

# The Psychological, Neuroscience, and Socio-Economic Factors of Mindset Investors in Buying Mutual Fund for Investments Decisions

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## ABSTRACT

Investment decision is a problem in selecting the desired investment from an individual on the available opportunities by choosing one or more investment alternatives that are considered to have advantages. The researcher analysis how cognitive, neural process, and social-economic factors influence the investors buying mutual fund. In this research focus on cognitive constraints and a low a knowledge about mutual fund to effects on investment decision. This research use qualitative study aims to analyze the psychological, neuroscience, and socio-economic factors of mindset investors in buying reksadana for investment decisions. In this research used to answer the research question is descriptive qualitative. Then, the data collection method used in this study is in-depth interview. The results in this research that psychology has a role in the behaviour of mindset investors in buying reksadana for investment decisions. The objective to explore factors buying mutual fund by investors. This research uses six participants. The main outcome measure it can be concluded that investor behavior in mindset stock investment decisions is always based on psychological and socio-economic attitudes when buying mutual funds.

**Keywords:** The psychological, neuroscience, socio-economic factors, mutual fund, investment decisions.

## INTRODUCTION

A mutual fund is a financial collects funds from shareholders to invest in securities such as stocks, bonds, and other financial instruments. Mutual fund is a investment focus on portfolio. Mutual funds important for every market operation because risk control is also the most important issue, and rightly so it is important to analyze some of the variables that have an impact on investors. In addition, mutual funds create easier for small investors who do not have

sufficient knowledge, expertise, and low risk tolerance to invest their savings in profitable portfolios by more skilled fund managers (Sharaz Saleem, Faiq Mahmood, Usman Muhammad, Mohsin Bashir and Rizwan Shabbir , 2021). Each shareholder then participate proportionally in capital gains or losses of the fund, to achieve returns for clients, these skilled technical managers target profitable and outperforming financial instruments. so that a mindset will emerge in

investors buying mutual funds safely so there is no need to worry.

This research estimates the investors wise analysis to psychological, neuroscience, and socio-economic factors of mindset investors in buying mutual fund for investment decision. This research designs a model severally for men and women to see the difference. (Avram E.L. et.al., 2009) define universal investment as a current investment being made in order to make profits in the future.

Capital investments are profitable and can be done in two ways. Investments can take the form of fixed investments such as buildings, machinery and factories. Or investing in stocks, bonds, etc. Both forms of investment enable companies to grow. Another way of looking at it is that the investment can be a replacement investment where the real asset is replaced. Alternatively, an investment can become a net investment when a new asset is added to an existing asset. The decision to invest depends on the investor's expected return, cost of the asset, availability of funds for investment and type of financing (Harcourt, G.C. et al. , 1967).

In the field of economics, the stages of analyzing investment decisions from the perspective of decision makers in buying mutual fund products, so that they can understand how they make decisions without perfect information. In understanding and studying risk, theory and empirical analysis must be combined. Pure theory may have some drawbacks and empirical analysis by itself may be limited and may remain primitive. Combining theory of psychological behavior, neuroscience, and socio-economic

factors with practice helps determine the strengths and limitations of the theory. In this way, the theory can be refined and can help in a better understanding of risk (Chavas, Jean Paul, 2004).

A brief contemporary history of financial economics sets the stage. In the early 1950s, Modern Portfolio Theory (MPT) formalized the idea of how a rational investor could invest in a variety of assets by risking a higher "return" (i.e., rate of change in price). started to change. assets). This theory has formed the basis of financial economics for decades and has made many amazing and insightful predictions. For example, how investors choose which stock to hold and what the market price of that decision is (Cary Frydman and Colin F. Camerer, 2016).

In the early 1980s, several researchers began to uncover facts about the stock market as a whole that were difficult to explain in this purely rational worldview (Shiller, R. J. , 1981).

