

A. KHOVRAT, D. TESLENKO, N. HULIEV, V. KYRIY

THEORETICAL AND EXPERIMENTAL STUDY OF THE ECONOMIC BEHAVIOR IRRATIONAL COMPONENT OF UKRAINIAN SOCIETY IN SPECIFIC MARKETS

The subject matter of the article is the theoretical-methodical and applied principles of behavioural economics and their implementation in Ukrainian society. **The goal of the work** is to analyse the theory of irrationality in the economic context to find out what its character is in modern Ukrainian conditions, as well as to confirm the main paradoxes inherent in the individual's decision-making behaviour. The following **tasks** were solved in the article: highlighting important aspects of the theory of irrationality for experimental analysis; determination of the methodology of experiments based on internationally recognized works; proposing a hypothesis regarding Ukrainian realities; conducting experiments according to the proposed methodology to test the proposed hypotheses and systematize the obtained results. The following **methods** are used: analytical and inductive methods for determining the set of behavioural experiments and building hypotheses regarding their results; experimental method and method of mathematical processing to check the presence of selected behavioural deviations in Ukraine. The following **results** were obtained: it was determined that in Ukrainian society there is a difference between the degree of individualistic attitudes in different age groups; determined change in the perception of information of different generations as a result of more significant digitization of the young population; a higher tendency of children to risk for certain conditions is determined; the similarity of the obtained results of the experiments with the global ones are established and the impact of technologies on the economic behaviour of individuals and the peculiarities caused by the historical context and expanded access to information, in general, are determined. **Conclusions:** the use of analytical and inductive methods in combination with an experimental approach confirmed the existence of some of the classic behavioural patterns for modern Ukrainian society, in particular: the Allais paradox, the effect of bounded rationality, the effect of joining the majority, the effect of ownership and asymmetric dominance. In addition, based on the obtained results, it was determined that for Ukraine there is a significant difference between the nature of irrationality in different age groups, however, the postulation of this statement beyond the selected target groups requires additional research, as well as consideration of the context of other market entities.

Keywords: behaviour; irrationality; Ukrainian society; decision-making process.

Introduction

Decision-making is one of the key stages in any economic process. These can be decisions, for example, either by a consumer to buy a product, or by a company to manufacture new products or change prices, or to adopt a certain law or reform at the state level. All processes directly predict the outcomes of choices, so this issue has been repeatedly considered by leading scholars in economic theory and has become the main reason for revising its current norms. This is mainly true of the neoclassical approach, which is based on the idea that all people act rationally.

The concept of irrationality as a counterpoint to this statement is increasingly considered in the works of scientists, including Nobel Prize winners M. Allais, D. Kahneman, A. Tversky and R. Thaler [1], as well as in the studies of D. Ariely [2], G. Simon [3], D. Ellsberg [4].

It is important that the principles developed by scientists are actively used in modern practice both in individual companies and at the state level in order to

increase the efficiency of their own activities. As for the Ukrainian context, although this issue has been discussed in scientific articles, it has not received either significant theoretical dissemination or active practical implementation. This determines the relevance of this study.

Analysis of recent studies and publications

One of the founders of the classical theory, A. Smith, began to talk about the emotionality of human choice, and, accordingly, irrationality, in the economic context. In the middle of the eighteenth century, he published his book *The Theory of Moral Sentiments*, which was used as a basis for his more famous works, *The Wealth of Nations* and *Essays in Philosophical Subjects*. In the first work, A. Smith emphasized that people are not trying to achieve material well-being, but the reason for their desire for wealth is the desire to be different and be recognized. At the same time, considering the emotionality of the individual in this context, A. Smith becomes a follower of the theory

of the economic man, or *homo economicus*, which is introduced into public opinion by J. Stuart Mill [5].

This amount of attention and research to refute the concept of a rational person has given rise to a new scientific field – behavioral economics. This area of theoretical thought studies the influence of psychological factors on people's decisions in various economic situations.

This area has been the mainstream of economic theory for many years. However, the criticism of this theory and the growing number of paradoxes (as emphasized by E. Cartwright in [1]) led to the emergence of behavioral economics.

It is based on the prospect theory of D. Kahneman and A. Tversky. The essence of their theory is that an individual builds his or her own value curve and calculates utility values, taking into account potential outcomes and relevant probabilities.

Today, the prospect theory continues to be gradually established as a fundamental theory of utility, as noted by scientists D. Arnott and S. Gao (Monash University, Australia) in their work on behavioral economics [6].

