

PAPER • OPEN ACCESS

## Rational economic behavior

To cite this article: E Semenova 2019 *IOP Conf. Ser.: Earth Environ. Sci.* **274** 012106

View the [article online](#) for updates and enhancements.



**IOP | ebooks™**

Bringing you innovative digital publishing with leading voices to create your essential collection of books in STEM research.

Start exploring the collection - download the first chapter of every title for free.

# Rational economic behavior

**E Semenova<sup>1\*</sup>**

<sup>1</sup> Federal Research Center of Agrarian Economy and Social Development of Rural Areas - All Russian Research Institute of Agricultural Economics, 35, building 2 Khoroshevskoe highway, Moscow 123007 Russia

E-mail: esemenova@bk.ru

**Abstract.** Economic transformations, globalization, and localization of the world socio-economic systems, the desire to institutionalize current processes in society have changed the perception of economic activity tasks by the business entities, approaches to their solution, motivation, norms and skills of rational management, ethical standards, etc. This determines the relevance of the research on this topic. The main theoretical approaches to rational human behavior in terms of economic theory and management are summarized. The rational behavior is analyzed in terms of the individual and organization. Conclusion about the limited rationality of the Russians are made.

## 1. Introduction

The country's economy is a complex socio-economic system in which thousands of economic, technical and social processes interact, constantly changing under the influence of external conditions, which complicates management tasks and requires special tools and methods.

The main element of the economic system are business entities (individual, small groups of people, organizations, and regions). In relation to the agrarian sphere, the economic entities are individual entrepreneurs, owners of personal subsidiary and peasant farms, members of cooperatives, agricultural organizations. Depending on the subject, it is accordingly possible to distinguish individual and organizational behavior.

## 2. Results

Behavior is a set of actions of the studied system, a reaction to an external influence. Economic behavior is a set of targeted decisions and human actions on the implementation of a certain model of economic activity.

The economic interests of the subjects are based on needs (preferences). The goal of any subject is their maximum satisfaction.

In a sustainable environment, choosing a model of economic behavior depends on the factors, and it is predicted. Therefore, the state can purposefully influence household parameters (income level) and market parameters (prices, taxes, and rates).

The choice of a specific model of economic behavior is influenced by internal factors (income, accumulated wealth), external factors (cycle phase, investment climate, interest rate, tax system, inflation rate), social (involvement in social networks, opinion of the reference group, consumption standards), psychological (system of values and beliefs, attitudes, risk appetite, optimism/pessimism),



cultural factors (features of the mental type of personality, mentality, social norms and customs, labor and consumer culture), etc.

The whole diversity of concepts of economic behavior corresponds to the content of well-known concepts of economic thought: political economy (consumer minimum); neoclassical (economic models of consumer behavior); Keynesian (functional approach).

Factors affecting the behavior of subjects, corresponding to the basic concepts of economic thought, are presented in Table 1.

It is also necessary to take into account the irrational component of the individual's behavior. The standard approach adopted in economic theory implies the full rationality of economic actors. The empirical conclusion of behavioral economics is that people often understand and interpret the situations in which they fall, not in the way that the standard model of rational choice prescribes.

Usually, individuals are considered as subjects of economic behavior, but households and organizations also use economic models of behavior in different socio-economic conditions in specific markets.

The study of rational human behavior in the economy in the activities of organizations determines the rational behavior of the organization and organizational effectiveness. Complicating economic life, the emergence of new requirements for economic organizations led to the formation of the principle of "effective organization." The psychological basis of this principle was the emergence of theories of group and organizational behavior. In alternative theories, in the "theory of entrepreneurship" by I. Schumpeter, different aspects of the rational activity of enterprise managers are considered.

In accordance with the basic concepts of economic theory, organizational effectiveness can also be defined.

The first one is the classical rational approach based on the Taylor specialization principle and on a rational goal – maximizing results, productivity, and minimizing costs, including the optimal use of resources. The rational behavior of an enterprise owner as an individual and for an organization with this approach is the same; for a manager, it may not coincide.

The second approach is a sociotechnical one: the decisive role of the environment, assisting it, and natural selection. Rational behavior in organizations of this type is based on limited rationality. A rational for an employee was the rejection of the common personal goals of the employee with the goals of the organization.

The third direction is looking at an organization as a natural organic system, i.e. a social group with strong needs and incentives for survival and development, consisting of more or less stable groups. The criterion for assessing the organization's effectiveness was the increase in labor productivity through the employee satisfaction and attention to their needs, management diagnostics, and interpersonal skills (Elton Mayo); complicity in management and competitive employee satisfaction as a necessary part of the criterion of organizational effectiveness, the role of a leader in the formation of working groups (D. MacGregor and R. Likert) [2].

