ANALYZING FINANCIAL DECISIONS IN THE CONTEXT OF BEHAVIORAL ECONOMICS

DAVRANIŞSAL EKONOMİ BAĞLAMINDA FİNANSAL KARARLARIN İNCELENMESİ

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ABSTRACT

Today, behavioral economics, which emerged as a result of the interaction between economics and psychology, offers different approaches to the examination of individuals' economic behavior. In classical economics, individuals involved in economic activity are rational. However, it has been determined that this assumption does not reflect the real situation over time. In this case, individuals are not rational in the decision-making process and there is no effective evaluation under incomplete information. Even if individuals make rational decisions most of the time, they can move away from rationality under the influence of prejudices, uncertainty and risk factors. In this context, behavioral economics offers a new perspective and has recently become an important research area. In this context, the aim of the study is to evaluate the decision-making processes of individuals from a psychological perspective within the framework of behavioral economics. Accordingly, theories that are effective in the decision-making process of individuals are included. The findings draw attention to the need to consider the effect of psychology on individual behavior in studies in addition to existing theoretical approaches. In this direction, it is important for policy makers to adopt behavioral approaches in economics in order to increase the effectiveness of policies instead of only considering the rational assumption in policy applications.

Key Words: Behavioral Economics, Finance, Prospect Theory

ÖZET

Günümüzde ekonomi ile psikoloji biliminin etkileşimi sonucu ortaya çıkan davranışsal ekonomi bireylerin ekonomik davranışlarının incelenmesi için farklı yaklaşımlar sunmaktadır. Klasik iktisatta, ekonomik faaliyet içinde yer alan birey rasyoneldir. Ancak bu varsayımın zaman içinde gerçek durumu yansıtmadığı tespit edilmiştir. Bu durumda bireylerin karar alma sürecinde rasyonel olmadığı ve eksik bilgi altında etkin bir değerlendirmenin olmadığı söz konusudur. Bireyler çoğu zaman rasyonel karar alsalar dahi önyargılar, belirsizlik ve risk faktörleri etkisi altında kalarak rasyonellikten uzaklaşabilmektedir. Bu bağlamda davranışsal ekonomi yeni bir bakış açısı sunarak son dönemde önemli bir araştırma alanı oluşturmaktadır. Bu kapsamda çalışmanın amacı, davranışsal ekonomi çerçevesinde bireyin karar alma süreçlerinin psikolojik açıdan değerlendirilmesidir. Buna bağlı olarak bireylerin karar alma sürecinde etkili olan teorilere yer verilmiştir. Bulgular, mevcut teorik yaklaşımların yanı sıra çalışmalarda psikolojinin birey davranışı üzerindeki etkisinin dikkate alınması gerekliliğine dikkat çekmektedir. Bu doğrultuda politika yapıcılar politika uygulamalarında sadece rasyonel varsayımı dikkate almak yerine politikaların etkinliğini arttırabilmek amacıyla ekonomide davranışsal yaklaşımlar benimsemeleri önem arz etmektedir.

Anahtar Kelimeler: Davranışsal Ekonomi, Finans, Beklenti Teorisi

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1. INTRODUCTION

In classical economics, individuals are thought to exhibit rational behaviors in meeting their needs, providing the greatest benefit to themselves, and making the best choices for themselves. However, individuals are not completely rational beings in daily life as stated in classical economic theory. In other words, it is accepted today that individuals who are considered rational as ‘‘homoeconomicus’’ in classical economic theory cannot always make rational decisions that will maximize their own interests and benefits. It has been determined that individuals who experience the phenomenon of decision-making under uncertainty and risk do not always exhibit behaviors that maximize their own benefits.

The vast majority of classical economic theories have excluded behavioral processes from their models because there is no need to model psychological factors (Dumludağ and Ruben, 2015). However, the contradictory situations in the theories put forward by economics have formed the basis of behavioral economics and the relationship between economics and psychology; In decision making under risk and uncertainty, the inclusion of psychological processes in the analysis has come to the fore (Eser and Toigonbaeva, 2011).

