ATLANTIS PRESS

Advances in Economics, Business and Management Research, volume 215

Proceedings of the 2022 7th International Conference on Social Sciences and Economic Development (ICSSED 2022)

The Discussion of Disposition Effect in Behavioral Economics

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ABSTRACT

The disposition effect is a popular topic in behavioral economics. Many kinds of research indicate investors generally have the irrational behavior of selling the winner earlier than the loser in investment. This paper is a literary review of prospect theory and mental accounting to analyze the reasons for the disposition effect. The question that is mainly discussed in the paper is the reasons that cause disposition effect and the ways that could lessen this effect and help people perform better in investment.

***Keywords*:** *Disposition effect, Mental accounting, Behavioral economic, Prospect theory.*

1. INTRODUCTION

Researchers began to focus on behavioral economics in 1980. Prospect theory and mental accounting are two major theories in the field. Many types of research and theories are based on them. Traditional economics regard people are totally rational like consumers would not spend any extra money if not necessary. Unlike that, behavioral economics regards people's behavior as not wholly logical and thinks that the circumstances will shape people's decision-making. This paper is about the disposition effect, a theory posed by Shefrin and Statman, which tends to keep those assets that lose money and sell the assets that gain cash earlier. The disposition effect is a performance of losing-aversion. Many types of research show that people are influenced by it when they buy and sell stocks. Traditional economics regard this tendency as an irrational phenomenon because it proposes that people keep stock that gains money to get even more money and sell the store that is losing money to prevent losing more money. This paper explores the main causes of the disposition effect and uses some compelling theories to explain the big picture.

2. BEHAVIORAL ECONOMIC AND DISPOSITION EFFECT

The disposition effect is a popular theory. Many researchers show that most investors tend to be influenced by the disposition effect. It is essential to analyze the reasons behind the phenomenon. For the reason of disposition effect, many researchers explain it from the perspective of financial[1]. This paper uses two critical achievements in Behavioral economics, prospect theory, and mental accounting, to explain the disposition effect.

2.1. Prospect theory

Prospect theory, proposed by Kahneman and Tversky, is an essential limestone in behavioral economics. Prospect theory is also known as loss-aversion theory[2]. For example, when given a choice to a person, one is possible to gain, and another is a potential loss; the first would be the choice. This theory has three basic conclusions:

When earning money, people do not like to take risks.

When losing money, people want to take the risk.

Investors judge the gain or loss depending on the reference point.

Thus, people would have a different attitude toward stock if they change the reference point. The value function is the shape of S; using the reference point, the curve line under the reference point grows quicker than the curve line upon the reference point. That shows most people dislike loss.

2.2. Mental accounting

Thaler proposed mental accounting in 1985. "Mental account refers to the classification of the fund in mind according to the sources of funds and the uses of funds. Different types of funds have different expected returns and risk tolerance. It refers to rational people using irrational attitude to face different funds in different situations." Because of mental accounting, people would violate some simple economic criterion and make irrational decisions. In investment, people would classify different stocks into different mental accounting and ignore the correlation among those stocks. They expect each mental accounting instead of looking at the whole picture. That is the reason why people do not want to sell the stock that loses money. When adding new stock into a portfolio, people would regard it as a single part. Therefore, adding a new stock increases the risk for the whole portfolio. In short, mental accounting could explain the disposition effect in investment.

Under the condition of prospect theory, if an investor buys a stock that he regards this stock will bring a high return. In this case, if the stock appreciates, he would probably continue to hold this stock instead of selling it. However, if the man reduces his expectation or reference point, he is likely to sell it[3]. On the other hand, if the value of the stock decreases, the investor probably would not sell it, instead, he wants to wait for it raise again, even he knows the stock will continue to decrease. Let's imagine another situation if there is an investor who bought two stocks, one is appreciated, once it declines[4]. Based on the prospect theory, this investor might sell the stock that gains money and hold the stock that loses money. We can also analyze the disposition effect from the perspective of mental accounting. Imagine that a person buys 100 stocks with the price of 10 dollars. The money in the account will change as long as the price of stocks changes. However, the profit or loss with being unchangeable once close the account. Therefore, it is a tough decision for an investor to close the account. Also, this is the reason why investors are not reluctant to sell stock when it is declining, even they know the price might continue declining, instead of raising.

