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CONCEPTUAL FRAMEWORK OF BEHAVIOURAL ECONOMICS

Abstract: The main purpose of this paper is to systematize the characteristics of behavioural economics, and, on this basis, to highlight the differences between behavioural economics and neoclassical economics. Special emphasis is placed on the differences between the real and the rational economic man. Attention is focused on economic choice modelling under the influence of behavioural economics and the emergence of the so-called limited rationality. The paper also presents the methodological tools of behavioural economics, as well as the principles on which it is built as a modern branch of economic theory.
Keywords: behavioural economics; neoclassical economics; limited rationality; economic behaviour.

Introduction

Decision-making is an important element of conscious human life. It is among the most discussed research problems. Every person is faced daily with solving a specific problem and/or satisfying a certain need, which in turn is associated with making a choice. It can be said that human life is associated with the process of decision-making, which in many cases is quite complex and difficult. Economics focuses attention on making choices. By its nature, economics is a social science, and it is no coincidence that man is a central figure in economic reality. At the time, Adam Smith began to talk about the *economic man* and to build a model of economic behaviour. After the creation of the classical behavioural model, at the end of the 19th century, neoclassicists further developed and expanded it[1]. With the creation of neoclassical behavioural patterns, their dominance in every area of human life began. Their main purpose is to convincingly explain the behaviour of the market and its components. In addition, when the neoclassical behavioural model is established, except prices as a major signal of change in the behaviour of market participants, emphasis is placed on non-price factors related to family and accepted traditions, education and health, law, freedom, etc.

Economic Choice and Behavioural Economics

The question of the so-called *Homo economicus* is extremely important. It is associated with rational behaviour, knowing what is best for him and devoid and free from emotions. The rational person, created on the basis of the classical behavioural model, always thinks and chooses unmistakably, and his behaviour is predictable. At the base of his behaviour are the desire to maximize utility and the pursuit of maximum profit. Following the behavioural model created by the classics, the neoclassical school of economics enriched and further developed it in order to become the so-called *mainstream economy*. The latter emphasizes the individual behaviour of people, the rationality of their choices, the maximization of economic activities and especially the self-organizing market order. Of course, this enrichment on the

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part of neoclassical economics is associated with the model of the economic man, which has evolved and has been supplemented and refined over the years. In modern literature, it is referred to as the REM-model (*Resourceful, Evaluative, Maximizing Model*), or, as A. Atanasov put it, the model of behaviour of the "inventive, appreciative and maximizing person"[2].

The rational economic man, represented by classical and neoclassical theories, is a superman. He follows exactly the "written" rules of the market. The main goal in his behaviour is the maximization of economic activities, which in turn always leads to great benefits. For his part, the real economic person (as opposed to the rational one) has enormous opportunities to obtain information and process it, depending on the circumstances and the goal pursued. Like the rational economic man, he pursues his own self-interest, but sometimes reacts in a way that is not characteristic of the classical understanding of rationality. The real economic person approaches the ordinary individual who is not insured against mistakes, and who sometimes, under the influence of purely psychological factors, overcomes market barriers and shows limited rationality, and may even completely ignore it. The above is beyond the fundamental teachings of neoclassical economics, and lays the groundwork for the emergence of a new branch of economic theory known as *behavioural economics*[3].

Behavioural economics aims to put the real economic person and his behavioural reactions at the centre of economic analysis, while also making it more realistic. The result it aims to achieve by increasing the realism of economic analysis, is to make more reliable conclusions about the behaviour of market participants, and to improve the economic theory of choice[4]. Behavioural economics brings economics closer to behavioural sciences. It uses the developed methods of psychology and applies them in the process of economic choice realization. Through the thinking, reactions and feelings of economic entities in the practice of economic activities, the deviations from their rational behaviour stand out. The latter is used to formulate specific policies to reduce irrational behaviour, especially in situations of uncertainty.

