

Agnieszka Bretyn
Agnieszka Magdalena Łopatka
Szczecin University

CONSUMER BEHAVIOUR RATIONALITY IN POLAND

abstract

Progressive process of civilization and cultural change, socio-economic development, increase awareness, and quality of life, and many other conditions, influence the modern consumer and his behavior. In reality changing the meaning of rationality gaining a problem. A comprehensive knowledge of consumers and their behavior is essential for a firm to succeed. A good understanding of consumer behavior should help correctly predict consumer response to the actions taken by the companies. It is not possible to react to customers' needs without a complete understanding of their behavior.

The purpose of this article is to present synthetic reflections on the rationality of consumers in Poland from different selected points of view, as well as an attempt to evaluate some of its aspects.

Keywords: rationality, consumer behaviour, Poland

Introduction

Progressive process of civilization and cultural change, socio-economic development, increase awareness and quality of life, and many other conditions, influence the modern consumer and his behavior. The problem of rationality is gaining importance in a changing world. A comprehensive knowledge of con-

sumers and their behavior is essential for a firm to succeed. A good understanding of consumer behavior should help correctly predict consumer response to the actions taken by the companies. It is not possible to react to customers' needs without a complete understanding of their behavior.

The purpose of this article is to present synthetic reflections on the rationality of consumers in Poland from different selected points of view, as well as an attempt to evaluate some of its aspects.

1. Theoretical overview of consumer rationality behavior

The word rationality comes from the Latin words: *ratio*, *rations*, which means among other things, "consider", "reason", "way of thinking", "wondering" (Zacher, 2000).

Due to its complexity, rationality is the subject of research of many scientific disciplines, e. g. sociology, or psychology. However, the issue of rationality of decisions or behavior of consumers has been widely considered by economic sciences (Smyczek and Sowa, 2005).

The rationality is an assumption found at the basis of the mainstream economy. In the theory of economy, rationality is identified with the principle of rational management. According to principle of rational behavior consumer chooses the action that lead to the maximization of (increase) its benefits or to minimize costs. This may concern the choice such as time of purchase, place of purchase, or the product itself, etc. Rational behavior is based upon three fundamental assumptions, according to which the consumer:

- reveals some preferences and is able to specify needs,
- is able to evaluate his needs – from the most to the least intensively felt ones,
- makes inherently choices in order to maximize his satisfaction.

It is noted that the idea that human is by nature a rational, have appeared from the beginning of economic thought. A lot a times there were doubts about whether rationality is strictly assigned to economic entity (including consumers), or whether such behavior is relative behavior. Or: whether a unit can always be treated as homo economicus – is economic unit always acts in accordance with the principle of rational behavior.

Interesting reflections on the rationality of consumer behavior presented by Shugan (2006). According to him, consumer behavior is rational if the researcher

is able to explain them or predicted by the model. In less choice of consumers surveyed situations may seem irrational, because the current models are not able to make aptly predictions of their behavior. Therefore, if a researcher is able to predict the behavior of the consumer (in this situation) as a function of relevant variables, it can be concluded that consumers are rational (at least in this case) and that the model accurately represents the rationality.

According to Bywalec (2007, p. 43) the very concept of rationality is not clear, because it is not objective. Rationality is often infected with subjectivism, particularly with regard to the rationality of consumption. In assessing the rationality of consumption is almost always dominated by subjective criteria, resulting from the individual unit values. But these are very different, as people are varied in physical and mental terms.

It should therefore be concluded that there are difficulties in compose homogeneous criterion of rationality relating to all aspects of consumer behavior. It may be noted, however, that an important issue in evaluating the rationality is intentionally and awareness action. In addition, the rationality of consumer behavior depends on the preferences of the consumer and the conditions under which decisions are made. It can therefore be assumed that the activity of the individual is rational if the choice of aims and measures for their implementation is based on reasoning and the system of values adopted and found approval by unit. Kieźel (2003, p. 31) indicates that rational action is based on a logical reflection on the relationship between purpose and means of achieving them, and the conditions under which the consumer operates. Rational behavior is a procedure which is justified in both economic and social, psychological, physiological, and organizational sense. Should be pointed out that rational decisions based on the knowledge available and owned by the consumer. It always define specific external and internal conditions (the limitations of resources and means, features such as the ability to plan, calculate, perceive the need for effective action, activity in collecting information, etc.).