It is stated that individuals trading in financial markets have an effect on investment decisions in addition to social and personal factors. Classical economics has ignored the fact that individuals can be affected by these elements. Therefore, it is not realistic to expect individuals to be rational at all times. Behavioral economics provides a new perspective on the concept of rationality and states that individuals are open to influences. At the same time, behavioral economics has become an important field in recent years, examining the decisions of individual investors in situations where rationality is limited and the effects of these decisions on financial events. Therefore, it is important to examine the financial decision-making process of individuals who make rational decisions, which is the main assumption of economics.

In this context, the study consists of five sections and the conceptual framework of behavioral economics is examined in the second section after the introduction. The mechanisms that affect individuals’ decisions are included in the third section; the literature summary of the studies conducted in the field of behavioral economics is included in the fourth section. In the last section, the general findings of the study are evaluated.

2. BEHAVIORAL ECONOMICS

Behavioral economics is a discipline that examines the effects and consequences of psychological factors on economic behavior, decisions and choices. The starting point of behavioral economics is the idea that the “rationality” assumption dominant in classical economics is not valid at all times and in all places (Aktan, 2018).

Behavioral economics, which is formed by the combination of psychology and economics, also develops with the effort to reveal how economic agents act in the market with constraints and complexities (Mullainathan and Thaler, 2000). One of the most important names in the development of behavioral economics is Herbert Simon. Simon (1956) stated in his work that human behavior is not always on a rational basis. In his work, he suggests that people’s decision-making systems cannot be expressed only with mathematical expressions or formulas. He states that the most accurate evaluations will be possible with the inclusion of other fields, especially psychology, in the evaluation process. Within the scope of these ideas, Herbert Simon developed the “Bounded Rationality” approach (Mullainathan and Thaler, 2000).

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The concept of bounded rationality expresses that people cannot always access perfect information in economic life or that if they have asymmetric information, they cannot be fully rational when making decisions and are under the influence of external factors (Alm & Bourdeaux, 2014). Similarly, bounded rationality means that willpower, rationality and selfishness are limited, and with this limited view, the information produced cannot be accessed in full, unlike a rational individual, and in this process, incomplete information is sometimes reached due to cognitive biases (Diamond and Vartiainen, 2007).

Bounded rationality, which refers to a limited problem-solving situation, prevents the individual from finding rational solutions to large and complex problems, encourages the individual to use cognitive shortcuts and causes systematic errors (Mullaithan and Thaler, 2000). Due to these errors, individuals sometimes use incorrect information when making decisions; and sometimes make incorrect inferences from correct information. With these constraints and cognitive abilities, individuals cannot make rational and optimum decisions, or they try to maximize their decisions but maximize them within a limited framework. In this limited framework, they try to make decisions with incomplete information in an environment that is constantly uncertain and unstable (Bourgine and Nadal, 2013). In this context, behavioral economics examines the effects of psychological, mental, emotional, cultural and social factors on the preferences of economic decision-making units, while also causing different aspects of classical economics to emerge (Teitelbaum and Zeiler, 2018).

3. DECISION-MAKING PROCESS IN THE CONTEXT OF BEHAVIORAL ECONOMICS

The changes experienced in financial decision-making stages with increasing globalization and liberalization could not be explained by the assumption of rationality and directed scientists to alternative approaches. There are two basic approaches to the decision-making process within the scope of behavioral economics. These are; expected utility theory and expectation theory (Hens and Bachmann, 2008). Classical economic theories benefit from expected utility theory regarding how individuals should behave in the decision-making process. Expected utility theory is based on the assumption that an individual makes a purchase choice by considering the future benefit they will receive from a good or service. In other words, individuals make consumption decisions by considering the expected future benefit, not the benefit they will receive from the goods or services they want to purchase.

In expected utility theory, expected utility is expressed by multiplying the probability benefit of a decision taken under uncertainty by the probability of an event occurring under uncertainty. Accordingly, the probability and benefit of a situation with several risky alternatives are measured simultaneously and independently (Bakırcı et al., 2021). Expected utility theory, which is used in the decision-making process to make rational choices under conditions of uncertainty and to explain economic behavior, is based on the principle of maximization of utility. In other words, individuals make choices in their economic decisions in a way that maximizes their returns and minimizes their losses (Tomak, 2009).

