

# The Effect of Perceived Behavioral Control, Personality Traits, Financial Risk, and Expected Investment Value on Investment Intention Among Millennial Investors

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## ABSTRACT

The purpose of this study is to examine the influence of perceived behavior control, financial risk, personality traits, expected investment value on investment intention in Indonesia. The study used primary data. Data was obtained by distributing online questionnaires using Google Forms. Four hundred thirteen respondents are used with the nonprobability sampling method—data analysis using SEM-PLS. This study indicates that perceived behavior control and personality traits have a significant influence on investment intention in Indonesia, but expected investment value and financial risk do not affect investment intention in Indonesia.

**Keywords:** *Perceived Behavioral Control, Financial Risk, Personality Traits, Expected Investment Value, Investment Intention*

## 1. INTRODUCTION

In this era of globalization, people are no stranger to what is called investment. Investing is a commitment to several funds or resources as a way to achieve a desire and need in the future [1]. Investment activity is very important because, in addition to providing economic benefits, it is also to maintain and improve the welfare of one's life. It is indirectly helping the economy and development of the country. Investments can be made in various forms—one form of investment can be made in financial securities, including Mutual Funds. *Mutual funds* are instruments used to raise public funds as capital owners, which will then be invested in a securities portfolio [2]. Since the enactment of Law No. 8 of 1995 concerning the capital market, which regulates mutual funds, investment in mutual funds began to be glimpsed by the public and always increased every year. However, Mutual Funds investment also experienced a decline, especially during the 1997-1998 Monetary Crisis. Although the number of mutual fund investors grows every year, Indonesia is still relatively a country with a low number of mutual fund investors compared to other Asian countries. It can be seen from the percentage of Indonesian investors, which is only 0.34% compared to other countries, such as India (1.58%), Malaysia (61.19%), and Singapore (69.16) [3]. The data shows that there are still problems related to investment activities in mutual funds.

According to the theory of TPB (Theory of Planned Behavior), activity occurs because of the intention to act. In the Theory of Planned Behavior, it is stated that intention can determine an individual's behavior, so that intention is

a direct determinant of an action [4]. One of the important factors influencing the intention is perceived behavior control, namely the response to something as a behavioral control shown by an individual, which refers to the ease or difficulty of carrying out a behavior. This factor is related to the capabilities and opportunities of investors [[5]; [6]; (Pascual et al., 2014)].

Behavioral control carried out by an individual on investment intentions is also determined by the individual's personality, which can be regarded as personality traits. *Personality Traits* are mindsets that shape behavior to invest as a result of interactions with their environment, such as education, association, and a pattern of thought, emotion, and behavior of a person along with psychological mechanisms that are hidden or not behind the pattern [[7]; [8]; [9]]. Behavioral control is associated with an individual's belief in the ability of the resource—his skills and abilities. High confidence from the three components will encourage and increase investment intentions. He allocates the necessary funds. With sufficient funds supported by good abilities and skills, the intention to invest will be increasingly encouraged. This encouragement is done by making good investment plans and digging up complete information [[10]; [11]; [12]; [13]].

**H<sub>1</sub>: Perceived behavior control has a positive effect on Investment Intention.**

Personality Traits are also referred to as the personality traits of an investor related to the options and results available. Five personality traits consist of Extraversion, Openness to experience, Neuroticism, Agreeableness, Conscientious ([14]. An individual who has an optimistic,

sympathetic, open, and conscientious nature is a person who is open to positive things. *Investment activities* are activities that will provide positive returns and can be used for future needs. For individuals who have an optimistic nature, they will be encouraged to invest so that the intention to invest is higher [[15]; [16]; [17] pessimistic, depressed, anxious, easily afraid will tend to have lower investment intentions [[18]; [16]; [19]]. These results are consistent with [20]; [21]; [22]].

**H<sub>2</sub>: Personality Traits have a significant effect on Investment Intention.**

Investment, in addition to promising results, also poses financial risks. Financial risk is the opportunity for monetary loss from the choices or decisions taken [23]. As uncertainty about a return on investment [24] subjective decision due to poor quality information about future events [25]. Individuals who have a risk-averse nature will tend to reduce investment intentions, but individuals who are risk-takers will behave otherwise. Therefore, the amount of a person's intention to invest depends on the nature of the individual in facing risk and the level of investment risk of his assets [[26]; [27]; [5]].

**H<sub>3</sub>: Financial Risk has a significant influence on investment intention.**

Although the investment poses a risk of loss, it also promises an expected investment value (Expected Investment Value). Investment intentions strengthened even though there was a perceived risk of loss due to the expectation of high returns. This hope will be strengthened because it is supported by experience and information [[28]; [29]; [24]]. The expected investment value is the value that individuals want before (pre) doing investment activities based on the desired expectations ([30]. Someone who has the intention to invest will first predict or expect how much investment returns will be received in the future, then the greater the investment value that is expected to be received,

the person tends to have a higher intention to invest [28]; [31]; [32]]. It is also supported by [33]; [24]].

