

THE EFFECT OF FINANCIAL LITERATURE AND BIG FIVE PERSONALITY TRAIT ON INVESTMENT INTENTION ON MILLENIALS IN PANDEMIC ERA

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Abstract

The outbreak of the corona virus had made significant changes in VUCA era, where as volatility, uncertainty, complexity, and ambiguity hit harder economic, including financial sector. As the consequences of government policies to imposed lockdown, Stock market has declined drastically, on the other hand the number of investor increased compared to the previous years. This anomaly phenomenon shows there is another variable generates investment intention. Previous studies, the topic of financial management behavior studies still limited, especially on the psychological side of humans. This study revealed factors such as financial literacy and big personality traits from the point of view of men and women to reveal this phenomenon, using a questionnaire in data collection and a Likert scale, processing that carried out using the SMART PLS test tool. the result is that female respondents get a greater significance value than male respondents, it can be concluded that financial literacy is needed by women. For the moderating results in this study, it shows that men have a moderating influence while women do not have moderation. This study used 195 respondents, so that in the future it can increase the number of respondents to strengthen the research model. In addition, this research is still ongoing in the Jakarta area, so it can be a consideration for conducting further research such as adding respondents outside Jakarta.

Keywords: Big Five Personality; Financial Literation; Investment Intention

INTRODUCTION

The capital market has various long-term financial instruments that can be traded, either in bonds, stocks, mutual funds, and other derivative instruments, it means for companies and governments to obtain long-term funds through stocks and bonds. The biggest hurdle comes after coronavirus outbreak [16] (also referred to as COVID-19), severely affected society and destroyed the economy. Several countries were forced to make policies of restricting the mobilization of trade in goods and services, resulted in hampered economic activity, such as the decline in global demand for goods, and commodity prices that tended to decline. As consequences, stock movements prices plummeted and fluctuated. Interestingly, in Indonesia generates interest in investing which continues to rise compared to the previous few years.

Based on Single Investor Identification (SID) growth data, shows the number of capital market investors increases every year and reaches its peak in 2020 with a total of 3,072,366. Looking forward, delved the demographics of individual investors, the rose of individual investors contributed by millennials generation. Research from [6], explained the intention to invest depended on their knowledge and personality, various factors that caused indecisive in investment, encompassing of financial literacy and public perception of the capital market.

The lack of explanations for financial literacy consequences hesitancy losses of investment [12]. According to [14], in their findings financial literacy need to be considered, a person's ability to analyze and manage finances will engendered decisions to invest a stock.

Studies from [19], revealed when an individual is aware of the benefits of investing, the individual must have good financial knowledge in order to give interest in investing. In the past, financial researchers did not consider how individual and environmental factors could influence investors' decision making [21]; [3]. Furthermore, the researchers also used the big

five personality trait model as a measuring tool to determine investment decisions, as was done by [6] which uses indicators of openness, conscientiousness, extraversion, agreeableness and neuroticism. Other research from [11] divided their sample into men and women, assuming that men are overconfident and finding that male investors underperform compared to female investors. Meanwhile, other research from [15] gender does not account for differences in actual portfolio choices for investors.

This study identifies several problems, firstly, this research used gender as a comparison in this study to reveal the existing gap theory. Furthermore, this research aims to measure the big five personality traits of millennials' investment interest in the capital market, and examine the gender differences between men and women on the millennial's investment interest in the capital market.

THEORETICAL BASIS

Investment Intention

In, preliminary [17] financial behaviour of the individual is termed as investment intentions as short term and long term investment intentions that is intended to reflect personalities including financial literacy and personality traits. [20] a desire that arises from within to save in the future. Certain objects of an investment instrument.

Financial Literacy

According to "[1] financial literacy is the skills and knowledge that encourage a person to make effective decisions with their finances. Reference [4] explained that financial literacy helps individuals to avoid financial problems." Financial difficulties are not only a function of income (low income). Financial literacy indicators are taken from [6], such as:

- Knowledge
Knowledge is a theoretical or practical understanding of a particular subject. Contains a collection of information in the form of facts, procedures or ways of doing something. According to behavioural economics, the amount, source, and nature of the information individuals receive about saving and investing are likely to influence their financial decisions. Hence, to be able to make a decision between investment products, an investor is expected to possess a clear understanding of the characteristics of the alternatives as well as their own preferences
- Skills
Skills is the ability or expertise to use the knowledge possessed to achieve a certain goal.
- Attitude
Attitude is a way of thinking or what is felt about something that is reflected in the form of behavior.
- Behavior
Behavior is behavior based on background, as well as habits that are often done.