Over the past three decades, researchers have made great strides in rigorously testing this model of financial behavior. It often uses the principles and methods of cognitive assessment and choice psychology (Barber, B. M., and Odean. I., 2013).

According to Prasad (2021) the critical process of investment decisions depends on many factors which may vary from individual to individual. None of the few investor decisions are related to investment factors such as risk, ambiguity, and product preference. An increased level of financial literacy helps make good investment decisions with high confidence to manage risk (Awais, M. Laber, M. F. Rasheed, N. Khursheed, A. , 2016). Investment

risk contracts can be measured by (a) rate of return, (b) rate of return and (c) prior information (Marsis. A. S, 2013) in (Vuthalova, M., 2015). This study also uses this to construct investment decisions, which are the dependent variable. The predictors used in the model are behavioral factors, financial literacy and socio-economic factors. This study uses the investment decision construct which is the dependent variable. In addition, the predictors used in this study are psychological factors, neuroscience, socioeconomic factors and buying mutual funds. This is because this research discusses phenomena that occur in everyday life, namely how someone buys mutual fund products.

In the social psychological analysis of identity, traditionally it does not pay much attention to social class or Social Economic Status (SES) as a component of identity. Instead, the focus is on categories such as race, gender, sexual orientation, nationality and age. Easterbrook, Kuppens, and Manstead that analyzed data from two large, representative samples of British adults and showed that respondents placed a high subjective importance on their identity indicative of SES. Indeed, they attach at least as much importance to their SES identity as they do to identities (such as ethnicity or gender) that are more commonly studied by self and identity research (Anthony. S.R. Manstead , 2018). In today's life, socio-economic status is a tool to find out whether someone will buy mutual fund products. The higher a person's socioeconomic level, the higher the level of mutual fund purchases, this is in accordance with the phenomenon in interviews with

people who have high financial resources and respond positively to mutual fund purchases. From a Marxist perspective, class is defined objectively in terms of the relationship between individuals and the means of production (Anthony. S.R. Manstead , 2018).

Stephens et., al. conceptualization (2014) in according to Kraus, Piff and Keltner's (2011) discussion of 'subjective social rank', culture-specific relationships to the self vary with social class. The latter authors argue that differences in material resources available to working and middle classes create cultural identities based on subjective perceptions of social status in relation to other people. These perceptions are based on observable characteristic behavioral patterns resulting from differences in wealth, education, and occupation. "As long as these behavioral patterns are observable and associated with personal wealth, professional prestige, and education, they are potential signals to others in one's social class." (Kraus, M. W., Piff, P. K., Mendoza-Denton, R., Rheinschmidt, M. L., & Keltner, D., 2012).

In addition, there are several other studies that are used as references for the author in conducting this research, such as research from Aamir Sarwar & Ghadeer Afaf (2016), which explains that behaviors can be explained by well known principles from cognitive science. A boom in high quality accumulated evidence especially how practical, low-cost 'nudges' can improve financial decisions is already giving clear guidance for balanced government

regulations. This is in line with previous research from Frydman & Camerer (2016), which explains that which proves that there is a significant effect on psychological factors and economic factors with individual investor's decision-making. In addition, according to research from Anthony S. R. Manstead (2018) that social class it is differences in identity, cognition, feelings, and behavior make it less likely that working class individuals can benefit. Another research from Swasti & Kiran & Kumar (2021) that in both genders, behavioral factors, socio-economic factors and financial literacy factors significantly affect investment decisions.

In experimental psychology research, psychologists apply their knowledge to concrete analyzes of problems that arise. This includes not only individual thoughts, actions, perceptions and feelings, but also collective actions (Sallis, James F., Neville Owen, E. Fisher., 2015). The psychological perspective is useful for analyzing the psychological factors of economic processes and understanding the economic behavior of consumers and companies in the decision-making process, as well as psychological factors that influence the decision-making process (Ho, Arnold. K, 2015).

