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Selected Papers from the Asia-Pacific Conference on Economics & Finance (APEF 2016)

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Introduction

This book features the best papers presented at the Asia-Pacific Conference on Economics & Finance in 2016. Chapters include research conducted by experts in the field of Economics, Finance and Business from the region. Put together by East Asia Research, East Asia Institute of Management & Universiti Malaysia Sarawak (UNIMAS) , this book serves as a useful resource for educators, researchers, thought leaders, policy makers, and economists.

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Bibliographic information

- DOI (Digital Object Identifier) https://doi.org/10.1007/978-981-10-3566-1

- Copyright Information Springer Nature Singapore Pte Ltd. 2017
- Publisher Name Springer, Singapore
- eBook Packages Economics and Finance
- Print ISBN 978-981-10-3565-4
- Online ISBN 978-981-10-3566-1

SPRINGER NATURE

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Not logged in Universitas Airlangga (2000629929) - 6763 SpringerLink Indonesia eJourna Consortium - Higher Education (3000122892) - 11741 SpringerLink Indonesia eJourn Consortium (3000951794) 210.57.215.178

Disposition Effect on Investment Decision Making: Explanation of Regulatory-Focus Theory

I Made Surya Negara Sudirman, Andry Irwanto and Basuki

Abstract The disposition effect is the tendency of investors to sell stocks early when the price increases and hold stocks longer when this price decreases. As a consequence, investors may lose opportunities to gain greater profits from a stock winner whose price continues to rise; in contrast, they can suffer greater loss when the stocks continue to decline. The disposition effect is a phenomenon widely studied in behavioral finance. There are two main competing theories attempting to explain this phenomenon: the prospect theory and the regret theory. Although both theories give a fairly comprehensive explanation, they fail to take into account the motivation of investors in making investment decisions. This paper seeks to make a critical review of both of the main theories as well as provide a new explanation related to the motivation of investors from the perspective of the regulatory-focus theory. Regulatory-focus theory explains that individuals can be categorized into two groups, i.e. the prevention group and the promotion group. Regulatory-focus theory adds a more specific explanation that the disposition effect is more likely to occur in the prevention rather than the promotion group. The explanation of the disposition effect based on regulatory-focus -is a novelty in this paper.

Keywords Disposition effect · Regulatory focus theory · Prospect theory · Regret theory

1 Introduction

The disposition effect is the tendency of investors to sell stocks early when the price increases and hold stocks longer when the price decreases (Shefrin and Statman 1985). As a consequence, investors may lose opportunities to gain greater profits

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E. Lau et al. (eds.), *Selected Papers from the Asia-Pacific Conference on Economics & Finance (APEF 2016)*, DOI 10.1007/978-981-10-3566-1_2

from a stock winner whose price continues to rise; in contrast, they can suffer from greater loss when the stocks continue to decline. The disposition effect is a phenomenon that has been extensively studied in behavioral finance since it was revealed by Shefrin and Statman in 1985. In addition, it has been studied and found to occur within individual investor trading patterns (Dhar and Zhu 2006; Leal et al. 2010) as well as aggregate market-trading patterns (Chang 2008; Ferris et al. 1988). It was also found among professional investors (Coval and Shumway 2005; Fu and Wedge 2011; Shapira and Venice 2001) as well as the trade regime and cultures around the world (Barber et al. 2007; Boolell-Gunesh et al. 2012).

Shefrin and Statman (1985) developed a model consisting of four main elements to explain the disposition effect: *prospect theory, mental accounting, seeking pride and avoiding regret, and self-control.* Prospect theory offers an explanation of the disposition effect by assuming that the behavior of selling winner stocks too early and holding loser stocks too long is due to the investor being loss averse. Investors are reluctant to accept the loss of probabilities of a decline in prices that may occur when the stock price moves up, and this is realized by selling winner shares too early. Meanwhile, investors are reluctant to accept the loss of a decline in prices that may occur when the stock price moves down, and this is realized by the investor holding loser stocks too long. Mental accounting briefly describes that decision makers tend to separate different types of investments into multiple accounts and then apply prospect theory in decision-making on each account by ignoring the interactions among accounts. Seeking pride and avoiding regret is a behavior that can be induced by selling winner stocks too early and holding loser stocks too long. Selling loser stocks can induce regret, whereas selling off the winning ones can induce pride. Self-control is a mechanism used to explain the reasons of the investors to realize their losses.

In terms of progress, most researches performed have referred to the explanation of prospect theory (Kahneman and Tversky 1979) to describe the phenomenon of the disposition effect (Barberis and Huang 2001; Henderson 2012; Odean 1998; Weber and Carmerer 1998). Others used regret theory (Loomes and Sugden 1982; Bell 1982) to explain the phenomenon of the disposition effect (Dodonova and Koroshilov 2005; Fogel and Berry 2006; Meurmann and Volkman 2006). The proponents of regret theory assume that prospect theory has a weakness. It does not compare the selected options with the unselected ones in investment decision-making, whereas, in reality, investors always compare the selected options with the unselected ones and use the performance of the market portfolio as a benchmark. Regret theory explains the disposition effect based on the anticipation of regret by investors in the domain of gains realized by selling winner stocks too early, whereas in the loss domain investors hold loser stocks too long.

