# HOW BEHAVIORAL ECONOMICS INFLUENCES FINANCIAL EDUCATION

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***Abstract:*** *Financial education tied with behavioral economics can result in a new way of looking at how to improve the skills and attitudes of people, whether when budgeting, saving, or investing. It provides a new perspective on why it it necessary to study view the way people act when spending. Even though each person is unique, the behavioristic patterns are not so unique. Some people tend to spend chaotically or on impulse, while others tend to be generally very organized when it comes to money. This paper shows a set of findings done in these two fields.*

***Keywords:*** *financial education; behavioral economics; environmental traps; biases*

***JEL Classification:*** *A20; G4.*

## 1. INTRODUCTION AND OBJECTIVE

This paper shows the results of research done on topics of behavioral economics and financial education. Its main goal was to review the teachings of behavioral economics, to better understand how financial behavior may be driven by systematic biases and heuristics, beyond the scope of purely rational decision making. These findings show how to improve financial education programs and offer recommendations to improve their effectiveness.

The paper is structured as follows: it starts with a definition of behavioral economics and then it offers a brief history of this realm of economics. After these introductory chapters, it is argued that while financial literacy has become a fundamental skill for navigating today's complex world, research shows that incorporating behavioral insights into financial education programs is essential if policymakers aspire to change consumers' behavior.

## 2. WHAT IS BEHAVIORAL ECONOMICS? A BRIEF HISTORY

The human behavior economic model is somewhat utopic and it is rarerly seen in society. It has three parts as follows:

- unbounded rationality;
- unbounded willpower;
- unbounded selfishness.

However, people rarely act adn take decisions in a rational manner, based on costs and benefits, as they should. They are also influenced by societal norms, friends and their peers, and they tend to follow trends. Their preferences depend on the related context and their mental models that are influenced by society. People are heavily influenced by society and their spending patterns could sometimes be tailored in a way that follows group mentality (close circle of friends, family, etc).

Of course, people are not robots nor calculators. They cannot be one hundred percent rational or be aware of every negative trait of their behavior. Preferences might change over time and psychological factors have a say over how people are acting. The perfect case scenario would be that people have sheer power of will and discipline, but in most of the time they do no to possess high degrees of self-control individuals often lack self-control, even if they know that the decisions they take are affecting their lives in a negative way.

Behavioral sciences study human behavior, how people take decisions and why they act in a certain manner. Scientists take into consideration various traits from happiness, sadness, anger, how individual act in society, etc. Behavioral insights research spreads across various social sciences, such as economics, psychology, psychiatry, or neuroscience.

Herbert Simon, one of the brightest minds in this field and Nobel prize winner, is considered the father of behavioral economics. In 1947, he coined the concept of administrative man, an individual that acts in a that acts adequately. This is opposed to the individiual that seeks only maximization. In 1957, he refered to the bounded rationality concept as a more realistic approach to how human act when faced with various challenges. The resources available to an individual are limited, and as such people try to save up on time when they take decisions in order to obtain the best results for their lives.

The psychologist Daniel Kahneman, another Nobel Prize winner, heavily studied heuristics and behavioral biases. It is known that people tend to adopt mental shortcuts as a faster way to get to the end of the decision process and make it simpler. A vast majority of people do not do their own research and, as such, the outcomes are not th best.

Today, economists widely accept the idea that people are in their majority irrational. So much so, that they are susceptible to making bad choices throughout life, with the “help” of systematic biases and anomalies that contradict the predictions of models populated solely by homo economicus. This contradidction between a somewhat utopic state of rationality and the actual real financial behavior of people has led Richard Thaler, probably the most influential researcher in the field of behavioral economics, to split the population into “Econs” and “Humans”. Econs, according to Thaler, are “people who are economically rational and fit the model completely (Homo economicus). Humans are the vast majority of people” (or Homer Simpsons, as he described them in many of his lectures).

## 3. CONSUMER BEHAVIOR AND FINANCIAL EDUCATION

In the current social and economic cliate, the financial marketplace has become even more complex and it changes daily due the evolution of technology and financial products. Consumers have more opportunities to manage their finances, but increased complexity makes them more vulnerable to financial fraud and more prone to unwise financial decisions. But with these changes, come high risks. Even if consumers have various products tailored for their need, they are also exposed to frauds and are even more susceptible of making unwise financial decisions.

In the last two decards, both state and private institutions have taken into consideration the importance of financial education and efforts to tailors policies to improve the financial educations levels of citizens have been made. However, very often, financial education initiatives have targeted budgeting, savings and investing concepts, how can an individual manage their expenses or how can they take wise financial decisions.

