

# HOW MARKETING INSTRUMENTS AFFECT CONSUMER BEHAVIOR IN TIMES OF ECONOMIC TURBULENCE

Nada Birčiaková<sup>1</sup>, Jana Stávková<sup>1</sup>, Martin Souček<sup>1</sup>

<sup>1</sup> Department of Marketing and Trade, Mendel University in Brno, Zemědělská 1, 613 00 Brno, Czech Republic

## Abstract

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This article analyzes the behavioural changes in groups of consumers and households on the market with individual commodities, based on the classification of individual reasonable consumption. Consumers expressed the degree of influence in their decision-making on satisfying their needs through selected key marketing factors such as price, brand, quality, habits and experience, advertising, recommendation from friends and relatives, packaging, discounts, new items, and so on. The analysis sought to determine whether the changes in the economic situation in the Czech Republic have an impact on the degree of marketing instrument influence on consumer behavior and decision-making. To express the degree of influence 10 point opinion scale is used. Thanks to the investigation taking place in 2007 with 609 respondents and in 2013 with 516 respondents, it was possible, it was possible to deal with the search for evidence of differences in the importance of individual factors using the Wilcoxon test. In 2013, attention was also paid to the degree of influence of some marketing tools such as price, quality and discount events on consumer behavior and decision-making in selected groups of households created by different income levels and different level of education achieved by the head of the household. The influence is expressed by radial graphs.

Keywords: consumer, consumer behavior, expenditures, factor, household, income

## 1 INTRODUCTION

Today's consumer society displays many distinctive features: increasing consumer activities, the new phenomenon of recreational shopping, strongly location-based consumption, strengthening customers' role on the market, developing IT and its impact on consumer behavior in the form of broader and more varied selection and availability of products and services, and easier access to information from the supply and demand side both. The structure and function of the family has fundamentally changed. A number of social changes have taken place and the dynamic between household income and expenditures has significantly changed as well, along with the structure of the expenditures. All these changes influence consumer behavior and decision-making. The theory of consumer behavior defines the factors

that influence consumers, as well as the form and intensity such influence takes.

Developments in society lead to changes in the way individual factors act on consumers and how they affect consumer decision-making. There is an assumption that people often buy products and services not for the primary purpose of meeting their needs, but for what the products mean to them, which takes on greater significance in studying consumer behavior in developed countries. In other words, the role of the product goes beyond its actual performance (Solomon, 2004). People do not make purchases based on the core product, but based on the expanded product that gives the customer some perceived added benefit. In addition to the traditional concept of consumption as a means of meeting needs, it is becoming ever more necessary to acknowledge and respect four different types of consumer activity:

consumption as a means of meeting basic existential needs, consumption as an experience, consumption as a means of integration and consumption as a classification.

Consumers are influenced not only by external factors operating at a particular time, but even their personalities are influenced over the long term by cultural, social and societal conditions in the community they live in. These factors operate long-term and work alongside the influence of the family unit to create the individual's personality, values profile and lifestyle. Attempts to understand consumer behavior have led to the creation of numerous models for customer behavior, all of which represent a simplification, suppression or over-emphasis on the influence of just a few factors operating on consumers. They often overstate factors that act immediately or in the short term, namely economic factors and marketing instruments used. It is also easier to measure the effectiveness of these factors. In contrast, the significance of cultural and psychological factors is not accounted for sufficiently. A deep understanding of the impact of cultural factors leads to the conviction that culture represents values, opinions and attitudes that are homogenous for a group of people and passed on from generation to generation (Cateora *et al.*, 2009). Culture influences our everyday behavior and the priorities we choose and what we spend our money on. Culture determines how people act, their living conditions, what they wear, how they travel. Parents and educational institutions instill in children their own set of values, which the children then retain for their entire lives. A society's spiritual framework is built on its geography, historical development, ethnicity and religious affiliation, all of which in turn influence the people's needs and desires as well as the degree to and form in which they satisfy them. Culture does not always align with geopolitical borders. A knowledge of similarities in cultures and customs has led to defining cultural affinity zones that help reveal similarities in consumer behavior as well. Cultural affinity has such a major impact on consumer behavior that monitoring developments in consumer behavior during times of economic changes (growth, stagnation, crisis) proved that economic upheaval has only a short-term influence on consumer behavior (Turčínková *et al.*, 2014). This influence lasts a shorter time in economically thriving countries. External economic conditions make themselves felt in consumer behavior through disposable funds, reflecting household income. The economic crisis and economic developments in individual EU member states had very diverse effects (Connelly, 2011) and the ways in which it showed up in consumer behavior were just as diverse. According to Stávková *et al.* (2008), commodity that fills basic needs to survive represents important expenditure item in households' budget. The question is how