3. DISPOSITION EFFECT OF DIFFERENT GROUP

It shows that most people would be interfered with by the disposition effect when they invest, but the disposition effect usually affects people differently. Some people are greatly influenced by the disposition effect, while others seem to circumvent it. The researcher has hypothesis different reasons that might cause the disposition effect, like the investor's gender, age, and experiences. Also, Understanding the factors that cause people to have different opinions toward investment might help investors lessen this effect so that they could have a better performance in investment. Many researchers have done a large number of researches to study the factors that affect the disposition effect.

3.1. Financial crisis

The financial crisis has a terrible impact on investors, but it is inevitable. Many researchers have done some investigations or experiments on the effects of investment during the financial crisis. Huei-Wen Lin indicates that individual investors in the Chinese stock market have the disposition effect in appreciation periods and an inverse disposition effect in depreciation periods. Also, the disposition effect of a share (a share is a stock only for Chinese) and b share (b share is restricted to a foreigner) are significant. There are two reasons. First, the people would control themselves to prevent loss. Second, the stock market announces negative information during the financial crisis to sell their stock as quickly as possible, which led to an even more severe economic crisis[5].

3.2. Different groups of people

Many researchers try to analyze the disposition effect among different groups of people. Age and gender also show the difference when facing the "disposition effect." Many data show that men trade more frequently than women do. Li-bin wang points out that individual investors are influenced by the disposition effect more than institutional investors. He also emphasizes that researchers still argue about the factors that influence the disposition effect. According to the data, Min-Hua Kuo, Shaw K. Chen, and Shao-Shing Chen conduct an investment to analyze the disposition effect; they found that the disposition patterns are significantly related to gender, income, and education. The male investors with high income and high education are more inclined to show the reverse disposition effect. Also, a large number of data show that older investors usually performed better than younger investors. Some research indicates that younger investors are less influenced by the disposition effect than middle-aged people, while others show the opposite result. Ravi Dhar and Ning Zhu's advice on income could be a standard to analyze the disposition effect because High-income people have more access to financial advice and the professionals have better process information. Also, high income can indicate that the investor is more likely to work in a professional occupation. Li-bin wang divided investors into three classifications: the poor, influenced by disposition more; the wealthy are more rational when investing, and better professional skills tend to be influenced by personality-less. Another common conception is that the more experience the investors have, the more negligible disposition effect impacts the investors. The study shows that the disposition effect fewer influences people with masters or doctoral degrees. Investors with a higher academic degree, like a master or doctoral degree, can be considered more intelligent or the natural sciences background (who are more robust in math) learn faster. Less savvy investors and investors with a background in humanities seem to start to learn how to avoid the disposition effect only when they have made over 100 trades[6].

4. THE WAY TO LESSEN THE "DISPOSITION EFFECT" IN INVESTMENT

The disposition effect impacts investors a lot when they buy and sell stocks. This effect may influence the money the investors make. Therefore, many researchers are interested in finding out how to lessen the disposition effect to help investors make more money in investment.

4.1. Investors should devote time to studying their stock

A study investigating the time people devote to studying investment shows that people could lessen their disposition effect by learning their investment. Researchers conduct an experiment for a large group of people and help them understand the investment; they found that the disposition effect would reduce as they know more[7]. A paper about the disposition effect also points out that learning knowledge background could, to some extent, help the investor to learn faster when they enter the market. Inevitably, people still be influenced by the disposition effect, even with much knowledge, and this cannot be eliminated[8].

