STUDY ON THE INFLUENCE OF PSYCHOLOGICAL FACTORS IN FINANCIAL DECISION-MAKING

Mihaela GÂDOIU[1]

[1] Faculty of Economics, University of Pitești, mihaela_gadoiu@yahoo.com

Abstract: *This paper aimed to highlight how the behavior of managers is influenced by psychological factors. The main objective was a review of the factors of a psychological nature, both under the positive and negative effect, on the actions taken by the managers in the decision-making process. The presented theme emphasizes that managers faced with the adoption of decisions that involve performing complex analyzes by processing a large information volume, are tempted to make assessments based on personal beliefs, perceptions, expectations or subjective interpretations.*

Key words*:* Decision-making process; Financial decisions; Behavioral economics and behavioral finance; Experimental economics; Psychological factors.

JEL Classification Codes: G02, G11.

1. INTRODUCTION

In recent years, particular importance has been given to the study on how to make decisions under the influence of increasingly different parameters and factors. Based on financial information, financial decisions have an essential role in the development of economic entities, influencing the behavior of all parties involved but especially the behavior of the financial manager.

The approach of the way of making financial decisions has a great diversity, as the reactions of the managers are very much determined by the problems of the environment in which they carry out their entire activity. The complexity of the financial manager's behavior is also given by the multitude of factors that directly or indirectly influence the investment or financing decision-making process.

The purpose of this article is to carry out an analysis of the role of psychological factors in the process of making financial decisions, starting from the idea that these decisions are made similarly to emotional ones and that decision-makers are at the base of people on whom cognitive, emotional and subjective factors inevitably act, working together in decision-making. The influences and effects of psychological factors on the financial manager are studied and investigated by behavioral economics and behavioral finance. Although the idea that the emotional influences involved in decision-making suggest negative consequences, current research proves that emotions and human psychology are important factors in the decision-making process that are sometimes welcome in making financial decisions.

2. MATERIALS AND METHODS

This article has followed a methodological strategy that can be framed in the classical research patterns, by combining the theoretical approach with the empirical approach to the research problem. The approach achieved through this research activity is based on the general research problem, identified by the question: "What is the influence of psychological factors in the decision-making process?"

The theoretical approach was based on the bibliographic study of the relationship created between psychological factors and financial management, in the sense of analyzing the inter-connections existing between these concepts. The main sources of theoretical data were represented by the scientific works and researches of the authors, such as: Străchinaru (2016); Pătraşcu (2008); De Bondt et al., (2008); Akerlof & Kranton, (2000); Conlisk (1996); Krugman (2009); Jung C.G. (1997).

The empirical approach is based on the quantitative and qualitative analysis of the studies and topical publications of some professional bodies (publications of C.E.C.C.A.R., of A.N.E.V.A.R., etc.) regarding the analysis of psychological factors and their effects on financial decision making;

In order to achieve the purpose of this article stated above, we also used other research methods such as the descriptive method for structuring psychological factors and their effects in the decision-making process, the synthesis method for establishing causal links between psychological factors and financial decisions, the analytical method to obtain an analysis of the theoretical approach to financial decisions, psychological factors and their role in the decision-making process.

3. THE INFLUENCE OF PSYCHOLOGICAL FACTORS IN FINANCIAL DECISION-MAKING

Man, by nature, is a social being, and as a result, all the actions and activities he undertakes have a human, social side. The economic entity is a social organization that brings together several participants in its activity, both from the internal and external environment (Străchinaru, 2016). According to the explanatory dictionary of the Romanian language, the decision represents a decision taken after examining a problem, a situation or an adopted solution (Academia Romanian, 2009). Decision-making is one of the most important economic processes.

In the encyclopedic dictionary, management is described as the set of organizational and leadership activities for the purpose of making optimal decisions. As a decision-making center, management is represented by the person or group of persons with formal authority, on the basis of which decisions are made that influence the financial activity. Economic entities are headed by CEOs, managers of different categories who make financial decisions, such as, for example: the constitution and adequacy of capital, investments or profit allocation, etc. Behind all the legal and organizational regulations that define the economic entity, there are a lot of human characters, of different psychologists who are subject to the influence of prejudices, emotions and the social environment. After all, managers are people and people are very different from a biological point of view, genetically, in terms of education and training, experience, but also in terms of opportunities or other aspects related to the conjuncture.

Taking into account the fact that the decision-making process involves the analysis of variants for the purpose of an optimal result, it can be rational or emotional, based on concrete, real or presumed elements. The process can be a very fast one or it can involve the collection of the necessary data and the thorough analysis of the variants and their results.