Personality Traits

According to [8] personality is the quality or collection of qualities that make a person a distinctive individual; the distinctive personal or individual character of a person, especially of a marked or unusual kind. Reference [10] reveals that each individual is different, based on one's personality traits.

Indicators for the preparation of personality traits according to [6]: Openness, Conscientiousness, Extraversion, Agreeableness, Neuroticism.

- **Openness**
 Openness is a desire to know and learn something new. Characteristics that have this dimension tend to be more creative, imaginative, intellectual, curious and broad-minded.
- **Conscientiousness**
 Conscientiousness tends to be more careful in carrying out an action or considerate in making a decision. In addition, he also has high self-discipline, can be trusted. and achievement oriented.
- **Extraversion**
 Extraversion is related to a person's level of comfort in interacting with other people. Extraversion characteristics are sociable, easy to socialize, live in groups and assertive.
- **Agreeableness**
 This aggressiveness tends to be more obedient to other individuals and has a personality that wants to avoid conflict. His positive characteristics are cooperative (can work together), full of trust, good nature, warm and soft-hearted and likes to help.
- **Neuroticism**
 Neuroticism assesses a person's ability to withstand pressure or stress, is calm when facing problems, is confident, and has a firm stance.

METHOD

The subjects in this study were millennials and the objects in this study were financial Intention, big five personality traits, and investment decisions. Data was collected using quantitative methods with purposive sampling technique to determine the adequate criteria as research samples. In addition, the data was analyzed taken using a structural equation (Structural Equation Model (SEM)

RESULTS AND DISCUSSION

Total of 214 questionnaires were distributed for millennial investors. However, the results of the questionnaire data were successfully returned as 195 adequate questionnaires, as follows:

Table 1. Results of Questionnaire Data Collection

Information	Amount
Questionnaire distributed	214
Number of returned questionnaires	200
Number of eligible questionnaires	195

Source: Primary Data, 2021

Description of Respondent's Gender

The description of the frequency of respondents based on the gender of the respondents is shown in Table 2 below.

Table 2. Gender of Respondents

No	Gender	Amount
1	Man	129
2	Woman	66

Source: Primary Data, 2021

Based on research data obtained from 195 respondents related to gender, it can be concluded that the majority of respondents are men, with a percentage of 66%, women with a percentage of 34% from a total of 100% of the total respondents as many as 195 respondents.

Description of Respondent's Education Level

The description of the frequency of respondents based on the education level of the respondents is shown in Table 3.

Table 3. Respondents Education Level

No	Level of education	Amount
1	Junior high school	12
2	Senior high school	81
3	S1	92
4	S2	10

Source: Primary Data, 2021

Based on Table 3, it can be concluded that the majority of respondents have an undergraduate education background with a percentage of 47%, followed by high school education at 42% and the lowest is education with a junior high school background as much as 6%.

Data Analysis and Interpretation

Data analysis in this study used SMART PLS with the following research model.

