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INVESTORS BEHAVIOR IN INDONESIA

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Abstract

This study aims to describe investor behavior in stock, mutual fund, and bank deposit. The psychology elements that are used in this research are mental accounting, representativeness, familiarity, considering the past, overconfidence, data mining, social interaction, fear and greed, status quo, and emotion. This research uses primary data with a help of questionnaire. The total respondent of this research is 110 people. Data collected by spreading questionnaire manually and online with the help of Google doc. The results showed that most of the respondents give positive respond to all of the elements. The element that has the highest mean value is familiarity element. It means that the respondent think that before they invest in something, they need to know first about that investment.

Keywords: Investor behaviour, Psychology element, Familiarity

Abstrak

Penelitian ini bertujuan untuk menggambarkan perilaku investor saham, reksadana, dan deposito. Elemen psikologi yang digunakan dalam penelitian ini adalah mental accounting, representativeness, familiarity, considering the past, overconfidence, data mining, social interaction, fear and greed, status quo, dan emotion. Penelitian ini menggunakan data primer dengan menggunakan kuesioner. Jumlah responden dalam penelitian ini adalah 110 orang.Pengumpulan data dilakukan dengan menyebar secara manual dan online dengan Google doc. Hasil penelitian menunjukkan bahwa sebagian besar responden memberikan respon positif terhadap seluruh elemen penelitian. Elemen dengan nilai rata – rata tertinggi adalah elemen familiarity.Hal ini berarti responden merasa penting untuk mengetahui instrument investasi sebelum melakukan investasi.

Kata kunci: Perilaku investor, Elemen psikologi, *Familiarity*

JEL Classification: G19, N25, C91

1. Research Background

The interest in the study concerning human behavior in finance is increasingly in demand. It is supported by Ackert & Deaves (2010) in which the rapid development related to behavior in finance is supported by psychology. The behavior in finance is used to understand the way human behavior influence the individual decision, professional investors, market and managers. Ackert & Deaves (2010) also stated that there are simple and daily decisions in life; such as the individual effort in struggling for the next exam or which brand of soda is going to be bought; but above all there are decisions who will give significant impacts towards individual financial wealth, such as the decision in buying shares or fund allocation in several investments. Iramani (2011) conducted research to find out the relationship between psychology factors with investor behavior. Furthermore, the research also uses psychology factors to predict investors' behavior on the risk and the types of investment chosen. The research is conducted in Surabaya with the respondents' characteristics of non-employees of the bank and they have the account with minimum 6 months. The result of the research shows that psychology factors can be used to predict the investors' behavior on the risk and the types of investment chosen. This research uses 5 elements as the factors of creating investors behavior:(1) The safety in investment; (2) Experience and skill in investment; (3) Social interaction and carefulness in investment; (4) Comfort in investment; and (5) Emotion.

In this research, it was found the 2 elements which could be used to predict the investors' behavior towards the risk; comfort and emotion factors. While the other 2 elements; security and comfort, are used to predict what kind of investment that will be chosen. With this, the psychology factor can be used to predict investor behavior towards the risks and the chosen investment itself. Other study done by Iramaniand Bagus (2008) in Iramani (2011) found out that psychology factors can explain further about investors' behavior in doing their stock transactions. As for the factor of psychology that can form the particular investors' behavior are; (1) Comfort and Security factor; (2) Bias of thought; (3) The courage in taking risks; (4) Confidence; (5) Social interactions and emotional state; (6) Bias of appraisal. Beside of those mentioned factors, factor of demography can also become one of the reasons in which can form the investors' behavior.

Research done by Barber andOdean (2001), provide an empirical evidence that male proven to have more courage to take risks in investing rather than female. It is because of the psychology factor wherein male are more brave than female. The courage level that male and female have in taking risks is proved with the value of general stock portfolios. Based on this research it was clear that the amount of male's portfolio are bigger than female's one, so it can be concluded that male have more courage in taking risks. This particular research also stated that the loss that male investors' made is bigger because they often do the transactionscompared to female investors.

Another research done by Evans (2004) stated that beside of sex, age factor can also affect investors' tolerance towards the risks available. This research showed that investors under the age of 30 known to have more courage in taking risks. Riley dan Chow (1992) further found out that it is not only the investors' age that can form their behavior, but also their education, income and wealth can become one of the factors.

