

Analysis of Differences in the Investment Intention Characteristics Based on Gender

Gladys Greselda Gosal¹⁾
(gladys.gosal@ciputra.ac.id)

Jesslyn Beatricia Ivana Tania²⁾
(jbeatricia@student.ciputra.ac.id)

Universitas Ciputra Surabaya, School of Business and Management, Indonesia

ABSTRACT

Along with the rampant investment trends among millennials, questions arise regarding whether there are differences in the characteristics of investment intention between males and females. This study uses independent samples t-test to try to answer those questions, using risk aversion and locus of control as predictors of investment intention. Questionnaires were distributed to Universitas Ciputra's students in management study program who have participated in investment webinars and therefore have knowledge about investment. 91 samples were collected using purposive sampling. The findings indicate that females are more risk averse and tend to have external LOC, therefore they are less likely to invest compared to males. Furthermore, risk aversion will be more dominant in males who have external LOC, while risk aversion will be very dominant for females who have internal LOC. These findings conclude that there is significant difference in the characteristics of investment intention between males and females.

Keyword: Gender, Investment Intention, Risk Aversion, Locus of Control

PRELIMINARY

The trend of investing is gaining popularity in Indonesia, especially by millennials. The Indonesian Stock Exchange (IDX) announced that the number of new investors created throughout 2020 has grown by 53.47% compared to the total number of investors in 2019. The number of stock investors at the end of 2020 has reached 1,695,268 Single Investor Identification (SID), which means that there was a growth of 590,658 SID compared to the total number of stock investors at the end of 2019 which amounted to 1,104,610 SID. Among those new investors in 2020 were significantly dominated by millennials with an age range of 18-30 years who reached 411,480 SID or 70% of the total new investors in 2020 (Rizky, 2021). Since the beginning of 2021 as per August 31, 2021, the number of SID has reached 2.69 million SID. This achievement is a record high in history and is a tribute to 44 years of the re-activation of the Indonesian capital market (Safitri, 2021).

At the same time, Populix, a market research platform that becomes a reference for business actors in finding out market needs with millions of respondents in various regions in Indonesia, conducted a survey related to investment trends that will take place throughout 2021. From 3070 respondents, the term investment is quite popular among the public. At least 8 out of 10 people in Indonesia have heard of and know what investment is. Unfortunately, less than half of all respondents has started investing at the beginning of this year. Only 44 percent of respondents can see opportunities in the midst of an economy that has not yet improved due to the storm of the COVID-19 pandemic (jpnn.com, 2021).

The data shown above indicate that even though there is a significant increase in the number of SIDs in Indonesia, it is not commensurate with the number of people who already know what investment is. This phenomenon sparked interest in analyzing individual characteristics in investing, especially among millennials. Furthermore, data from KSEI (Indonesia Central Securities Depository) shows that as of February 2021, male investors still dominate the capital market. The number of male investors was 62,02% with total investment assets of IDR 578,32 trillion, while the number of female investors was 37,98% with total investment assets of IDR 202,64

trillion (PT Kustodian Sentral Efek Indonesia, 2021). Therefore, we intend to examine the differences in investment characteristics based on millennial's gender.

According to Onasie & Widodoatmodjo (2020), investment intention on millennials can be influenced by several behavioral factors, including risk aversion and locus of control. Bennet et al (2011) in his research on the factors that influence the behavior of retail investors in the capital market found that investors' risk tendencies are one of the factors that influence investment decisions. The risk tendency of individual shows the size of their interest in risks they face when making a decision. Many studies have suggested generally that an individual with high risk aversion would refrain from investing because of the risks that may occur (Aydemir & Aren, 2017). Gervais et al. (2002), states that individuals with a risk-averse tendency have a lower volume of stock transactions compared to investors who are risk-seeker.

Locus of control (LOC) is a psychological factor that influence decision making. The term LOC was proposed by Rotter (1966) which was defined as "generalized belief that a person can or cannot control his own destiny". Furthermore, Rotter suggests that in its orientation, LOC is divided into two, namely the internal LOC and external LOC. Someone with an internal LOC has more confidence in himself and believes that everything that happens to him is because of his own decision and behavior. On the other hand, someone who has an external LOC will believe that all events that occur depend on destiny and the surrounding environment. Putri and Simanjuntak (2020) stated that LOC has significant effect on investment decision making.

