

## **BEHAVIORAL FINANCE PERSPECTIVES ON INVESTOR FINANCIAL DECISIONS**

**Tona Aurora Lubis** 

Management Department, Faculty of Economics and Business

Jambi University, Jambi, Indonesia

tonalubis@unja.ac.id

**Bambang Sudarisman**

Doctoral Program of Economics and Business Faculty,

Jambi University, Jambi, Indonesia

bambangсударisman86@gmail.com

### **Abstract**

*The efficient market hypothesis stated that investors act rationally but in this paper will show that investors act irrationally in decision making. This matter can be seen from the decision making of investors affected by some psychological factors. This study suggests that behavioural finance give the evidence that the investors are not rational, so it makes the market is not efficient. Therefore, this paper concluded that there will be no market efficiency.*

*Keywords: Behavioral Finance; Efficient Market Hypothesis; Financial Decisions, Psychological Factors*

### **INTRODUCTION**

The concept of efficiency applied to capital markets by academics and economics. Efficient Market Hypothesis (EMH) being a major research area in the specialized literature. There are many views of the EMH, some of them rejecting it and other supporting it. A good starting theory is that of efficient capital markets in the modern theory of finance. The efficiency means that the investors have no opportunity of obtaining abnormal profits from capital market transactions and cannot beat the market. So, the only way an investor may obtain a larger profit is by investing in higher risk assets.

Malkiel (2003) defined an efficient capital market as being a market in which “prices fully reflect all known information, and even uninformed investors buying a diversified portfolio at the tableau of prices given by the market will obtain a rate of return as generous as that achieved by the experts”. It means that when the market came efficient, the investors can not obtain the abnormal profits from capital market transactions.

Fama (1970) stated that economics and financial theories have been based on rational investors and on market efficiency hypothesis, which posits that market prices fully reflect all available information. Traditional models explained that rational investor use the information, their decision making is based on utility function with beliefs, calculated via optimal statistical procedures. Thus, the representative investor is an individual who acts as an expected utility maximizer.

The classical assumptions of finance theory are individuals are rational, looking for maximise the expected utility, are risk averse and follow the tenets of subjective probability. Soufianm, Forbes and Hudson (2014) stated that in the growing behavioural finance literature departures from market efficiency are generally attributed to behavioural biases amongst investors. Much of the mainstream neo-classical economics framework is tacitly retained in that investors are assumed to have purposive rationality and departures from the fully rational behaviour in the mainstream models are due to the biases and cognitive limitations of the individuals involved in executing their purpose. Thus, most work in behavioural finance has tended to focus on the bounded rationality of individuals leading to departures from the optimum solution given by the mainstream model.

The hypothesis that investors are fully rational which instantaneously process information in a correct manner is unrealistic. It is hard to explain it because the human behaviour is often unpredictable. Therefore, based on the explanation above that it is too difficult to see the real of efficient capital market because decision making of investors often affected by psychological.

## LITERATURE REVIEW

The efficient market hypothesis (EMH) is the main pillar of neoclassical finance. It states that a postulates that financial asset prices react all information because market participants are rational processors of these information. An efficient market is related with the theory of rational expectations, including the assessment of all information about property. The theory of market efficiency assumes that a stock market is efficient if the prices reflect all the available information at a certain moment and thus the investors have rational expectations about the evolution of the future prices.

Haugen (1999) explained that the evolution of finance as a separate discipline by identifying three schools of thought: old finance, modern finance and new finance. The old finance school focused on financial statement analysis and the nature of financial claims. Modern finance focuses on asset pricing and valuation based on rational Economic behaviour. Under this paradigm, the market is always efficient, and deviations from fundamental values are expected to be short-lived as they are eliminated by arbitrage. In the 1980s several papers challenged the modern finance doctrine, leading to the emergence of the new finance school of thought in the 1990s. The new finance doctrine deals with inefficient markets, primarily by adopting behavioural models.

Statman (1999) stated that neoclassical finance tells us the following: (i) the market value of an asset should be aligned with its fundamental value; (ii) financial markets react quickly to new information; (iii) prices follow a random walk process resulting from the random arrival of information; and (iv) no investor can consistently earn abnormal return in excess of what is consistent with risk.