In the last years, it has been argued if providing solely financial information and knowledge can be enough to positively impact the financial behavior of people and to make them take better financial decisions. If they attend various classes, courses, or financial education seminars, they might not succeed in understanding, retaining, or using the knowledge provided. More so, the teaching techniques might not be suitable for some participants' needs and might not fully convey the financial content. Other times, programs might be rushed or too short and attendees may find them dull or too technical to understand.

Even in less traditional financial education programs, which are not solely focused on providing financial information but also try to influence attitudes and behavior, psychological factors may limit their effectiveness. People may feel motivated at the end of a program to begin taking financial decisions that better suit their lives and needs, they might get bored in the long term and their decision-making process could negatively impact their lives. If people do not have self-control mechanisms in place while spending and this could impact their lives negatively, they could also struggle if they do not have the confidence to devise a plan, stick to it and follow it. As such, chaning their financial behaviors might be very difficult.

These factors come into play when people want to buy goods and services or when they make investments. Because of this, people could end up overspending, buying assets when there is a bubble on the market, or they might even fall victims to different sorts of financial frauds, even if they have strong levels of financial knowledge.

Behavioral biases not only impact and hinder saving levels and investment decisions, but also affect taking-up educational initiatives and the way people understand, and use the information provided. Overconfident people, for example, could very well tend to discard information, act according to their beliefs, and reject signals that come from the market.

In light of a growing awareness of the importance of behavioral biases, recent studies have pointed to the need to incorporate behavioral insights into financial education programs to enhance their effectiveness. OECD and IOSCO's study "The Application of Behavioral Insights to Financial Literacy and Investor Education Programs and Initiatives" argues that, on one hand, behavioral insights and their applications to financial education are very important, and, on the other hand, it is necessary to focus on ways to diminish or even wipe out the effects of behavioral biases. The study shows strategies that may alter the decision environment bi either using incentives or changing the context of choices.

The OECD/INFE has also devised a set of ideas considered to be efficient for governments, regulators or institutions that deal with financial education and could be implemented in the financial education programs.

The ideas are meant to:

- Find both the problem and solution to different behaviors and intervene where and when needed;
- Build knowledge from the bottom up;
- Create thought leadership and inovate by using both old-schoold and new approaches on financial education and behavioral economics;
- Review programs and initiatives on a regular basis.

Drawing from psychology and cognitive sciences, behavioral economics research shows various barriers that may impede the general consumer to act healthy and take the best financial decisions for their lives.

## 4. BEHAVIORAL BIASES AND ENVIRONMENTAL TRAPS

This section describes the systematic biases most frequently used by behavioral economists, which should be noticed when incorporating behavior insights into financial education programs. These biases or barriers are cognitive and social-psychological factors that make it hard for people to act in their best interest.

The biases are presented according to three broad categories of anomalies as used by DellaVigna (2009): non-standard preferences, non-standard beliefs; and non-standard decision making.

Non-standard preferences are time inconsistency, where the individual preferences may not be stable and can change over time. Hyperbolic discounting is the best-known form of time inconsistency (or the tendency to discount the future more steeply in the immediate rather than the distant future). Many models that incorporate time inconsistency, self-control problems, and procrastination can explain undesirable aspects of financial behavior, particularly in the context of saving for retirement and credit card use.

Reference dependence is the perception of value in relative rather than in absolute terms. The presentation or framing of choices becomes critically important, as preferences may be reversed when the same problem is framed in different ways.

There are two types of reference dependence:

- Loss-aversion happens when individuals weigh the negative utility of losses more than the positive utility from the same amount of gain;
- The endowment effect leads individuals to value of objects that they are endowed more than their actual willingness to pay for the same object;

The above two combined can result in status quo bias or an inherent preference for one's current state.

Narrow framing refers to the tendency to treat the outcome of the decision in isolation.

Mental accounting happens when individuals organize, evaluate, and keep track of financial activities in a manner analogous to real accounting systems. Sources and uses of funds tend to be grouped using categories (housing, food, etc.) with implicit or explicit budgets, and balancing of these "mental accounts" may take place at particular intervals.

Social preferences – Researchers have found that the savings and investment decisions of community members and peers have a causal effect on individual saving and investment decisions, through direct social interactions such as straightforward word of mouth or learning by observation. The actions of other people can influence financial behavior in a non-trivial way; although sometimes this can be helpful, it can very much contribute to the pressure of keeping up with the Joneses through conspicuous consumption (acquiring luxury goods/Veblen goods).