Although there have been many studies that shows the relationship between risk aversion and locus of control towards investment intention, there are few who explore the difference characteristics shown by different group of gender. This study aimed to analyze the difference in characteristics shown by male and female millennials related to their investment intention, especially the difference on their risk preference (whether they are high in risk aversion or low) as well as their locus of control (whether they have internal or external LOC).

RESULTS AND DISCUSSION

This study uses quantitative approach with the population of university students in Universitas Ciputra Surabaya. The sampling technique uses purposive sampling with the criteria of having knowledge about investment and has never made an investment before. Questionnaires were distributed to students in management study program who have participated in investment webinars held by student organization in Universitas Ciputra. A total of 100 questionnaires were completed and 91 respondents who met the criteria for this study. Data collected through questionnaire were then analyzed using Independent Samples T-Test to compare whether there are significant differences between male and female regarding their investment intention characteristics.

Validity and reliability test were carried out initially to test whether the items used in the questionnaire were valid and reliable. The wordings of Likert type scale items of each variables used in this study can be seen in Table 1.

Table 1: Scale Items

Items	Wordings
Risk Aversion	
X1.1	I don't like to take risks
X1.2	Compared to most people I know, I like to live life on the edge ^a
X1.3	I have no desire to take unnecessary chances on things
X1.4	Compared to most people I know, I like to gamble on things ^a
X1.5	I would rather be safe than sorry
X1.6	I want to be sure before I purchase anything
X1.7	I avoid risky things
Locus of Control*	
X2.1	There is really no way I can solve some of my problems
X2.2	I am being pushed around in life
X2.3	There is little I can do to change the important things in my life
X2.4	I can do anything I set my mind to ^a
X2.5	What happens to me in the future depends on me ^a
X2.7	Helpless in dealing with the problems of life
X2.8	I have little control over the things that happen to me
Investment Intention	
Y.1	I plan to make an investment in the future
Y.2	If I had the opportunity, I would make an investment in the future
Y.3	I would never make an investment within the next 12 months ^a

Note: *Higher scores refer to individuals with external LOC
^aReverse coded

Source: Aydemir and Aren (2017); Alleyne (2011)

Table 2: Exploratory Factor Analysis

Items	Factor 1	Factor 2	Factor 3	Uniqueness
X1.7	0.769			0.379
X1.1	0.768			0.493
X1.2	0.677			0.421
X1.5	0.676			0.603
Y.2		0.932		0.171
Y.1		0.895		0.232
X2.6			0.720	0.507
X2.1			0.681	0.600
X2.7			0.675	0.616
X2.3			0.555	0.610
X1.3				0.935
X1.6				0.792
X2.2				0.876
X2.4				0.696
X2.5				0.703
Y.3				0.787