it looks like after the economic crisis. Skálová, Stávková (2012) state that in 2008 the changes were not so obvious and economic recession began to display in household consumption behavior in the following years. Ševela (2011) emphasizes that the growth relation is adapted for imperfect competition in the goods market.

This paper aims to understand how marketing instruments affect consumer behavior in times of economic changes. This understanding is possible because the authors have been addressing this issue since 2005 and can compare the results of inquiries performed in 2007 (a time of economic growth) and 2013 (after a time of economic crisis).

## 2 METHODOLOGY

Consumer expenditures are classified by purpose in accordance with the classifications created by the statistical office of the European Union for the purposes of ensuring the transparency of the international comparisons from COICOP Classification of Individual Consumption by Purpose. For the purposes of the inquiry, the commodity groups were as follows: food and non-alcoholic beverages, alcoholic beverages and tobacco, clothing and footwear, home furnishings and appliances, health, medicines and vitamins, transportation, postal services and telecommunications, recreation and culture, education, meals and accommodation, and other goods and services. In conjunction with these groups, factors were also defined that influence consumer decision-making in making purchases for individual commodity groups. The factors examined were as follows: habit and tradition, necessity, previous experience, recommendation from friends and family, recommendation from experts, characteristics and parameters of the product, quality, brand, price, discount, inspired by advertisement, desire to try new things, fashion trends, product design. The factors applied in the analysis differ in three cases in the particular years monitored, as will be clear in the comparison table. Respondents gave their degree of influence by the above stated factors using a 10-point scale, with 1 being no influence and 10 being the most influence.

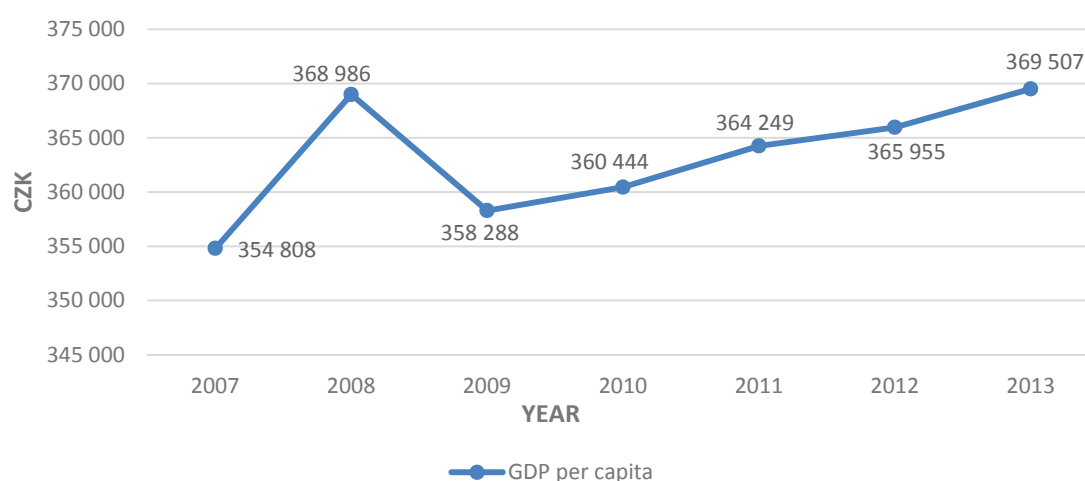
Questionnaires from 609 respondents were processed in 2007 and from 516 respondents in 2013, which served as the basis for this understanding of the influence of the above stated factors or the change in influence as respondents perceive it, and what significance respondents assign to it in their decision-making.

