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BEHAVIORAL APPROACH TO FINANCIAL SERVICES: DECISION MAKING ERRORS AND BIASES

The article provides an overview of various theories of behavioral finance and some of the best-studied mistakes that often manifest themselves in the financial market. Behavioral finance, a sub-field of behavioral economics, argues that the financial practices of investors and financial professionals are influenced by psychological illusions and prejudices. In addition, cognitive biases and prejudices may be used to describe all forms of market anomalies and, especially, stock market anomalies, such as extreme increases or declines in stock prices. Studying decision making errors and biases in the financial market is very important for understanding how financial markets work in reality. Based on author's experience as an employee of the banking sector, observations were made about the manifestation of such errors in the financial market of Lebanon.

Keywords: *behavioral finance; cognitive biases; financial market; stock market; behavioral economics; banking sector; investment; Lebanon.*

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ПОВЕДЕНЧЕСКИЙ ПОДХОД К ФИНАНСОВЫМ УСЛУГАМ: ОШИБКИ И ПРЕДУБЕЖДЕНИЯ В ПРИНЯТИИ РЕШЕНИЙ

В статье представлен обзор различных теорий поведенческих финансов и некоторые из наиболее частых ошибок на финансовом рынке. Поведенческие финансы как подраздел поведенческой эко-

номики утверждают, что на финансовые решения инвесторов и финансовых специалистов влияют психологические иллюзии и предрассудки. Кроме того, когнитивные предубеждения и предрассудки могут использоваться для описания всех форм рыночных аномалий и особенно таких аномалий фондового рынка, как резкое повышение или снижение цен на акции. Изучение ошибок и предубеждений при принятии решений на финансовом рынке очень важно для понимания того, как финансовые рынки работают в действительности. На основании опыта автора как сотрудника банковского сектора были сделаны наблюдения о проявлении подобных ошибок на финансовом рынке Ливана.

Ключевые слова: *поведенческие финансы; когнитивные ошибки; финансовый рынок; фондовый рынок; поведенческая экономика; банковский сектор; инвестиции; Ливан.*

Behavioral finance is an analysis of the psychological effect on investors' or financial analysts' behavior, the resulting impact on the markets are also included. It focuses on the fact that investors are often not rational, have self-control limits [1]. Behavioral finance, a sub-field of behavioral economics, argues that the financial practices of investors and financial professionals are influenced by psychological pressures and prejudices. In addition, these forces and prejudices may be used to describe all forms of market anomalies and, especially, stock market anomalies, such as extreme increases or declines in stock prices [2]. The behavioral finance area asserts:

1) human action, rather than «rational», is motivated by fear and greed;

2) people may be self-destructive, compassionate, religious, and be willing to volunteer to support others rather than be «self-interested»;

3) people are exposed to nearly an unlimited amount of information rather than «perfect information», and most do not evaluate or search for the most important market data [3].

Studying decision making errors and biases in the financial market and their mechanisms is very important for understanding how financial markets work in reality. Here is an overview of some of the best-studied decisions and mistakes that often manifest themselves in the financial market. Based on author's experience as an employee of the banking sector, observations were made about the manifestation of such errors in the financial market of Lebanon.

Disposition Bias refers to the thought of investors is that they sell their «winners» and hold on to their «losers». When an investment loses value, investors want to get back to their initial price, they will hold onto it. Investors appear to accept quickly (when there is a gain) that they are right about an investment. Investors, however, are hesitant to accept that they have made an investment error (when there is a loss). The weakness in disposal bias is that the investment's success is always tied to the investor's entry price. In other words, investors calculate the success of their investment by disregarding the fundamentals or qualities of the investment that may have changed, based on their individual entry price [2].