After the first article by D. Kahneman and A. Tversky, economist R. Thaler studied this area in more detail. The researcher went beyond the individual and began to consider the economic behavior of society as a single organism. The essence of R. Thaler's work [7] is that it is possible to adjust public choice without limiting it, based on a person's reaction to certain events. This contributed to the growing popularity of behavioral theory in general and became the basis for numerous experiments. In particular, the work of D. Ariely is devoted to the factor of dishonesty in the activities of economic entities [2]. R. Schiller focuses on the problem of the impact of information on irrationality [8]. S. Basu and S. Sugat (University of Cagliari) study the change in irrational behavior under the influence of social shifts [9]. A. Sandmo studies modern approaches to the theory of prospects by D. Kahneman and A. Tversky [10]. Some of these works will be discussed below in the analysis of behavioral effects inherent in modern conditions.

In the Ukrainian context, N. Pylypenko and V. Belyaeva have considered the problems of irrational behavior. The scientists identified the possibilities of applying behavioral theory in the formation of economic policy in Ukraine [11]. Another important domestic achievement is the work of N. Tsyganova [12], which is devoted to the financial market in the context of irrational behavior of individuals.

Identification of previously unsolved parts of the overall problem.

Purpose of the work, tasks

The aim of the study is to analyze the theory of irrationality in the economic context to determine its nature in modern Ukrainian conditions, as well as to confirm the main paradoxes inherent in the behavior of an individual in decision-making.

To achieve this goal, the experimental method will be used, taking into account the studies already conducted by well-known scientists. The method of mathematical processing will be used to determine the presence of behavioral deviations. Analytical and inductive methods will be used to select experiments and build hypotheses about their results.

The object of the study is the economic irrational behavior of individuals. The subject is the theoretical, methodological, and applied foundations of behavioral economics and their implementation in the conditions of Ukrainian society.

This leads to the following tasks:

- highlighting important aspects of the theory of irrationality for experimental analysis;
- determination of the research methodology based on internationally significant works;
- formulation of the hypothesis taking into account Ukrainian realities;
- conducting experiments according to the proposed methodology to test the hypotheses;
- systematization of the results obtained.

Materials and methods

Limited rationality

One of the first fundamental concepts to criticize the neoclassical approach was G. Simon's theory of limited rationality [3]. The scientist himself sees the reason for this as the presence of a large number of alternatives to a choice when a person cannot make it optimal, usually due to lack of time.

This concept is confirmed by an experiment conducted in 2000 by two psychologists, S. Iyengar and M. Lepper [13]. The scientists aimed to show that in the presence of a large number of alternatives, a person begins to get lost and eventually cannot make a choice. As an example, customers were offered jam on supermarket shelves. The study found that the stand with 24 types of jam attracted the attention of most people.

Of the 242 customers who passed by the stand, 60% stopped. The second booth had only six types of jam, and out of 260 visitors, 40% paid attention to it. However, of those who stopped at the first stand, only 3% made a purchase, and 30% made a purchase at the stand with six types of jam.

To test the rationality, it is proposed to conduct a similar experiment, but without a real product. The subject of choice is yogurt. The sample will include teachers and students of grades 9, 10, and 11 of Kharkiv Gymnasium No. 46 named after M. V. Lomonosov.

In the first version of the study, the participants are given 10 possible alternatives to choose from, with each one indicating the quality of the product and its price. In order to make the experiment more realistic, the exact value of quality is not disclosed. The main goal is to show that if there are 10 yogurt options to choose from, and you have to choose the best one in terms of quality and price in a limited time (1 minute), a person will not have time to analyze all the options and will make a choice intuitively. By using this configuration, we brought the experiment closer to the concept of bounded rationality.

In the second version of the experiment, the number of yogurt types was limited to three, so that in 1 minute a person could more likely analyze information about the quality and price of the dairy product.

It is predicted that in the second version of the study, the answers will be more rational than in the first. Thus, G. Simon's concept will be confirmed for modern Ukrainian conditions.

Effect of ownership

P. Thaler in 1980 in his article "Toward a positive theory of consumer choice" [14] describes the underestimation of opportunity cost and inertia that is part of the consumer's choice process. The point is that a person who owns a product values it higher than items he or she does not own. This process is called the "possession effect". A few years later, D. Kahneman in his work [15] offered the following example.

A man is a fan of a music band. He buys a ticket to a concert for \$200, provided that he could pay no more than \$500 for the same ticket. After receiving the ticket, the man is offered to sell it for \$3,000, but he refuses to sell it. Thus, the minimum selling price is more than \$3,000, and the maximum buying price is \$500. This price discrepancy is a manifestation of the possession effect.

In order to investigate the prevalence of this effect, we can model the experiment conducted by J. Knetch in 1989 [16].