The degree of influence for selected factors (price, quality, discounts) on consumer behavior and decision-making regarding meeting their needs is depicted using radar charts for select consumer groups created based on respondents' economic activity, education and income class.

Statistically significant differences were tested using the p-value and Pearson's contingency

I: Sample of respondents

Economic activity	%	Education level	%	Income interval in CZK	%
Employed	55.23	Primary school	2.52	Up to 10 000	7.75
Self-employed	14.34	Secondary school	58.33	10 001–20 000	26.55
Retired	16.28	Upper secondary	5.23	20 001–30 000	28.29
Unemployed	5.62	University	33.91	30 001–40 000	16.67
Others	8.53	-	-	40 001–50 000	10.08
-	-	-	-	50 001 and more	10.66
<b>Total</b>	<b>100.00</b>	<b>Total</b>	<b>100.00</b>	<b>Total</b>	<b>100.00</b>



1: GDP development in the Czech Republic (CSU, 2013)

coefficient. For evaluation of significant differences in the year 2007 and 2013 the Wilcoxon Matched Pairs Test was used.

### 3 RESULTS

2007, when the inquiry into the factors influencing decision-making in shopping took place, was a year of economic growth. A society's economic situation forms a significant part of the external environment in which consumers make decisions on meeting their needs. It is expressed by GDP per capita, in 2007–2013. GDP values are given in the following Fig. 1.

The legitimacy of the information stated in graph 1 can be seen in the differing economic situation in the individual years. The different economic developments in society are then reflected in the level of household income (the result of growing unemployment, lack of job opportunities, fear of the future, etc.) and the level of expenditures for individual commodities. This situation does not influence the consumer market long-term, since the results of analyzing consumer behavior in EU countries indicate that consumers look for ways of maintaining their standard of living, such as by entering the financial market and taking advantage of offers of loans, credit, etc.

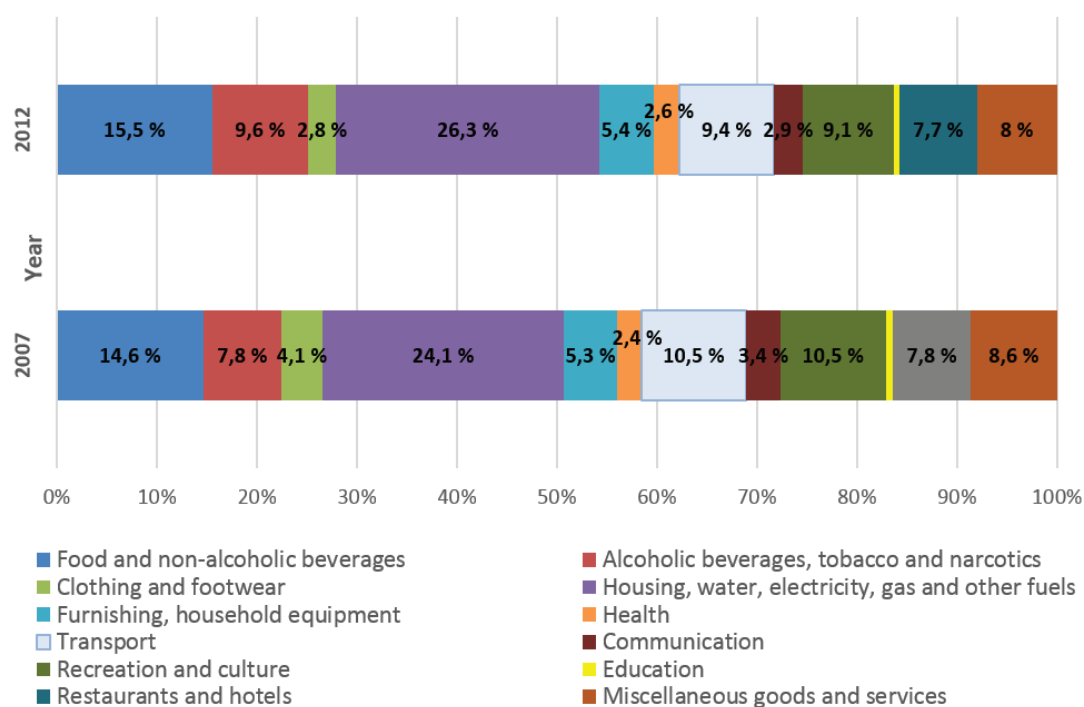
The changing structure of expenditures for individual commodities is shown in Fig. 2.