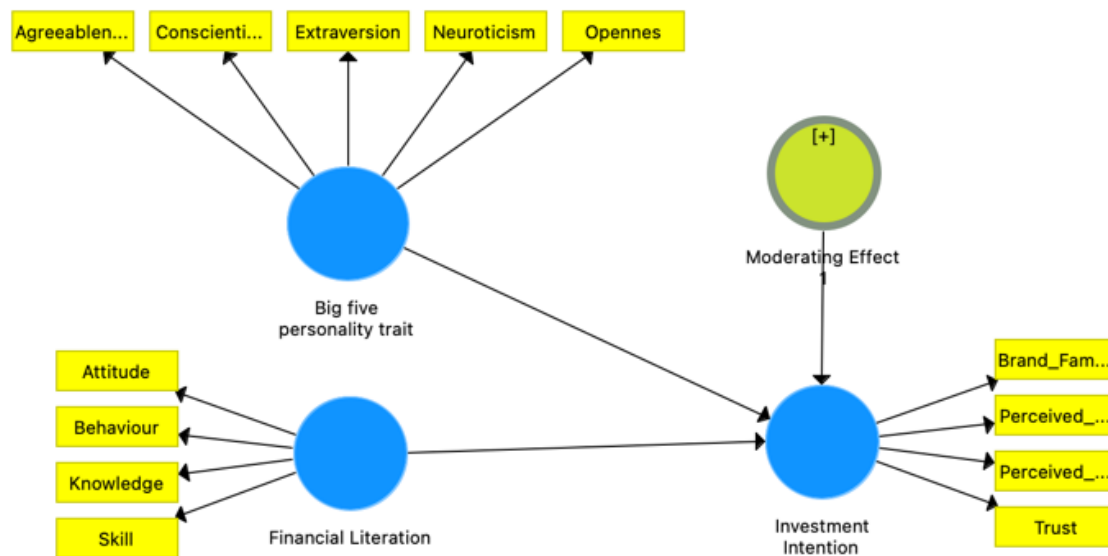


Figure 1. Research Model with SMARTPLS

Source: Primary Data, 2021

In this study, the outer model and inner model tests will be carried out to answer the research results

- Test Outer Model
 In the outer model test, various stages will be carried out, namely validity testing and reliability testing
- Validity test

Table 4. Male Convergent Validity Test

	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
Big five personality traits	0,905	0,905	0,940	0,840
Financial Literation	0,931	0,931	0,948	0,784
Investment intention	0,915	0,916	0,940	0,797
Moderating effect	1,000	1,000	1,000	1,000

Source: Primary Data, 2021

Table 5. Female Convergent Validity Test

	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
Big five personality traits	0,907	0,933	0,947	0,890
Financial Literation	0,821	0,825	0,848	0,763
Investment intention	0,891	0,822	0,802	0,772
Moderating effect	1,000	1,000	1,000	1,000

Source: Primary Data, 2021

Based on the convergent validity test carried out in Table 4 and Table 5 above, it shows that the AVE value has met the valid requirements, which is above the value of 0.5 [5].

Table 6. Male discriminant validity test

	Big five personality traits	Financial Literation	Investment intention	Moderating effect
Big five personality traits	0,917			
Financial Literation	0,876	0,885		
Investment intention	0,905	0,874	0,893	
Moderating effect	0,879	0,918	0,860	0,873

Source: Primary Data, 2021

Table 7. Female discriminant validity test

	Big five personality traits	Financial Literation	Investment intention	Moderating effect
Big five personality traits	0,913			
Financial Literation	0,816	0,899		
Investment intention	0,825	0,857	0,893	
Moderating effect	0,389	0,818	0,840	0,873

Source: Primary Data, 2021

Using discriminant validity testing by looking at Table 6 and 7. Based on these data, it can be seen that both the results of the male and female samples have a larger variable magnitude for the same variable compared to other variables, so it can be concluded that they have met the validity requirements [5].

- **Reliability Test**
The value of the reliability test can be seen in Table 4 and 5, where both male and female respondents show that each variable has exceeded the reliable requirements, which is above 0.6 [5].
- **Inner Model Test**
The Inner test model includes the R Square test and the significance test.

- R square test

Table 8. Male R square test

	R Square	R Square Adjusted
Investment intention	0,313	0,313

Source: Primary Data, 2021

Table 9. Female R square test

	R Square	R Square Adjusted
Investment intention	0,250	0,250

Source: Primary Data, 2021

Based on the results of the R square test, it can be concluded that the financial literacy variable and the big five personality traits have an effect on the male group by 31.3%, and the remaining 69.7% and the female by 25.0%, and the remaining 75.0%. indicates that there are other variables that affect investment interest

- Sample Significance Test Male and female

Table 10. Variable Significance Test

	Financial Literacy -> big five personality trait	Big five personality trait -> investment interest	Big five personality trait -> financial literacy -> investment interest
Man	2.082	4.666	3,422
Woman	2,511	3.820	0.122

Source: Primary Data, 2021

The Effect of Financial Literacy on the Big Five Personality Traits

Based on the results of the study, the value of the significance test results for both men and women shows that the financial literacy variable has an influence on the big five personality traits. This can be seen from the male respondents of $2.082 > 1.96$ and the value of female respondents $2.511 > 1.96$. In addition, the results of the influence also show positive results so that this can give the result that financial literacy can affect the big five personality traits.