It is worth to note here that behavioural economics neither appears as an alternative to neoclassical theory, nor denies it. Behavioural economics rather aims to bring a greater dose of realism to the analysis of people's behaviour and, at the same time, to apply psychological methods to study their reactions. It can be said that, in its evolution, behavioural economics uses the framework of neoclassical theory in an effort to clarify the established deviations from the real behaviour of economic agents, and to improve the already established neoclassical behavioural models. In this line of thought, many of the ideas of behavioural economics are not new and are related to some fundamental findings of neoclassical economic theory, especially with regard to the model of rationalization of consumer choice and maximizing the behaviour of market participants. In conclusion, behavioural economics is interested in individual-psychological, socio-psychological, cognitive and emotional factors as determinants of economic decisions[5]. These factors participate along with prices in the analysis of the behaviour of market participants[6].

Behavioural economics is based on the achievements of cognitive science, particularly on its contribution to the emotional characteristics in the decision-making process, and to the purely psychological features of human preferences. In this case, the achievements of economic psychology help. The latter is largely the playing field of psychologists in applying psychological insights to explain the economic phenomenon, both at the micro and macro levels. Emphasis is placed on the analysis of economic behaviour at the micro level. Modern behavioural economics deals with the application of insights that modify economic theory, and that are proven by experiments[7]. It is important to note that

[2] **Атанасов, А.** Поведенски икономикс. София: Изд. на УНСС, 2013.

[3] **Атанасов, А.** Поведенски икономикс. София: Изд. на УНСС, 2013.

[4] **Атанасов, А.** Поведенски икономикс. София: Изд. на УНСС, 2013.

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experiments are one of the tools through which economic theories and their basic assumptions are tested and developed.

The latest contributions of various developments in the field of behavioural economics are related to making the economic assumptions more realistic. Such assumptions are based on various factors: biological, sociological, institutional, and especially those of a psychological nature. Behavioural economics is much more than an economic theory describing the conditions under which economic agents operate and develop in the respective markets. In addition, behavioural economics focuses on production theory, consumer behaviour, and on the institutional conditions under which the economy operates. The main ideas are related to the refutation of the neoclassical thesis that, at any given moment, economic agents act rationally and are guided only by their own self-interest. The main findings of behavioural economics are related to the irrational behaviour of the economic person[8]. This irrational behaviour does not mean that behavioural economics runs away from the main economic goal to increase individual and social welfare. On the contrary, it also emphasizes economic benefits, but sets new conditions that are quite different from neoclassical ones.

Scientific research in behavioural economics and economic psychology has multiplied in recent years, influenced by the work of Daniel Kahneman and Amos Tversky[9, 10]. The emphasis placed by psychologists is on the cognitive traits of economic agents, and on the biases that have become an invariable component in the socio-economic model over time. In the latter, there are systemic mistakes that market participants make when making economic choices. The research goals of behavioural economics are aimed precisely at proving the thesis that economic agents are irrational in making decisions. The concept of behavioural economics is against the neoclassical constant rational behaviour of economic entities. Behavioural economics also advocates rational economic behaviour, but defines very different conditions for achieving rationalism as compared to conventional economic theories. One of the first scholars was Herbert Simon who noted that people do not always behave rationally, in accordance with the principles of economic theory of choice. The author adds that it is not correct to consider them completely rational, but rather limitedly rational (or quasi-rational)[11, 12, 13]. Rationality is limited because there are limits to mental capacity, available information and time[14]. Limited rationality is a concept proposed by H. Simon, which challenges the idea of human rationality derived from the concep*t of Homo economicus*. H. Simon developed the so-called *bounded rationality theory* as an empirically based theory, which soon after that became one of the main socio-psychological theories[15].

According to the theoretical foundations of behavioural economics, the behaviour of economic agents and its end result depends on a number of constraints, including physiological, psychological and institutional ones. The latter define a completely different mechanism for making economic choices on the part of market participants. Also, the process by which elections are updated, is systematically different from what is proposed by neoclassical economic theory. Here is the place to add that the norms,

[8] **Канев, Д.** Критиката на поведенческата икономика: подмяна или усъвършенстване на неокласическата парадигма. *Критиката на неокласическия икономикс в светлината на глобалната финансово-икономическа криза от 2008–2009 г.* ИУ – Варна: „Наука и икономика“, 2016, с. 90–101.