In classical economic theory, only economic and objective factors are taken into account in the decision-making process, being ignored the psychological ones that most of the times, have a strong impact in making financial decisions. In other words, classical finance has as a starting point premises of strict rationality and optimization of financial decisions. The shortcomings faced by traditional theories in finding explanations to increasingly different behaviors have led to the use of a new field on the border between economics and psychology. It's about behavioral economics and behavioral finance. Behavioral economics and especially behavioral finance measure the influences of psychological factors as well as their effects on the decision-making process. In other words, behavioral finance additionally comes with the psychological and emotional aspects of the decision. This approach led to the emergence of a subdivision of behavioral economics, namely experimental economics that studies the psychological process in economic behavior, presenting multiple evidences that support the importance of psychology in the decision-making process.

The emergence of behavioral economics was a good opportunity to analyze how financial management makes decisions under the influence of psychological factors, questioning the traditional methods of modeling the behavior of managers.

The research carried out in recent years has been oriented towards understanding the reasoning patterns of the financial manager, the emotional processes and the degree to which they influence the decision-making process, in order to look for explanations that clarify the shortcomings in the decision-making process.

From a purely theoretical point of view, it is appreciated that financial managers are able to synthesize the relevant information and evaluate it objectively. In reality, a number of mental and emotional factors intervene that are difficult to separate into a system of analysis. Most of the time, these factors favour good results in the decision-making process, but may also generate unfavorable results. Following the observations and tests carried out, the researchers have come to the conclusion that, quite often, people's beliefs are predictable about distorting the way decisions are made. In most cases, the source of the problem is a cognitive one. The decision-making process by which managers discover things themselves, after going through different experiences, leads to the outlining of general aspects of decision-making (De Bondt et al., 2010):

- human intuition is fragile – the basic investment principles are not studied by any person who makes an investment, therefore people are subject to errors related to prejudices or act according to patterns;
- reconsideration of the decision-making process – the financial choices are identical to those in the medical or consumer goods field;
- personal beliefs are relevant in the financial field, rationality is not ubiquitous in real life.

Other authors (Akerlof & Kranton, 2000) have highlighted the connection between the person's identity and the financial decisions they make, explaining that the degree of contentment increases once the person makes decisions that improve his personal image and also the degree of satisfaction decreases when decisions negatively influence his identity.

Conlisk (1996) considers that there are sufficient reasons for incorporating cognitive distortions into the process of making economic or financial decisions:”There is a mountain of experiments in which people: display intransitivity; misunderstand statistical independence; mistake random data for patterned data and vice versa; fail to appreciate law of large number effects; fail to recognize statistical dominance; make errors in updating probabilities on the basis of new information; understate the significance of given sample sizes; fail to understand covariation for even the simplest 2X2 contingency tables; make false inferences about causality; ignore relevant information; use irrelevant information (as in sunk cost fallacies); exaggerate the importance of vivid over pallid evidence; exaggerate the importance of fallible predictors; exaggerate the ex ante probability of a random event which has already occurred; display overconfidence in judgment relative to evidence; exaggerate confirming over disconfirming evidence relative to initial beliefs; give answers that are highly sensitive to logically irrelevant changes in questions; do redundant and ambiguous tests to confirm an hypothesis at the expense of decisive tests to disconfirm; make frequent errors in deductive reasoning tasks such as syllogisms; place higher value on an opportunity if an experimenter rigs it to be the "status quo" opportunity; fail to discount the future consistently; fail to adjust repeated choices to accommodate intertemporal connections; and more.”

Statman (2010), for its part, is of the opinion that normal decision-makers, unlike rational ones, are not immune to emotional states that are divided into **hot states**, such as anxiety, fear, greed, courage and states of cold, rational calm. The difference between how they behave in hot and cold states, is known as the empathy gap. During hot states, decision-makers are prone to make mistakes that can, very likely, lead to losses.

And Krugman (2009), a Nobel laureate, believes that modern economic science should also consider the concepts of behavioral finance.

Psychologist Carl Gustav Jung, divides the four psychological functions that are a priori available to any person, into two categories: **rational** (thinking and feeling) and **irrational** (sensation and intuition).

Thinking to be effective must be logical and rational.

Feeling is used to make value judgments regarding inner or outer events, thus determining whether they are pleasant or unpleasant, good or bad, etc.

Proponents of behavioral finance are of the opinion that some financial managers may exhibit irrational characteristics and that by their behavior they could affect the outcome of financial years. In this context, managers' sentiment becomes a key factor that can explain the presence of distortions occurring at the level of economic entities.

Sensation is the tool with which the objective data of the senses are consciously processed and perceptions of the environment are built.

Intuition is the instrument with which it is possible to make inferences on the possibilities inherent in a situation subject to consciousness at a given moment.