Rationality consumption is defined as the aware, purposeful activity aimed at achieving the desired objectives, in a manner more perfect than before (Janoś-Kresło and Mróz, 2006). Such consumption cannot harm the individual, on the contrary – it promotes the development of personality and desired shape model of social relations (Kieźel, 2003). It is further believed that it contributes to the

normal biological development of human and forms socially desirable characteristics of the human personality (Kraśiński et al., 1984). Rationality is

economical, is covered by the budget of the consumer, and is compatible with its system of values, and not in conflict with the interests of other people (Bywalec, 2007). This approach takes into account all the criteria of rationality – economic efficiency, objectivity, subjectivism, criteria for socio-cultural and ethical.

An interesting theory, which raises the problem of rationality, is Kahneman's and Tversky's prospect theory. These researchers tried to design economic models of human behavior that would be more realistic and would describe the limitations and flaws in human rationality. As a point of departure they used the rationality assumption and then investigated the deviations from it, treating them as anomalies in rationality viewed as a kind of model behavior. The prospect theory describes how people make decisions under conditions of risk. The descriptive prospect theory concerns perception of identical quantity of gain and loss. According to the theory, people feel stronger about losses than the identical gains (Kahneman and Tversky, 1979).

Consumer behavior is a complex and multidimensional process. It can be examined and evaluated in terms of economic, social, cultural, ethical, etc aspects. This requires different measures and the criteria of value. Therefore Bywalec (2007, p. 43) concludes that any rationality will be different. The author observes that specific behavior may therefore be physiologically rational, but economically irrational, and others – economically rational, but socially irrational.

Having regard multifaceted consumer behavior literature distinguishes different criteria of rationality of conduct, which can be assigned to the appropriate evaluation measures (Kieźel, 2004). They were presented in Table 1.

Table 1. The criteria and measures of rationality

Evaluation criteria of rationality	Measures of rationality ratings
1	2
Economic	<ul style="list-style-type: none"> – the level and structure of consumer spending – factors forms the income and price elasticity of expenditure – the share of expenditure income and savings – the tendency to consume and save – the budget time structure and the share of leisure time
Psychological	<ul style="list-style-type: none"> – order to meet the needs – subjective evaluation of meeting needs – subjective evaluation of the achieved level of consumption – the degree of consumer satisfaction in the sphere of consumption
1	2
Socioorganizational	<ul style="list-style-type: none"> – structure of shopping places – structure forms of payment

Biological	<ul style="list-style-type: none"> – degree of coverage standards in energy demand and nutrients – frequency of consumption of major product groups – number of meals eaten in a day
------------	---

Source: description based on: Kieźel (2004, p. 26).

All of the above measures are complementary to each other and only include them together makes it possible to fully assess the rationality of consumer behavior.

2. analysis and evaluation of the rationality of consumer behavior in Poland based on average household income and expenditure

The main sources of data used in this article are information published by the Central Statistical Office (GUS), Eurostat, Public Opinion Research Center (CBOS), Pentor and reports commissioned by various centers.

Taking into account economic criterion of rationality assessment of consumer behavior, analysis of available data made it possible to present the spending structure of Polish households, the level and form of savings and the amount and uses of leisure time.

In the period 2004–2011 the structure of consumption expenditures has explicitly changed (Table 2). Analyzing the expenditures of households in Poland it can be noted that the highest share in the total expenditure have expenditure on food. It should be noted that the percentage share this expenditure has a declining trend. The increase in revenue in the period and a simultaneous decrease in the share of food expenditure in total expenditure confirm the validity of the law worded by Engel.