Source: Data Processed

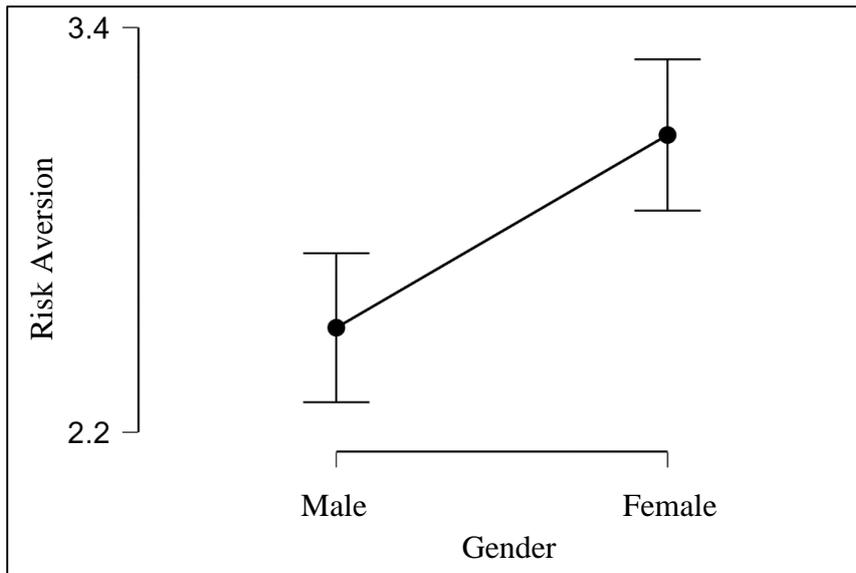
Table 3: Reliability Test

Variables	Cronbach's α	If item dropped Cronbach's α	Item-rest correlation
Risk Aversion	0.798		
X1.1		0.757	0.591
X1.2		0.749	0.612
X1.5		0.764	0.584
X1.7		0.721	0.663
Locus of Control	0.725		
X2.1		0.668	0.510
X2.3		0.689	0.474
X2.6		0.626	0.584
X2.7		0.673	0.505
Investment Intention	0.909		
Y.1		NaN	0.856
Y.2		NaN	0.856

Source: Data Processed

Table 2 exhibits the result of validity test using Exploratory Factor Analysis, and some items were discarded because the loading factor is lower than 0.5. After that, the remaining items were proven to be reliable with Cronbach's alpha greater than 0.7 (Table 3). Independent Samples T-Test were done to test whether different group of gender has significant difference in risk aversion, LOC, and investment intention (Figure 1 to 3). After that, we analyze the relationship between all variables used in this study (Figure 4).

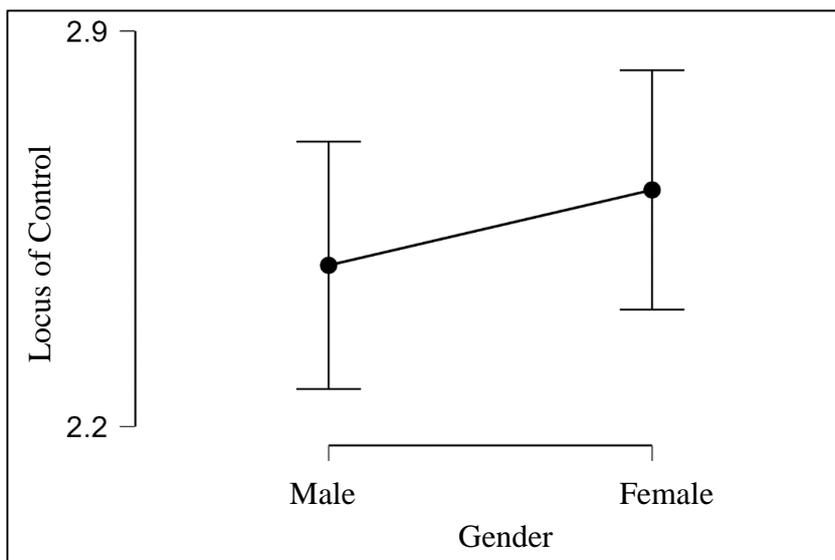
Figure 1: Descriptive Plots - Gender & Risk Aversion



Source: Data processed

Figure 1 shows that there is significant difference in risk aversion between male and female. Females tend to avoid risk while males scored low in risk aversion, which means that they are more of a risk-seeker. This aligns with research by Baffour et al. (2019) who found that females have higher tendency to experience negative emotion and related processes in response to perceived threat and punishment compared to males, and this emotional reaction results in differences in risk taking behavior.