Psychological factors which can exert influence in the decision-making process are shown in the figure below:

Table no. 1 Psychological factors which influence the decision-making process

Perception	is formed on the basis of sensations that are transmitted through the senses and are organized and interpreted in order to obtain a coherent picture of the analyzed phenomenon
Learning and memory	decision makers are exposed to a wide range of information every day but they retain only the information they are interested in or the information that is important to them
Motivation	is the internal force that activates certain needs and indicates the direction to follow to satisfy the needs
Attitudes	are learned predispositions towards people, objects or events. In order to understand consumer behavior, it is important to know how attitudes are formed and how to measure them
Ego/Self	is a very complex structure, composed of several attributes that, in general, refer both to the beliefs that an individual has formed regarding his own qualities, and to the way in which the decision-maker evaluates these qualities

The profile of the financial manager seen from the two perspectives, classical (traditional, standard) and behavioral (irrational), can be traced in the table below:

Table no. 2 The profile of the financial manager

Classical finance	Behavioral finance
Decision-makers are rational, they focus on the ideal conditions under which decisions should be grounded and made. An example is the manager with freedom of action and far too confident in his own professional skills that indebted the company excessively, making it vulnerable to the risk of insolvency.	Decision-makers are normal, they may have fear of losses, they are attracted by big gains, enthusiasm and resignation, interest and disinterest, optimism and pessimism, states of euphoria and panic.
The decision-maker unconditionally accepts the hypothesis of a perfectly rational investment project, based on a set of hypotheses that could only be demonstrated by oversimplifying reality.	The decision-maker takes into account the natural flaws of human nature: aversion to losses, limited rationality, refusal to risk.
The decision-maker fully understands the decision-making situation and has well-defined goals so that he will not have difficulties in identifying the project with maximum utility, but the decision taken is impartial and maximizes his own interests, risking to be "sanctioned" by poor results.	Investment decisions have the greatest potential for irrationality as they are characterised by a particular complexity stemming from the nature of the decision-making criteria.

As a result of the research in the field of behavioral finance, the following remarks were pointed out regarding the management:

- *the manager is more motivated by the fear of losing than by the rewards generated by the good investments*

Financial decisions, in particular investment decisions, are intended to achieve gains. After accepting the financial project, the fear of losing the invested value arises. That is why, in many situations, it is preferable to block the availability of money in an economic good, refusing to accept that they have not made a good investment decision.

- *the manager has his own opinion*

Information about inefficient investments is easily ignored, even when they are aware that they may lose. Many times, for no reason, they resort to irrelevant information to maintain the decision they want to make.

- *the manager is self-confident when he has low information volume*

When the information volume is low, the manager should be less confident to be able to avoid unwanted events.

- *the manager has greater confidence in detailed analyzes than in simplified ones, but with much more important information.*

They are attracted more quickly to a document with an attractive graphic design, than to a smaller document that often provides more relevant information in the process of making a decision.

- *managers are too optimistic when anticipating random events.*

Erroneously, they think about the fact that past events have connections to future events.

- *managers encounter problems in decision making especially when they have to make choices between several investment projects with the same value.*

Most of the time the choices made are random, without a detailed analysis based on the calculation of appropriate indicators.

4. CONCLUSIONS

In today's modern world, increasingly shaken by unfortunate events such as the pandemic and war, the attention of researchers has turned to an analysis of human behavior, especially those who make financial decisions. Unfavorable events have generated countless questions such as: are decision-makers truly rational people or are they driven by emotions such as fear, greed or other feelings that could lead to making inappropriate decisions? Thus, a significant part of the financial studies broke away from the specific models of classical finance, developing through the support of psychology a new branch, behavioral finance. Research undertaken in this area has allowed the identification of behavioral patterns with biological origins that are difficult to avoid by financial managers.

From purely technical analyses and simple computational algorithms, the researchers took into account more the analysis of the psychological profile of decision-makers, so that it came to the finding that the influence of psychology in the decision-making process is a significant one. Theoretical and experimental works stand as a testimony to how people behave within a financial framework, more precisely, how the psychological field affects financial decisions. Numerous studies have shown that managers make decisions based mainly on emotions rather than logic. Psychologists have provided evidence to prove that financial decisions are made in a seemingly irrational manner. They have shown that cognitive errors and extreme emotions can cause managers to make financial decisions that are sometimes not the best.

Despite the theories that everything can be imagined extremely clearly with the help of flexible models, the economic environment turns out to be, each time, much more complex and much less predictable than it is captured and analyzed. Even so far, theorists have not been able to fully understand how the human mind works in order to be able to provide undeniable explanations of how decisions are made.

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