As a result of occurring economic changes the structure of Polish households spending has approached the structure of household expenditure in Western Europe. There was a change of the share of basic spending, and free choice spending in total consumer spending. The basic expenditures include food, housing, clothing and footwear, healthcare cost, personal hygiene, The free choice expenditures include transport and *communications* cost, recreation and culture (Kieźel, 2010). The share of basic expenditures in total consumption expenditure in 2004 was

68.7%, in 2011 it was already 66.4%. The share of free choice spending in total expenditure increased from 21.4% in 2004 to 28.8% in 2011 (own calculation based on: GUS, 2012b).

Table 2. The structure of the average monthly expenditure for one person of Polish households in the period 2004–2011

Description	2004	2005	2006	2007	2008	2009	2010	2011
Expenditures	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Consumer goods and services	95.82	95.71	95.67	95.76	95.69	95.52	95.40	95.74
food and non-alcoholic beverages	2.0	28.12	27.14	26.64	25.56	25.10	24.83	26.15
alcoholic beverages, tobacco and narcotics	2.74	2.73	2.6	2.70	2.63	2.72	2.72	2.2
clothing and footwear	4.93	5.07	5.39	5.71	5.50	5.22	5.2	5.33
housing and electricity	20.26	19.65	19.73	18.41	18.89	19.65	20.16	21.64
furnishing household equipment and routine maintenance of the house	4.90	4.97	5.10	5.53	5.46	5.38	5.16	5.05
health	5.05	5.03	4.91	4.94	4.83	5.01	4.78	5.19
transport	9.07	8.91	8.77	9.32	10.07	9.69	9.56	9.9
communications	4.6	5.31	5.15	5.02	4.75	4.54	4.38	4.38
recreation and culture	6.77	6.4	7.14	7.60	7.95	7.98	.05	.42
education	1.51	1.31	1.40	1.37	1.25	1.20	1.29	1.28
restaurants and hotels	1.76	1.85	1.96	1.90	2.00	2.17	2.31	2.49
other goods and services	5.05	4.96	5.10	5.29	5.23	5.26	5.21	5.38
Other expenditures	4.18	4.29	4.33	4.24	4.31	4.47	4.60	4.26

Source: own elaboration of GUS (2012b, p. 272) data.

Analyzing the data presented in Figure 1 it should be noted that the share of expenditure in disposable income in 2011 was 82.7% and was lower than in 2010 (by about 1 percentage point). The downward trend maintains since 2004.

Tendency to saving, and preferences for the allocation of savings directions are influenced by numerous factors that have varying strength and direction of impact. For years, the dominant component of the Polish savings are the most secure assets of nature, that are, bank deposits (in 2011, 50.1% of total savings).

The second position in terms of value and share in the savings are pension funds, with a total share in savings in 2011 exceeded 23.3%.

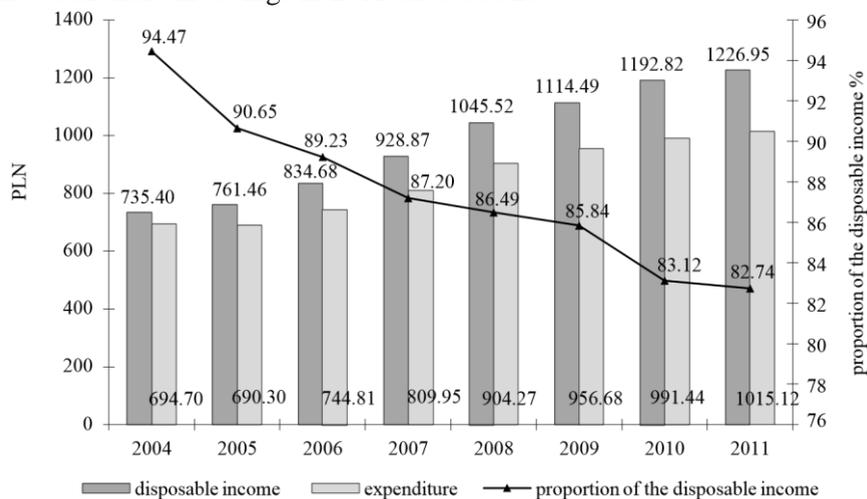


Fig. 1. The level of average monthly revenue and expenditure per person in the household in Poland and the proportion of the disposable income in 2003–2011

Source: own elaboration and calculation based on GUS (2012b, pp. 271–272) data.