Daniel (1998) inIramani (2011) revealed that psychology approach can affect investors' behavior and stocks value. Daniel explained further that this particular psychology approach related to their emotions, temperament and motivations. This approach proves that investors do have emotions, temperament and motivations that can constantly change whenever they are doing their investment.

ZinkhanandKarande (1990, inCrosonandGneezy, 2004)did a research to see differences in the action of taking risks between American students of Houston University and Spanish students of Madrid Business School. Researcher found out that Spanish students have more courage in taking risks compared to American students.

Ozorio and Ka-ChioFong (2002) did the same research on the relation between ethnics and the risks that investors might have, particularly Chinese. They stated that Chinese are braver in taking high risk actions, as shown by their acts of gambling in casino. Their research is supported by other research done by Chen et al (2002), which was done to Chinese investors at the *China Stock Markets*. They discovered that investors' income is relatively low, but the usage of those incomes in the stock market itself is quite high.

Baker and Wurgler (2007) stated that investors tend to *risk-averse*and being rational. Investors who tend to *risk-averse*must have paid attention to the security factors. As it is focusing on the long-term plan, its security has become the main point whenever they are making investments. For what it is known, the longer the term of the investment were taken, the risks that investors have to deal with is bigger, which is why the factor of security in an investments is needed.

List (2003) in Korniotisand Kumar (2006) said that an experienced investor will have more knowledge of their investments and have a high awareness toward the fundamental principle in helping other investors in taking decisions. The more knowledge an investor have, the accuracy of their investments will be increasing too, so willy-nilly, the factor of experience and skill in investment is also need to be paid attention to.

Seasholes (2009) explained that social interactions can give some positive and negative effects toward investors' wealth. One of the advantages of social interactions is the availability of *private information*, so with the existence of social interactions it will eventually increase the chance of getting the particular information.

Roth (2007, in Iramani 2011) stated that investors can feel more comfortable with their own style. Meaning to say, investors themselves will not take the risks if it is considered uncomfortable since they do not want to go out of their comfort zone. From this statement, it can be concluded that comfortable factor has become one of important factor that need to be considered by investors. With its existence, investors will feel more relax in making their investments and give other implications that the risks that they will dealing with during the process is suitable with their expectations so they will not take more risks in other types of investments.

Barberisand Thaler (2003)defined that *behavioral finance* consider the financial phenomenon can be explained using a model with some agents that not all rational. The conventional theory of finance does not give enough attention towards how people make a decision and how they can make differences during an investment.

Based on the research gap that was previously stated, it is known that each investor must have differences in how they are taking their decisions. Although the type of investment that they are taking is the same, but each and every one of them has their own considerations, which are based on the psychology factors of each investor.

For that reason, this research is made to analyze investors' behavior, in which the object of this study is mainly about investors who has invested in stocks, mutual funds and deposit. Deposit is still used because the number of people who do the investment on this particular instrument is quite high. Stocks and mutual fund are used because it has higher risks than deposit itself. Researcher does not use any derivative products because according to Siahaan (2006), investors as the speculator are facing a higher risk.

Overall, the financial behavior in Indonesia has not much been investigated yet, so the definitions of investors' behavior in money management side is still difficult to be found. It is proven with the limited number of research on investors' behavior; financially and investment wise, especially in Indonesia (Iramani, 2011). Investors' behavior can be classified into 2 perspectives; rational and irrational. If it is connected to the investors' behavior, the rational one is the investor who use *risk* and *return* analysis whenever they are taking a decision in investing something. A rational investor prioritized the mathematical calculation or statistic data before they take a risky investment (Wendy, 2012). They see the process of this particular decision making as a rational action, which is done after they calculate the highest utility value that might be gained (*rational choice behavior under risk*) (Sar, 2004) in Wendy (2012). It is safe to say that a rational investor ignored the existence of psychology factor in taking an investment decision.

Wendy (2012) paid attention more onto the investor's irrational perspective when it comes to investment decision making, which is dominated by aspects of emotions and behaviors, so that investors tend to ignore economy normative laws and potentially creating some psychology bias. These irrational investors generally do not take a comprehensive *risk* and *return* analysis, quite different with rational investor who uses the particular analysis in making their decision whenever they have a high risk investment. In irrational perspective, it is believed that investors often to have psychology bias during their decision making which is caused by affective aspects and other state of emotions.

