

Overconfidence and Stock Market Participation of Potential Retail Investor in Indonesia: A Preliminary Study

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ABSTRACT

This study explores the existence of overconfidence among potential retail investors in Indonesia when deciding to participate in the stock market. The investigation was conducted using a quick survey followed by interviews with two informants. The results indicate that overconfidence in financial literacy does exist in individuals. This study is preliminary, so its results can be used as a basis for further research. A suggested direction for further research is to examine the causal relationship between overconfidence and stock market participation in the Indonesian context.

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1. INTRODUCTION

One of the financial decisions that was initially only observed based on a rationality approach and eventually developed towards irrationality is the investment decision. Investment decisions in the capital market in many literatures use the term stock market participation. Initially, stock market participation was interpreted as a form of investment in stock instruments carried out by institutions (companies) or groups, households, and individuals or retail. Currently, in its development, the participation is not only in stock instrument, but also other instruments in the capital market, both directly and indirectly, such as bonds, mutual funds, derivative products, and even pension funds (Palia et al., 2014). Furthermore, this study will use the term stock market to represent stock exchange and capital market.

Stock market participation, which has been studied for a long time, still leaves questions due to the low level of stock market participation in several countries. Especially in developing capital markets, it is known that the rate of return is quite attractive because it tends to be high (Huij & Post, 2011) compared to risk-free assets (Guiso et al., 2003). This stock market participation puzzle phenomenon (Haliassos & Bertaut, 1995) emerged based on the results of research on the United States stock market which only absorbed around 25% of households participating in the stock market. This also shows that the low level of stock market participation is not only a problem faced by stock markets in developing countries but also stock markets in developed countries.

How important is it to study stock market participation? The impact of low stock market participation can be traced through the benefits of the existence of stock markets in a country. Marques et al. (2013) examined the relationship between stock markets and economic growth in Portugal (1993–2011). The research findings showed a positive and two-way causal relationship between stock market development and economic growth. Apergis et al. (2015) studied the

information content of stock market liquidity on economic conditions in two developed countries, England and Germany. Although using different economic systems, empirical results show that stock market liquidity and economic indicators are closely related in both countries. Hou & Cheng (2017) support these findings through observations of the long-term and short-term impacts of life insurance, banking, and capital markets on economic growth based on panel data in 31 countries between 1981 and 2008. The findings show that the influence of financial activity development on growth varies according to the period and level of development of a country. A country's economy is influenced by the strengthening of the stock market supported by stock market participation. So low stock market participation will have an impact on low support for the economy.

Sivaramakrishnan et al. (2017) describes stock market participation as measures whether an investor is invested in the stock market, the level of equity holdings in an investor's portfolio is also an equally important outcome. An investor with very low equity holdings is unlikely to benefit from investing in stocks. This explanation seems to be based on real investor. As it is known, studies based on real investors are ex-post while those based on potential investors are ex-ante. Different perspectives form different contexts so that a more appropriate understanding is needed to describe stock market participation in potential investors. This report try to define stock market participation (based on potential investor) as decisions to invest directly or indirectly in stock market instruments made by individuals.

Factors that can influence stock market participation can at least be divided based on two approaches, namely cognitive and non-cognitive. It is known that cognitive factors can influence individual decision making, including financial decisions. Cognitive factors focus more on human learning abilities based on logic such as numbers, time, quantity, causality, and so on (Piaget, 1952) so that cognitive-based decisions are often termed rationality. While non-cognitive factors rely more on psychological and emotional factors. One of the psychological factors that has been widely studied is the confidence factor in overconfidence form. Although there have been quite a lot of studies on stock market participation related to overconfidence, there are still various findings so that they are not conclusive. Theoretically, overconfidence has a negative impact (Miller et al., 2015). In terms of financial decision making, overconfidence has been found to have three kind of impacts: a negative impact (Al-Hilu et al., 2017; Bao & Li, 2020), positive (Xia et al., 2014; Ali et al., 2023), and no impact (Abdeldayem & Sedeek, 2018; Abul, 2019).