In the first version, the researcher gave the students cups of coffee as compensation for filling out a short questionnaire. After a while, J. Knetch showed them another gift – a bar of Swiss chocolate – and offered to exchange it. However, 89% of the students kept the coffee. In the second variant, the participants were offered a choice between chocolate and coffee. The percentage of respondents who chose coffee was 56%. The third variant was the same as the first, but first J. Knetch gave everyone chocolate, and then showed them a cup of coffee. In contrast to the first option, the number of students who chose coffee was 10%.

This experiment showed that underestimation can occur even when the influence of income is excluded. It is worth noting that the study was criticized for the small sample of people belonging to the same age group and for the types of goods. Opponents emphasized that if other groups of goods were chosen, the results would be different. However, the existence of this effect for goods of the same category is not in doubt.

In contrast to the classical experiment configuration, this study will be tested by replicating it among people related to education: schoolchildren, students, and teachers. The sample will include 9th, 10th, and 11th grade pupils and teachers from Kharkiv Gymnasium No. 46 named after M. V. Lomonosov, as well as teachers and students from the Kharkiv National University of Radio Electronics.

It is expected that J. Knetch's results will be replicated by conducting an experiment with coffee and chocolate for all age groups. However, in order to confirm the opinion about the possible absence of the possession effect, another configuration of the study with several options is proposed.

It should be based on goods that are unequal in nature, so that one of them is not desirable for respondents in each variant, for example, postcards and pens. Since the latter items are useful for everyone involved in the education system, it is predicted that there will be no possession effect for leaflets, which have no significant practical use.

In the first variant, the study participants will be provided with pens. After a while, they will be offered other gifts – postcards. It is assumed that the majority will keep the pen. In the second option, people will be given the opportunity to choose between postcards and pens. It is likely that the percentage of people who will choose the latter alternative will be much higher

than J. Knetch received in his experiment. The third option, as in the original, repeats the first. However, it is worthwhile to hypothesize here that the number of participants who would choose a pen over a postcard would still remain high.

Allais paradox

As noted above, one of the main assumptions on which Kahneman and Tversky's prospect theory is based is the Allais paradox. This is a situation in which the consumer does not want to achieve maximum utility, as stated in neoclassical theory, but maximum reliability.

As a proof of this paradox, D. Kahneman and A. Tversky cite the following experiment [15]. In the first variant, the subject is given \$1,000 and then offered one of two possible alternatives: with probability one player will definitely receive \$500 or with probability 1/2 the person will either receive nothing or win another \$1,000.

In the second variant, the alternatives are slightly different from the initial situation – the player is given \$2000: with probability one player loses \$500 or with probability 1/2 the person either loses nothing or loses \$1000.

In the former case, people almost always (84%) choose not to take risks, while in the latter case, they tend to take risks (69%). That is, the majority does not like risk when it comes to winning and almost always chooses to withdraw the amount, but in a situation of possible loss, people are willing to take risks. It should be understood that the essence lies not in the value of the win itself, but in the changes associated with it. As scientists explain, it is harder to lose than to gain.

However, it should be noted that this effect is not always observed; if the amounts determined in the experiment are insignificant for respondents, the percentage of those willing to take risks is much higher. The purpose of our work is to test this statement.

To do so, in addition to the configuration described above (with a tenfold decrease in the amounts due to the peculiarity of the sample), we will conduct another study.

This time, the options will be as follows. In the first situation, the participant is given 100 UAH and then offered one of two possible alternatives: with probability one player definitely receives 50 UAH or with probability 1/2 the person either receives nothing or wins another 100 UAH.

In the second variant, the alternatives are slightly different from the initial situation – the player is given 200 UAH: with probability one player loses 50 UAH or

with probability 1/2 the person either loses nothing or loses 100 UAH.

All these amounts will be offered hypothetically, so this may cause a slight decrease in the effect itself, as respondents will not fully experience the possession of the money.

The asymmetric dominance effect

In 2008, D. Ariely conducted an experiment [2] that showed that a person's choice often depends not on an objective analysis of the actual situation, but on its subjective perception. During the study, the researcher offered students two situations with a subscription to *The Economist* magazine.

In the first option, participants had to choose between three alternatives: a subscription to the electronic version of the magazine with access to the archive for \$59; a subscription to the print version for \$125; a subscription to the electronic and print versions of *The Economist* with access to the archive for \$125.

In the end, 16% of respondents chose the first option; 0% chose the second; and 84% chose the third.

In another situation, a second alternative was added, which resulted in different results, which, according to the classical theory, should not have been different: 68% of students chose the first option; 32% chose the option with electronic and printed versions.