The influence of Big five personality trait on Investment Interest

Big five personality traits is an individual trait that is different as measured from 5 human traits, in its development the big five personality trait can be used to express various phenomena, such as investment interest. It can be concluded that the big five personality trait variable has an influence on investment interest, this is evidenced by the value of male respondents of $4.666 > 1.96$ and female respondents of $3.820 > 1.96$.

Big five personality trait Moderates Financial Literacy on Investment Interest

The moderating result of the big five personality trait in the male sample shows a value of $3.422 > 1.96$ indicating that it has a moderating effect, on the contrary, in the female sample the moderating result of the big five personality trait produces a value of $0.122 < 1.96$ which means it has no moderating effect. So it can be concluded that there are differences in the nature of men and women.

CONCLUSIONS AND SUGGESTIONS

Based on the table 10 data, the significance test in this study shows that both men and women both need an understanding of financial literacy and education to support the nature of the big five personality traits in growing investment interest. With these results proving that female respondents get a greater significance value than male respondents, it can be concluded that financial literacy is needed by women. In addition, the results of this study also support research from [6] who also get the same results, where someone who has financial literacy such as attitudes, behavior, knowledge, and skills also has an impact on a person's personality. In furthermore, the results indicate that the big five personality trait in men has a greater effect than in women. In addition, this study also shows that the big five personality trait has a positive value which makes the big five personality trait able to provide additional influence for investment interest. This finding also supports research from [6] that every trait of the individual has an influence on taking interest in investment, such as people who have accuracy who have the highest value in decision-making interest. The results of moderation in this study indicate that men have a moderating influence while women do not have moderation, which is against the research [15] that in this study the big five personality trait did not have a moderating effect, with this result it can be seen that there are differences in the nature of men and women in dealing with literacy situations on investment interest.

Conclusion

As the results of this study, it can be concluded that the first hypothesis is accepted which means that financial literacy has an influence on the big five personality, this is a lesson that indicators of financial literacy such as attitudes, behavior, knowledge, and skills also have a positive and significant impact on the nature of each individual, so that the greater the results obtained from financial literacy, it can also increase the positive value of the big five personality. Furthermore, the second hypothesis is accepted which indicates that the big five personality trait also has a positive and significant influence on interest in investing so that each different individual trait is able to provide diverse investment interests, in other words, the big five personality traits can affect investment interest. Finally, there are differences in the moderating results of the big five personality trait from financial literacy to investment interest, so this result still implies that this research still needs to be done to gain further understanding, both men and women indicate an influence between financial literacy, big five personality trait to support investment interest.

Suggestion

The research also indicates several points for suggestions, such as the results of the R Square of investment interest worth 31.3% for men and 25.0% for women indicating that there are many other factors in this study that can be taken, for example. future researchers can add risk factors [20], technology advances [2]. The findings on the moderating variables of the big five personality traits also need to be considered for further research so that they can strengthen the existing theory by re-examining this model. In addition, the convenience of investing in foreign stocks is also a concern, other researchers can also strengthen existing theories by researching foreign stock exchanges, for example the NASDAQ American stock exchange [18], European stock DAX [7], and HANSENG Asia exchange [13].

Limitation

There are several limitations in this study, among others: this study used 195 respondents, so that in the future it can increase the number of respondents to strengthen the research model. In addition, this research is still ongoing in the Jakarta area, so it can be a consideration to conduct further research such as adding respondents outside Jakarta.