Tab. II shows respondents' opinions on the significance of the factors being monitored in meeting their needs for goods and services, as indicated by the inquiry in 2013.

This table shows that on almost all commodities, consumers make the decision on meeting their needs placing the highest emphasis on their own experiences and demanding quality. Other factors such as price and discounts come in third and fourth place respectively. Design plays an important role for consumers in commodities with a design aspect (clothing, footwear, household items). Recommendations from other people come into play in choosing holiday locations. Consumers do not admit to being influenced by advertisement.

The changing economic situation in society, decline in GDP, growing unemployment, and stagnating income had practically no effect on consumers' decision-making and their opinions on what influences them. This becomes clear in the table showing differences in evaluating the influence of individual factors given by respondents in 2007 and 2013 (Tab. III), where we can see only a drop in the influence of brand and price, as well as a drop in the importance of design in the two commodities where design is important.

The increase of the importance of the previous experience regarding alcohol beverages and tobacco products and recommendations based



2: Expenditures for Individual Commodities in 2007 and 2013 (Eurostat, 2013)

## II: Opinions on the significance of the factors

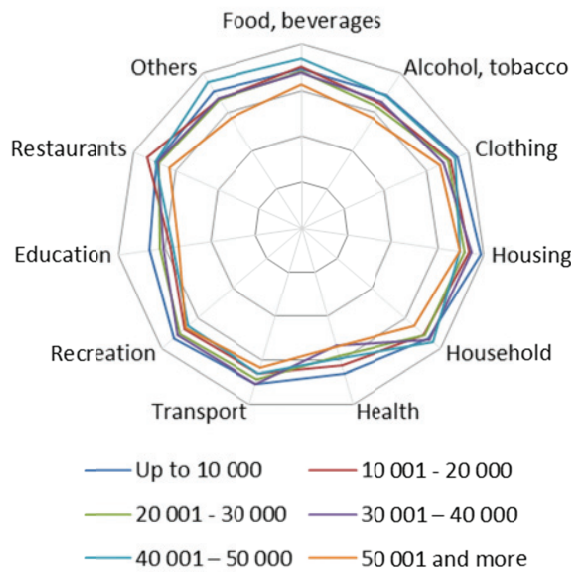
Commodity/Factor	prev. exp.	recommendation	quality	brand	price	discount	design	advertisement
Food and non-alcoholic beverages	7.84	5.95	7.54	5.11	7.12	6.73	4.14	3.83
Alcoholic beverages, tobacco	7.08	5.5	6.97	6	6.64	6.3	4.02	3.81
Clothing and footwear	7.22	4.94	7.68	5.74	7.34	6.97	6.92	3.66
Health	7.36	5.89	7.72	4.79	6.1	5.64	3.25	3.45
Transport	6.74	5.45	6.33	4.71	7.03	5.91	4.57	3.55
Housing, water, electricity, gas and other fuels	6.29	5.41	7.28	4.98	7.57	5.61	5.6	3.59
Recreation and culture	7.73	7.11	7.47	4.9	7.43	6.33	5.81	5.36
Education	6.55	5.88	7.28	4.97	6.18	5.25	4.55	3.68
Household equipment	6.63	5.35	7.39	4.99	7.47	6.84	6.57	3.97
Miscellaneous goods and services	6.69	5.65	6.7	4.78	6.91	6.12	4.9	3.98