Table 3. The structure of household savings in Poland in 2010–2011

Description	Value (billion PLN)		Structure (share)	
	2010	2011	2010	2011
Shares of public companies	44.4	44.2	4.9	4.6
Zloty deposits and foreign currency deposits	426.0	482.1	46.	50.1
Currency in circulation outside banks	92.7	101.8	10.2	10.6
Foreign funds	3.9	3.6	0.4	0.4
The open pension funds	221.3	224.7	24.3	23.3
Insurance capital funds	36.4	35.2	4.0	3.7
Bonds and bills	10.3	.9	1.1	0.9
Domestic investment funds	75.5	62.3	8.3	6.5
Total	910.5	962.9	100.0	100.0

Source: own elaboration and calculation based on: <http://analizy.pl> [accessed on 1.02.2013].

Consumers tendency to saving in the years 2004–2011 was lower than the European average (Table 4). During this period, household' savings amounted to 8–9% of disposable income, and in most crisis 2008 – only 2.4%. In 2011, the savings rate was even less – about 2%. The reasons for this trend were: slowly increasing incomes (in relation to consumer spending) on the one hand, and on the other hand the desire to adapt to the standards of Western societies. It manifests the willingness to exchange furnishings every few years, to have newer cars, greater willingness to travel (Cieślak-Wróblewska, 2012).

Table 4. Consumers savings rate in Poland and in selected European countries in the years 2004–2011

Region	2004	2005	2006	2007	2008	2009	2010	2011
EU (27)	11.58	11.14	10.94	10.82	11.12	13.2	11.62	11.02
Poland	8.01	8.32	8.84	7.15	2.38	9.01	8.16	2.11
Latvia	4.32	0.4	-4.11	-5.75	4.91	10.41	2.51	-1.64
Lithuania	0.81	0.96	0.	-4.21	-1.11	5.41	9.20	1.20
Germany	16.12	16.28	16.39	16.84	17.37	16.97	16.9	16.48
France	15.44	14.39	14.61	15.11	15.26	16.05	15.55	15.71

Source: own elaboration on Eurostat data.

The amount of income is often correlated with the time spent on the job. Weekly working time in Poland should not exceed 40 hours. Meanwhile, the average consumer spent at work – in 2006, 40.4 hours (males – 42.9, women – 37.3), and in 2010 – 39.3 hours (males – 41.5 women – 36.7) in a week (GUS, 2007 and 2010, p. 5). In 2011, the working week was 39.2 hours on average (males 41.3, women – 36.7) (GUS, 2012a, p. 38). It should be pointed out that the length of time is affected by phenomena such as unemployment, economic crisis, the rapid pace of life and work based on the results. On reaching the work, most people (about 71.0% of commuters) needed for 30 minutes, more than 22.0% – from 31 minutes to 1 hour, more than 5.0% commute 1–2 hours, and 2.0% – over 2 hours (GUS, 2011a, p. 12).

Ever more important is the issue of free time and how to spend it. Considering the results of the study (CBOS, 2010, p. 3) of the subjective assessment of the amount and changes in leisure time, it is clear that:

- slightly more often consumers find that they have less time (36% of respondents, and in 2006 the figure was 32%),

- one in four (25%) say that now has more time than ever (in 2006 – 24%),
- 39% did not recognized the major changes in this area (in 2006 – 42%).