Stracca (2004) stated that behavioural finance theory based on the psychology literature actually challenges the efficient market hypothesis by state that psychological factors influence stock prices. Loewenstein (2000), Romer (2000) stated that Investor's emotional state is argued to affect asset prices. Hirshleifer and Shumway (2003), Kamstra, Kramer and Levi (2000), Cao and Wei (2005); stated that investor mood swings have been attributed to weather conditions including sunshine, daylight, temperature, and lunar cycles, these psychological factors actually do influence stock returns. This evidence showed that behavioural finance theory can be used to explain why financial markets can be informationally inefficient. Bernard and Thomas, 1990 stated that investors tend to over-react to private information signals and under-react to public information signals, such as earnings announcements.

Investors have been shown to constantly choose to invest in stocks emitted by "glamour" companies, misattributing their good characteristics (quality products, managers and other fundamentals) to make a good investment decision. This is consistent with Dhar and Kumar (2001) who have investigated that the price trends of stocks and have shown that stocks with positive abnormal recent returns are preferred to others.

Buss (2009) stated that Behavioral finance was formulated a new branch of theory, combining the knowledge of psychology, sociology and other social sciences In order to better understand an individual financial behavior, the behavioral theory of psychology, sociology and anthropology is applied. Oprean (2014) stated that human behaviour is generally reactive, not proactive; therefore, it is difficult to make predictions on the basis of narrow rules. Behavioural finance can relatively easily explain why an individual has made a decision, but have difficulty in

quantifying what effects that decision will have on the individual. Information is a public set of data, made available to everyone in an objective manner. Information can have a material impact on the asset price when it is combined with knowledge, hands-on experience and assessment of investors. Oprean (2014) also explained that investors interpret important data and events on two cognitive levels:

- The intellectual level of ordering, processing and analyzing the actual factors (economic data);
- The level of the logical and rational understanding of how this objective identifies factors that will influence the perception of other market players.

Behavioral finance can be defined as the application of psychology to explain market anomalies. The focus on interpersonal behavior and the role of social forces in governing behavior is known as social psychology. Statman (1999) stated that “people are rational in standar [neoclassical] finance; they are normal in behavioral finance”. In many respects the assumptions underlying behavioral finance models are similar to those used to construct traditional models, but the following differences are observed: (i) investors do not simply look at mean-variance congurations to make investment decisions as they may be influenced by other non-statistical characteristics such as taste, preference and other psycho- logical factors; (ii) investors may perceive trends even though no obvious pattern is present; (iii) imperfect information exists in the presence of trader heterogeneity; (iv) different investors tend to have different investment opportunities, depending on taste, while herding behavior may result in a common taste; and (v) the market is not necessarily in equilibrium, and while arbitrage opportunities exist they may be subject to market sentiment.

There is another important point to make with reference to the emotional factor: humans behave like animals, feeling safe in a crowd (crowd behaviour). According to Akerlof and Shiller (2009), confidence is one of the most important aspects of animal spirits. They believe that confidence, signifying the behaviour beyond the rational approach to decision-making plays a major role in the economy. When people have confidence, they get down to business and buy. They make decisions spontaneously. The asset value is high and may be on the increase. Elements such as investor confidence leading to over-reaction (Barber and Odean, 2001), optimism (Scheier and Carver, 1985), pessimism (Barberis, Shleifer and Vishny, 1998), (Kruger and Burrus, 2004) or, broadly speaking, animal spirits (Akerlof and Shiller, 2009), are taken into account to explain the link between investor behaviour and trading volume.

Odean (1999), Barber and Odean (2001, 2002) and Glaser and Weber (2007) stated that many empirical studies demonstrate that overconfidence leads to excessive trading and that the more overconfident the investor, the more likely the investor is to choose higher-risk

investments. Nasic and Weber (2010) demonstrate that overconfidence and risk perception have a positive effect on the risk-taking behaviors of individual investors. Therefore, we can say that overconfidence corresponds to individuals who are too confident and exaggerate in estimating their own competence and underestimate risk.