D. Ariely explains this by the existence of the so-called attraction effect (another name is the asymmetric dominance effect). Since in the first situation, the individual saw that the third offer was more favorable than the second, he or she chose it, although, as the results of the second experiment show, the need for the printed version was not significant.

There is no information on whether this experiment was conducted in Ukraine. Therefore, this question remains open. Especially if we consider that over time, people's attitudes toward electronic media, including *The Economist*, have changed compared to print versions. Therefore, it is worthwhile to assume about the likelihood of possible results if D. Ariely's study is repeated in modern Ukrainian conditions.

It should be noted that the likelihood of differential results for different age groups is quite high. This is due to the fact that in our country, according to the observations of the Internet Association of Ukraine, the population aged 45 and older uses the Internet less. However, the coverage among the younger generation is quite high. It is likely that for the age group under 45, the percentage of those who would choose the cheaper

electronic version in both situations will be higher than for those aged 45 and older.

Given the sample, the above hypothesis can be tested. It should be emphasized that it applies to Ariely's experiment, not to the lure effect, which is likely to work properly, but for a small group of respondents.

To confirm or deny the existence of this effect in modern conditions, it is necessary to modify the choice alternatives. For consideration, the research participants are offered the situation of buying a laptop.

In the first variant, they must choose between three alternatives: laptop A at a price of \$1050 and a 2.5-year warranty; laptop B at a price of \$1,200 and a 2-year warranty; and laptop C at a price of \$825 and a 1.5-year warranty. It is expected that in this case, gadget A, which has advantages over laptop B in terms of warranty and price, will be chosen by more people than laptop B.

In the second variant of the experiment, participants are offered: laptop A at a price of \$700 and a warranty period of 2.5 years; laptop B at a price of \$550 and a warranty of 1.5 years. Similar to Ariely's study, people have to choose the second alternative.

Effect of joining the majority

J. Levav and D. Ariely [17] described a study of the effect of joining the majority. During the experiment, the researchers, acting as waiters, offered free beer to visitors in a North Carolina bar. D. Ariely and J. Levav identified two groups of people: the first had to order out loud, and the second had to mark the menu anonymously. Along with beer samples, the scientists gave visitors a short questionnaire asking whether they liked the drink they had chosen and whether they regretted choosing a particular type of beer.

In the process of checking the questionnaires, D. Ariely and J. Levav found that people who ordered out loud were much less satisfied with their choice than those who decided on a beer without the influence of others' opinions. There was one exception: the participant who publicly ordered the beer first was in the same conditions as those who expressed their opinions anonymously, as he was not limited by the choices made by others.

However, D. Ariely notes that in some cultures, where the need for uniqueness is not a positive trait, people, on the contrary, are subject to the effect of joining the majority. A similar experiment in Hong Kong confirmed this thesis.

Taking into account D. Ariely's study, it was decided to repeat it and find out which principle is used

by the majority of Ukrainians. It is assumed that the younger generation will have a more individualistic attitude in the context of the information society and advanced globalization processes than people who grew up in a socialist state formation, where, according to a number of historical studies, the collective good prevailed over the individual good.

It should be noted here that there is a possibility of bias, as the respondents belong to the same sphere. As for the structure of the sample, it varies: teachers and schoolchildren of Kharkiv Gymnasium No. 46 named after M.V. Lomonosov, teachers and students of the Kharkiv National University of Radio Electronics.

To test the hypothesis, it was decided to develop an experiment with candy. To do this, respondents should be divided into groups of 5. Four participants will know the essence of the experiment, and the statement will be tested on the decision of the fifth respondent. A total of four types of candy will be provided in order to fully satisfy the taste preferences of the participants and thus reduce the possible bias caused by someone not liking other types of candy.

Research results and discussion

Limited rationality

Based on the methodology described above, each configuration of the experiment was administered to students and teachers. Table 1 shows the quantitative distribution among the respondents.

Table 1. *Quantitative distribution of respondents*

Name of the group	Extended list	Limited list
Schoolchildren (14–17 years old)	63	57
Teachers (40–55 years old)	15	16

In the first experiment, the most optimal option is the 9th option, which has the highest quality-to-price ratio of 2.28. As predicted, respondents were mostly lost among a large number of alternatives, so the most optimal option was chosen by 19% of students and 26.7% of teachers. The 5th option, close to the optimal one, was chosen by 9.5% of students and 6.7% of teachers. A slightly higher percentage of rational choices among teachers can be explained by faster cognitive processes related to the nature of the profession, as well as a smaller sample. The results can be found in more detail in the diagram (see Fig. 1).