REFERENCES

- [1] Astuti, R., Tanjung, H., & Putri, LP (2019). The Effect of Financial Literacy on Online Shopping Interest in Millennials. *International Journal of Accounting & Finance in Asia Pacific*. <https://doi.org/10.32535/ijafap.v2i3.588>
- [2] Cahya, BT, & Kusuma, NA (2019). The Influence of Motivation and Technological Advances on Interest in Stock Investment. *Al-Masharif: Journal of Economics and Islam*.
- [3] CHAVALI, K., RAJ, PM, & AHMED, R. (2021). Does Financial Behavior Influence Financial Well-being? *Journal of Asian Finance, Economics and Business*. <https://doi.org/10.13106/jafeb.2021.vol8.no2.0273>
- [4] Grohmann, A., Klühs, T., & Menkhoff, L. (2018). Does financial literacy improve financial inclusion? Cross country evidence. *World Development*. <https://doi.org/10.1016/j.worlddev.2018.06.020>
- [5] Hair, JF, Ringle, CM, & Sarstedt, M. (2011). PLS-SEM: Indeed a Silver Bullet. *The Journal of Marketing Theory and Practice*. <https://doi.org/10.2753/MTP1069-6679190202>
- [6] Hamza, N., & Arif, I. (2019). Impact of Financial Literacy on Investment Decisions : The Mediating Effect of Big-Five Personality Traits Model. *Market Forces College of Management Sciences*.
- [7] He, XZ, & Li, Y. (2017). The adaptiveness in stock markets: testing the stylized facts in the DAX 30. *Journal of Evolutionary Economics*. <https://doi.org/10.1007/s00191-017-0505-9>
- [8] Jirásek, M., & Sudzina, F. (2020). Big five personality traits and creativity. *Quality Innovation Prosperity*. <https://doi.org/10.12776/QIP.V24I3.1509>
- [9] Kang, M., Gao, Y., Wang, T., & Zheng, H. (2016). Understanding the determinants of funders' investment intentions on crowdfunding platforms: A trust-based perspective. *Industrial Management and Data Systems*. <https://doi.org/10.1108/IMDS-07-2015-0312>
- [10] Lai, CP (2019). Personality traits and stock investment of individuals. *Sustainability (Switzerland)*. <https://doi.org/10.3390/su11195474>
- [11] Mishra, KC, & Methylda, MJ (2015). A study on the impact of investment experience, gender, and level of education on overconfidence and self-attribution bias. *IIMB Management Review*. <https://doi.org/10.1016/j.iimb.2015.09.001>
- [12] Ningtyas, MN, & Wafiroh, NL (2021). How is Financial Literacy and Behavior in Millennial Generation? *Business Review*. <https://doi.org/10.35917/tb.v20i1.183>
- [13] Niu, H., & Wang, J. (2013). Complex dynamic behaviors of oriented percolation-based financial time series and Hang Seng index. *Chaos, Solitons and Fractals*. <https://doi.org/10.1016/j.chaos.2013.03.009>

- [14] Noor, M., Fourqoniah, F., & Aransyah, MF (2020). Investigation of financial inclusions, financial literacy, and financial technology in Indonesia. *Journal of Regional Development and Financing Perspectives*. <https://doi.org/10.22437/ppd.v8i3.9942>
- [15] Pertiwi, TK, Wardani, NIK, & Septentia, I. (2020). KNOWLEDGE, EXPERIENCE, FINANCIAL SATISFACTION, AND INVESTMENT DECISIONS: GENDER AS A MODERATING VARIABLE. *Journal of Management and Entrepreneurship*. <https://doi.org/10.9744/jmk.22.1.57-64>
- [16] Prawoto, N., Purnomo, EP, & Zahra, AA (2020). The impacts of Covid-19 pandemic on socio-economic mobility in Indonesia. *International Journal of Economics and Business Administration*. <https://doi.org/10.35808/ijeba/486>
- [17] Septyanto, D. (2013). FACTORS AFFECTING INDIVIDUAL INVESTORS IN SECURITY INVESTMENT DECISION MAKING ON THE INDONESIA STOCK EXCHANGE (IDX) Dihin. *Journal of Economics*.
- [18] Shields, R., Ajour El Zein, S., & Vila Brunet, N. (2021). An analysis on the nasdaq's potential for sustainable investment practices during the financial shock from covid-19. *Sustainability (Switzerland)*. <https://doi.org/10.3390/su13073748>
- [19] Stolper, OA, & Walter, A. (2017). Financial literacy, financial advice, and financial behavior. *Journal of Business Economics*. <https://doi.org/10.1007/s11573-017-0853-9>
- [20] Tandio, T., & Widanaputra, AAGP (2016). The Effect of Capital Market Training, Return, Perception, Risk, Gender, and Technological Advances on Student Investment Interest. *Udayana University Accounting E-Journal*.
- [21] Zakaria, M., & Bibi, S. (2019). Financial development and environment in South Asia: the role of institutional quality. *Environmental Science and Pollution Research*. <https://doi.org/10.1007/s11356-019-04284-1>