The process of decision making in a high risk investment, according to irrational perspective, is seen by something that can be explained through behavioral and psychology side of an investor (Kahneman and Tversky, 1979; Shefrin, 1985; Statman, 1999; Hirshleifer, 2001; Ritter, 2003; Sar, 2004) in Wendy (2012). Researcher in this perspective more focusing onto the aspect of irrationality, most especially on the many kind of psychology bias that often happened and shown by investor whenever they make a decision in a high risk investment at the stock market.

Natapura (2009) said that irrational investors will join in the business and doing investment relying only onto their feelings and following around, without having a proper judgment as they are not use to analyze the details of situations and conditions at the market, on some extent, they even believe on the mystical aspect of the offered investment. It is very dangerous for the investment itself if the decision that was taken only based on an irrational consideration; which as result, the benefits (or loss) that is gained are also irrational.

In each investment, investor has some kind of information that is used as a consideration in taking their decision process. Based on the conventional financial theory, investor takes their decision rationally. Hodnett and Hsieh (2012) stated that investors think irrationally and their transactions behavior is pushed by some psychology bias. The irrational investors' behavior, according to Iramani (2011), can be measured by using certain elements; (1) *Mental Accounting*; (2) *Representativeness*; (3) *Familiarity*; (4) *Considering The Past*; (5) *Overconfidence*; (6) *Data Mining*; (7) *Social Interaction*; (8) *Fear and Greed*; (9) *Status Quo*; and (10) *Emotion*.

1. *Mental Accounting*

The investors' behavior wherein they take their decision in selling stocks using the considerations of *cost* and *benefit* of all actions that they have done (Nofsinger

(2005) in Iramani (2011)). Thaler (1980) in Pompian (2006) explained that *mental accounting* trying to portray the tendency of people to coding, categorizing and evaluating the economical result of their assets. Jackson *et al* (2012) stated that people have the tendency of connecting *cost* and *benefit* whenever they want to have an asset.

2. *Representativeness*

The tendency of evaluating probability of a certain result based on the similarity between the particular results with others (Ackert and Deaves, 2010).Baumeister and Bushman (2011) defined *representativeness* as a tendency to evaluate the chances of an occasion to be happened and relate it with other occasion that almost the same.

3. *Familiarity*

This element means the comfortable feelings towards the investments that is known before (Ackert and Deaves, 2010). Foad (2010) stated that investors preferred to have portfolios which contains of known assets rather than having one that has assets based on the empirical data and theoretical model.

4. *Considering the past*

This element has the meaning of the usage of past result as the basic factor for evaluating in the process of current decision making (Nofsinger (2005) in Iramani (2011)).Gervais and Odein (2001) in Cronqvistand Siegel (2012) stated that individual investor become much more confident because the effect of their past success. Fischhoff (1975) in Seppala (2009) *concludes that unperceived creeping determinism can seriously impair our ability to judge the past or learn from it*. From this statement, it can be understood that the ability of learning from the past will be obstructed because of the effect of determinism or the assumption of fate existence. If it is connected with the investor behavior, it can be concluded that they cannot learn from their past as they are being contented of their fate.

5. *Overconfidence*

It means the tendency of *over-estimate* towards knowledge, ability and the accuracy of an information or too optimistic towards the future and the ability of controlling the future (Ackert and Deaves, 2010). Pompian (2006) defined *Overconfidence* as *unwarranted faith in one's intuitive reasoning, judgements, and cognitive abilities*. Therefore, it can be said that *overconfidence* is a baseless believes towards someone's own intuitions, judgment and their cognitive ability.

6. *Data Mining*

It means the data gained in the past (*historical data*) which is used by the investors to create a pattern in order to predict the future (Iramani, 2011). Keogh and Kasetty (2003) stated that *data mining* is a bias which use a bunch of data; both conscious and unconsciously, to confirm the existence of the wanted products. If this particular statement is related with investors' behavior, the usage of those data is used to find a pattern on an investment.