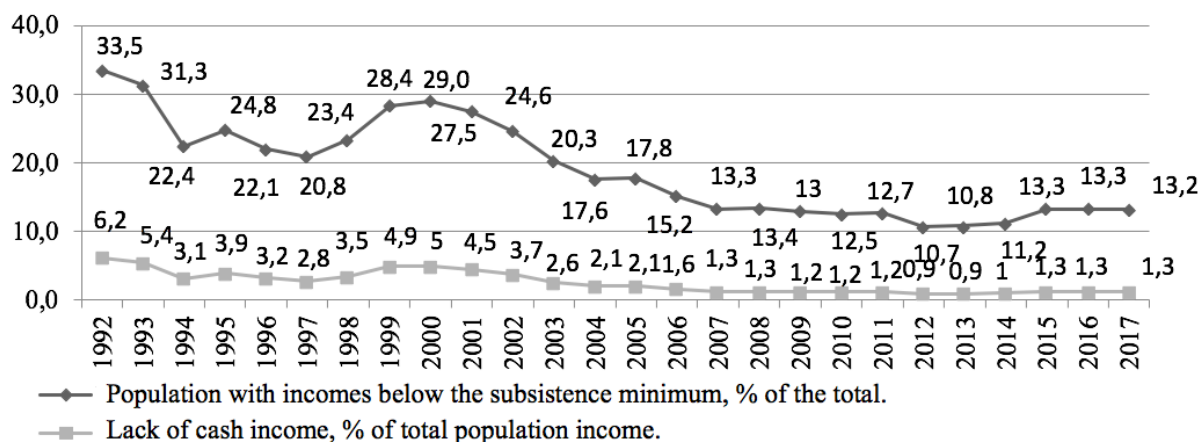
We estimate the factors of consumer behavior. Income is estimated by the minimum subsistence level.

The population with incomes below the subsistence minimum is 19.3 million people (or 13.2%), the cash income deficit in 2018 was 716.6 billion rubles (or 1.3% of household income). The subsistence minimum does not even provide physiological reproduction, which leads to the degradation of the worker in the labor market.

Consumer expectations are assessed using the consumer confidence index (Fig. 2), which is calculated as the arithmetic average of five particular indices: the changes that occurred and the expected personal financial situation, the economic situation in Russia, and the favorable conditions for large purchases.

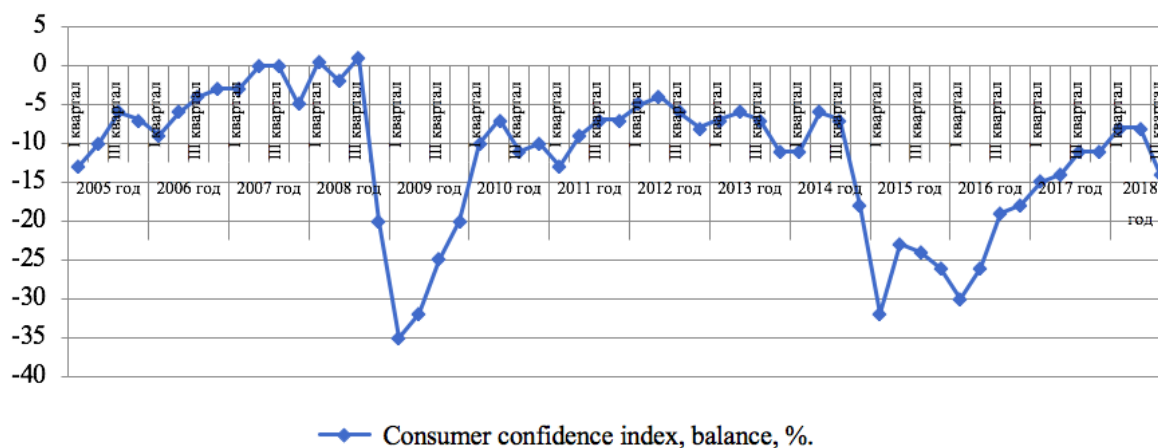
**Table 1.** The main variables of consumer behavior corresponding to the basic concepts of economic idea.