Skilful use of leisure time provides the level of development of the individual and the quality of life. This time filled with adequate content has positive significance both for the development of the human personality and the increase of the whole society. In Poland, the rest period was shaped by passive-consumer style. In free time most costumers are watching TV, staying with family or passively resting. However, a positive fact is that their declare a desire for more frequent leaving a city, take part in interesting cultural events or other entertainment (CBOS, 2010, p. 8).

Having regard income, expenditure and how they obtain and set aside, as well as budget time, consumers can meet their needs assessment, which is in turn the psychological criterion of rationality. In 2011, more than half of the surveyed households assess their financial situation as an average, one in four household rather perceived it as good or very good, and the fifth as a rather bad or bad. In 2011, 44% on average, rated their financial situation, 40% considered it to be positive and 16% negative. More than 33% of households said they did not have a problem with satisfying their material needs, and every tenth household has great difficulty in satisfying them (GUS, 2012c, p. 19).

An important role in assessing the rationality of consumer behavior also have organizational and social criteria. Due to the lack of data that recognize this aspect in a comprehensive manner, it is possible to show only the selected metrics. These include the organization structure of consumption and shopping places. According to surveys carried out on a representative sample of adult residents of Polish for a few years, consumers increasingly willing to break shopping to different days of the week, look for savings in more outpost and appreciate the smaller shops. In Poland, it becomes noticeable increase number of discount stores and supermarkets. 42% of Poles prefer to buy in self-service stores, and 19% prefer shops, in which the seller provides the goods. Most Poles are still much more inclined to shop around home (Pentor, 2010).

One of the trends in consumption in recent years is called domocentrism. This means that today's consumers are called home users. Also in Poland, this phenomenon is becoming more and more visible. Symptoms of the domocentrism, among other things, constantly evolving online shopping, found more and more followers.

Table 5. Individual purchases over the Internet in the last 3 months in Poland compared to some European countries in the years 2004–2011

Itemization	2004	2005	2006	2007	2008	2009	2010	2011
UE (27)	15	18	20	23	24	2	31	34
Germany	29	32	38	41	42	45	4	54
France	:	:	19	25	2	32	40	40
Latvia	2	3	5	6	10			10
Lithuania	1	1	2	4	4	6	7	11
Poland	3	5	9	11	12	18	20	20

Source: own elaboration and description based on Eurostat data.

Analyzing the data in Table 5 it can be seen that about 20% of Poles (aged 16–74 years) to make purchases over the Internet. It is almost seven times more than in 2004. More and more popular as online banking – in 2010, 25% of respondents were using the banking distribution channel (for comparison – in 2006 the figure was only 6%) (GUS 2011b, p. 20).

The important phenomena observed in many developed countries is consumer ethnocentrism and greening of consumption. Also in Poland organic products are becoming more popular – produced naturally and is widely regarded as healthy. Consumers also pay attention to the place of origin, especially of food products. According to a study by the ARC Market and Opinion, 90% of respondents said they would be willing to spend 10% if the goods come from the suitable region of the country (ARC Rynek i Opinie, 2010).

Conclusions

In conclusion, the issue of studies regarding the rationality of consumer behaviors is present within various currents, differing in approaches to definition of the notion of rationality explaining consumer behaviors.

Assessment of the rationality of consumer behavior in terms of the adopted criteria allows formulate the following conclusions:

- transformations that have taken place in the level and structure of consumer spending generally can be considered rational and it is necessary to carry out more detailed research in this area, taking into account the level of household economic wealth, since many decisions are dependent on the financial situation,

- changes that have taken place in the level and structure consumers savings should be assessed differently; as positive and rational could be an increase in savings from year to year and the growing interest in alternative compared to bank deposits, forms of collecting funds, still low propensity to save is, however, a negative phenomenon,
- changes that have taken place in the management of leisure time, also should be assessed in different ways – the willingness and plans for active leisure activities can be regarded as a manifestation of the development of the individual and the quality of life,
- according to the criterion of social and organizational changes that have occurred should be assessed as reasonable.