Confidence can generally be categorized into three levels (Muthukrishna et al., 2018): overconfidence, confidence or accuracy, and underconfidence. According to Moore & Healy (2008), there are three ways that cause overconfidence that have been studied differently. The first aspect is an overestimation of one's ability, performance, level of control, or chances of success. The second aspect occurs when people believe that they are better than others or called overplacement (Larrick et al., 2007). And the third aspect is excessive certainty about the accuracy of one's beliefs or overprecision. At the beginning of the research on overconfidence, the measurements were only based on general self-confidence. However, in the financial context, the measurement of overconfidence has developed to be more specific based on the financial knowledge or literacy possessed. Financial literacy can be used to measure an individual's confidence when faced with financial decision choices (Balasubramnian & Sargent, 2020; Xia et al., 2014).

Financial literacy is described by Huston (2010) as an ability in the financial field that is formed by financial knowledge and financial skills. Individual confidence is formed by the financial literacy they have. In line with this, Pikulina et al. (2017) define overconfidence as the difference between a person's belief in their competence in the financial field and their actual competence.

Overconfidence is one of cognitive biases which has been widely known for its negative influence in financial decisions. In addition to having a negative impact, overconfidence can also have a positive influence on certain behaviors. This positive influence is usually in the case of risky decision making, such as investing in risky assets. Decision making to participate in the stock market is included in the category of financial decisions in risky assets. For real investors, overconfidence can encourage individuals to increase their investment amount. As for potential investors, overconfidence increases the courage of individuals to invest in instruments with certain risks.

Potential investors emerge because of the human life cycle which continues to produce new generations or regeneration. Indonesia's large population as a demographic dividend is a great

potential that must be utilized optimally, one of which is by motivating people to participate in the stock market. The prediction data from the Central Statistics Agency (BPS) in 2018 provides an overview that Indonesia will experience a demographic dividend period until 2045. The Indonesian stock market needs the support of domestic investors to realize a strong stock market.

This preliminary report is a study with the context of the Indonesian stock market based on current demographic conditions. In particular, this paper will discuss the existence of overconfidence in potential retail investors. There is few studies about overconfidence influence positively to participate in stock market based on Indonesia context.

2. RESEARCH METHOD

This article reports the results of a preliminary study. By “preliminary” it means that the goal of the study is to generate tentative research questions that will be tested using quantitative methods (or other formal scientific approaches) in subsequent primary research. To that end, the methods used in this study are descriptive and qualitative, with no attempt to answer questions about causality or demonstrate clear correlation among variables. This study is exploratory rather than explanatory.

This study used two methods. First, I used a survey with 206 respondents. The criterion of the respondent is age 17 years above and have not invested in stock market yet. Instruments used in this study are ques tionnaires that distributed randomly through communication media: WhatsApp and Telegram. The content of the questionnaires is adapted from previous studies as seen in Table 1.

Table 1. Questionnaire

Item	Question	Assessment Value	Assessment of Confidence	Source
Respondent profile	Name/Initial E-mail Sex Age Origin Occupation Education Edu Background			
Subjective Financial Literacy Assessment	On scale 0-100, how much financial literacy do you have?	0 – 100	<0 = overconfidence 0 = confidence >0 = underconfidence	
Basic Financial Literacy	Time value of money Inflation Interest rate Investment instrument Diversification	False = 0 or Correct = 25 False = 0 or Correct = 25 False = 0 or Correct = 25 False = 0 or Correct = 25 False = 0 or Correct = 25		Lusardi & Mitchell (2008)
Subjective Stock Market Literacy	On scale 0-100, how much stock market financial literacy do you have?	0 – 100	<0 = overconfidence 0 = confidence >0 = underconfidence	
Assessment Stock Market Literacy	Where to buy stock market instrument How to buy stock market instrument	False = 0 or Correct = 25 False = 0 or Correct = 25		(Alleyne & Broome, 2011; Raut, 2020)

Identify stock market instrument that provide profits	False = 0 or Correct = 25
Identify stock market instrument based on time horizon	False = 0 or Correct = 25
Instruments in stock market that suit preferences (mention)	False = 0 or Correct = 25

The questionnaire was made as simple as can be because the target respondents are potential retail investors, so they don't have to think hard about the answer and not too much time consume. This study involved 206 respondents who wanted to fill in the questionnaire but only 1 did not answer the question fully. Descriptive of the respondents can be seen in table 2 below.