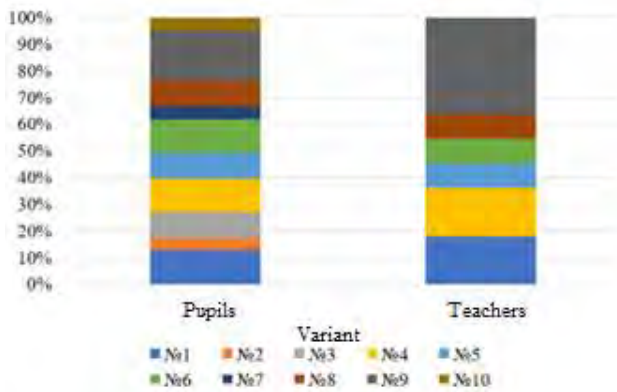


Figure 1. Distribution of answers for the extended list

In the second experiment, the most optimal yogurt to choose was the 3rd option with a quality-to-price ratio of 1.93. The prediction above was confirmed. With only three alternatives to choose from, respondents approached the question more rationally, being able to calculate the quality-to-price ratio. The diagram (Fig. 2) shows that the number of students who made the most optimal choice is 68.4%, and teachers – 75%.

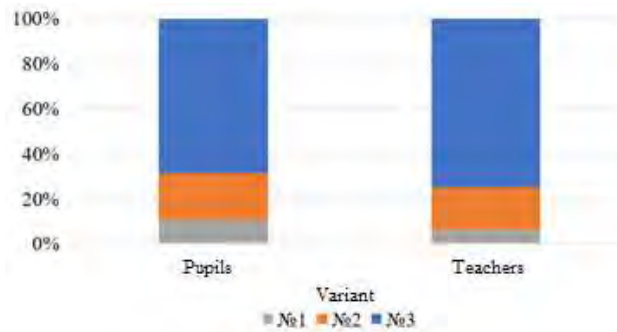


Figure 2. Distribution of answers for the limited list

Effect of ownership

Several experiments of each configuration were conducted. In total, the three groups of respondents (pupils, students, and teachers) were interviewed six times.

Table 2 shows the distribution of participants. For better perception of the results, we will use the following symbols for different variants: SC-1 – coffee is offered first; SC-2 – respondents are given a choice between chocolate and coffee; SC-3 – chocolate is offered first; PC-1 – a pen is given first; PC-2 – respondents are given a choice; PC-3 – a postcard is given first.

Given the results, the hypotheses put forward above can be considered confirmed if we take into account the rather small sample of teachers for each experiment and some age characteristics of the participants.

Table 2. Quantitative distribution of respondents

Variant	Pupils	Students	Teachers
SC-1	16	21	10
SC-2	17	23	11
SC-3	14	19	10
PC-1	15	25	10
PC-2	16	23	10
PC-3	16	22	11

The diagram below (Fig. 3) shows that although the chocolate and coffee experiment reproduce the ownership effect for students much better than the postcard and pen experiment, there are much fewer respondents who chose coffee in each of the variants than described in Knetch’s work. We explain this by the fact that students are less fond of coffee than chocolate, so, despite the possible configuration, given the alternative of getting sweets, coffee will be considered more desirable.



Figure 3. J. Knetch’s experiment with pupils

Further results revealed that the ownership effect for the postcard and pen variant, as mentioned, does not work properly. This is because the product groups are quite different and, unlike the pen, the postcard is not a necessity for the students. And since coffee is a good similar to chocolate for students, the results in this experiment (Fig. 4) better illustrate the possession effect.

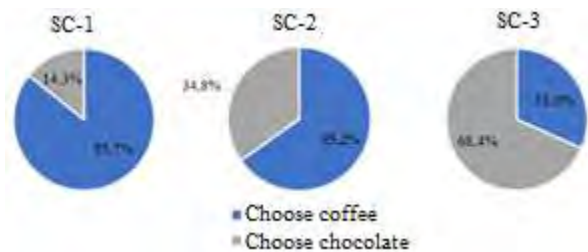


Figure 4. J. Knetch’s experiment with students

Similarly to the situation with the schoolchildren survey, the results in the second configuration of the experiment for students showed that the ownership effect does not always work.

Although the results of the study among teachers repeat the situation with students, it is not worth insisting

on their reliability due to the limited sample size. Therefore, the claim that age does or does not affect the existence of the ownership effect in this study is not proven.

Allais paradox

Based on the chosen methodology, several experiments of each configuration were conducted. In total, three groups of respondents (pupils, students, and teachers) were interviewed six times. Table 3 shows the number of participants in each case.