In summary, it can therefore be concluded that the behavior of Polish consumers, in terms of economic, organizational and socio-psychological criteria, is rational. However, in Autor's opinion, no matter the tools adopted to justify consumer behaviors' rationality, it cannot be clearly provided that all consumers have rational behavior and make rational decisions all the time as consumers.

References

- ARC Rynek i Opinie (2010). *Potencjał miejsca pochodzenia w marketingu produktów spożywczych*. Available at www.arc.com.pl/potencjal_miejsca_pochodzenia_w_marketingu_produkтов_spozywczych-41999268-pl.html (accessed on 1.02.2013).
- Bywalec, C. (2007). *Konsumpcja w teorii i praktyce gospodarowania*. Warszawa: Wydawnictwo Naukowe PWN.
- CBOS (2010). *Czas wolny Polaków*, Warszawa: CBOS.
- Cieślak-Wróblewska, A. (2012). Polakom zostaje za mało pieniędzy, żeby zwiększać oszczędności. *Rzeczpospolita* from 23.04.2012.
- GUS (2007). *Kwartalna informacja o rynku pracy*. Warszawa: GUS.
- GUS (2010). *Kwartalna informacja o rynku pracy*. Warszawa: GUS.
- GUS (2011a). *Dojazdy do pracy w 2010 roku na podstawie BAEL*. Warszawa: GUS.
- GUS (2011b). *Polska w liczbach*. Warszawa: GUS.
- GUS (2012a). *Aktywność ekonomiczna ludności Polski IV kwartał 2011*. Warszawa: GUS.
- GUS (2012b). *Budżety gospodarstw domowych w 2011 r.* Warszawa: GUS.
- GUS (2012c). *Sytuacja gospodarstw domowych w 2011 r. w świetle wyników badań budżetów gospodarstw domowych*. Warszawa: GUS.
- <http://analizy.pl> (accessed on 1.02.2013).
- <http://epp.eurostat.ec.europa.eu> (accessed on 1.02.2013).

<http://stat.gov.pl> (accessed on 15.01.2013).

Jacoby, J. (2009). *Is it rational to assume consumer rationality? Some consumer psychological perspectives on rational choice theory*. Working Paper #CLB-00-009, New York University, available at http://w4.stern.nyu.edu/emplibrary/00_009.PDF (accessed 1.02.2013).

Janoś-Kresło, M. & Mróz, B. (2006). *Konsument i konsumpcja we współczesnej gospodarce*. Warszawa: SGH.

Kahneman, D. & Tversky, A. (1979). Prospect Theory: An Analysis of Decision under Risk. *Econometrica*, 47 (2), pp. 263–291. Available at: www.princeton.edu/~kahneman/docs/Publications/prospect_theory.pdf (accessed on 10.01.2013).

Kieźel, E. (2003). *Zachowania konsumentów – determinanty, racjonalność*. Katowice: Wydawnictwo Akademii Ekonomicznej im. Karola Adamieckiego w Katowicach.

Kieźel, E. (2004). *Racjonalność konsumpcji i zachowań konsumentów*. Warszawa: PWE.

Kieźel, E. (2010). *Konsument i jego zachowania na rynku europejskim*. Warszawa: PWE.

Kieźel, E. & Smyczek, S. (2011). *Zachowania polskich konsumentów w warunkach kryzysu gospodarczego*. Warszawa: Placet.

Kraśiński, Z. Piasny, J. & Szulce, H. (1984). *Ekonomika konsumpcji*. Warszawa: PWE.

Shugan, S.M. (2006). Are Consumers Rational? Experimental Evidence? *Marketing Science*, 25, 1.

Smyczek, S. & Sowa, I. (2005). *Konsument na rynku. Zachowania, modele, aplikacje*. Warszawa: Difin.

Światowy, G. (2006). *Zachowania konsumentów*. Warszawa: PWE.
www.princeton.edu (accessed on 10.01.2013).

Zacher, L.W. (2000). *Racjonalność myślenia, decydowania i działania*. Warszawa: Wyższa Szkoła Przedsiębiorczości i Zarządzania im. Leona Koźmińskiego.