

BEHAVIOURAL FACTORS TO ANALYZE THE READINESS FOR INDIVIDUAL CONSUMPTION

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DOI: <https://doi.org/10.31410/eraz.2018.474>

Abstract: *The basis of behavioral economics is the belief that, with the help of the realism that is characteristic of psychological theory, the economic analysis would be enriched and this would in turn improve the methodological apparatus of economic science. This improvement will lead to the generation of new theoretical insights, making better predictions of studied economic phenomena and processes. This process of enriching the economic instrumentation does not imply rejection of the neoclassical approach to the economy, based on maximizing utility, achieving equilibrium and generating efficiency, but only to enrich and further develop it. The neoclassical approach is useful because it gives economists a theoretical framework that can be applied to almost every form of economic (even non-economic) behavior [1]. A particular focus in this report is on the identification of a set of behavioral factors that are relevant to the readiness of individuals to consume certain products. J. Hammond, R. Keenny and H. Raffa publish an article that describes seven psychological traps that can negatively affect decision-making and, hence, consumer behavior [3]. D. Kanev and V. Terziev, in their paper "Behavioral Economy: Development, State and Perspectives," outline and describe these trapping factors of consumer behaviour [2]. The purpose of this report is to investigate these behavioral factors on the readiness of individual consumption and to draw conclusions and recommendations on their role and place in neoclassical economic theory.*

Key words: *behavioral economics, factors, neoclassical economic theory, economic research tool.*

1. INTRODUCTION

At the core of the behavioral economics is the understanding that increasing the realism of the psychological foundations of economic analysis will improve the economy in its own conditions - generating theoretical insights, making better predictions of investigated dependencies and suggesting better policy. This belief does not imply rejection of the neoclassical approach to the economy, based on maximizing utility, achieving equilibrium and generating efficiency. The neo-classical approach is useful because it gives economists a theoretical framework that can be applied to almost any form of economic behavior (and even non-economic) and makes refutable predictions.

2. BEHAVIORIAL ECONOMICS AND ECONOMIC SCIENCE

Economic theories should be assessed on three main criteria: ability to reflect reality, a theoretical basis, and a universal approach to the phenomena that is studied. Like all economic theories, including the theories describing the essence of behavioral economics, are assessed on

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the basis of the ability of the particular theory to give accurately and clearly predictions about the future state and development of the researched phenomena and processes. Behavioral economic theories also strive for a common nature in the study of concomitant phenomena, and economic analysis can be improved by adding one or several additional parameters to standard economic models [4]. This shows that behavioral economics does not deny the classical economic paradigm but aims to enrich it and further develop it, to deliver results (and thus seek answers and make recommendations for improving and refining the research of a number of phenomena and processes of economic life) through research tools that are not used by classical economic theories [5]. Methodological tools of behavioral economics enriched with the parameters used to analyze economic life offer a broader scope and scope and thus improve the standard model for evaluating parameter values.

In this line of thought, adding assumptions about the behavior of economic agents often makes the models less flexible. Despite the fact that behavioral economic models often add additional parameters to standard models, in some cases they are even more precise than traditional ones. A number of researchers in this field [6; 7; 11; 13; 15] note that the rational expectations of economic agents (as an element of traditional economic models) imply many hypotheses of reaction, while behavioral economic models abolish the fluctuations in the behavior of economic agents using the properties of their adaptive expectations. The same mechanism of action can be noticed in game theory where models based on cognitive algorithms often generate accurate predictions.

The general principles shared by behavioral economics as part of economic theories can be illustrated, for example, by the loss of uncertainty in economic behavior. The absolute of losses is expressed by the inconsistency between the strong reluctance to loss with respect to a reference point and the weaker desire for profits of equivalent magnitude. The intention of economic agents to protect themselves from real-life situations is a useful model for identifying their real behavior, sometimes outside the logic of classical market principles [8]. It is precisely this absolute loss that can also be parameterized in a general way because the ratio of marginal inapplicability as a result of loss to marginal profitability is intersecting is one point - the point of the best situation in which economic agents are placed, expressing their limitless desires.