Table 2. Characteristics of Respondents

Characteristic	Classification	N=205	Percentage
Gender	Male	76	37%
	Female	129	63%
Age	17 – 24	124	60%
	25 – 32	17	8%
	33 – 40	12	6%
	41 – 48	29	14%
	49 – 56	18	9%
	57 – 64	5	2%
Origin	Sumatra	166	81%
	Java	32	16%
	Sulawesi	6	3%
	Kalimantan	1	0%
Occupation	Students	123	60%
	Researcher	3	1%
	Lecturer/Teacher	20	10%
	Doctor	2	1%
	Civil Servant	9	4%
	Entrepreneur	7	3%
	(Private) Employee	26	13%
	Housewife	7	3%
	Others	8	4%
Educational Background	Science and Technology	113	55%
	Social and Humaniores	92	45%

Source: Processed Questionnaire Data, 2023

Second, this study also uses short interviews to explore the reasons why potential retail investors are not or are not interested in participating in the stock market. Interviews were conducted with two of the 205 respondents. The determination of informants in this study was carried out using a purposive approach. Both informants can represent respondents based on the criteria of willingness to participate in the stock market (willing or unwilling to participate in the stock market). The characteristics of the two informants are described as follows:

- 1) Informant 1 (willing to participate in the stock market): male gender, age range 17-24, origin Sumatra, student occupation, and social humanities educational background. This informant is interested in participating in the stock market but is constrained by financial capability, knowledge and experience.
- 2) Informant 2 (not willing to participate in the stock market): female gender, age range 33-40, origin Java, lecturer occupation, and science and technology educational background. This second

informant expressed her unwillingness to participate in the stock market. The main reason is that she already has another investment instrument of choice and feel comfortable keeping her funds in that instrument.

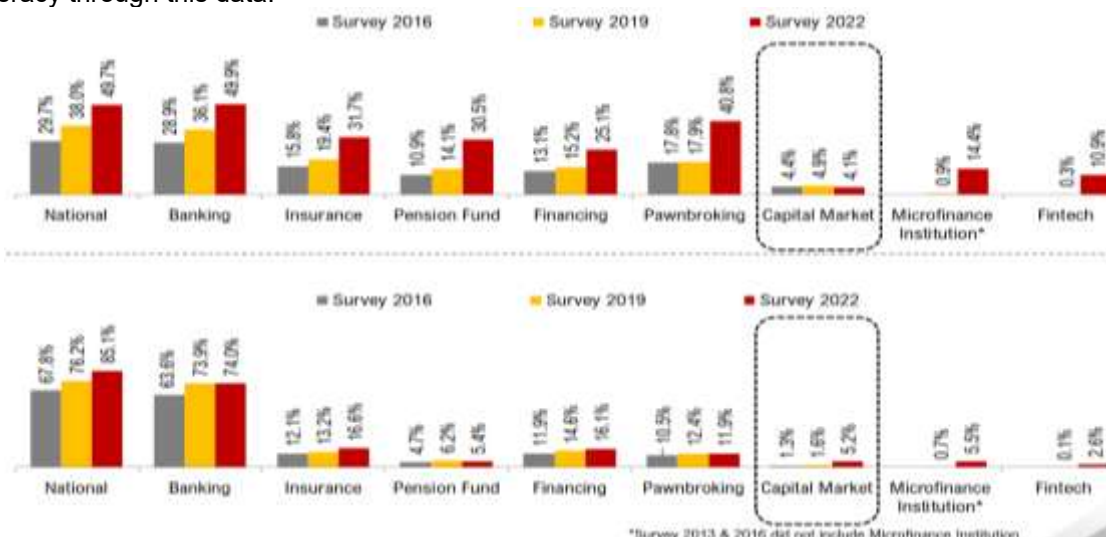
3. RESULTS AND DISCUSSIONS

The findings of present study based on the research objective that is to capture the phenomenon of overconfidence among potential retail investors in Indonesia. The result shows that there is overconfidence in individuals who has not invested in stock market yet. They assess their ability of basic financial literacy and stock market literacy above their real financial literacy scores.