In this research use economic psychology model of Katona that describe among humanism and cognitive psychology, behavior, psychological analysis, gestalt, and cognitive psychology have a big impact in economic. The novelty in this research is investors mindset buying mutual funds in investment decision.

Based on the background described above, the authors are interested in conducting research on "the psychological, neuroscience, and socio-economic factors of the mindset of investors in buying mutual funds for investment decisions. the hope after conducting this research that increasing public interest in the buying power of mutual funds continues to increase. in most studies using quantitative methods but this approach failing to understand context and under lying mechanisms impacting outcomes. Using qualitative data allows a richer understanding complex interactions between individuals, on his psychological condition, thus giving rise to a mindset in a pattern of thinking or neuroscience which functions to see the condition of a person's mindset in buying mutual funds and the socio-economic factors that have an impact on investment decisions. In this case, investors are able to facilitate identification of barriers and supporting factors in buying mutual funds, provide an important dimension to evaluation in investment decisions.

## **METHOD**

This research method used a qualitative. Qualitative research is a research method used for studying the condition of natural objects (Sugiyono, 2005). The focus on qualitative research, the researcher is the key instrument and the data collection technique is triangulation. Secondly, the data analysis is inductive and qualitative research findings further emphasize importance rather than generalization.

The researcher used a qualitative method in-depth

information detailed about the problem of the research which aims to understand the psychological, neuroscience, and socio-economic factors of mindset investors in buying mutual fund for investment decisions. The qualitative research can also give description about how the behavior of investors buying mutual fund for investment decisions in the stock market. A qualitative method allows researcher to receive data from investors and generate descriptive data for references in their research. In this research, researcher used list of questions to interviews, data collection, and data analysis. The researcher used the steps are draft interview questions based on experience of investors about buying mutual fund for investment decisions, focus by processing interviews, write the documentation directly in the relate to the research, coding the data from interviews, analysis the data from interviews.

According to Umar (2003), in this research using primary data obtained directly from the field with informants as research objects. In addition, in this research using the in-depth interview method needed to obtain data by conducting interview techniques with informants who have been determined by the researcher. In this case, the interview uses an interview guide so that it focuses on the problem to be examined. This study uses an interview guideline that does not contain detailed questions but outlines the data obtained from the informants which will then be developed with a focus on the developmental context and circumstances of the interviews.

Semi-structured interviews as a method of data collection.

According to Sugiyono (2012) an interview is the collection of data through meetings between researcher and information about buying mutual fund. Semi-structured interviews were used in this research. Furthermore, Sugiyono (2012) that a semi-structured interview is a type of interview that allows the researcher to improving additional question that are not included in the informant interview guide.

Data collection in a natural setting, the primary data source, and data collection techniques are all part of qualitative research (Pratama, 2016).

Data analysis in qualitative research is the process of compiling data obtained systematically through categorization according to the pattern, selecting the data is important and have to explored, and describe conclusions from data analysis. The measures implemented in this case research are part of a qualitative research. According to Moleong (2006) that the data analysis process begins by examining all of the data has been obtained and reduced to a summary of which is the core of the data. The following step is to create a summary of the data into categories while coding, the category is created. The data validity check is the final stage of data analysis.

## **RESULTS AND DISCUSSION**

In this study, the informants consisted of six (6) people who invested in the stock market. In this study, the researcher did not use the informant's real name because it was confidential. so the author uses the initial name of the informant. More information is provided below.