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- *Microeconomics.*
- *Economics of the Public Sector.*
- *General Economic Theory.*
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3. HISTORICAL FOUNDATIONS FOR THE DEVELOPMENT OF BEHAVIOURAL ECONOMICS

Most ideas in behavioral economics are not new. They return to the roots of neoclassical economic theory. When the economics is first identified as a separate scientific area, psychology still does not exist as an established and approved science. For example, Adam Smith, the creator of the term "the invisible hand on the market," and he laid the foundations of classical economic theory with his work "An Inquiry into the Nature and Causes of the Wealth of Nations" is also the author of the book "Theory of Moral Sentiments" which outlines a number of psychological principles of individual behaviour as elements of economic observations [4]. This work by Adam Smith is a new look at the scientific horizon from then. It shows that the underlying moral principles of economic agents are the product of their intrinsic nature as social beings. It is these innate moral indices that are the basis of the individual economic behavior that economic literature describes as rational and economical. The "Theory of moral Sentiments" is a work that proves that this personal social psychology is the more faithful guide than reason. By following Adam Smith's basic views, it can be concluded that, in his view, the economic agent, driven by the desire to increase his prosperity, observing all rules of rational economic behavior, is more dissatisfied with a possible loss than with happiness than possible victory (profit) [4]. Jeremy Bentham, whose concept of utility forms the basis of the neoclassical economy, writes extensively about the psychological foundations of utility. What needs to be added is that some of his insights into determining utility factors are only beginning to be assessed [9].

The theory of Francis Ysidro Edgeworth, the economist who develops the alternative to the cardinal approach, namely the Ordinate, describes a specific behavioral situation known as the „Edgeworth–Bowley box“. It is model that shows the results of bilateral negotiations, including a simple model of social benefit. Reflecting on the historical development of behavioral economics, it is necessary to clarify several important conditions. First of all, the rejection of psychology as a scientific theory by a number of economists paradoxically begins with a neoclassical revolution that builds an image of economic behavior based on assumptions about the nature and psychology of the intelligent man (*Homo sapiens*). Secondly, at the beginning of the 20th century, economists believe (and hope) that their discipline can be defined as a natural science. At this stage of human development, psychology has just begun without the necessary features of scientific discipline. This is the reason why a number of economists at that time believe that it provides a very unstable basis for further development and enrichment of economic theory.

Despite the uncertainty of a number of economists to use psychology as a science enriching their theoretical constructs and research, studies by economists such as Irving Fisher and Vilfredo Pareto at the beginning of the 20th century include theoretical statements about how people feel and think about economic choices. Later, in the work of John Maynard Keynes, psychological insights are noticed. One cannot fail to note the fact that in economic theory a number of researchers such as George Katona, Harvey Leibenstein, Tibor Scitovsky and Herbert Simon emphasize in their articles of psychology as science. They highlight the importance of psychological principles and the limits of rationality [10; 11; 12; 15]. The conclusion that can be made is the following: despite the passage of psychology in economic research, they do not change their main direction of development.

In the context of the above, it is necessary to point out that a number of concomitant events lead to the emergence of behavioral economics. One of them is the rapid recognition by economists

of the expected useful models as normative and descriptive decision-making models of uncertainty and choice based on rationalization. This allows for an in-depth analysis of models with the expected beneficial benefits describing the behavior of economic agents [13]. As a result of this development of economic behavioral patterns, some of the first clear targets for critics of classical theory are provided. A series of seminars and lectures on the expected and subjective utility in the behaviour of economic agents began. [15] With the development of experimental psychological methods, later developments by scientists such as D. Kanemann, A. Tversky and R. Taylor described anomalies in the economic behavior, especially regarding the expected utility of making economic choices in conditions of uncertainty, but observing the principles of rationality and maximization of the benefits of economic behavior [14; 15; 16].