Table 2 can be used as an initial indication of the characteristics of potential retail investors in Indonesia as follows: (1) most of the respondents are women (63%), (2) the age range of 17-24 years (60%), and (3) employment as a student (60%). This largest percentage can be used as an early indication of the dominant characteristics of potential retail investors in Indonesia.

Most respondents come from the island of Sumatra (81%) so it is not necessarily able to describe the conditions of potential retail investors throughout Indonesia. However, this study intends to ensure that the overconfidence phenomenon does exist. So, the distribution of respondents does not affect this finding. Based on KSEI data as of December 2023, most investors on the IDX are dominated by men (62.33%) so that potential retail investors who are dominated by women in this study (63%) can provide insight into why they are reluctant to participate in the stock market. Still based on the same data, it is known that the largest percentage of investors are aged ≤30 at 56.43% so that the data in this study (60% for the age range 17-24) can be representative. Based on occupation, according to KSEI data, it is dominated by employees (33.03%) and students (26.35%). This study used respondents who were dominated by students (60%). This shows the potential of the young age range needs to be explored further.

Based on data from Indonesia's Economic and Capital Market Development (IECMD) as of April 2024, in its development, the capital market literacy rate in Indonesia has decreased. However, the gap between financial literacy and financial inclusion is narrowing (Figure 1). This situation shows that in general at the national level, although the level of capital market literacy has decreased, access to the capital market is increasing. There is a phenomenon of overconfidence in stock market literacy through this data.



Source: IECMD, 2024

Figure 1. Financial Literacy and Inclusion Index

More specifically, the following Figures 2 and 3 show that from 205 survey respondents, there was an overconfidence phenomenon related to basic financial literacy and stock market literacy. Of the 205 respondents, 91 people stated that they were willing to participate in the stock market and 114 stated that they were not willing for various reasons. Most of these reasons are not knowing or not

understanding the capital market and financial capabilities. While a small part is because it is not in accordance with religious teachings.

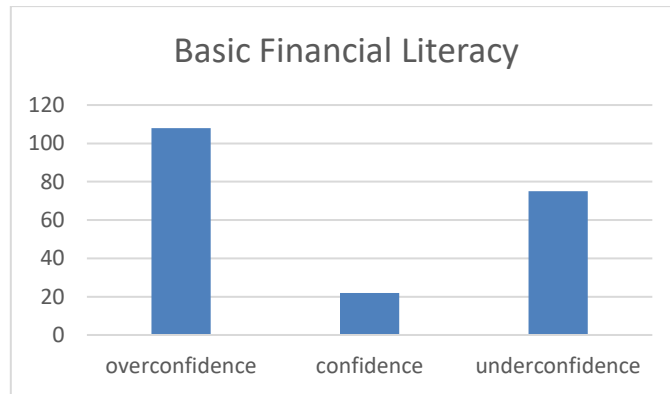


Figure 2. The Proportion of Potential Retail Investors' Confidence in Basic Financial Literacy

Figure 2 shows the number of potential retail investors with overconfidence when compared to those with underconfidence and accurate confidence. Of the 91 respondents who stated that they were willing to participate in the stock market, as many as 45 people were included in the category of overconfidence in their basic financial literacy. This means that the respondents feel that they have high basic financial literacy but in reality it is low.

Figure 3 below shows the proportion of respondents with overconfidence in their stock market literacy.

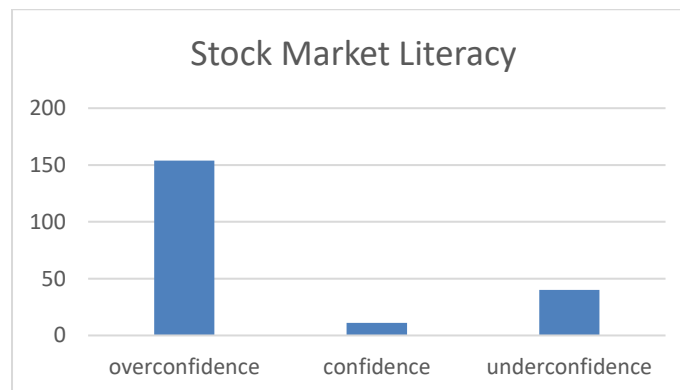


Figure 3. The Proportion of Potential Retail Investors' Confidence in Stock Market Literacy

Of the 91 respondents who stated that they were willing to participate in the stock market, as many as 64 people were in the category of overconfidence. This means that they feel that they have high stock market literacy but in reality their stock market literacy is low. This indicates that advanced financial literacy in the form of stock market literacy is related to the decision to participate in the stock market.