4.2. Gain more experience

The disposition effect would reduce when investors at least make ten trades, which leads to the conclusion that the more experience the investors have, the less influence by disposition effect. This point also coincides with the determination made by Feng and Seashole[9].

4.3. Individual investor organizations should help investors

Many studies show that institutional investors are usually less influenced by the disposition effect and perform better than individual investors. To improve their performance, respective investor organizations should help investors realize this tendency and educate them about disposition effects [10]. James Bashall and Gizelle D. Willows have a conclusion based on their investigation. The result shows that no matter the individual investor or the help of professional investors, all the individual investors are influenced by the disposition effect. However, with the guidance of professional investors, the individual investors show a reduced propensity to realize gains ahead of the losses. This reduction in the disposition effect is attributed to the professional investing advice offered to individual investors.

5. CONCLUSION

One of the outstanding contributions of behavioral economics was to help explain the behavior of investors that could not be described in traditional economics. Researchers began to notice behavioral economics in 1980, and a large number of papers came out. This paper is about the disposition effect, which means investors tend to hold winners longer or sell losers sooner. This paper uses prospect theory and mental accounting to explain why investors tend to be influenced by the disposition effect. Prospect theory is mainly about investors not liking losing money, which explains why they do not want to sell the stock market losers. Mental accounting led people to divide their assets and so not see the portfolio as a whole thing.

Another thing that researchers care about is what factors can impact the disposition effect because it seems that people have a different reaction when facing the disposition effect. A common conclusion is that male investors with high income, and increased education are more likely to show the reverse disposition effect. During the financial crisis, researches show that the disposition effect is even more significant. The next part is about the way to lessen the disposition effect. First, people should devote more time to study such as the stock company or the best portfolio. Secondly, many pieces of research show that experiences can help people perform better in the stock market. Third, with the help of professional investor organizations, investors usually do not show that much disposition effect.

REFERENCES

[1] HERSH SHEFRIN and MEIR STATMAN. The disposition to sell winners too early and ride losers too long: theory and evidence. THE JOURNAL OF FINANCE, 1985, 11(3), pp. 777-790

[2] Thorsten Hens & Martin Vlcek. Does Prospect Theory Explain the Disposition Effect?. Journal of Behavioral Finance. 2011, 12(3), pp. 141-157.

[3] TERRANCE ODEAN. Are investors reluctant to realize their losses. THE JOURNAL OF FINANCE, 1998, 53(5), pp. 1775-1798.

[4] Xiaoqiao Xu. Analysis of investment decision based on metal account. China collective economy, 2010, (09), pp. 92.

[5] Huei-Wen Lin. Does the disposition effect exhibit during financial crisis. International Conference on Economics and Finance Research, vol.4, 2011, pp. 6-10.

[6] Tõnn Talpsepp. Does gender and age affect investor performance and the disposition effect. RESEARCH IN ECONOMICS AND BUSINESS:

CENTRAL AND EASTERN EUROPE. Vol.2, 2010, pp. 76-93.

[7] Min-Hua Kuo, Shaw K. Chen, Shao-Shing Chen . How to Lessen the Disposition Effect, It Pays to Study Before Investing. Advances in Business and Management Forecasting. vol. 9, 2016, pp. 77-90.

[8] Tarvo Vaarmets, Kristjan Liivamägi, Tõnn Talpsepp. How does learning and education help to overcome the disposition effect. 2016, 23(4), pp. 801-830.

[9] Newton Da Costa Jr. a.b., Marco Goulart b, Cesar Cupertino b, Jurandir Macedo Jr. c, Sergio Da Silva The disposition effect and investor experience. Journal of Banking & Finance. 2013, pp. 1669-1675.

[10] James Bashall, Gizelle D. Willows, Darron west . The Extent to Which Professional Advice Can Reduce the Disposition Effect: An Emerging Market Study. Institute for financial Management and research. 2018, pp. 17-2, 1-21.