After this period of development of public life, a number of economists began to perceive the development of psychology as a basis for judging a new economic theory. After the 1960s, cognitive psychology was associated with a brain metaphor as an "information processing tool", replacing the behavioral concept of the brain as a "stimulus and response machine". The information processing metaphor allows a new study of previously neglected topics, problem solving, and decision making. These new themes are obviously related to the neoclassical concept of maximizing utility. Psychologists such as A. Tversky and D. Kahnemann began using economic models as a reference against which to contrast their psychological patterns [10]. Perhaps the two most significant contributions were published by A. Tversky and D. Kahnemann. In 1974 they published a scientific paper in which they argued that heuristic mechanisms of brain activity created probabilistic judgments that deviated from statistical principles. Their development in 1979, "Prospect Theory: An Analysis of Decision under Risk," confirms the existence of disruptions in the expected utility, and proposes an axiomatic theory based on psychophysical principles that seeks to explain the violations found [6].

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What has been achieved through the insight that psychology should be used for economic research purposes can be summarized as follows:

- The need to identify the normative rules and models that economists use everywhere about expected and reduced utility.
- Identification of anomalies (defects appearing outside the logic of neoclassical theory) - i.e. to outline visible distortions/deviations in the classic market model.
- Use of discovered abnormalities in order to create conditions for the development of alternative theories that build on and enrich the existing economic models.
- Building behavioral economic models to test new factors influencing the behavior of economic agents and through new economic theories to verify scientific hypotheses.

4. METHODOLOGY OF BEHAVIOURAL ECONOMICS

The methods used in the behavioral economics are the same as those used in other areas of the economy. Beginning of its development, the behavioral economics relies heavily on the evidence generated by experimental studies. In the last few years, economists who deal with behavioral economics go beyond experimentation and cover the whole range of economic methods used. Earlier papers on behavioral economics use methods such as field experiments; computer simulation and even brain scans [17; 18]. In the initial period of behavioral economy development, experiments play an important role as experimental control is extremely useful for distinguishing behavioural explanations from standard ones. Experiments involving a game element are preferred because they are made anonymous - they do not include intermediate participants, and last but not least: they are structurally simplified, which implies that potential participants may not be confused. Thus, experimental data clearly establishes that economic agents are concerned about fair behavior. Other experiments are useful for testing whether mistakes in consumer behavior habits that are usually made by individuals in psychological experiments have an impact on prices and volumes on the markets [19].

Behavioural economics methods include, in particular, experimental studies that seek to establish the use of experiments as part of the research toolkit. In line with this objective, economists who analyze the behavior of economic agents make a significant investment in developing new experimental methods that are appropriate to solve economic problems and thus: reach consensus among themselves on a number of important methodological questions. For example, experimental economists rarely collect data on demographic profiles of subjects, self-assessment, time response, and other cognitive measures that behavioral economists find useful. In behavioral economics, descriptions of the experimental environment are usually abstract, not a specific image in the surrounding world.

Economic experiments typically use the same methodology in which the phenomenon or process under investigation is repeated, but with different (mostly quantitative) data over the time that is the subject of a study. In the situation described, the data obtained as a result of the applied methods is compared with the theoretical economic concepts and the differences (and in some cases the similarities) are derived from the equilibrium state of the economic phenomena. In behavioral economics, the study of the behavior of economic agents is of great interest. For example, there is a significant difference in the behavior of economic agents relative to the type of goods and the repeatability of the decision on consumption [20]. In this context, the focus on psychological realism and the economic feasibility of research promoted by the behavioral economic outlook implies immense utility, as well as for economic agents and decision-makers.

Therefore, it is necessary to systemize factors beyond the purely market (including cost of goods, personal disposable income of the consumer, related goods and substitute goods, consumer preferences, technology and technological progress in the national economy, the number of economic agents on the market, the time of their reaction, if the economic situation changes, etc.), which are aimed at analyzing the behaviour of economic agents under the influence of the psychological traps of the subconscious.