The results of the interviews from the two informants can be concluded that financial literacy is the initial foundation for individuals to make financial decisions. In the context of stock market, stock market literacy plays an important role in mobilizing potential retail investors to participate in the stock market. Informant 1 stated that he was interested and wanted to participate in the stock market but was constrained by inadequate knowledge, experience and financial capability. Given that the context of this study is potential investors, the experience factor cannot be involved in future research. Meanwhile, informant 2 stated that she was not interested at all in participating in the stock market. The reluctance to learn about the stock market and the comfort of investment instruments have been the main reasons for not choosing to participate in the stock market.

All results indicates that confidence in stock market literacy can encourage individuals to participate in the stock market. But to be sure, there needs to be further research that specifically examines this.

Limitation of The Study

This study has several weaknesses, although on the other hand it is enough to provide an initial picture of the existence of the overconfidence phenomenon. The main weakness of this study is in terms of methodology. The questionnaires distributed were not evenly well distributed, either by region or other characteristics (gender, age range, occupation, education).

This study also does not show a relationship between overconfidence of potential retail investors and participation in the stock market because indeed this short study was conducted only to capture the existence of the phenomenon of overconfidence in financial literacy owned by potential retail investors. So, to convince the findings based on the questionnaire that was made simply, the researcher continued with an interview. The findings of overconfidence will be used as the basis for the next major study.

Future Study

This article only reports a preliminary study that will be continued with further research. Therefore, the researcher recommends several things that need to be studied in further research related to overconfidence and stock market participation in potential retail investors in Indonesia:

1. Is there a more accurate and precise measurement of overconfidence other than using financial literacy?
2. a. Does overconfidence affect stock market participation?
b. Does overconfidence have a positive or negative effect on stock market participation?
3. Are there other psychological/cognitive bias factors that affect stock market participation?
4. How does the mechanism of overconfidence have a positive effect on stock market participation?
 - a. Are there factors that strengthen or weaken the effect of overconfidence on stock market participation?
 - b. Are there factors that mediate between overconfidence and stock market participation?

4. CONCLUSION

This study aims to capture overconfidence phenomenon in retail potential investor. For this objective we provide basic information about the confidence variable that will be used in the next main research. This study also shows a potential relation between confidence and investment decision in the stock market. Although there are weaknesses in this study, surely that it is enough to give description an overview of the existence of the overconfidence phenomenon. In addition to the findings on the overconfidence phenomenon, another additional finding is that there are factors that cause individuals to feel reluctant to learn new things. Most likely because they do not want to sacrifice time and thought to learn about the capital market. For future research, two basic things that can be explored are quantitative analytical approach-based studies and qualitative case studies (grounded theory-based). On the first basis, the population, sampling method, and quantitative variables must be formulated more formally. The transmission mechanism (causal relationship) between variables must be defined based on a strong theoretical foundation. Empirical evidence can then be analysed to verify the validity of the findings. This research recommends other methodological approaches, such as longitudinal survey or experimental. The purpose of using other methods is to ensure the influence of overconfidence on the decision to participate in the stock market and make it easier for researchers to observe the behavior of retail investors. It is important to test the causality between the variables. On the second basis, the study should focus on the decision-making process in the context of potential investors. Qualitative studies are needed to explore and develop a well-defined concept in stock market participation. Both bases are important and necessary to understand the fundamental differences and similarities between potential investors and real investors, especially in the context of decision making to participate in the stock market. A good understanding of the factors that influence financial decision making to increase

stock market participation in potential and real investors is needed to make a real contribution to strengthening the Indonesian stock market.

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