When a customer invests through Lebanese banks in different investments services provided like stock, bonds and forex market, and this investment defaults, the investors refuse to admit that they made wrong decision and holds into this investment hoping to get back to its initial price, especially in this period of time where Lebanon is suffering from various financial difficulties in addition to the world economic crisis as well. Therefore, investors rate the investments they made based on the price they paid without taking into consideration that stock, bonds and forex market make fluctuate based on the current situation of the market they invest in. The mentality of Lebanese investor after making a wrong decision drives him to sell stocks that have appreciated in price, but not those that have depreciated in price, consistent with a disposition effect, acknowledging gains but not losses, feel always over confident and appear to believe that past returns are indicative of future returns.

Loss aversion arises when investors put a greater weighting on the concern for losses. In other words, they are much more likely to try to make loss prevention a higher priority than making investment gains. As a result, to compensate for losses, some investors may want

a higher return. If the high payoff is not probable, even if the investment's risk is reasonable from a logical point of view, they may try to avoid losses entirely. Loss aversion is a behavioral finance trend where investors are so afraid of losses that they concentrate more on trying to prevent a loss than on making profits. The more losses one suffers, the more likely they are to become vulnerable to loss aversion. Loss aversion research indicates that investors experience the pain of a loss more than twice as intensely as they feel the excitement of profit-making. Investors have a greater incentive to prevent losses than a 2 to 1 ratio to reap gains. This allows investors to rely on risk avoidance. Investors suffering from loss aversion bias also have "get even-itis," where they continue to keep a losing investment role before, they get back to even, regardless of the security 's weak future prospects. This type of investor appears to hang on too long to lose positions and too easily sell valued positions [2].

In the Lebanese market, investors require explanations on the ratio and amount lost if the investment fails more than asking about the gains even if it was a somehow secured investment. Local investor is opposed to the idea of losing. As per investment bankers, a lot of deal with investors is cancelled only if there is additional 5 % chance of losing.

Overconfidence and illusion of control. Overconfidence bias is a propensity to measure our abilities, intelligence, or talent in a false and misleading way. In short, it's an egotistical illusion that we actually are stronger than we are. In behavioral finance and capital markets, it can be a dangerous bias and is very prolific. This is an emotional bias in which investors have an excessive confidence in their own judgment, logic, and analytical skills. For example, investors also suffer from over-confidence bias and under-estimated downside risk, too often trading their accounts.

On the other hand, illusion of control can be explained as investors suffering from the misconception of control bias. They assume that they can control investment outcomes, while they cannot. For example, online traders appear to trade more often than they should because of the idea of control bias, or when they correctly select a number of coin tosses in a row, people assume they are better guessers (this also refers to investors who trade or speculate in individual stocks correctly) [2].

Nowadays, in Lebanon the Lebanese currency suffered and still suffering from devaluation against the USD due to many reasons such as the corruption in the governmental institutions, stealing the public funds by the politicians over 30 years, control of black market, in addition to the coronavirus effect. As a banker I can realize how many people lost the value of their money because they didn't take out the chance to convert their money from LBP to USD although the banks offered this matter many times. This type of people believed and they were over confident with their analysis that if it a few weeks issue and then it will go back to normal rates.

Self-Attribution Bias. In behavioral finance, a self-serving bias is a propensity to assign good results to our abilities and poor results to sheer chance. In other words, depending on what makes us look best, we choose how to assign the cause of an outcome. Of course, most of us will think of things we've done and decide that when everything goes according to plan, it's obviously because of our ability. And, when things don't go as expected, obviously, we just had bad luck. It is a cognitive and data processing bias, where investors tend to credit skill and abilities for their performance and blame their failures on circumstances outside their control.

For their performance, individuals suffering from self-attribution bias take an unreasonable degree of credit. For instance, investors often do well simply because of a powerful bull market. Investors can take much more risk and unnecessarily trade their accounts [2]. Bank clients in general and investor in specific always tend to link the gains from a specific investment to the good decision they've done and the foresighted analysis achieved, and to link the losses to outer and external factors like luck or bad advice from the investment banker.