7. *Social Interaction*

This elements has the meaning of the interactions that is going on between one investor and another, investor and brokers; and/or other parties who are related with the transactions itself within the stock market that can affect the investors' decision whenever they are doing the activity (Nofsinger, 2005 in Iramani, 2011). Hirshleifer (2009) stated that the existence of social interactions will eventually build the transactions even more. The higher the frequency of an investor communicating with other investor, the more active that particular investor in bidding will be. Hirshleifer and Han (2012) said that an individual investor is more fragile towards the social interactions than doing their own analysis in taking their decision in a certain investment.

8. *Fear and Greed*

This element is expressing about human instinct of running away or avoiding something that will put them in danger and the tendency of approaching something that they have desire with (Nofsinger, 2005 in Iramani, 2011). Lo (2011) discussed about *Fear* and *Greed* separately. *Fear* can have a very important role if the investor themselves can balance it with a lot of other considerations. The investor's fear of losing money that they have invested make them to organize the risks more; and yet, an exquisite level of fear will eventually make them become careless in selling all of their high-risk assets. Investors got scared only because of some irrational thought, and they feel that they have no other choice, as it is affected by their own psychology.

The same as *fear*, the existence of *greed* that is imbalance with other considerations will encourage the investor to make a high-risk investment with a big amount of money. And of course, the higher the risk within an investment, the *return* that is gained will also high, however it is also important to remember that beside of *return*, the risk of loss is also big. The benefits in the form of money have a side effect like cocaine and other type of drugs that of course can create some addiction, so that the benefits of an investment will create an attitude of *greed* in one self.

9. *Status Quo*

Status Quo is the behavior of an investor to refuse the changes and the fear of regrets whenever they take those particular changes (Ackert and Deaves, 2010). Samuelson and Zeckhauser (1998) in Pompian (2006) defined *status quo* a s*emotional bias that predispose people facing an array of choice options to elect whatever option ratifies or extends the existing condition in lieu of alternative options that might bring about change*. If it is related with the investors' behavior, it can be concluded that they are trying to create a condition of investment that is pretty much the same with their current conditions.

10. *Emotion*

Someone's emotions in some particular occasions can be *good mood*or *bad mood,* which is indeed an important factor in the process of decision making, especially those that has a high probability of uncertainty (Nofsinger, 2005 in Iramani, 2011). Baumeister *et al* (1994) in Lo (2011) stated that extreme emotional reactions can change rational thought become *short-circuit* ne, or it can be said that it becomes irrational. If it is connected with investors' behavior, the existence of over emotional feelings will make all of rational investment activities turned into some irrational investment actions.

Based on the description above, this research will explain further about the behavior of investors in stocks, mutual fund and deposit, using the ten elements that have been stated.

2. Research Methods

This research is using primary data; investors who have their investment done, all in stocks, mutual fund and deposit. The population target in this research is all of the investors who have done their investment in the minimum of 6 months period of time. The characteristics of the respondents minimum 18 years of age and have their education in the minimum of high school.

There are 5 variable-subs that are used in this research in describing the so many kind of investors' behavior. Each of these variables will be explained as follows;

1. The factor of secureness in doing an investment
   a. Mental Accounting is the activity of an investor based on the consideration of cost and advantages in doing the investment at the stock market in Indonesia (Nofsinger, 2005 in Iramani 2011).This indicator is measured with some kind of statements; (1) The considerations of cost and advantages; (2) The easiness of decision making process; and (3) The easiness in getting the info about its cost and advantages.
   b. Representativeness is the activity of an investor based on believes that the instrument of work at the stock market is basically the same as the performance of publishers in Indonesia (Ackert and Deaves, 2010). This indicator is measured with some statements, such as; (1) The similarity of performances; (2) The performance of a publisher company; and (3) The current economy conditions in Indonesia.
   c. Familiarity is an activity done by investors based on the comfort feelings about the investments they are doing at the Indonesian Stock Markets which has been known publicly (Ackert and Deaves, 2010). This indicator is measured with some statements; (1) The knowledge of financial market instruments; (2) The knowledge of the publisher company; and (3) The doubt towards the unknown products.
   d. Considering The Past is the activity by the investors based on the result of the using of the investments' result that was gained in the past as the object of evaluations in the current decision making process at the Indonesian marketing system (Nofsinger, 2005 in Iramani, 2011). This indicator is measured with some statements; (1) The investments' outcome gained in the past; (2) The benefits gained in the past; and (3) The mistakes done in the past.
2. The factors of experience and skills in doing an investment
   a. Overconfidence is activities done by investors with the tendency of *over-estimate* about their knowledge, ability and the accuracy of the information collected regarding the investment done in the desired financial market instruments in Indonesia(Ackert and Deaves, 2010). This particular indication is measured with some statements; (1) The amount of information gathered is enough; (2) The accuracy of one's decision; and (3) One's skills that worth to be proud of.
   b. Data Mining is a particular activity done by the investor based on the usage of data gained in the past, especially those that are related with an investment at the Indonesian financial market in order to find a pattern to predict the future (Iramani, 2011). This indicator is measured with some statements: (1) The usage of past data; (2) The easiness to predict the outcome of an investment in the future; and (3) The easiness to gain information.
3. The factors of social interactions and a prudential behavior in doing an investment
   a. Social Interaction is an interaction between one investor with another or an investor with other party that is related with the process of financial market transactions itself, which eventually can affect the results taken by the investors (Nofsinger, 2005 in Iramani, 2011). This indicator is measured with some statements: (1) The effect of friend's suggestions; (2) The frequency of asking