## III: Differences in evaluations in 2007 and 2013

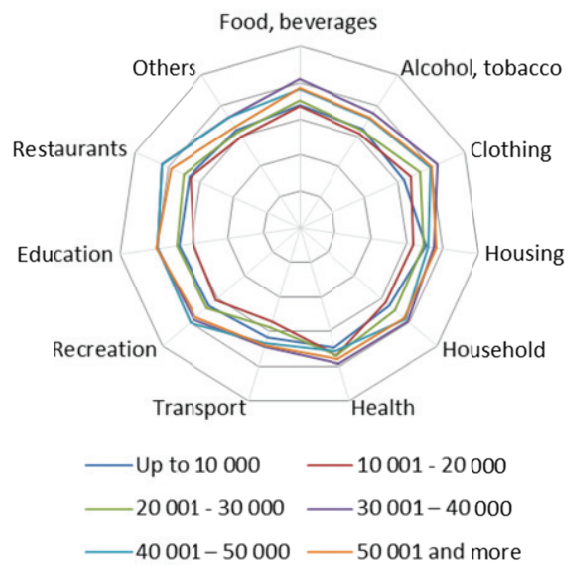
Commodity	Previous Experience	Recommendation	Quality	Brand	Price	Discount	Design
Food and non-alcoholic beverages	0.27	-0.38	-0.52	-0.49	-0.20	-0.02	-0.64
Alcoholic beverages, tobacco	2.68	0.07	-0.31	-0.55	-0.01	0.19	0.19
Clothing and footwear	0.22	-0.15	-0.87	-0.91	-0.29	-0.10	-1.13
Household equipment	-0.04	-0.31	-0.89	-1.03	-0.33	0.04	-1.21
Health	-0.32	-0.60	-0.58	-0.63	0.30	0.61	0.16
Transport	-0.30	0.19	-1.00	-0.98	-0.55	0.04	-0.81
Recreation and culture	0.34	1.92	-0.45	-0.28	-0.27	-0.41	1.07
Education	-0.03	-0.57	-0.91	-0.53	-0.30	0.00	0.79
Miscellaneous goods and services	-0.03	-0.49	-0.80	-0.66	-0.36	-0.29	-0.80

IV: Wilcoxon Matched Pairs Test

Pair of Variables	Wilcoxon Matched Pairs Test			
	Valid N	T	Z	p-level
Earlier Experience 2007 & Earlier Experience 2013	9	19	0.414644	0.678403
Recommendation 2007 & Recommendation 2013	9	13	1.125463	0.260394
Quality 2007 & Quality 2013	9	0	2.66557	0.007686
Brand 2007 & Brand 2013	9	0	2.66557	0.007686
Price 2007 & Price 2013	9	5	2.073221	0.038153
Sales 2007 & Sales 2013	8	18	0	1
Design 2007 & Design 2013	9	14	1.006993	0.313939



3: Relation between Income and Price



4: Relation between Income and Quality

on experience by choosing recreation and cultural events mean a verification of logical premise.

To verify the differences in results between 2007 and 2013 the Wilcoxon paired test was used. From the results shown in Tab. IV it is evident that the test has showed significance in the case of quality, brand and price.

The inquiry in 2013 set out to determine whether significant differences in opinion on the importance of individual factors would appear in individual groups of respondents. The sorting criteria were income level and education.

The results show that education has greater effect on the variability of evaluation of price, quality and discounts – compared to income.

From Fig. 3 and Fig. 4 it results that the above mentioned classification characters for each group of respondents are not significantly evident. Fig. 3 shows that all income groups for individual commodities, or more precisely their importance in relation to the price is almost the same.

From Fig. 4 it is clear that particular groups of households with higher income than 40 000 CZK consider quality to be important especially

for services (restaurants and hotels, recreation and culture) and education. However, quality of those services is less important for low-income households. The best compliance occurs in the evaluation of quality in healthcare services and medicines.

It is interesting that there is the significance of different levels of education in relation to price. People with primary education consider price to be very important in almost all cases. The evaluation of importance of price when buying individual commodities is nearly identical for people with secondary education and university education.

Tab. V provides the results of contingency analysis between the variables education and price. The results show that the effect of education on evaluation of price balances at the detection threshold.