Dowling and Lucey (2008) examine weather effects using CC, rain, RH and geomagnetic storms, and Chang, Nieh, Yang, Yang (2006) include TEMP, CC and RH; and then Theissen (2007) employs CC, sunshine, rain and TEMP; and then Kang, Jiang, Lee, Yoon (2010) utilize TEMP and RH. Nevertheless, Dowling and Lucey (2008) indicate only a weak relationship between TEMP and equity returns.

Kliger and Levy (2003), using S&P 500 index options data, find that a bad mood, proxied by CC and precipitation, leads investors to place higher-than-usual probabilities on adverse events. Chang, Chen, Chou, Lin, (2008) also find that CC (cloud cover) and TEMP in New York City have a significant positive effect on the intraday volatility of NYSE rms. Symeonidis, Daskalakis, Markellos (2010) investigate the relationship between the stock market volatility, which is historical, the implied, realized volatility and the weather (CC, TEMP and precipitation). The results showed that CC is negatively associated with various measures of stock market volatility. Lu and Chou (2012) find that CC (RH) in China has a significant negative (positive) effect on volatility, while TEMP does not have a significant positive effect. Wang, Li, Lin. (2012) focus on the Taiwan market and conclude that sunshine hours and TEMP insignificantly influence stock returns and have a significant impact on stock volatility. Bassi, Colacito, Fulghieri, O Sole (2013) provides the foundation that weather can significantly affect hedging behaviors. Moreover, using survey and disaggregated trade data, Goetzmann, Kim, Kumar, Wang (2015) show weather-based indicators of mood impact perceptions of mispricing and the trading decisions of institutional investors.

Barber and Odean (2001) showed that Men, on the other hand, have been shown in the literature to demonstrate higher levels of overconfidence. Hirshleifer and Shumway, (2003), Kamstra et al., (2003); Al-Hajieh, Redhead, Rodgers (2011) stated that generally assume that some environmental factors (e.g. sunshine, hours of daylight, sports results, religious holidays) can trigger mood changes in a large fraction of the investor population, which in turn translate into changes in risk aversion and/or optimism and affect portfolio choices.

Isen and Patrick (1983) find that happy mood fosters risk taking in a game of roulette involving low-risk bets; when high-risk bets are considered, however, individuals in a positive mood tend to be more risk averse than controls. Grable and Roszkowski (2008) and that people currently experiencing a happy mood display a higher level of financial risk tolerance when confronted with hypothetical investment decisions than people in a neutral mood.

Hirshleifer and Shumway (2003) explained that the positive mood (allegedly triggered by sunshine) leads people to be more risk-prone and/or to evaluate future prospects more optimistically. Guven (2009), documents that unexpected sunshine increases (self-reported) individual happiness, and that increased happiness (instrumented with regional sunshine), leads people to be more risk-averse in financial decisions, to choose safer assets, and to have “less desire to invest in shares [of stock] because they find them too risky”.

Several research from other ASEAN, Middle East and Western countries for example, Kengatharan (2014), Qadri and Shabbir (2014) and Nofsingera and Varmab (2013) have established that psychological factors do have relationships and impacts on the decision making of investors in their stock markets. The behavioral finance theory which is based on psychology seeks to understand how emotions and cognitive errors influence behaviors of individual investors.

Lim (2012) had examined the relationship between psychological biases, namely the overconfidence bias, conservatism bias, herding and regret and the decision making of investors in the Malaysian share market. The result is that overconfidence, conservatism bias and regret have positive significant impacts on investors' decision making. However, herding behavior was found to have no impact on investors' decision making. Luu (2014) showed that the behavior patterns of individual investors in Ho Chi Minh stock market such as: overconfidence, anchoring, herding, loss aversion and regret aversion have moderate impacts on the investors while market factors have the highest impact among all on the investors' decision making.

Atif Kafayat (2014) examined if investors in Islamabad Stock Market were affected from self-attribution bias, overconfidence and over-optimism bias in making rational decisions. The result of their study concluded that all the factors mentioned are negatively correlated with investors' decision making. Pourjiban, Setayesh and Janani (2014) found that overconfidence bias has a significant impact on investment in Tehran Stock Exchange Market.