Non-standard beliefs are overconfidence and over-optimism. Two aspects of overconfidence are particularly relevant to household finance: overconfidence about one's inherent ability and over-optimism about the environment. In the first case, we observe that individual self-assessment generally tends towards overestimation of one´s abilities and in the second case they tend to consistently underestimate the probability of negative events across multiple domains (e.g. natural disasters, hospitalization or falls in stock prices). Both types of overconfidence can lead to excessive risk-taking or other mistaken decisions.

Non-standard probabilistic thinking - Studies and reasearch done in the psychology science field found that most people do not have realistic expectations and beliefs about what risk means. One common tendency is to overweight immediately-available information and to draw false conclusions about how accurate that information represents the underlying reality.

Non-standard decision-making refers to limited attention One important hypothesis is that attention itself may be a scarce resource: individuals fundamentally may not have the cognitive capacity to process all the information in their environment simultaneously. Limited attention can lead to decision-making that is disproportionately affected by the saliency of information and stimuli.

Emotions and affect come from the neural systems that drive human emotions have evolved for survival purposes, playing an adaptive role by speeding up decision-making in response to particular automatic triggers. These naturally-occurring responses may be helpful in short-term situations where quick responses are necessary or disruptive when longer-term perspectives should prevail. Emotion can have both positive and negative effects on decision-making, depending on the context (hot and cold states).

People's financial behavior is not only influenced by systemic biases but also by environmental traps. Marketing and design have always used human psychology insights to create and advertise new products and services. Businesses, brands (either smaller or bigger), or stores want to attract as many customers as they can into their shops. They use different marketing tactics, which may become traps from a customer's point of view.

A consumer may go to a store to buy something he needs but ends up buying additional items that are not a necessity. This could lead him to spend more money on clothing than anticipated and he may need to use his credit card and run into debt to buy food or pay bills at the end of the month, but buying those new clothes made him feel good at the time.

Some of the methods used by merchants to attract customers into buying products are:

- Offering discount coupons or giving out free samples and gifts to customers who buy expensive products;
- Offering special prices, discounts, or purchase conditions, via email or SMS, at special occasions like Black Fridays, Cyber Mondays, Christmas, Easter, or New Year periods;
- Launching flash sales, which are typically online 12-24h special sales with really high discounts on some items;
- Creating loyalty reward programs, which incentivize costumers to spend more money so that they can get products for free or with discounts, once they reach a certain number of loyalty points (these may include VIP experiences with platinum, gold, silver, or bronze loyalty cards);
- Creating referral programs, whereby customers are rewarded with discounts or special offers if they refer other customers, namely by sending their names and emails;
- Creating in-store events and festivities, which may include special prices or discounts, when opening a shop for the first time in a new country, city, or shopping mall;
- Cross-promoting with other businesses: if you shop at store A you might get vouchers or gift cards when you shop at store B and vice-versa.

These techniques are not bad, but people need to be aware that certain tricks exist and that if they are avoided, it could be better for personal finance.

A lot of improvement and work still need to happen in this area but what is most important is that behavioral economics and financial education are strongly related.

On one hand, there's the psychology and the behavior that defines every single human being, and on the other hand the individual finances. So, if the two are tied together, then people can learn how to better their financial behavior.

Surely capable institutions will develop programs, materials, and everything that needs to help them do that, including the most important component of a successful program, and that is the human resource.

If the institution has very well-trained specialists, together with strong supportive programs, materials, games, video, or even present good and bad examples from society in whatever topic they are talking about at that point, then success will be guaranteed, although success never comes easy.

Moreover, certain elements of financial education knowledge have to be taught from an early age. This is desirable because a healthy behaviora can be molded from a young age. If children learn the value of money since kindergarden (this would be the best case scenario), then they can respect to a higher degree their parents work and understand how much effort they put into providing a steady income for their family.

In these dire and challenging times, people need to understand that only a healthy financial behavior could lead to progress and financial disclipline.

Financial education is an intensely debated subject. It needs to be taught in primary schools, high schools and universities and in Romania, it has been mandatory in the school curricula since 2020, starting with the eight grade. The future generations of bankers can learn from a young age how the banking system works, what is the role of the central bank in the economy and they can also acquire knowledge on the softer side of banking, such as the history of money or the banknote's safety features.

Financial education should be done from the bottom to the top. That way it could help individuals to understand better the opportunities and risks of  inancial markets. It could also teach them if  certain investments in these markets are feasible. It could also help people understand and learn new things about financial products and services that could better fulfill their daily needs.

This world is ever changing. Financial markets are shitfing at an accelerated pace, competition is growing, every day new technologies emerge. This aspects will have an important impact in both financial and non-financial markets

Lastly, for a better reach of financial education, there needs to be a good cooperation between the central bank, private sector, state instituions, schools, universities and so on. This will ensure that financial education will reach the majority of population and maybe, just maybe good things will come out of this effort.

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