Very interesting results are for relation between education and quality. The respondents with primary education vary from the other groups significantly. Only in the case of medical services and medicines they are in mutual agreement. Noteworthy is the finding that quality of education



## V: Results of Contingency Analysis (Commodity, Education)

Commodity	p-level	Pearson Contingency Coefficient
Food and non-alcoholic beverages	0.04659	0.26
Alcoholic beverages, tobacco	0.06626	0.25
Clothing and footwear	0.02937	0.26
Housing, water, electricity, gas and other fuels	0.01850	0.27
Household equipment	0.07299	0.25
Health	0.02272	0.27
Transport	0.01067	0.28
Recreation and culture	0.17441	0.24
Education	0.10054	0.25
Restaurants and hotels	0.03864	0.27
Miscellaneous goods and services	0.39892	0.22

is irrelevant for the group of respondents with primary education, the same applies even for quality of transport and other services. Quality is an important parameter in purchasing decisions for respondents with a university degree.

Similarly to the case of price differences between levels of education, even in the evaluation of discounts for selected commodities respondents with primary education consider price to be very important. Only in one case it is irrelevant for them, in the case of educational services. In other groups significant differences cannot be observed.

#### 4 CONCLUSION

The results of the inquiries carried out made it possible to evaluate the significance of how factors such as price, discounts, quality, habit and personal experience, recommendations from other people, design, brand, new items or advertisements act on consumer behavior and decision-making when meeting their needs expressed as commodities based on the classification of individual reasonable consumption. In both years being observed, which were selected due to the economic stability in the Czech Republic in 2007 and 2013 preceded by a time of economic crisis with all the accompanying consequences such as unemployment, stagnating income, increasing income disparity and growing poverty. The results showed that the significance and intensity of the influence of the factors

on decision-making under review remain almost unchanged or very little changed under the influence of different economic conditions. The results only show the shrinking influence of price, brand and packaging of commodities. The economic conditions being reviewed served to confirm primarily the significance of consumers' own experiences and quality of products. Price and packaging come into play after these factors. Consumers rate the influence of the new factor of advertising as insignificant.

The results of the analysis pointed at differences in evaluation of price, quality and discounts for shopping decision-making process among different groups of households generated by income situation and by level of education. Significant differences in evaluation are reflected by groups of households compiled by level of education.

The above stated conclusions are in line with the authors' opinions, as the authors place greater significance on the influence on consumer behavior and decision-making from factors connected with long-term operation, the consumer's individual personality traits, cultural affiliation and geographic location, family upbringing, lifestyle and hierarchy of material and spiritual values. Economic upheaval only has a short-term impact on consumer behavior and marketing instruments and the degree to which they influence consumers remain almost unchanged.

#### SUMMARY

The article was aimed at verification of a fact whether consumers in times of great social change and economic turbulence alter their behavior and decisions to meet their needs. Commodity groups for the purposes of the investigation were food and non-alcoholic beverages, alcoholic beverages and tobacco, clothing and footwear, housing, household equipment, health, transport, recreation and culture, education, catering and hotel services and other goods and services. The audited factors of monitoring the degree of influence on consumers' decisions were quality, brand, price, discount events, past experience, recommendations and other advertising. The investigation was conducted by the same methodology in 2007 and 2013. The results showed that changes in the economic situation in the society, the decline in GDP, the rising unemployment and the stagnating household incomes were of a significant influence on consumer behavior (only with a 95% probability) while reducing the importance of quality, brand and surprisingly prices. On the other hand, more importance is

given to experience in commodities, alcoholic beverages, tobacco and other recommendations in the selection of recreation and culture. In 2013, there was an observation held whether there is a difference in consumer behavior of different household groups formed on the basis of different income level and achieved education level. The investigation showed that the group generated by the income consider the quality factor to be important, an exception is the preference of quality by high-income household groups in commodity education and catering and hotel services. The significance of different levels of education in relation to the price of individual commodities is noticeable. Consumers with primary education level prefer prices for almost all commodities with the exception of education. Similarly, consumers with basic education have a different relationship with the quality. For almost all commodities it is an insignificant factor for them. The exception is health. And finally, this consumer group stresses the importance of promotional discounts.

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## Contact information

Nada Birčiaková: [nada.birciakova@mendelu.cz](mailto:nada.birciakova@mendelu.cz)  
 Jana Stávková: [jana.stavkova@mendelu.cz](mailto:jana.stavkova@mendelu.cz)  
 Martin Souček: [martin.soucek@mendelu.cz](mailto:martin.soucek@mendelu.cz)