Hindsight Bias means the misconception, that after the fact we think we «always knew» that they were correct. Someone might also erroneously believe that in forecasting a result, they had unique knowledge or talent. In behavioral finance theory, this bias is an important idea. This is a cognitive and belief-perseverance bias where individuals more correctly recall their own future predictions than they really were. For example, investors believed that they knew a crash was coming after both the «internet bubble» and the «credit bubble». In this sort of reconstruction of the past, the risk is that investors get such a false sense of safety because they feel they have predictive powers [2].

This type of bias is very widespread among the Lebanese investors. Most of investors brag in front of the investment banker that they knew the result of a specific stock even if it makes gain or losses. This type leaves the investors hanging out and think twice before making any investment in a stock or bond because they think they previously know the results, while they don't.

Representative Bias can occur when the resemblance of sets of objects or events confuses people's views about the probability of an outcome. People also make the mistake of assuming that two occurrences or events that are identical are more closely connected than they really are. In behavioral finance theory, this representativeness heuristic is a common mistake in the processing of knowledge. This is a cognitive and belief-perseverance bias where individuals make classifications based on previous experiences that are important.

Sometimes, the classifications can generate incorrect understandings. Investors are overly interested in purchasing IPOs, for instance: base-rate indifference, even though data indicates that most have traditionally not performed well, so investors only look at the IPO market as representative for the last two years [2]. Representative bias in Lebanon have two phases.

First phase is for investors that might not choose to invest in a booming stock or bond based on the memory that once this stock declines due to a specific event. Main example of this is a big company in Lebanon called «Solidere», which once had the higher income for stock holders but due to financial situation and since it is linked to a particular political party, investors now are avoiding buying stocks from this company. Second phase is the relations between possible investor and investment banks, where investors judge the whole institution based on the relation with unqualified employee that could affect the whole customer bank relationship.

Anchoring Bias means when people depend too much on pre-existing information or the first knowledge they encounter when making decisions, anchoring bias occurs. This is a bias in cognitive and data processing, where individuals use a default number or «anchor» and do not adapt appropriately and end up using anchor points that are statistically arbitrary, psychologically determined.

In the Lebanese stock market, there is a tendency for investors to «anchor» their valuation to the stock price. The stock price is the first thing they see before fundamentals such as historical profitability or revenue growth. So, their expectations are intrinsically linked to the initial value they see, whether consciously or sub-consciously.

Outcome Bias in cognitive and data analysis means that investors decide, based on the result and not on the mechanism that contributed to that outcome. An example of outcome bias would be when investors concentrate solely on the recent 3- or 5-year track record of return when choosing an investment manager. Outcome bias can lead to risk taking being excessive. When choosing an investment manager, investors should look at modern portfolio theory (MPT) risk figures, the investment process, the number of shares bought and other fundamental considerations [3].

In Lebanon investor decides to invest in real estate after knowing that other investor made a big gain on an investment in real estate when interest rates were at a different level. Rather than look at other factors that could have resulted in the other investor gains, such

as the health of the overall economy or performance of real estate, the investor is focusing on the money made by the colleague.

Self-Control Bias is an emotional bias where, since they lack self-control, individuals do not behave in their best long-term interest. Instead of saving for retirement, people who suffer from self-control bias frequently spend money today and risk their retirement, and do not invest in equities or engage in the benefits of saving programs.

The famous «save more tomorrow» program in USA addressed this bias and proposed to automatically raise savings rates per year for participants. 80 % of participants stayed through three pay increases in the plan. This is a perfect way to combat the natural pattern of individuals suffering from prejudice in self-control [3].

Unfortunately, after the retirement at 64 years old in Lebanon, it is unpopular to invest the pension salary or retirement allowances in financial markets due to lack of information and self-control bias. That is why a wide marketing plan is performed thorough investments bank in order to protect the retires instead of spending what is left of their funds.

Framing Bias happens when individuals make a choice based on the way the data is portrayed, as opposed to only the facts themselves. The same facts presented in two separate ways will lead to different judgements or decisions being made by people. In behavioral finance, investors can differently respond to a specific opportunity, depending on how it is presented to them.