In Figure 1, Heracleous (1994) explains the rational decision-making process of individuals in classical theory as follows. However, individuals may not always choose the best option in their choices. The reasons for this situation include many variables such as mental abilities, memory, emotional state and psychological factors. This situation is expressed as individuals being limitedly rational instead of being rational.

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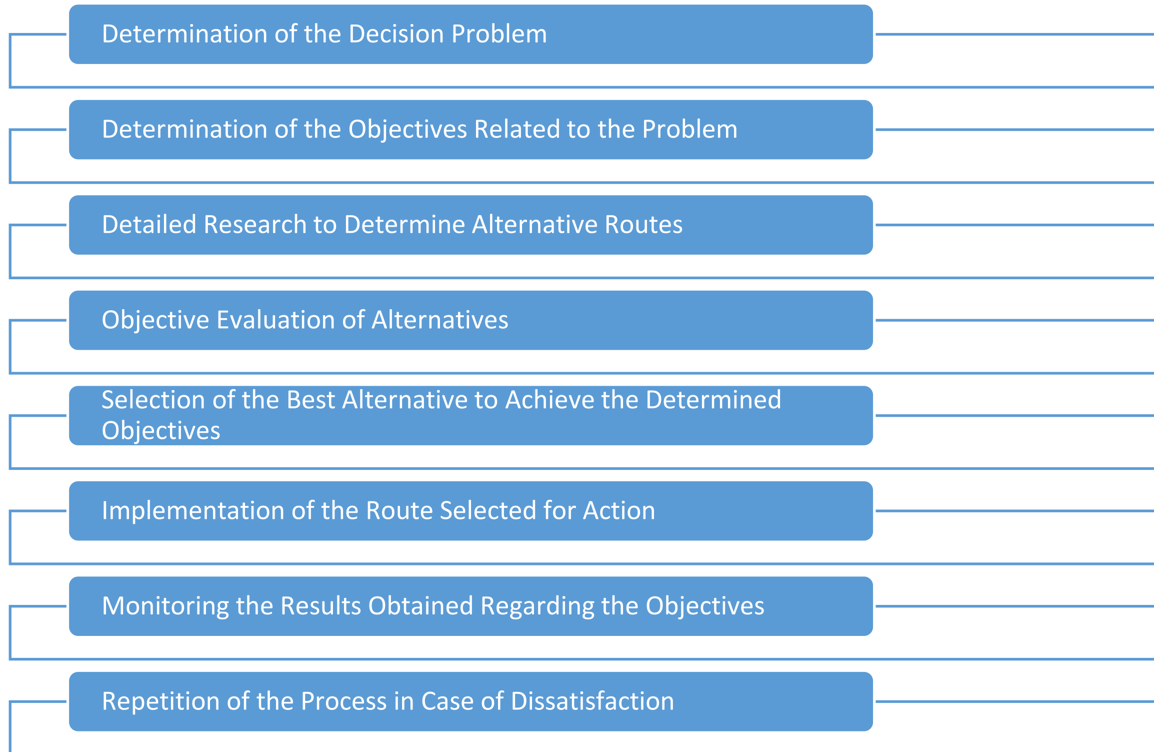

Figure 1. Rational Decision Making Process

Source: Heracleous, (1994)

Prospect theory was developed by Kahneman and Tversky (1979) by taking into account the limitedly rational individual. Prospect theory approach is an alternative analysis of individuals' decision making under risk. This theory was developed for simple expectations against monetary outcomes and probabilities, but has been expanded with multiple choice models. Prospect theory distinguishes two stages in the decision-making process: the first stage of construction and the following stage of evaluation. The construction stage includes the preliminary analysis of the proposed expectations, and expectations are shown more simply in this stage. In the second stage, the constructed expectations are evaluated and the highest expectation is preferred (Kahneman and Tversky, 1979).

Accordingly, the framework adopted by a decision maker when making decisions is listed as the modeling of the current problem, the decision maker's norms, habits, psychological state and personal characteristics (Kahneman and Tversky, 1981). Namely, according to the expectation theory, people prefer the value function, not the benefit. The economic model, on the other hand, has a concave shape due to the theory of diminishing marginal benefit. The benefit curve in the expectation theory has a concave shape above the reference point and a convex shape below it, and explains that the person avoids risk when there is a gain due to diminishing marginal benefit, and takes risk when there is a loss. Individuals thoroughly evaluate the conditions of gain and loss in the decision-making process and make decisions accordingly (Kurt, 2011).