1. Selly is 40 years old.  
She has a job as an accounting in an advertising company. She understands mutual funds. according to her investing is very important because it is for future needs. She understands the risks investing in mutual fund instruments and bonds is very important by setting aside 30% of income each month. She always updates stock market developments and she chooses a fixed income instrument that has a return of 3-5%/p.a.
2. Cindy is 28 years old.  
She is a developer at the company and an investor. She believes that investors do not need to have a lot of capital. Even though she often suffers quite large losses, she believes that every loss will bring profit later. She argues that an investor does not need to have large capital.  
five hundred thousand rupiah was enough for her to make a profit. She chooses a money market instrument that has a return 3-4%/p.a.
3. Budy is 45 years old.  
He has a job as an IT company manager. He likes to save at the bank by selecting deposits. every month he diligently added the balance to his deposit account so that the amount was large.  
One day, he was offered by a marketing bank regarding mutual funds, but he was not interested because he did not understand the stock market or invest in the secondary market. For him, deposits are safe savings without the risk of losing money. he even asked his co-workers about mutual funds and the risks but he was still not interested.
4. Tina is 26 years old.  
Tina doesn't like mutual funds because she doesn't understand investing. According to her by saving in the bank his money will be safe. she chose a savings plan and deposits. According to her, buying a mutual fund will make him afraid if his money is lost.
5. Hendy is 29 years old.  
He was an administrator with no background knowledge about economy and stocks market. He relies only on the knowledge of his friends, relatives and other people. He said his goal as an investor is to seek profit through profit. As an investor, he will not use funds to disrupt his family's finances.
6. Karina is 49 years old.  
Woman aged 49 years old is an investor with experience in transactions stock exchange for many years. and she focused on the investment business. Early years, she didn't know what it was and how to divide it transaction. Therefore, she decided to become one active investor until now. she always had a very significant advantage. She has a strategy in investing in mutual funds. for her investing in mutual funds is very profitable. She has never shared with a broker but with good analytical skills so she gets profits.

**The psychological mindset investors in buying mutual fund for investment decision.**

Identifying successful investment strategies is one of its main uses. behavioral finance. Behavioral finance attempts to identify and explain abnormalities in economic behavior such as underreaction, overreaction, and calendar effects on stock prices (Thaler, R.H. , 1992). On economic behavior includes; work, buy, save, and some of them subject to intensive psychological research. The work is the subject of the whole a branch of psychology known as occupational psychology, occupational psychology, or occupation psychology and most of economics, labor economics. So, it's not a coincidence. Many business psychologists focus on economic behaviors such as saving, giving and donating pay (or avoid) exempt taxes defined subfield. The economics community from Herbert and Friedrich that the inclusion physical factors in economic analysis is a part of forward-looking perspectives to dev elopement of embodies economics. Simon have a conclusion about that the decisive and important system of sensory and motivational such as, behavior, decision making, and emotion.

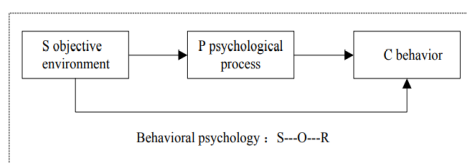


Figure 1. Katona's Economic Psychology Mode

Such tendencies may be the result of use schematic provided by our own physics movement." The concept emphasizes relationship between the individual and himself the "causality" of the world's perception of world and provides a

basis for understanding world of information overload.

Based on data from the interview process, the behavior of investors buying mutual fund products is motivated by the purpose of investing, while investors who still do not know about investments are very difficult to buy investment products. In behavioral psychology theory, each individual has a goal so that behavior is formed which at the same time processes this goal so that it can become a habit. In addition, someone who has the goal of investing in the capital market will get used to doing so because a psychological process has been formed and the mindset is that investing is a routine that can be done at any time without worry. Investors who have never invested in the capital market will form a behavior that does not believe that investing is easy and can minimize the risks that occur, even though the investor already understands investment products or does not understand these investment products.

In Katona's Economic Psychology Model. In this case, S (stimulus) is found investors who have or have not made purchases and transactions of mutual funds in small or large nominal amounts. For O (organismic) there are investors who think that by purchasing and transacting mutual funds, they think they can diversify their finances and want a profit. Even though these investors have experienced losses, they still invest in mutual funds. Meanwhile, investors who have not made any returns and transactions in mutual funds, they have the mindset that they are still defending and are afraid that their money will

disappear because of price movements in the capital market. Furthermore, for R (response) investors who actively transact in mutual funds and monitor price movements. Based on interview data with 6 investors, a behavioral psychology conclusion was obtained: S-O-R.