a friend's opinion; and (3) A suggestion given by a broker or manager to make the decision making process becomes easier.

b. Fear and Greed is the behavior of an investor that has the tendency of avoiding a market instrument that is considered harmful for them and instead, doing an investment to a financial market that can provide them more benefits (Nofsinger, 2005 in Iramani, 2011). This indicator is measured with some statements: (1) The instability of economy in Indonesia; (2) The participation in the investment done before; and (3) The situations of each instrument of the financial market itself.

4. The factor of comfortable feelings in doing an investment

This factor has only one measuring indicator that is called Status Quo. The operational definition regarding Status Quo is the activity done by one particular investor from one instrument of financial market to another or moving from a financial market instrument to a real investment (Ackert and Deaves, 2010). This indicator is measured with some statements: (1) The comfort of the available investments; (2) The loss gained if they are changing their instrument; and (3) The new investment that is considered uncomfortable.

5. The factor of emotions in doing an investment

This factor has only one measuring indicator that is called Emotion. The operational definition of emotion is an activity done by the investor based on their individual feelings, both *good mood* and *bad mood*, as the important factors in the process of decision making of one's investment at the financial market in Indonesia (Nofsinger, 2005 in Iramani, 2011). This indicator is measured with some statements: (1) The involvement of *mood* factor; (2) Avoiding the investment when they feel happy; and (3) The accuracy of an investment whenever they feel *bad mood*.

3. Result and Discussion

Before analysis and interpretation of a research is taken, there will be a validity and reliability test be taken for each question given. The result of this validity and reliability showed that questioners are indeed valid and reliable. These particular results will be shown on attachment 1. The Summary of the research is presented on Table 1.

Table 1 - Summary of Descriptive Statistics Result

No	Element	Mean	SD
1	MentalAccounting	4,7455	1,0021
2	Representativeness	4,597	1,0313
3	Familiarity	4,9485	1,0735
4	Considering The Past	4,8939	0,898
5	Overconfidence	3.9666	1.0221
6	Data Mining	4.6485	1.0024
7	Social Interaction	3.9666	1.2812
8	Fear and Greed	4.203	1.2484
9	Status Quo	3.5455	1.222
10	Emotion	4.2667	1.2361

On table 1 above it is shown that the average number for *mental accounting* reached 4, 7455. This number portrayed that the elements of *mental accounting*is needed in order to have a secureness during an investment The respondents will feel secure in their investment when they have considered about the cost factor and its advantages that are available on each instrument of investment that has previously been chosen. Respondents who have already aware with the cost and advantages available will be easily find and decide which investment that is considered suitable with them.

We can also see on the table that the average number for *representativeness* has reached 4,597. This particular number showed that the elements of *representativeness* are needed in order to have secureness within an investment. The respondents feel safe in investing their fund onto a company or an instrument of investment that has a good work ethic. Company or the investment instrument that has a good track record will surely have a higher chance to provide bigger advantages for them.