Table 3. *Quantitative distribution of respondents*

Variant	Pupils	Students	Teachers
With dollars	62	37	14
With hryvnias	64	39	15

As expected, during the second survey with dollars, respondents mostly chose a risk-free position in both the first and second versions. Although in the first, it was even more significant. The diagram (Fig. 5) shows the percentage of people who chose the first option (the one without a risk element) in each of the options. However, it is worth emphasizing a certain peculiarity: schoolchildren have a greater propensity to take risks than older people who belong to a certain profession.

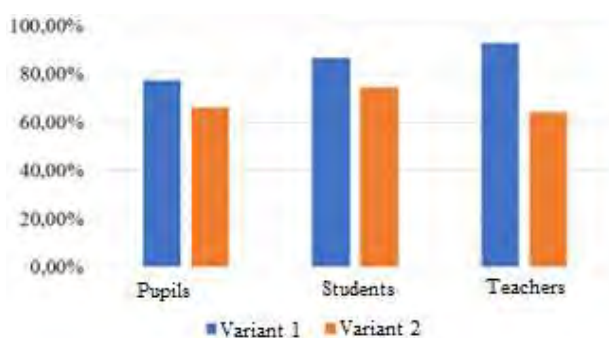


Figure 5. Experiment with dollars

In the course of the study in a different configuration, i.e. with hryvnias, the prediction was also justified. People tend to take more risks when the amount of money is small. In addition, the above statement about a greater willingness to take risks on the part of schoolchildren is also true in this situation.

Effect of asymmetric dominance

Based on the methodology described above, a questionnaire was developed to interview the respondents.

During the experiment, 160 people aged 15 to 63 were interviewed. Table 4 shows the age distribution of participants.

Table 4. *Quantitative distribution of respondents*

Group	Experiment with subscription	Experiment with laptops
Pupils (14–17 years old)	73	73
Students (17–23 years old)	47	47
Teachers (40–57 years old)	40	40

Based on the results of the first situation describing a journal subscription, it can be noted that the hypothesis put forward earlier about the differentiation of responses for different age groups has been confirmed. Students who were directly related to the IT sphere chose the option with the electronic version even more often than pupils did, while teachers (40 people were interviewed in total) confirmed Ariely's experiment in full.

The results of the second set of alternatives, for their part, confirm the existence of the lure effect for all age groups, although the amounts for teachers are much larger than for students or pupils.

In the second experiment, as predicted, the effect of asymmetric dominance is much more significant since the problem of disproportionate use of the Internet is not included in the formulation of the situation (meaning the contrast between the print and online versions of the journal). A slight deviation from the average results is observed among teachers. In the absence of a laptop (lure), the percentage of respondents who changed their choice is high.

Effect of joining the majority

The distribution of respondents during the experiment can be found in Table 5.

Table 5. *Quantitative distribution of respondents*

Group	Experiment with subscription	Experiment with laptops
Pupils (14–17 years old)	10	50
Students (17–23 years old)	5	25
Teachers (40–57 years old)	6	30

As expected, most schoolchildren and students chose a different option than all the participants before them; while teachers, representatives of the older generation, most often chose the same candy as their predecessors.

Conclusions and prospects for further development

The study examines the concept of individual irrationality and its impact on the main market actors: the consumer, the firm, and the state. This was done by analyzing the existing theory, in particular, the prerequisites for the emergence of the concept of homo economicus, its criticism, and the fundamental provisions of the behavioral framework.

In order to determine the nature of the described effects and paradoxes in the modern Ukrainian context, a number of experiments conducted by J. Knetch, D. Ariely, D. Kahneman, A. Tversky, R. Thaler, and S. Iyengar were analyzed. In the process of analyzing these studies, hypotheses are formulated regarding possible features of the Ukrainian situation.

Among the most important assumptions are the following:

- difference between the degree of individualistic attitudes in different age groups;
- modified perception of information by different generations due to the greater digitalization of young people;

- higher risk-taking among schoolchildren;
- the presence of all these effects only under certain conditions.

The outlined hypotheses were confirmed during repeated experiments with some modified configurations on samples of students and teachers of Kharkiv Gymnasium No. 46 named after M. V. Lomonosov, students and teachers of Kharkiv National University of Radio Electronics.

Thus, it can be concluded that, in addition to the basic theoretical assumptions peculiar to Ukraine, there is a significant difference between the nature of irrationality in different age groups. However, the experiment is not sufficient to postulate this statement, so it was decided to revise it for further research. In addition, it should be noted that this paper considers only the concept of individual irrationality, so to expand the issue it is important to study the concept of the irrational state and the firm, in particular, the concept of the irrational state, which is distinguished by denying the rational purpose of these market actors.