Table 1. Behavior Psychology S-O-R

S	O	R
<ol style="list-style-type: none"> <li>Currently there is activity among investors, namely buying and transacting mutual funds</li> <li>Always follow price movements in the capital market.</li> </ol>	<p><b>Thinking :</b></p> <ol style="list-style-type: none"> <li>Investors think that by investing, they can get large profits or capital gains compared to saving or deposits</li> </ol> <p><b>Feeling :</b></p> <ol style="list-style-type: none"> <li>By buying and transacting in mutual funds, they can better manage their finances and be appreciated by others, because they have an open mindset in mutual funds. Investors will feel very proud and be part of the capital market which can promote state financial literacy.</li> </ol>	<p>Investors buy and transact mutual funds online or at a securities company or bank with a minimum duration of 1 hour every day.</p> <ol style="list-style-type: none"> <li>Frequency:</li> <li>Intensity: strong</li> <li>Duration:</li> </ol> <ol style="list-style-type: none"> <li>Latency: 5 minutes</li> <li>Length of time: &gt; 1 hour every day</li> <li>Interval between responses: 1 hour</li> </ol> <ol style="list-style-type: none"> <li>Total by product amount: -</li> </ol>

"Modal is not a problem, but rather a social problem," as Marx put it, is easier to understand than the industrialization era (Yucong You, 2018). Therefore, expanded forms of net present value are combined with ready-made information economics. Acceleration of capital circulation and expansion of scale. In the form of equity, asset prices are no longer tied solely to intellectual property. This research, the author uses the expansion model of Strem Bell because economics and all decision models avoid talk of governing physiological mechanisms, so most of the neuroscience and biological variables have nothing to do with economic verification theory.

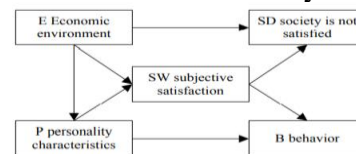


Figure 2. The expansion model of Strem Bell

Based on information from investor interviews, the conclusion is that there is no relationship between neuroscience and biological variables and nothing to do with economic theory. According to the theory of the expansion model of Strem Bell states that the economic environment affects the financial business of a company. In this case, the economic environment factor has a direct impact on financing costs, production costs, and sales. However, this does not directly affect investors (which then has an impact on company sales). Investors will still receive according to the price in the capital market and have been deducted by the administrative costs of the company. this has an effect on community satisfaction.

According to the interview data, some investors are still interested in saving in deposits because there are no administrative costs compared to investing.

In addition, the economic environment influences the personality traits of investors. In accordance with the interview data which states that investors still like to invest in the capital market because they have a strategy to achieve a goal, namely maximum profit by studying risk management. Investors do not hesitate to invest in the capital market for large amounts of up to 50% of their income. This is the basis that investors have different characteristics in investing. As for investors who invest with a small nominal, namely Rp. 500,000 because they want to experience and still want to learn to invest in the capital market. Investors who have transacted in the capital market or mutual funds will have the habit that this is an investment instrument to achieve a goal desired by investors. On the other hand, investors who are still unsure or have not yet invested in the capital market will have the same behavior, namely they are still waiting and seeing.

Psychological status in investors buying mutual fund in investment decision. Physiological psychology and neuroeconomics have discovered that physiological signals such as metabolism and hormone levels can directly affect a person. Preferences and choices in decision making (Gaur, Jighyasu., 2017).

### Neuroscience

In this study, the author tries to describe the psychological situation of investors who have

bought and transacted in mutual funds. In this case, the author also uses the previous study in answering the psychological conditions experienced by investors. According to previous research from Cary Frydman and Colin F. Camerer (2016) which stated that (a) The experiment consists of two screens. A price update screen where the subject sees news about price changes and a trading screen where the subject can trade stocks. (b) Timing of ventral striatal activity (VSt) is associated with selling decisions when given the opportunity to sell profitable shares. (c) The part of the brain whose activity correlates with stock price movements when price movements become apparent. (d) Sales errors and purchasing errors are highly correlated in subjects.