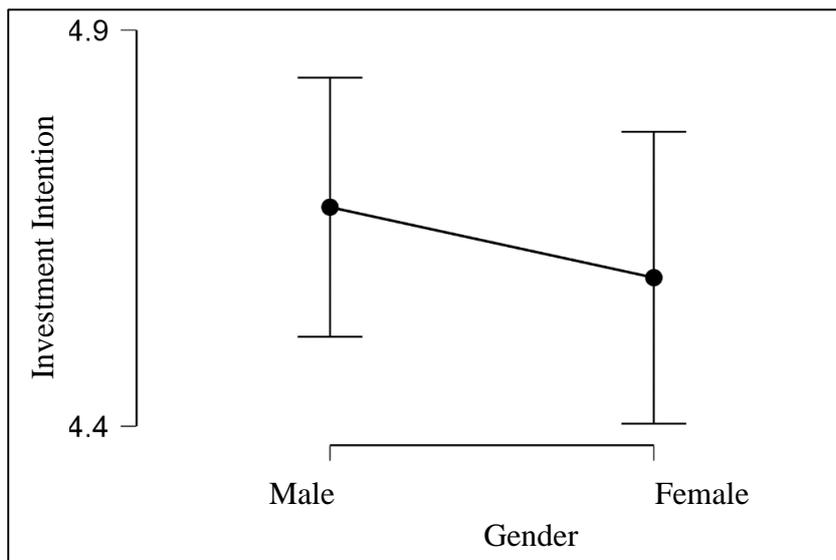
Figure 2: Descriptive Plots - Gender & LOC



Source: Data processed

Figure 2 shows that females tend to have external LOC compared to males, which means that they feel that their decisions are generally overpowered by external factors such as luck, chance, and prominent individuals, and they are expected to show less resistance to the influence of others. This is consistent with earlier findings of Maadal (2020) and Verheul et al. (2008)

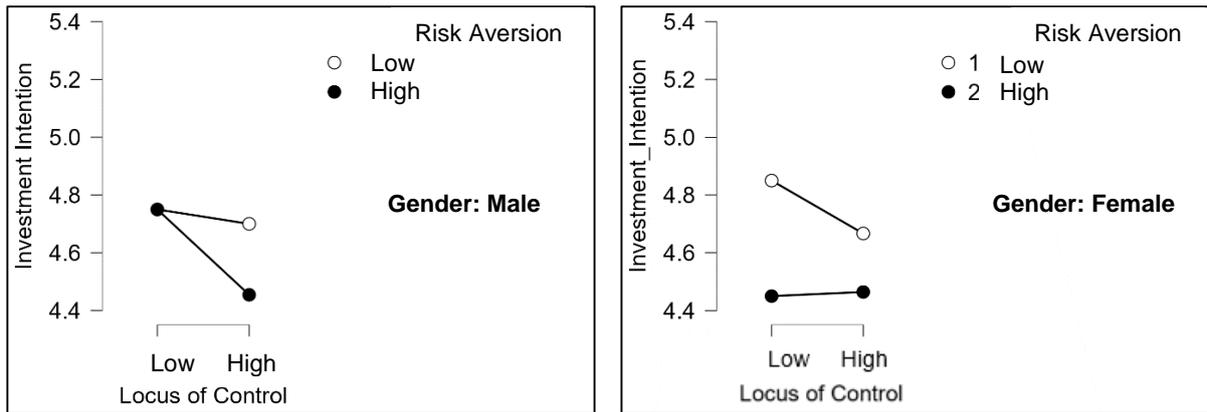
Figure 3: Descriptive Plots - Gender & Investment Intention



Source: Data processed

Figure 3 shows that males tend to have a higher intention to invest compared to females. This aligns with the statistics from PT Kustodian Sentral Efek Indonesia (2021) which shows a higher number of male investors in the capital market. Tauni et al. (2017) also found that females are less likely to invest than males because females are less willing to take risks, or more risk averse.

Figure 4: Descriptive Plots – Risk Aversion, LOC, and Investment Intention



Source: Data processed

Figure 4 shows the difference between males and females regarding LOC, risk aversion, and investment intention. Findings indicate that risk aversion will be more dominant in men who have external LOC, indicating that if risk aversion is high then they are less likely to invest. However, if they have internal LOC then they are more likely to invest anyway even though they have high risk aversion. This is in line with research by Salamanca et al. (2020), who found that students with an internal LOC perceive themselves to be at lower risk, and household heads who have internal LOC tend to have higher participation rates in risky asset investments.

On the other hand, risk aversion will be very dominant for females who have internal LOC, which means that even if they have control over their decisions, they would be less likely to invest if they have high risk aversion. Verheul et al. (2008) explained that females' low perceptual behavioral control is not caused by the belief that they cannot control their life (external LOC), but rather by a certain degree of pessimism about the environmental factors. The effect of perceived risks not only reduces their preferences but also directly discourages them from taking action.