**H<sub>4</sub>: Expected Investment Value has a positive effect on Investment Intention.**

## 2. METHOD

### 2.1. Sample and Data Collection Method

This study uses quantitative methods; the population in this study is mutual fund investors in Indonesia, which includes previously or still being mutual fund investors. The method used is purposive sampling by obtaining data by distributing online questionnaires such as E-mail, Whatsapp, Facebook, and internet forums. The number of samples in this study amounted to 450 respondents; only 413 respondents (92 percent) returned the questionnaire, which was then processed and used in data analysis.

In this study, the variables used consisted of the dependent and independent variables. Where the dependent variable consists of Investment Intention, investment intention is measured by adopting from [9]; [24]; [34]. The independent variables consist of Perceived behavior control measured using indicators from [24], [35], [7]. The Personality Traits variable was measured by adopting indicators from [17]. Financial risk variables use indicators from [24], [36]. The Expected Investment Value variable is measured by adopting indicators from [24] and [33].

The data analysis method in this research uses Structural Equation Modeling (SEM) with research data processing through the Partial Least Square (Smart-PLS) program. Using the PLS program is to find the optimal linear predictive relationship contained in the data. In confirming the theory, PLS can also be used to explain the presence or absence of a relationship between latent variables.

## 3. DATA ANALYSIS AND RESULTS

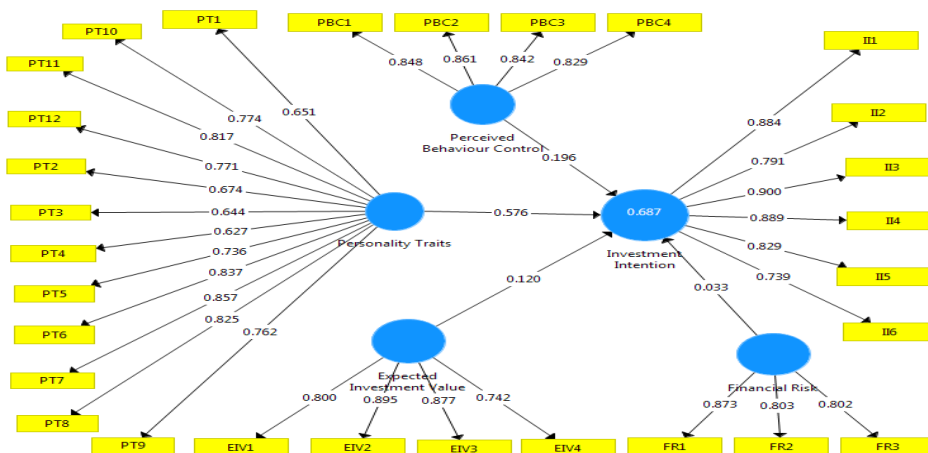


Figure 1 Convergent Validity Test Results

At this stage of testing, the indicators on each variable can be declared valid if the resulting loading factor value is greater than 0.6 for the intended construct [37]. Convergent Validity results can be shown in figure 1.

From Figure 1, it can be shown that the results of the Convergent validity test state that all indicators of each variable starting from the Perceived behavior control indicator, PBC1 to PBC4, the Personality traits indicator from PT1 to PT12. The Expected Investment Value indicator, namely from EIV1 to EIV4, the indicator Investment Intention (II) III to II6, and Financial Risk indicators from FR1 to FR3 are declared valid because the resulting coefficient value is greater than 0.6 [37].

**3.1. Validity and Reliability Test**

The results of the validity tests of the model variables show good validity. Validity test with loading factor. The loading factor value obtains the loading factor value of each variable indicator above 0.60. The lowest loading factor value of the

**3.3. Structure Equation Model**

**Table 1** Statistical Hypothesis Test (t-Test)

Hypothesis	Relationship	Std. Beta	t-Statistic	P -Value
H <sub>1</sub>	EIV □ II	0.12	1.217	0.224
H <sub>2</sub>	FR □ II	0.033	0.882	0.378
H <sub>3</sub>	PBC □ II	0.196	2.487	0.013
H <sub>4</sub>	PT □ II	0.576	4.791	0

**4. FINDINGS AND DISCUSSIONS**

**4.1. Findings**

In Table 1, it is shown that the original sample value of the Expected Investment Value variable on Investment Intention produces a value of 0.12, with a T-statistic value of 1.217 and a P value of 0.224, so it can be said that the effect of Expected Investment Value on Investment Intention is not significant. From Table 1, it can be seen that the original sample value generated from Financial Risk on Investment Intention is 0.033, with a T-statistic value of 0.882 and P Values of 0.378, so that the influence of the Financial Risk variable on Investment Intention is not significant.