Factor	1. The concept of consumer minima	2. Neoclassical model	3. Functional approach
Income	The calculation of income is the main goal of the concept of consumer minima. There are various approaches to determining the minimum of reproduction: physiological (the preservation of the individual as a biological being); simple (maintaining at a stable level the current characteristics of the consumer or his human capital); or expanded (additionally imply the cost of improving the person).	In the neoclassical model, indifference curves and budget lines are used, the real income of the consumer corresponds to the sum of the coordinates of a point on the budget line. In modern theory, income is viewed in three markets in which a household operates (consumer market, labor market, asset market).	Consumption function developed by J.M. Keynes assumes that the only internal variable affecting consumption is disposable income. Modern functional concepts of consumer behavior take into account: – The phenomenon of “random walk” - consumers are faced with fluctuations in income and make efforts to make their consumption more or less even throughout their lives. – The existence phenomena of a consumer function: (a) “excess smoothness” – consumption is not sufficiently variable in response to changes in income; (b) “excess sensitivity” – the consumer determines his level of consumption without having complete information on income; his choice is affected by income from the previous period.
Price	For calculations, the average statistical prices are accepted for integrated groups of goods according to official statistics, each of which contains goods of different levels of quality.	The relative prices of goods are reflected through the slope of the budget line. It is difficult to build maps of indifference curves for different product groups not related to substitution relations. Price changes lead to a redistribution of the price effect between goods (income effect and replacement effect).	They link price as a factor of consumer behavior with the general direction of price movement in the economy – inflation and its negative expectations by consumers.
Expectations	Consumer expectations can be taken into account by the introduction of savings items for expected and unforeseen events (life situations that require increased expenses, which, at the same time, are not a luxury). Separate elements of expectations are taken into account in the minimum social budget (item “other expenses”), in the minimum consumer budget (legal services, funeral services, savings), percentage of income.	In the orthodox model, the consumer is assumed to be rational, i.e. knowing the outcomes of his actions with one hundred percent accuracy (expectations coincide with the foresight made). The development of the orthodox model went in two ways: the inclusion in the analysis of intertemporal preferences and taking into account the uncertainty in consumer behavior.	Consumer expectations take into account the hypothesis of permanent income (Friedman's rational income expectations describing income changes over time). Income falls into two components: a permanent income that consumers expect to save in the future, and temporary income, which is usually the result of the use of assets. Consumption mainly depends on regular income. Currently, two types of income expectations are being considered: precise income expectations and stochastic expectations.
Availability, information and time	Consumer product is available at precisely the prices that are taken into account in the minimum. The product is always in stock, and the consumer knows where he is and does not spend time searching for it and purchasing it. Transaction costs in this approach are zero.	Initially, consumer behavior was considered in conditions of perfect competition. The theory of transaction costs reduces the factors of time, information, and availability to the costs of an economic agent. By comparing the additional benefits of obtaining information with the additional costs of obtaining it, the consumer maximizes his utility.	Factors of uncertainty and risk are taken into account through the concept of “consumer risk”. Uncertainty in consumption affects: income and needs (stock of assets provides insurance against risk), the date of death (the marginal rate of consumption of income from assets with the age of the consumer changes much less than the simple life cycle theory implies), the profitability of savings (the uncertainty of profitability and income often increases with the uncertainty of inflation and inflation).



**Figure 1.** Dynamics of monetary incomes of the population, %.

Source: Compiled according to the Federal State Statistics Service.



**Figure 2.** Dynamics of consumer confidence index, %.

Source: Compiled according to the Federal State Statistics Service.

According to Rosstat, the decline in the consumer confidence index in 2018 is due to the negative dynamics of all its components. At the same time, the greatest impact was made by the deterioration of the subjective opinion of the population regarding the changes that have occurred and are expected in the Russian economy.

The economic behavior of the Russians, especially rural residents, has significant differences from the models prevailing in Western economies:

- In the structure of Russian incomes, labor income is the main share. The vast majority of citizens have income from work in budget or commercial organizations. 2/5 of those working in agricultural organizations have a wage below the subsistence minimum of the working-age population, almost 4% have less than the minimum wage;
- The Russian poverty is localized in rural areas. According to the monitoring results, 30% of village residents, including half among young people, intend to leave the village.
- The lack of readiness of the majority of Russians to conduct business independently, the low share of small business in the structure of the economy (no more than 10%).
- The population has paternalistic attitudes, which have only recently been strengthened. Responsibility for their own material well-being Russians still lay on the state. In particular, the state must compensate for the investment losses of the population, such as contributions to

commercial banks, purchasing shares, or even a decrease in the market value of land and real estate.

- A serious deterioration occurring in the employment market, low incomes in rural areas, lack of vacancies in many ways aggravates the lack of savings among the majority of the country's population. Unemployment is explicit and latent (hidden).
- A high coverage of the bank lending system. About 30% of Russian families owe banks for various types of consumer loans, have problems with repayments, 6.5% of the surveyed households are unable to pay debts on loans.
- The growth of overdue indebtedness among the population and the backlog of agricultural organizations. The accounts payable of organizations (without small businesses) in 2017 amounted to 44.481 billion rubles;
- High inflationary expectations. The financial behavior of the Russians in a crisis is the purchase of cash, gold, household appliances, and other valuable things.
- Financial illiteracy of the population, which does not allow to change the model of financial behavior; there is a high risk of financial panic.

### 3. Conclusions

Thus, the system of Russian society is inherently limited to rational behavior of the Russians.

### References

- [1] Anokhov I V 2010 On the category of interest in economic theory *News of the Irkutsk State Academy of Economics* **3** pp 5-8
- [2] Ryzhkova M V 2012 Analysis of the system of restrictions of consumer choice *News of Tomsk Polytechnic University* **321**(6) pp 77-81
- [3] Trubitsyn A V 2012 Rational economic behavior and organizational effectiveness *Scientific works of MIM LINK* **24** pp 214-227
- [4] Fedorov E A 2014 Modern approaches to the classification and modeling of economic behavior *Bulletin of Volgograd State University. Ser. 3, Economy. Ecology* **4**(27) pp 7-13
- [5] Yakovleva E A 2014 Behavioral economics as a field of scientific knowledge in modern economics *Journal of Economic Regulation* **5**(2) pp 62-69