Qadri & Shabbir (2014) showed that overconfidence and illusion of control have positive significant impact on investors' decisions. Tripathy (2014) indicated that investors of Bhubaneswar Stock Exchange are victims of psychological biases (overconfidence, anchoring, regret and loss aversion) affect decision making.

Bashir, Azam, Butt, Javed, Tanvir (2013) showed that there was a positive significant relationship and impact of overconfidence, illusion of control, confirmation biases and excessive optimism on investors' decision making. Babajide and Adetiloye (2012) concluded in their research that investors' behavioral biases overconfidence, loss aversion, framing and the status

quo bias exist among Nigerian investors. A weak negative relation between the biases and stock market performance is also established.

Qureshi, Rehman and Hunjra (2012) examined about the effects of behavioral factors such as heuristics (representativeness, gambler's fallacy, anchoring, overconfidence, and availability bias) and risk aversion on the decision making of equity fund managers of Pakistan. The results demonstrated a positive and significant relationship exist between the behavioral factors and investment decision making.

In conclusion, most of the previous studies have found psychological factors have positive and significant impacts on investors' decision making

## RESEARCH METHOD

To meet our research objectives, we conducted our study with the following research questions in mind: (1) Do investors in the capital market behave rationally or irrational? (2) Whether the capital markets are efficient?. We performed our literature review following a six-step process. First, we conducted a scoping study based on an ad hoc list of empirical papers that focus on behavioural finance. Second, we searched the literature and identified the relevant studies for our review. Third, we selected those studies that met our specific selection criteria. Fourth, we read the papers selected and developed a data set including the main variables and characteristics of each study. Fifth, we classified behavioural finance. Finally, we synthesized the insights extracted from the literature review in order to answer our research questions. The steps of this study follow the steps of research such as those conducted by Franco-Santos, Lucianetti and Bourne (2012)) and logical analyzes such as those done by Guzavicius, Vilke and Barkauskas (2014).

## RESULTS

Based on several explanations above that theoretical studies in behavioral finance have demonstrated that emotion influences investment decisions. It means that the trading is influenced by the investors' irrational behavior. As we know that human behaviour is generally reactive, not proactive; therefore, it is difficult to make predictions on the basis of narrow rules. Behavioural finance can relatively easily explain why an individual has made a decision. Based on behavioural finance theory that investors are influenced by psychological factors in decisions making. Investors allow themselves such as their beliefs and emotions, thus deviating from rational choices and causing a shift in asset prices in relation to their intrinsic value.

Several studies has explained us that existence of irrational investor behaviour on the capital market, concluding that such investors can cause changes in the movement of prices

in relation to their fair values. For example, the previous studies has analyzed that the impact of both rational investors (who ground their trading behaviour on rational expectations) and irrational investors (who show psychological and emotional facets of the human decisions/ behavioural errors) on the trading volume. The results showed that trading is influenced by the investors' irrational behaviour. It means that the rationality hypothesis can be rejected for both capital markets. Capital markets can be influenced by psychological and sociological factors, so we can call the capital market are not necessarily efficient.

## CONCLUSION

Therefore, it can be concluded that behavioural finance give the evidence that the investors are not rational, so it makes the market is not efficient. This matter can be seen from the decision making of investors affected by some psychological factors, such investors' emotional, internal and external environment). So, that there will be no market efficiency.