4. SUMMARY OF LITERATURE

Today, the importance of behavioral economics as a research area continues to increase. A significant portion of the studies in the literature have been conducted in the field of finance. The vast majority of studies addressing behavioral economics in the context of finance have conducted research on financial decision-making processes. In other words, how financial information affects an individual's behavior is examined.

In the literature, Özcan (2011) examines the behavioral economics theory, which examines the behaviors of financial practitioners and their psychological effects on the market, and the extent to which individuals are affected by behavioral finance models when making financial decisions. As a result of the research, it was revealed that individuals are affected by emotional factors in the decision-making process. Çelik (2013) analyzed the relationship between the decision-making processes of individuals in Turkey and their psychology. As a result of the study, it was determined that individual investors can exhibit irrational behaviors under the influence of psychological biases in their investment decisions, and this situation reduces the efficiency of the markets.

Küden (2014) investigated the relationship between the psychology of individuals and investment instruments and investment strategies. A survey was applied to examine the preferences of individuals in the study. As a result of the study, it was determined that investors were under the influence of psychological tendencies and therefore did not act rationally. Aslan (2016) examined the factors in individuals' investment decisions with a behavioral economics approach. As a result of the research, it was determined that the factors affecting individuals' behavior were psychological and social factors.

The results obtained by Aydın and Ağan (2016) showed that individuals are affected by behavioral tendencies when making investment decisions, make systematic errors and exhibit irrational behaviors. In the research conducted in Iraq by Al-Dahan et al. (2019), it was determined that prejudices are an important factor in investment decisions. It was also understood that individuals tend to be overconfident about investments and the state of the financial market in the near future.

Metawa, Hasan and Safa (2019) investigated the relationship between individuals' demographic characteristics and investment decisions. The effect of behavioral factors was examined in the research. As a result of the research, it was determined that the age, gender and education level of individuals have significant positive effects on investment decisions. It was observed that experience does not play an important role in investment decisions, but as investors' experience increases, the tendency to ignore emotional factors increases.

Sattar (2020) found that biases have a significant impact on investment decisions made under uncertainty. In their study, Gupta and Sharma (2020) conducted a survey on the decision-making process of randomly selected individuals in India. According to the survey results, it was determined that individuals living in the country are not rational and are affected by psychological biases when making investment choices. Ersoy and Öze (2022) aimed to determine teachers' investment preferences, reveal cognitive biases and heuristics, and determine the relationship between investment preferences and financial behaviors. The results of the study show that cognitive biases and heuristics are effective in teachers' financial decisions.

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5. CONCLUSIONS

Today, research on behavioral economics, which aims to develop new theories, has continued to increase in the last twenty years. Behavioral economics, as the intersection of psychology and classical economics, examines the decision-making processes of actors and organizations within the economic system, and, contrary to the rational individual assumption of classical economics, argues that individuals are limitedly rational. The reason for this is that the rationality assumption is insufficient to explain many situations we encounter in real life. In real life, the future and therefore the results of the decisions taken are not fully known. Moreover, contrary to the full information assumption, it is not possible for individuals to have complete information in a homogeneous manner.

Under the variable and dynamic structure of the modern world, in an environment dominated by uncertainty, individuals make decisions within the scope of their cognitive abilities. This situation reveals the need for a psychological framework and the explanations provided by behavioral economics in order to understand the individual. Although it is more enlightening to explain the individual within a cognitive framework in the face of uncertainty rather than explaining it with a mechanical understanding, it is important to evaluate individuals within the framework of behavioral economics, especially in decision-making processes. At this point, behavioral economics analyzes the decision-making behaviors of individuals and explains financial findings with psychological and sociological elements. In this context, as a result of the interaction of psychology with economics, the examination of individual behaviors by economists offers new approaches to policy makers, and the integration of behavioral economics approach to macroeconomic theories of countries paves the way for different solutions in an environment of uncertainty.

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