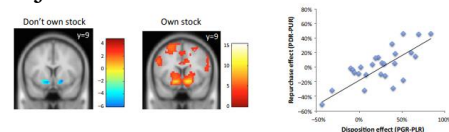


Figure 1: An Investigation into Mechanisms Cognitive

### *Socio-economic factors mindset investors in buying mutual fund for investment decision.*

According to Prechter's (1999) socioeconomic hypothesis, human interaction enhances moods and emotions. It is said that when the mood and emotions are high, optimism or pessimism leads to consistent investment decision. The effect of Calvo and Mendoza (1997) also examined the effect of herding behavior on capital market volatility during the early Mexican crisis. Short-term government debt was below total reserve levels from 1991 to mid-1993. A large debt and reserve imbalance led to the currency collapse in 1993-1994. The

government's short-term debt is nearly three times its reserves (Heitham, 2016).

The different self-construction of investment funds shapes social thinking which is synthesized into a theoretical model by Kraus, Piff, Mendoza-Denton and Rheinschmidt, Keltner (2012). They describe the way lower class individuals perceive the social environment as "contextualism", meaning a psychological orientation motivated by the need to deal with external pressures and threats; and an upper-class way of thinking about the social environment as "solipsism", an orientation of meaning motivated by internal states such as emotions and personal goals. One way these different orientations manifest is through different responses to threats. The starting point is that lower class contexts are objectively characterized by higher threat levels, which are reflected in lower job, housing, personal safety and health security. These chronic threats lead to the development of "threat detection systems", making people highly alert to threats in such an environment.

According to Kraus et al. (2012) another significant difference between contextual under-orientation and solipsistic over-orientation is the perception of control. Other important psychological constructs, such as attribution, are closely related to perceived control.

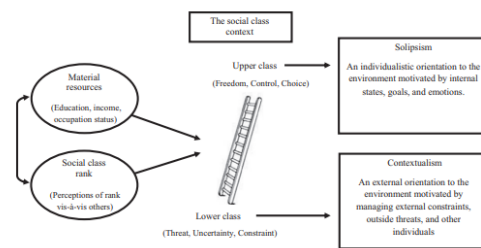


Figure 3. Model of the way in which middle- and working-class contexts shape social cognition, as proposed by Kraus et al. (2012)

Based on data from interviews with investors, the socio-economic level plays an important role in determining purchases and transactions in mutual funds. Investors with higher education backgrounds have a favorable view of investment. Based on the interview process it can be concluded that investors from various social and ethnic backgrounds, shows that believe to the amount of income that is oriented towards purchasing mutual funds, then investors who experience loss of money when transacting in mutual funds are caused by personal, not structural failures, and that it is. Valentine's Choice (2014) observes that a moralized sense of poverty as the result of individual, not structural, choices disadvantage and inequality, evident in the majority of respondents, and that negative attitudes towards the provision of welfare were identified in various social positions and not exclusively for working class or middle-class individual background.

## CONCLUSION

Based on the results of this study, it can be concluded that investor behavior in mindset stock investment decisions is always based on psychological and socio-

economic attitudes when buying mutual funds. This study also shows the subjectivity of investors who consciously or unconsciously use their psychological side to transact in the capital market and neuroscience is used to determine mood levels, optimism or pessimism leads to consistent investment decisions.

The following is a summary of the findings obtained in the study.

1. Psychological has a very important role because it can determine the ability of investors to buy mutual funds
2. Neuroscience is able to analyze the condition of investors in their psychological state.
3. Socio-economic plays a role in determining the level of investors in selecting mutual funds. Socio-economic theorists believe that research is born out of efficiency alone. This perspective is very narrow because behavior influences the behavior observed by investors psychological power. This can be very important in uncertain times.