References

1. Cartwright, E. (2018), *Behavioral Economics*, Routledge, London, 586 p.
2. Ariely, D., Garcia-Rada, X., Gödker, K., Hornuf, L. and Mann, H. (2019), "The impact of two different economic systems on dishonesty", *European Journal of Political Economy*, No. 59, P. 179–195. DOI: 10.1016/j.ejpoleco.2019.02.010
3. Simon, H. A. and Laird, J. E. (2019), *Sciences of the Artificial*, MIT Press, Massachusetts, 256 p.
4. Sakai, Y. (2018), "Daniel Ellsberg on J.M. Keynes and F.H. Knight: risk ambiguity and uncertainty", *Evolutionary and Institutional Economics Review*, No 16 (1), P. 1–18. DOI: 10.1007/s40844-018-0114-9
5. Meramveliotakis, G. and Manioudis, M. (2021), "History, Knowledge, and Sustainable Economic Development: The Contribution of John Stuart Mill's Grand Stage Theory", *Sustainability*, No. 13 (3), P. 1–18. DOI: 10.3390/su13031468
6. Arnott, D. and Gao, S. (2019), "Behavioral economics for decision support systems researchers", *Decision Support Systems*, No. 122 (12), P. 1–12. DOI: 10.1016/j.dss.2019.05.003
7. Thaler, R. (2020), "What's next for nudging and choice architecture?", *Organizational Behavior and Human Decision Processes*, No. 163, P. 4–5. DOI: 10.1016/j.obhdp.2020.04.003
8. Romani, R. (2021), "Narrative economics: how stories go viral and drive major economic events", *The European Journal of the History of Economic Thought*, No. 28 (3), P. 496–497. DOI: 10.1080/09672567.2021.1928927
9. Basu, S. and Sen, S. (2023), "COVID 19 Pandemic, Socio-Economic Behaviour and Infection Characteristics: An Inter-Country Predictive Study Using Deep Learning", *Computational Economics*, No. 61, P. 645–676. DOI: 10.1007/s10614-021-10223-5
10. Sandmo, A. (2023), "The Market in Economics: Behavioural Assumptions and Value Judgments", *In: Market, Ethics and Religion*, Springer, Cham, P. 19–39. DOI: 10.1007/978-3-031-08462-1
11. Pylypenko, N. and Bieliaieva, V. (2019), "The Possibility of Applying the Tools of Behavioral Economics for Economic Policy in Ukraine", *Ekonomika ta derzhava*, No. 95 (5), P. 95–100. DOI: 10.32702/2306-6806.2019.5.95
12. Tsyganova, N. (2019), "Interaction of Financial Market Subjects in the Condition of the Behavior Economy", *Scientific opinion: Economics and Management*, No 64 (2), P. 174–184. DOI: 10.32836/2521-666x/2019-2-64-21
13. Blasheck, T. L. and Jawwad, N. (2020), "The Dark Side of Variety: An Economic Model of Choice Overload". *The Yale Undergraduate Research Journal*, No. 1 (1), P. 1–19, available at: <https://elischolar.library.yale.edu/yurj/vol1/iss1/38> (last accessed 28.06.2023).
14. Martina, R. A. (2019), "Toward a theory of affordable loss", *Small Business Economics*, No. 54 (3), P. 751–774. DOI: 10.1007/s11187-019-00151-y
15. Rossiter, J. R., (2019), "A critique of prospect theory and framing with particular reference to consumer decisions", *Journal of Consumer Behaviour*, No. 18 (5), P. 399–405. DOI: 10.1002/cb.1779
16. List, J. A. (2021), "Experimental tests of the endowment effect and the Coase theorem", *In: The Art of Experimental Economics*, Routledge, London, P. 85–102. DOI: 10.4324/9781003019121

17. Catapano, R., Shennib, F. and Levav, J. (2022), "Preference Reversals Between Digital and Physical Goods", *Journal of Marketing Research*, No. 59 (2), P. 353–373. DOI: 10.1177/00222437211065020

Received 20.05.2023

Відомості про авторів / About the Authors

Ховрат Артем Вячеславович – Харківський національний університет радіоелектроніки, магістр зі спеціальності "Інженерія програмного забезпечення", Харків, Україна; e-mail: artem.khovrat@gmail.com; ORCID ID: <https://orcid.org/0000-0002-1753-8929>

Тесленко Денис Максимович – Харківський національний університет радіоелектроніки, магістр зі спеціальності "Інженерія програмного забезпечення", Харків, Україна; e-mail: denys.teslenko@nure.ua; ORCID ID: <https://orcid.org/0000-0002-6289-1633>