It also showed the average number for *familiarity* that reached 4, 9485. It means that the secureness in an investment needs a particular element named *familiarity*. This element has the highest average number compared to the other elements. Respondents will feel safe to invest in a company or other investment instrument if it has been publicly known so they can learn about it before hand. The understanding of the particular investment will help respondents to minimize the risks that will happen, so the chances to receive advantages are also become bigger.

The table also showed the average number for *considering the past* that reached 4, 8939. It means the element of *considering the past* is needed during an investment. This element has the second highest average number compared to other elements available. Respondents will feel safe if they have done an investment in one of the instruments previously. When the respondents had done it before, the previous mistake can be avoided as well.

It can also be seen that the average number for *overconfidence* reached 3,966. This has the meaning that the experience and skills in investment still need an element of *overconfidence*. The confidence of one’s ability in investing has made the decision taken become more accurate, because of the doubt that can disturb the process of decision making itself.

Further, table 1 also showed that the average number for *data mining* reached 4, 6485. It means that the element of data mining is needed in the existence of experience and skills in investing. Respondents who have the experience and skills in using the past data will use that particular source to predict the pattern of movement of one investment instrument. The more expert one’s using this data, the risks that have to be deal with can also be minimized.

We can see on the table that the average number for *social interaction* is around 3,966. This thing can only mean that within social interaction and the prudential act in investing still need the existence of *social interaction* element. It is related with the interactions that are done by the respondents with people surround them. In investing something, respondents can exchange information that they have, so that the information itself can be more complete and can be used as the factor of one’s reference in their decision making process.

As for *fear and greed* element, we can see on the table that its average number has reached 4,203. It means that within social interaction and the prudential act in investing does need the existence of *fear and greed* element. Its existence can help respondent to be more careful in doing their investment process. The existence of fear will eventually help them to avoid such investments that can put them in a disadvantageous situation. On the other hand, the existence of greed can help the particular respondent not to be in a rush in selling or buying an investment so they can get the benefits as much as possible.

Analyzing further, the average number for *status quo* is seen at the number of 3, 5455. It can only means that the comfort feeling got during the investment process still need a *status quo* factor. This element has the lowest average number compared to other elements. When a benefit is gained from an investment, the tendency of this particular investment has become the comfort zone for the respondent. The benefits gained from one investment have affected other that is considered weaker and cannot provide the same benefits, but in the other hand, being stay at the comfort zone, it can help us in avoiding some unwanted investments.

Table 1 also provided us with information regarding the average number for *emotion* that reached 4, 2667. Emotions are an inseparable part of a human being, so that we cannot disagree that it has taken a great deal in someone's decision in making an investment. The good *mood* factor can help respondent to take the decision easily. And vice versa, a bad *mood* factor can disturb the accuracy of the decision taken.

Results above showed us that there are some important elements that need to be considered about during an investment process. First, investors need to pay attention to the element of *familiarity*, the introduction of a company or a particular investment instrument will help investor themselves to make the decision easily. Second, is the element of *considering the past*; the awareness of mistakes done in the previous investment will help the investors to take the actions needed for their next activity. Third is the element of *data mining*; the usage of past data can help the investors to predict certain pattern in an investment, so it can be used as the factors that need to be considered about. Fourth is the element of *status quo*; investors do not need to be afraid of the risks of loss, because there is always some advantages behind each loss itself, as has been stated in the financial principle that the higher the risks, the bigger the benefits will be, so it is better to make use the investment as much as possible.

4. Conclusion

This research is using 10 different elements in describing the behavior of investors in their decision in having stocks, mutual fund, and/or deposit; (1) *mental accounting*; (2) *representativeness*; (3) *familiarity*; (4) *considering the past*; (5) *overconfidence*; (6) *data mining*; (7) *social interaction*; (8) *fear and greed*; (9) *status quo*; and (10) *emotion*. From the discussion above it can be seen that the element of *familiarity* has the highest average number among the 10 elements mentioned. It shows that for respondent themselves, it is important to have a good understanding towards the company or the instrument of the wanted investment, so that there will be a minimum risks faced in the future. The discussion of cross tabulation showed that almost all of the respondents agreed with the saying; *"Mistake done in the past is used as a lesson to learn for the current investment"*. It explained much about how the results gained in the past has become an important factor to be considered about. Besides, most of the respondent themselves gave the lowest score to the saying; *"Moving around from one investment to another will create more loss"*. It shows that respondents are not tied with the investment that they have already had and take the chances to take another type of investment if it is considered better and offer more profits.