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rules and principles, indicated by conventional theory as ideal, often turn out to be ineffective and even inapplicable in real economic life[16].

In summary, the following important tasks for the functioning of behavioural economics can be derived:

• It is important to study and identify the causes that give rise to a particular human action, whether they are psychological, sociological, institutional, or environmental.

• It is important to understand how cognitive abilities, information, society culture, educational level and institutional stability affect intelligent decision-making.

• A particularly important moment in behavioural economics is the construction of models that maximally reflect the actual behaviour of economic entities. Research on the behaviour of individuals through the principles of behavioural economics concludes that human behaviour can be rational and intelligent without necessarily following the conditions of neoclassical economic theory. Therefore, economic theory needs a change related to updating and bringing the derived conditions closer to real life.

• Significant points of reference, which behavioural economics focuses on in order to modify them, are the neoclassical conditions for analysis of supply and demand, achieving equilibrium (individual and market), rational choice, a perfectly competitive market mechanism, economic optimum, maximizing behaviour, etc.

• The great contribution of behavioural theory is related to its requirement that economic analysis, whether at the micro or macro level, be realized under variable conditions.

Principles of Behavioural Economics

Behavioural economics uses variants of traditional economic assumptions, often combined with psychological elements, to explain and predict human behaviour. In this line of thought, behavioural economics can be presented as a series of changes rather than as a concept aimed at rejecting the traditional economy. In principle, behavioural economics adopts and refines the three basic principles of conventional economic theory: optimization, equilibrium, and empiricism[17]. Historically, behavioural economics developed much later than the rest of economic theory. However, even in the works of Adam Smith, there is the presence of the psychological element of decision-making to which the economist has devoted a special place. It can be said that psychology and economics have developed in parallel over the years.

As a separate branch of economics, behavioural economics is built on the basis of six principles[18]:

Principle 1: Despite the great desire of economic agents to choose the best possible option, they sometimes fail. In other words, mistakes are made despite people's desire to optimize economic choices. Here is the place to emphasize that largely these errors are partially predictable. The question is how to predict the mistakes that are made in the decision-making process. To a large extent, the answer lies in experience and learning. This means that experienced and knowledgeable individuals tend to make fewer mistakes than those who make decisions without experience and knowledge. An example in this direction is the process of consumption of a certain commodity. All people strive for rational behaviour, but it is achieved through various choices whereby consumers move to the best possible and thus generate experience in consumer behaviour[19].

Principle 2: Economic agents take care of how their circumstances are compared with reference points. Here a significant place is given to the way they perceive and experience losses. From a purely

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[17] **Acemoglu, D., D. Laibson, & List, J. A.** *Economics*. Upper Saddle River, NJ: Prentice Hall, 2015.

[18] **Laibson, D., & List, J. A.** Principles of (Behavioral) Economics. *American Economic Review*: Papers & Proceedings, 2015, 105(5), pp. 385–390, http://dx.doi.org/10.1257/aer.p20151047

[19] **Miravete, E. J.** Choosing the Wrong Calling Plan? Ignorance and Learning. *American Economic Review*, 2003, 93(1), pp. 297–310.

psychological point of view, individuals perceive losses several times more severely than gains. In practice, these phenomena are important for the functioning and development of market transactions. Indeed, it matters whether a person loses or wins depending on his/her reference point. Loss aversion discourages trading because each trade generates two losses and two profits (the buyer has a loss and a profit, and the seller has a loss and a profit), and the losses weigh more than the profits.

Principle 3: Individuals have problems with self-control. In traditional economic models, there is no discrepancy between the good intentions of individuals and their actions. Unlike traditional models, in modern economic models of a psychological nature, individuals plan to perform certain activities and give up at the last minute. The latter is essential for the way the market is organized and functions, and for its components.

Principle 4: Although each individual is guided by his/her selfish intentions, especially those related to material results, he/she is also interested in the intentions of others in the community outside the family. These social preferences are essential to the decision-making process.