5. BEHAVIOURAL FACTORS TO ANALYZE CONSUMER BEHAVIOUR

A specific place in this report is the establishment of a set of behavioral factors that are related to the readiness of individuals to consume certain products located in five large user groups.

John S Hammond and Ralph Keenney publish the article ("The hidden traps in decision making"), describing seven psychological traps that can negatively impact the decision-making process and hence consumer behavior [3]. D. Kanev and V. Terziev in their article "Behavioural Economy: Development, Condition and Perspectives" set and describe these factors-traps of consumer behavior [2]. Based on these two articles and the methodology of behavioral economics, this report presents behavioral factors that affect consumer readiness to decide on the purchase of certain goods and services, the factors influencing their consumer behavior. These factors can be grouped as follows:

1. The factor "giving more weight to unverified information /from mouth to mouth/ when we buy goods".
2. Factor "established habits in consumer behavior".
3. The "successive repetition of past errors in the purchase of goods"
4. The factor "neglect of contradictory information when buying goods".
5. The factor "over-confidence and overestimation of own expectations when buying goods".
6. The "caution when assessing uncertain events when purchasing goods" factor.
7. The Fault "Bad Memories of Recent Purchases of Poor Goods".

D. Ariely puts forward the idea that there are so-called "Anchors" in the psychological field of consumers. The author argues that these additional factors ("anchors") have a significant impact on consumer behavior. These factors, apart from the operation of the market mechanism, remain permanent in the subconscious of economic agents. Additional non-market factors (named by D. Ariely anchors), which influence the willingness of economic agents to consume goods and services, are extremely numerous. D. Ariely gives the following examples, characterizing typical "anchors" and leaving a lasting trace in consumer behaviour [21].

1. "Anchor" may be any new product.
2. "Anchor" may also be that the product is unusual and is characterized by exclusivity.
3. The price can also be "anchor".
4. "Anchor" is also the initial decision of the user. It is considered to have a lasting impact on consumer willingness and willingness to pay voluntarily for the product in question, regardless of its cost. Full determination for consumption speaks of sustainability in individual behavior. In traditional economic science, it is known that commodity prices on the market are determined by the balance between the production of the commodity at a given price (i.e. supply) and the desire of individuals with the purchasing power to buy that commodity at a certain price (demand) [22]. The point at which these two forces meet determines the prices of the respective commodity on the market. The idea is, of course, elegant, but it starts from the understanding that the two market forces in question are independent of each other and that the market price is formed as a function of the market [23].

The behavioural economics, and in this case D. Ariely's experiments, show that what consumers are willing to pay is incredibly easy to manipulate. Consumers are not actually able to fully control their preferences or the prices they are willing to pay for the various goods and experiences. It is of the utmost importance that they themselves can manage this process. [24]. Reflecting on this point, one essential element stands out, namely: what is the reason that manipulates and distorts consumer behavior? It turns out that this element is an integral part of the individual behavior of each economic agent and depends mostly on his personal "anchors"; all factors beyond the cost (a pure market determinant) that change the theoretical path of economic science.

6. CONCLUSION

This report attempts to define behavioral economics as an additional element of economic theory that aims to complement it theoretically and experimentally. Behavioural economics aims to increase the explanatory and exploratory power of economic theory, enriching it with more sound psychologically plausible fundamentals. Therefore, it can be concluded that behavioral economics is a direct result of the cognitive revolution. This share of economic science reflects the desire of behavioral economists to work at a level that gives them the opportunity to explain individual economic behavior not only with purely market factors, but also to add those cognitive factors that build up the emotional state of individuals. Currently, behavioral economics (as an example of cognitive science) is likely to have a major impact on the modern look of economic science, helping to improve causal analysis in economic forecasting.

ACKNOWLEDGEMENTS

This document was supported by the grant No BG05M2OP001-2.009-0034-C01 "Support for the Development of Scientific Capacity in the University of Forestry", financed by the Science and Education for Smart Growth Operational Program (2014-2020) and co-financed by the European Union through the European structural and investment funds.

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