Гулієв Нурал Бахадур огли – Харківський національний університет радіоелектроніки, магістр зі спеціальності "Інженерія програмного забезпечення", Харків, Україна; e-mail: nural.hulliev@nure.ua; ORCID ID: <https://orcid.org/0000-0003-2123-0377>

Кириїв Валентина Василівна – кандидат економічних наук, доцент, Харківський національний університет радіоелектроніки, доцент кафедри економічної кібернетики та управління економічною безпекою, доцент кафедри програмної інженерії (за сумісництвом), Харків, Україна; e-mail: valentyana.kyryiu@nure.ua; ORCID ID: <https://orcid.org/0000-0002-2537-264X>

Khovrat Artem – Kharkiv National University of Radio Electronics, M. Sc. in Software Engineering, Kharkiv, Ukraine.

Teslenko Denys – Kharkiv National University of Radio Electronics, M. Sc. in Software Engineering, Kharkiv, Ukraine.

Hulliev Nural – Kharkiv National University of Radio Electronics, M. Sc. in Software Engineering, Kharkiv, Ukraine.

Kyryiu Valentyana – PhD (Economic Sciences), Associate Professor, Kharkiv National University of Radio Electronics, Associate Professor at the Department of Economic Cybernetics and Management of Economic Security Department, Associate Professor at the Department of Software Engineering (part time), Kharkiv, Ukraine.

ТЕОРЕТИКО-ЕКСПЕРИМЕНТАЛЬНЕ ДОСЛІДЖЕННЯ ІРАЦІОНАЛЬНОГО СКЛАДНИКА ЕКОНОМІЧНОЇ ПОВЕДІНКИ УКРАЇНСЬКОГО СУСПІЛЬСТВА НА СПЕЦИФІЧНИХ РИНКАХ

Предметом дослідження в статті є теоретико-методичні й прикладні засади поведінкової економіки та їх імплементації для українського суспільства. **Мета роботи** – аналіз теорії ірраціональності в економічному контексті для з'ясування того, який вона має характер у сучасних українських умовах, а також підтвердження основних парадоксів, властивих поведінці індивіда в процесі прийняття рішень. У статті розв'язуються такі **завдання**: виокремлення важливих аспектів теорії ірраціональності для експериментального аналізу; визначення методології експериментів на основі міжнародно визнаних праць; висунування гіпотези щодо українських реалій; проведення експериментів за запропонованою методикою для перевірки висунутих гіпотез та систематизування здобутих результатів. Використовуються такі **методи**: аналітичний та індуктивний методи для визначення необхідного набору поведінкових експериментів та побудови гіпотез щодо їх результатів; експеримент і математичне оброблення для перевірки наявності обраних біхевіористичних відхилень в Україні. Здобуто такі **результати**: визначено, що в українському суспільстві наявна розбіжність між ступенем індивідуалістичних настроїв у різних вікових групах; доведено видозмінене сприйняття інформації різних поколінь унаслідок суттєвішої цифровізації молодого населення; детерміновано вищу схильність школярів до ризику за певних умов; установлено схожість результатів досліджень із загальноосвітніми здобутками; визначено вплив технологій на економічну поведінку індивідів і встановлено особливості, викликані історичним контекстом і розширеним доступом до інформації загалом. **Висновки**. Застосування аналітичного та індуктивного методів у поєднанні з експериментальним підходом підтвердили існування в сучасному українському суспільстві деяких класичних поведінкових шаблонів, зокрема: парадоксу Алле, ефекту обмеженої раціональності, ефекту приєднання до більшості, ефекту володіння та асиметричного домінування. Крім цього, з огляду на здобуті результати визначено, що для України є суттєва різниця між характером ірраціональності в різних вікових групах, однак визнання цього твердження за межами обраних цільових груп потребує додаткових досліджень і розгляду контексту інших ринкових суб'єктів.

Ключові слова: поведінка; ірраціональність; українське суспільство; процес прийняття рішень.

Бібліографічні описи / Bibliographic descriptions

Ховрат А. В., Тесленко Д. М., Гулієв Н. Б. огли, Кириїв В. В. Теоретико-експериментальне дослідження ірраціонального складника економічної поведінки українського суспільства на специфічних ринках. *Сучасний стан наукових досліджень та технологій в промисловості*. 2023. № 2 (24). С. 221–229. DOI: <https://doi.org/10.30837/ITSSI.2023.24.221>

Khovrat, A., Teslenko, D., Hulliev, N., Kyryiu, V. (2023), "Theoretical and experimental study of the economic behavior irrational component of ukrainian society in specific markets", *Innovative Technologies and Scientific Solutions for Industries*, No. 2 (24), P. 221–229. DOI: <https://doi.org/10.30837/ITSSI.2023.24.221>