Principle 5: In many cases, despite the desire and efforts of the market to neutralize the non-economic factors that affect its functioning, psychological factors have a major impact on economic activities. For example, if market participants act rationally, following only economic logic, it is this rationalization and their maximizing behaviour that can be delayed. The latter affects all elements of the market, especially the price level of goods and services.

Methodological Tools of Behavioural Economics

In behavioural economics, there are three theoretical schools in terms of optimality of results. One of these schools maintains that economic agents do not behave neoclassically, and that the results of such behaviour are rather optimal. Moreover, neoclassical norms of optimal behaviour yield suboptimal results. Thus, neoclassical behavioural assumptions should not be the normative basis for optimal or “rational” behaviour of intelligent choice. This perspective is clearly articulated by Vernon Smith[20, 21]. It has been proven that there are varieties of behaviours that maximize profits, and that have a positive probability of never failing. In fact, this shows that companies that maximize profits are less likely to survive in the market. The situation here is quite natural. It is expressed in the following: when experimental results contradict standard concepts of rationality, it means not only that people are irrational, but also that it is very likely that the correct model of rational behaviour is missing.

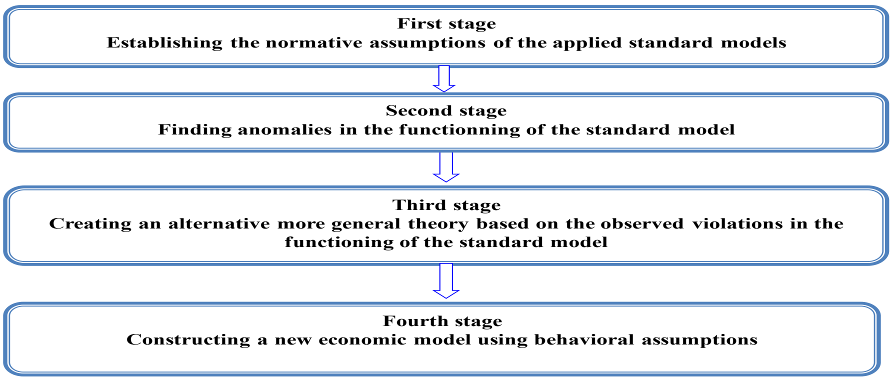

Figure 1. Methodological framework of behavioural economics

Source: Compiled by the author on Атанасов, А., Поведенски икономикс. София: Изд. на УНСС, 2013.

[20] **Smith, V. L.** Behavioral Economics Research and the Foundations of Economics. *Journal of Socio-Economics*, 2005, 34: pp. 135–150.

[21] **Smith, V. L.** Constructivist and Ecological Rationality in Economics. *American Economic Review*, 2003, 93, pp. 465–508.

Figure 1 presents the methodological framework of behavioural economics. The latter follows a strictly specific technology, including the following steps described by A. Atanasov:

First of all, the normative assumptions of the applied standard models are established;

Secondly, anomalies are found, i.e. the observed violations in the functioning of the standard model are identified;

Third, the observed imperfections of the standard model serve as a motive for the creation of alternative, more general theories in which the existing models appear as a special case;

Fourth, after the anomalies in the standard model have been found, a new economic model is constructed using behavioural assumptions, deriving new values that are checked.

Behavioural economics also supports and complements the theory of economic choice in terms of research methods, including hypothetical choice ("thought experiments"); experiments with actual results; on-site research; neuroscientific measurements, computer simulations and brain scans[22]. The whole methodological toolkit of behavioural economics is based on an analysis of the behaviour of economic entities, and on their placement in real conditions of the economic environment.

Conclusion

The essence of behavioural economics is not related to the denial and elimination of ideas in conventional theory. The goal of behavioural economics is rather to supplement, neutralize gaps and inconsistencies, and to give a more realistic look to neoclassical economic theory, taught and used to explain socio-economic activities. This more realistic view of neoclassical theory is particularly relevant in terms of making economic choices and rationalizing them. The latter presupposes the actualization of the functions of the rational man who, under the influence of purely psychological factors, is transformed into a real economic subject, often manifesting the so-called *limited rationality*.

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