## REFERENCES

- Akerlof, G.A.; Shiller, R.J. (2009). *Animal Spirits*. Princeton University Press
- Al-Hajjeh, H., Redhead, K., Rodgers, T. (2011). Investor sentiment and calendar anomaly effects: a case study.
- Atif, Kafayat. (2014). Interrelationship of Biases: Effect Investment Decisions Ultimately. *Theoretical and Applied Economics XXI* 6(595), 85-110
- Babajide, A. A., Adetiloye, K. A. (2012). Investors' Behavioral Biases and the Security Market: An Empirical Study of the Nigerian Security Market. *Accounting and Finance Research* 1(1), 219-229
- Barber, B.M.; Odean, T. (2001). Boys will be Boys: Gender, Overconfidence and Common Stock Investment, *Quarterly Journal of Economics*, 116 (1), p. 261-292
- Barber, B., Odean, T. (2002). Online investors: do the slow die first? *Review of Financial Studies* 15, 455–488.
- Barberis, N.; Shleifer, A.; Vishny, R. (1998). A model of investor sentiment, *Journal of Financial Economics*, 49, p. 307 -343
- Bashir, T., Azam, N., Butt, A. A., Javed, A., Tanvir, A. (2013). Are Behavioral Biases Influenced By Demographic Characteristics & Personality Traits? Evidence from Pakistan. *European Scientific Journal* 9(29), 277-293.
- Bassi, A., Colacito, R., Fulghieri, P., 'O Sole Mio. (2013). An experimental analysis of weather and risk attitudes in financial decisions. *Rev. Financ. Stud.* 26, 1824–1852.
- Buss, D. M. (2009). How Can Evolutionary Psychology Successfully Explain Personality and Individual Differences?, *Perspectives on Psychological Science*, 4, 359-366.
- Cao, M., Wei, J. (2005). Stock market returns: a note on temperature anomaly. *J. Bank. Financ.* 29, 1559–1573.
- Chang, S., Chen, S., Chou, R., Lin, Y.,. (2008). Weather and intraday patterns in stock returns and trading activity. *J. Bank. Financ.* 32, 1754–1766.
- Chang, T., Nieh, C.C., Yang, M.J., Yang, T.Y. (2006) Are stock market returns related to the weather effects? *Empir. Evid. Taiwan, Physica A* 364, 343–354.



- Dhar, R., Kumar, A. (2001). A non-random walk down the main street: Impact of price trends on trading decisions of individual investors. Working paper (No. 00-45), International Center for Finance, Yale School of Management, New Haven, CT; Bernheim, B. Douglas (2008). "Neuroeconomics: A Sober (But Hopeful) Appraisal", NBER Working Paper 13954
- Dowling, M., Lucey, B., (2008). Robust global mood influences in equity pricing. *J. Multinational Financ. Manage.* 18, 145–164.
- Fama, E. (1970). Efficient Capital Markets: A Review of Theory and Empirical Work. *The Journal of Finance*, 25, 383-417.
- Franco-Santos, Monica., Lucianetti, Lorenzo., Bourne, Mike. (2012). Contemporary Performance Measurement Systems : A Review of their consequences and framework for Research. *Management Accounting Research* 23: 79-119
- Glaser, M., Weber, M. (2007). Overconfidence and trading volume. *Geneva Risk Insur. Rev.* 32 (1), 1–36.
- Goetzmann, W.N., Kim, D., Kumar, A., Wang, Q., (2015). Weather-induced mood, institutional investors, and stock returns. *Rev. Financ. Stud.* 28, 73–111.
- Grable, J.E., Roszkowski, M.J. (2008). The influence of mood on the willingness to take financial risks. *J. Risk Res.* 11 (7), 905–923.
- Guen, C., (2009). Weather and Financial Risk-Taking: Is Happiness the Channel?, SOEP paper No. 218. Available at SSRN: <http://ssrn.com/abstract=1476884>
- Guzavicius, Andrius., Vilke, Rita., Barkauskas, Vytautas. (2014). Behavioural Finance: Corporate Social Responsibility Approach. *Procedia – Social and Behavioural Sciences* 156 : 518-523.
- Haugen, R. (1999). *The inefficient stock market*. Upper Saddle River (NJ): Prentice Hall.
- Hirshleifer, D., Shumway, T. (2003). Good day sunshine: stock returns and the weather. *J. Financ.* 58, 1009–1032.
- Isen, A.M., Patrick, R., (1983). The effect of positive feelings on risk taking: when the chips are down. *Organ. Hum. Behav.* 31, 194–202.
- Kamstra, M., Kramer, L.S., Levi, M., (2000). Losing sleep at the market: the daylight-saving anomaly. *Am. Econ. Rev.* 90, 1005–1011.
- Kang, S.H., Jiang, Z.H., Lee, Y.J., Yoon, S.M. (2010). Weather effects on the returns and volatility of the Shanghai stock market. *Physica A* 389, 91–99.
- Kengatharan, L., Kengatharan, N., (2014). The Influence of Behavioral Factors in Making Investment Decisions and Performance: Study on Investors of Colombo Stock Exchange, Sri Lanka. *Asian Journal of Finance & Accounting* 6(1), 1-23.
- Kliger, D., Levy, O., (2003). Mood-induced variation in risk preferences. *J. Econ. Behav. Organ.* 52, 573–584.
- Kruger, J.; Burrus, J. (2004). Egocentrism and focalism in unrealistic optimism (and pessimism), *Journal of Experimental Social Psychology*, 40(3), p. 332-340
- Lim, L.C. (2012). The Relationship between Psychological Biases and the Decision Making of Investor in Malaysian Share Market. Unpublished Paper International Conference on Management, Economics & Finance (ICMEF 2012) Proceeding.
- Loewenstein, G. (2000). Emotions in economic theory and economic behaviour. *Am. Econ. Rev.* 90, 426–432.
- Lu, J., Chou, R.K. (2012). Does the weather have impacts on returns and trading activities in order-driven stock markets? Evidence from China. *J. Empir. Finance* 19, 79–93.
- Luu, T. B. (2014). Behavior Pattern of Individual Investors in Stock Market. *International Journal of Business and Management* 9(1), 1-16.