Lebanese banks base their new products on how the marketing plan represent a specific loans or products, where they tend to attract borrowers through attractive data presentation. For example, a bank put an advertisement that it offers loan with 0 % interest rate, while they add fees and charges on the products that is equal to the 5 % on the products served by other banks,

Herding Mentality in behavioral finance relates to the propensity of investors to imitate and mimic what other investors are doing. They are primarily affected, rather than by their own objective study, by emotion and instinct. Herd bias, also known as the «bandwagon effect», is a psychological phenomenon in which people rationalize that since everyone else is doing it, a course of action is the right one. This can take the form of panic buying or selling in the world of investing [3].

As a banker in the Lebanese banking sector, I daily face the herding mentally, when a client pass by and requires to submit application for a specific loan or product because his friends and colleagues benefit from this specific product not taking into consideration that his request might not be suitable for his situation. Here comes the banker's role to advice the customers.

Affinity Bias is an emotional and data transmission bias, where an investor appears to make uneconomical investment decision based on how he or she thinks a purchase or selling of a security will impact their values. Investors, for instance, frequently suffer from «home-country prejudice» and prefer investing in national equities. Lower international equity roles are held by more patriotic countries and territories. Affinity bias will always drive investors to purchase stocks of retail companies that they want to shop at or stocks that they believe will have a positive effect on the planet, like environmental, social, and governance (ESG) stocks, even though these companies may have poor prospects for future success [3].

Another type of affinity bias leads investor to favor people who we feel we have a connection or similarity to. For example, attending the same college, growing up in the same town, or reminding us of ourselves or someone we know and like. To be more specific, Lebanese investors unfortunately are attracted to the investment manager or investment bank that represents his religion, that is why most of banks recruit and try to attract investors with the same religion, regardless if this investment manager is qualified or not.

Cognitive Dissonance Bias means that investors dismiss newly obtained knowledge because, due to cognitive dissonance bias, it clashes with previous opinions. To prevent psy-

chological conflicts, most individuals avoid potentially relevant details. For example: failure to take tax losses for tax gain and reallocate them to a better investment, or investors frequently do not want to accept that they have made an error [3].

Confirmation Bias: when investors have a bias believing evidence that supports their confidence in an investment that is already owned. When information is positive, investors readily embrace it to affirm that their investment decision is right, even if the information is faulty. Confirmation bias is the propensity of individuals to pay close attention to evidence that supports their opinion and dismiss knowledge that contradicts it. Our prejudices appear to hinder our ability to make investment decisions that are solely logical. This is both a cognitive and belief-perseverance bias where individuals prioritize concepts that affirm our beliefs while devaluing concepts that contradict our beliefs.

For example, workers also appear to retain an over-concentration in the stock of employer due to confirmation bias. The WorldCom, Enron, Bear Sterns, Novastar, Sprint, and Inter-state Bakeries' history of decline offers examples of how workers suffered when their concentrated stock positions in the stock of their employer deteriorated sharply [2].

As a result, and despite attempts to apply rational choice models to decision makers in the decision-making process, decisions are frequently taken by accident. The basic reasons for making poor decisions are lack of dedication to the investor's decision and bounded rationality. The consequences of restricted rationality influence the way decisions are taken by decision makers. The dilemma of decision-makers is observed through the perspective of individual views and values, based on past events and current knowledge [4].

Different behavioral variables affect the way decision makers gather, filter, process and analyze information in the decision-making process and make choices, depending on the context in which decisions are taken. The above implies that investor decisions are based on the simplistic solution of complex problems through the application of mental shortcuts, due to restricted cognitive capacities. Cognitive limitations have led to predictable and persistent mental mistakes, resulting in simplistic information gathering, interpretation and processing. Some of the established cognitive limits apply to the formulation of issues, some to determine the likelihood of relevant events, and some arise as a consequence of a misunderstanding of decision-makers.

This review of systematic errors in the thinking of investors and financiers, including in the Lebanese banking sector and the financial market, leads us to the conclusion that it is necessary to develop policies for public and private financial institutions that will help the subjects of choice to minimize the impact of these distortions.

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