CONCLUSION

The findings of this study indicate that there are significant differences in characteristics between males and females regarding their investment intention. Females have lower tolerance toward risk, and they tend to have an external LOC, therefore they are less likely to invest compared to males. Males who have internal LOC are more likely to invest regardless of their risk preference, but those who have external LOC are less likely to invest if they have high risk aversion. Females who have high risk aversion are less likely to invest regardless of their LOC tendency, but those who have internal LOC are more likely to invest if they have low risk aversion.

REFERENCES

- Alleyne, P., Broome, T. (2011). Using the theory of planned behaviour and risk propensity to measure investment intentions among future investors. *Journal of Eastern Caribbean Studies*, 36(1), 1-21.
- Aydemir, S. D., & Aren, S. (2017). Do the effects of individual factors on financial risk-taking behavior diversify with financial literacy? *Kybernetes*, 46(10), 1706-1734. <https://doi.org/10.1108/K-10-2016-0281>
- Baffour, P. T., Mohammed, I., & Rahaman, W. A. (2019). Personality and gender differences in revealed risk preference: evidence from Ghana. *International Journal of Social Economics*, 46(5), 631-647. doi:10.1108/ijse-07-2018-0346
- Bennet, E., Selvam, M., Ebenezer, E., Karpagam, V., & Vanitha, S. (2011). Investors' attitude on stock selection decision. *International Journal of Management & Business Studies*, 1(2), 7-15.
- Gervais, S., Heaton, J. B., & Odean, T., Rodney, L. W. C. (2002). *The positive role of overconfidence and optimism in investment policy*. Working Papers, Rodney L White Center for Financial Research.
- jppn.com (2021, February 5). Survei Populix: Inilah Tren Investasi Indonesia di 2021. *jppn.com*. <https://m.jppn.com/news/survei-populix-inilah-tren-investasi-indonesia-di-2021>
- Maadal, A. (2020). The Relationship between Locus of Control and Conformity. *Journal of Cognition and Culture*, 20(1-2), 100-115. DOI: 10.1163/15685373-12340076

- Onasie, V., & Widoatmodjo, S. (2020). Niat Investasi Generasi Milenial Di Pasar Modal. *Jurnal Manajerial Dan Kewirausahaan*, 2(2), 318–326.
- PT Kustodian Sentral Efek Indonesia. (2021). *Statistik Pasar Modal Indonesia Februari 2021*. 1–6. https://www.ksei.co.id/files/Statistik_Publik_Januari_2021.pdf
- Putri, P. T., & Simanjuntak, M. (2020). The role of motivation, locus of control and financial literacy on women investment decisions across generations. *Journal of Consumer Sciences*, 5(2), 102–123.
- Rizky, F. (2021, January 31). Generasi Millennial Dominasi Investor Baru di Pasar Modal. *IDXChannel*. <https://www.idxchannel.com/economics/generasi-millennial-dominasi-investor-baru-di-pasar-modal>
- Rotter, J. B. (1966). Generalized expectancies for internal versus external control of reinforcement. *Psychological Monographs: General and Applied*, 80(1), 1-28.
- Safitri, K. (2021, September 2). Hingga Agustus 2021, Jumlah Investor Saham Mencapai 2,6 Juta SID Halaman all. *KOMPAS.com*. <https://money.kompas.com/read/2021/09/02/163651826/hingga-agustus-2021-jumlah-investor-saham-mencapai-26-juta-sid?page=all#page2>
- Salamanca, N., de Grip, A., Fouarge, D., & Montizaan, R. (2020). Locus of control and investment in risky assets. *Journal of Economic Behavior & Organization*, 177, 548–568.
- Tauni, M. Z., Fang, H., Mirza, S. S., Memon, Z. A., & Jebran, K. (2017). Do investor's big five personality traits influence the association between information acquisition and stock trading behavior? *China Finance Review International*, 7(4), 450-477.
- Verheul, I., Thurik, R., & Grilo, I. (2008). *Explaining preferences and actual involvement in self-employment: New insights into the role of gender*. Erasmus research institute of management, 1-28.