- Malkiel B. (2003). The efficient market hypothesis and its critics, Princeton University, CEPS Working Paper No. 91. *Market. International Journal of Research in Management* 4(4), 1-10.
- Nofsingera, J. R., Varmab, A. (2013). Availability, Recency and Sophistication in the Repurchasing Behavior of Retail Investors. *Journal of Banking & Finance* 37(7), 2572–2585.
- Nosic, A., Weber, M. (2010). How riskily do i invest? *Decis. Anal.* 7 (3), 282–301.
- Odean, T. (1999). Do investors trade too much? *Am. Econ. Rev.* 89, 1279–1298.
- Oprean, Camelia. (2014).. Effects of Behavioural Factors on Human Financial Decisions. *Camelia Oprean / Procedia Economics and Finance* 16, 458 – 463
- Pourbijan, F., Setayesh, M. R., Janani M. H. (2014). Assessing Impacts of Investors' Overconfidence Bias on Investment in Tehran Stock Exchange.
- Qadri, S. U., Shabbir, M. (2014). An Empirical Study of Overconfidence and Illusion of Control Biases, Impact on Investor's Decision Making: An Evidence from ISE. *European Journal of Business and Management* 6(14), 38-44.
- Qureshi, S. A., Rehman, K., Hunjra, A. I. (2012). Factors Affecting Investment Decision Making of Equity Fund Managers. *Wulfenia Journal*, Vol.19, No. 10, 280-291.
- Romer, P.M.(2000).Thinking and feeling. *Am. Econ. Rev.* 90, 439–443.
- Scheier, M. F.; Carver, C. S. (1985). Optimism, coping and health: assessment and implications of generalized outcome expectancies, *Health Psychology*, 4(3), p. 219-247
- Souanm, Mona., Forbes, William., Hudson, Robert. (2014). Adapting nancial rationality: Is a new paradigm emerging? *Critical Perspectives on Accounting* 25 ,724–742
- Statman, M..(1999). Behavioral nance: Past battles and future engagements. *Financial Analysts Journal*, 18–27.
- Stracca, L.,(2004). Behavioural nance and asset prices: where do we stand? *J. Econ. Psychol.* 25, 373–405.
- Symeonidis, L., Daskalakis, G., Markellos, R.N. (2010). Does the weather affect stock market volatility? *Physica A* 389, 91–99.
- Theissen, E. (2007). An analysis of private investors' stock market return forecast. *Appl. Financ. Econ.* 17, 35–43.
- Tripathy, C. K., (2014). Role of Psychological Biases in the Cognitive Decision Making Process of Individual Investors. *Orissa Journal of Commerce* XXXIV(1), 69-80.
- Wang, Y.M., Li, C.A., Lin, C.F. (2012). Investor sentiment of lottery stock — evidence from the Taiwan Stock Market. *Investment Manage. Financ. Innov.* 9 (2), 203–207.