There are also some investors who will make transactions in large numbers if they got profit. They do not hesitate to hold their gains. This shows whether investors involve their feelings and emotions in making investment decision made to try to be rational or even following the euphoria they felt after getting profit. Investors have the principle that when they enter the world of investments, especially stocks, they must be prepared to accept all the risks, both the losses and gains in large amount.

## REFERENCES

- Al., A. e. (2009). Investment decision and its appraisal . *DAAAM International, Vienna, Austria, EU Vol. 20, No. 1,* 1905-1906.
- Anthony. S.R. Manstead . (2018). The psychology of social class: How socioeconomic status impacts thought, feelings, and behaviour. *British Journal of Social Psychology* , 267-291.
- Awais, M. Laber, M. F. Rasheed, N. Khursheed, A. . (2016). Impact of financial literacy and investment experience on risk tolerance and investment decisions. *Empirical evidence from Pakistan. International Journal of Economics and Financial.*
- Barber, B. M., and Odean. I. (2013). The behavior of individual investors. *In Handbook of the Economics of Finance (Constantinides, G. et al, eds)*, pp 1533-1570.
- Cary Frydman and Colin F. Camerer. (2016). The Psychological and Neuroscience of Financial Decision Making. *CellPress, Trends in Cognitive Sciences*, Vol 20, NO. 9.
- Chavas, Jean Paul. (2004). Risk analysis in theory and practice. *Elsevier Academic Press, USA.*

- Gaur, Jighyasu. (2017). "Closed-loop supply chain management: From conceptual to an action oriented framework on core . *Journal of Cleaner Production* 167, 1415-1424.
- Harcourt, G.C. et al. . (1967). *Economic Activity. Cambridge University Press, New York, Re-issued in this digitally printed version 2008.*
- Heitham. (2016). THE ROLE OF SOCIO-ECONOMIC THEORY IN FINANCIAL MARKET: REVIEW OF INVESTORS . *Journal of Economics, Finance and Accounting – (JEFA), ISSN: 2148-6697.*
- Ho, Arnold. K. (2015). Theorizing and measuring preferences for inter group inequality using the new SDO 7 Scale. *The nature of social dominace orientation.*
- Kraus, M. W., Piff, P. K., Mendoza-Denton, R., Rheinschmidt, M. L., & Keltner, D. (2012). How the rich are different from the poor. *Psychological Review*,. *Social class, solipsism, and contextualism*, 119, 546–572. <https://doi.org/10.1037/a0028756>The psychology.
- Marsis, A. S. (2013). (2013). Rahasia Terbesar Investasi. *Second Hope.*
- Sallis, James F., Neville Owen, E. Fisher. (2015). New orientation of study on economic psychology and behavior. *"Ecological models of health "*, 44-46.
- Sharaz Saleem, Faiq Mahmood, Usman Muhammad, Mohsin Bashir and Rizwan Shabbir . (2021). Determinants of Investment Behavior in Mutual Funds: Evidance From Pakistan. *Frontiers in Psychology.*
- Shiller, R. J. . (1981). Do Stock Prices Move Too Much to be Justified by Subsequent Changes in Devidends ... ? *Am. Econ. Rev.* 71, 421-436.
- Sugiyono. (2005).
- Thaler, R.H. . (1992). Paradoxes and Anomalies of Economic Life. *The Winner's Curse New York: Free.*
- Vuthalova, M. (2015). Pengaruh pengalaman berinvestasi terhadap literasi keuangan dan keputusan investasi. . *Jurnal Online Universitas Pertanian Bogor.* [http://repository.ipb.ac.id/handle/123456789/75940.](http://repository.ipb.ac.id/handle/123456789/75940)
- Yucong You. (2018). NEW ORIENTATION OF STUDY ON ECONOMIC PSYCHOLOGU BEHAVIOR. *Guangzhou College of Technology and Business.*