any more. When shopping, consumers are switching to cheaper brand products and purchase only what is necessary. That is the reason why the retailers should start selling private label products. Especially hyper and supermarkets, having a large number of products at disposal, can offer cheaper alternatives of different brands to their customers.

The studies and researches mentioned above confirmed the results of our survey about the changes in consumer

behaviour. During the economic recession many changes have made their presence, resulted in the new consumer shopping behaviour. The one associated with wasteful, impulsive spending was replaced by thoughtful, responsible spending which is and also will be more socially acceptable.

Conclusions

To sum up, changes that have occurred on the consumer market – the use of new technologies, the creation of a single European market and the economic recession – have contributed to the changes in consumer behaviour. On the one hand, consumers have limited resources, but on the other hand they can choose from a wide range of products of many retailers. In the EU countries, a great emphasis is given to the policy, programs and measures to help consumers make right decisions. Consumer policy is an important part of the EU policy. If the European market wants to work properly and stimulate economic growth, it needs informed and rational-behaved consumers who believe traders and markets.

Every change of the social or economic situation can change the way the consumer purchases, but especially what do they buy and why. In the European countries consumers' purchases are more purposeful, economical and responsible. This is confirmed by the results of both primary and secondary research. In our survey we confirmed that there is no statistically significant relationship between the age of consumers and changes in consumer behaviour, but there is a statistically significant relationship (small correlation coefficient) between the length of recession and consumer behavioural changes as well as between the disposable income and the intensity of changes in consumer behaviour. Impulsive consumer behaviour has been replaced by sophisticated, responsible and socially acceptable, which is confirmed by the results of surveys carried out in the world.

On the other hand, they evaluate all the possible aspects of product, its design, package, safety, origin, price etc. Thus, consumers have become more vigilant and their behaviour influenced by thrifty regime in the time of recession will, surely, continue in post-recession time. As their habit to be accustomed to limited offers and simple demand will continue, but they will ask only for greater utility. The main difference is that the post-recession shopping behaviour will more appropriately be characterized as purposeful rather than panicked as it seemed in the recession.

Disclosure statement

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Katarína VALÁŠKOVÁ, Ing. Phd., a university pedagogue at the Department of Economics, Faculty of Operation and Economics of Transport and Communications, University of Žilina in Žilina, Slovakia. Scientific activities: more than 55 contributions and presentations made at the conferences on national and international level. Research interests: consumer behaviour, fuzzy logic.

Tomáš KLIEŠTIK, Prof. Ing. PhD., a professor at the Department of Economics, Faculty of Operation and Economics of Transport and Communications, University of Žilina in Žilina, Slovakia. Scientific activities: scientific monograph, professional publications, 5 books, more than 160 national and international contributions and presentations. Research interests: financial and investment management and artificial intelligence such as fuzzy logic, artificial neural networks.