Based on this research we can also conclude some recommendations for related parties. For a future investor, it is best to consider more about the element of *familiarity* before they make an investment. They can do it through understanding more about the instrument of the investment that they want, so that they can get more profits and benefits rather than doing an investment without having knowledge about the particular matter. For investors who have already invested before, aside of *familiarity*, they also need to pay attention to the element of *considering the past*. This, of course, every results gained in the past has its own plus and minus; and it should be used to gain more benefits on the upcoming investment. For the provider company, it is better to focus on male investors as it is still dominated by male rather than female investors. However, it is still possible to offer the investment products to female investors. Aside of that, the company should offer more products to the future investors whose age around 18-24 years old, since their awareness of the investment itself has been growing ever since they were young. Nevertheless, this research has its own limitations; which can also be used as a chance for the next research regarding the matter. This research is only focusing on the instrument of investment on stocks, mutual fund, and deposit, so it is possible for the next researcher to have discussion on the instrument of real investment.

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Appendix 1 – Results of Respondents' Scoring for Each Element

No	Statements	Mean	SD
Mental Accounting			
1	An investment need to consider about its cost and benefits	5,1455	0,8969
2	The consideration of cost and benefits make the process of decision making become easier	5,0455	0,9025
3	Information for the cost and benefits are easily found	4,0455	1,2069
	Average Number	4,7455	1,0021
Representativeness			
1	Work ethic of financial market is believed as the same as the work ethic of the publisher company	4,0455	1,0869
2	Investing on a company with a good work ethic is believed to produce more benefits	4,8727	0,9395
3	The conditions of Indonesian economy must have affected any kind of investments	4,8727	1,0675
	Average Number	4,597	1,0313
Familiarity			
1	Prioritized in investing on the financial market that has been known before	5,0182	1,0491
2	Prioritized in investing on the company that has been known before	4,9545	1,0953
3	It is better not to do an investment when the information of the current market is still unknown	4,8727	1,0761
	Average Number	4,9485	1,015
Considering The Past			
1	The outcome of investment done in the past can help investors to make their decision to invest now	4,8545	0,9563
2	Benefits gained in the past make the process of decision making become easier	4,5455	0,9349
3	Mistakes done in the past is used as a lesson for current's investment	5,2818	0,8029
	Average Number	4,8939	0,898
Overconfidence			
1	The information that has been collected is enough to do an investment	4,1636	0,9629
2	The decision in doing an investment is considered suitable	3,8818	0,9553
3	Be proud of the skills in investing something	3,8545	1,1481
	Average Number	3,9666	1,0221
Data Mining			
1	The decision to make an investment needs the data gained in the past	4,6909	0,9931
2	Data gained in the past can help to predict the result of investment in the future	4,7	0,9341
3	The easiness to access information regarding the past actions	4,5545	1,0802
	Average Number	4.6485	1.0024
Social Interaction			
1	Friend's suggestion can affect the decision taken	4,0727	1,2018
2	The frequency of one's investment based on friend's suggestion	3,6545	1,2882
3	A suggestion from a broker/manager of the investment is needed to ease the decision for the investment itself	4,1727	1,3536
	Average Number	3,9666	1,28212

Appendix1 (***Continued***)

Fear and Greed			
1	It is better not to invest when the economic condition in Indonesia in unstable	3,9182	1,4598
2	Take part in an investment that is considered beneficial	4,6182	1,0315
3	It is better to invest when the economic condition in Indonesia is rising	4,0727	1,2541
	Average Number	4,203	1,2484
Status Quo			
1	Maintain the existed investment, so it won't be necessary to make another investment	3,7091	1,2804
2	Moving about from one investment to another can create loss	3,3091	1,2689
3	The new investment is considered uncomfortable, unlike the previous one	3,6182	1,1169
	Average Number	3,5455	1,222
Emotion			
1	The*mood* factor is considered to have involvement in the process of decision making	4,2909	1,2142
2	Try to avoid making an investment whenever they are not feel happy about something	3,9364	1,2942
3	The condition of one's *bad mood*can make the decision taken become inaccurate	4,5727	1,1998
	Average Number	4,2667	1,2361