In addition to criticism from the proponents of regret theory, prospect theory has also been criticized by some researchers finding some results that are inconsistent with the predictions of prospect theory to explain the phenomenon of the disposition effect. Some found that prospect theory cannot explain the disposition effect because the explanation of prospect theory is based on loss aversion, which does not consider the initial investment when investors buy the stocks. If prospect theory

If investors act in accordance with the sensitivity of the results, investors with a promotion focus will take some actions based on their sensitivity to positive results, whereas those with a prevention focus will act in accordance with their sensitivity to the negative result. Thus, they act in accordance with the regulatory fit. The individual investors acting in accordance with regulatory fit tend to have lower regret intensity compared with those who do not act in accordance with regulatory fit. The ones acting in accordance with regulatory fit feel continuously involved in sustainable activities and have an orientation and interest in the decisions made (Higgins 2000a). Regulatory fit makes people feel stronger and justified in what they have already done so that they are able to pursue the same goals with different orientations and in different ways (Higgins 2000b). Regulatory fit affects the strength of the value of the experience and the feelings of success, which is independent from pain and/or pleasure felt toward the results (Frietas and Higgins 2002).

Individuals with a promotion focus are more prone to accept a new investment choice and take risks, and they tend to rely on emotion and bias in making investment decisions. In contrast, individuals with a prevention focus prefer to hang on to old investments or maintain the status quo, are more conservative in selecting investments, and indicate an attitude of manipulative prevention (Kirmani and Zhu 2007). In general, the individual with a promotion focus tries to compete in achieving the goals by taking as many options as possible to reach the objectives. Meanwhile, individuals with a prevention focus concentrate on the avoidance of overlapping goals resulting in careful decisions and a limitation of choices obviously selected (Zhu and Meyer-Levy 2007). Individuals with a promotion focus emphasizes on speed rather than accuracy, whereas those with a prevention focus emphasize on accuracy rather than speed (Pham and Chang 2010).

3 Proposition

Based on regulatory-focus theory, prepositions can be formulated by distinguishing the regulatory focus of investors and entering the rate of gain or loss. Regulatory-focus theory differentiates individuals into two types, namely, those with a promotion focus and those with a prevention focus. Each has a different sensitivity toward positive and negative results. Individuals with a promotion focus are more sensitive to positive results or gain, but those with a prevention focus are more sensitive to negative results or loss. Then, the gain and loss are grouped into two categories to view the sensitivity of each, namely, small-to-large gain and small-to-large loss.

Investors with a promotion focus are sensitive to positive results and will move from the absence of positive results (0) to the presence of positive ones (+1). Thus, it can be understood that the regulatory fit of investors with a promotion focus is in the domain of gain. They will take some actions in accordance with their regulatory fit, demonstrated by taking a risky option to achieve the goal, and obtain a desired, positive result. If the desired, positive results have already been achieved,

Proposition 4 *Investors of prevention focus will select the conservative option by selling winner stocks earlier regardless of whether the gain is small or large, resulting in an increase of the disposition effect.*

Based on the Propositions 1a, 1b, 2, 3a, 3b and 4, it can be understood that investors of prevention focus are more susceptible to the disposition effect than those of promotion focus. In the domain of gain, Proposition 4, investors of prevention focus tend to sell the winner stock faster than those of promotion focus because investors of prevention focus do not pay any attentions to amount the gain obtained. In the domain of loss, Proposition 3a, investors of prevention focus tend to hold the loser stocks longer than those of promotion focus because they pay close attention to the amount the loss and the possibility of returning to the position of non-loss. Thus, Proposition 5, the differences in the susceptibility of investors of prevention focus and of promotion focus towards the disposition effect is formulated as follows:

Proposition 5 *Investors of prevention focus are more prone to the disposition effect than those of promotion focus.*

4 Discussion

Regulatory focus theory is able to explain the disposition effect in a simpler and more concrete manner than the prospect and regret theories are. The weakness of the prospect theory which does not distinguish the selected and unselected options can be overcome with the risky and conservative options under the consideration of the regulatory focus theory. Basically a risky option maintains the selected stock in which the investors choose the tactics of the risk seekers. While the conservative option does not preserve the selected stocks in which the investors choose the risk aversion tactics. Determining a risky and conservative option is based on the comparison of the performance of the selected stocks and of the unselected ones, as well as the performance of the market portfolio as a benchmark.

Principally, every investor must select the stocks likely to generate gains. They have some assessments taking into account the performance of the market portfolio as a benchmark in determining the choice of the initial investment, and the performance of the investment or of the selected option by comparing the target gain achieved to that of the market portfolio as the benchmark. If the target of the gain is reached or the performance of the selected option has outperformed the market portfolio during a certain period of time, the investors will take the conservative option by selling winner shares earlier. The condition is more extreme to occur in the investors of the promotions focus. The investors of prevention focus, however, who are non-loss-oriented, may take the conservative option without considering whether or not the targets have been gained as they are sensitive to the negative results.

If the selected option generates loss, investors with a promotion focus can immediately respond by choosing the conservative option, selling the loser shares

consistent trait within a domain. Based on these developed propositions, it can be predicted that investors with a prevention focus are more prone to the disposition effect than those with a promotion focus. The explanation of regulatory-focus theory toward the disposition effect is a novelty in the field of behavioral finance.

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http://www.springer.com/978-981-10-3565-4

Selected Papers from the Asia-Pacific Conference on Economics & Finance (APEF 2016)
Lau, E.; Tan, L.-M.; Tan, J.H. (Eds.)
2017, XIV, 143 p. 19 illus., 8 illus. in color., Hardcover
ISBN: 978-981-10-3565-4