Based on Table 1, the original sample value of the Perceived behavior control variable on Investment Intention is 0.196, which means that the Perceived behavior control variable positively influences Investment Intention. In addition, the effect of Perceived behavior control on Investment Intention is significant because it has a T-statistic value of 2.487 and P Values of 0.013.

Table 1 shows that the original sample value of Personality Traits on Investment Intention is 0.576, which has a positive effect. In addition, the T-statistical value is 4.791, and the

PT4 indicator is 0.627. Thus, all indicators are said to be valid [38]. The reliability test was tested with Cronbach's alpha and Cronbach's alpha. All variables are declared reliable with these two criteria because the value is above 0.7 [38].

**3.2. Inner Model Test**

**3.2.1. Goodness-of-Fit Test**

Testing on the Goodness of Fit aims to determine the accuracy of a model, including good or not. The accuracy can be shown from the resulting NFI value, provided that it is between 0 to one. The results of the Goodness of Fit test shown that the resulting NFI is 0.775, which means that the existing research model is good because the closer to the value of one, the better [38]. At the stage of testing the coefficient of determination, it can be shown from the R-square value. The R-square result is 0.687.

P-value is 0, so the influence of the Personality Traits variable on Investment Intention can be said to be significant.

**4.2. Discussions**

Perceived behavior control is behavioral control shown by an individual, which refers to the ease or difficulty of carrying out a behavior. The results in this study indicate a positive effect of Perceived behavior control on investment intention, which means the greater the behavioral control shown and the ease with which it is carried out, the higher the intention to invest. Therefore, to increase investment intentions, it is more suitable to show individuals with relatively larger incomes so that they can easily carry out investment activities or individuals who already have more wealth (savings/assets) to invest without any material constraints easily. Furthermore, they are also expected to have sufficient knowledge of finance or financial literacy so that individuals who understand the intricacies of the investment activities to be carried out can make good and effective decisions to avoid investment mistakes, both technically and financially. It is in line with research conducted by [11], [28], [39].

Personality Traits are a person's personality traits that reflect a person's patterns of thoughts, feelings, and behavior. The results in this study indicate a positive influence of Personality Traits on Investment Intention, meaning that the better the nature of an individual in taking action, the higher the intention to invest. It is under the characteristics of the respondents who filled out the questionnaire in this study where the respondents were careful because they always made careful considerations when they wanted to make investment decisions and felt very optimistic when making investment decisions and easily received input from others related to investment activities to be undertaken. It is done so that it shows that respondents have more positive traits that have the urge to carry out investment activities, which, of course, makes the intention to invest even greater. It is in line with research conducted by [9], [40], [21], [17]. So, to increase investment intentions, caution is needed in considering investment decisions.

Financial risk is uncertainty over the loss of a certain amount of money (monetary) from investment activities that will be carried out. Someone who has the intention to invest will certainly estimate or measure in advance how much financial risk they will face—the greater the financial risk that will occur, the lower the intention to invest. The findings in this study differ from various studies that have been conducted, which state that financial risk influences investment intentions. However, the results of this study indicate that Financial Risk does not affect Investment Intention. It is in line with research conducted by [5], which states that Financial Risk does not affect Investment Intention. It can happen because it is suspected that from the respondent's data obtained, most investors are still under 30 years old or commonly referred to as millennials, where the average young age does not pay much attention to the risks that may occur so that they can be included in the Risk Neutral, causing Financial Risk does not affect an individual's investment intentions.

Expected Investment Value is the desired value of an individual at the stage before (pre) doing investment activities based on the desired expectations. Someone who has the intention to invest will first calculate how much the expected return is; the greater the investment value that is expected to be received, the greater the intention to invest, because according to [33] said that Expected Investment Value is a direct determinant of Investment Intention. However, the results of this study indicate that the Expected Investment Value does not affect Investment Intention. This finding is different from previous studies such as [28], [41], [33], which states that Expected investment value has a positive and significant effect on Investment Intention because investment is made with the hope of increasing the wealth owned. However, the results in this study stated that there is no presumed influence because individuals are still in the stage of experimenting with investment. Individuals do not expect the return obtained later, considering that most of the respondents who filled out the questionnaire were young workers who were still under 30 years old are still new to having income and have little investment experience.

## 5. CONCLUSION

Based on the hypothesis, testing, and discussion described in the previous chapter, conclusions can be drawn consisting of:

1. Perceived Behavior Control has a positive influence on the Investment Intention of mutual fund investors in Indonesia.
2. Personality Traits have a positive influence on the Investment Intention of mutual fund investors in Indonesia.
3. Financial Risk does not affect the Investment Intention of mutual fund investors in Indonesia.
4. Expected Investment Value does not affect the Investment Intention of mutual fund investors in Indonesia.

## REFERENCES

- [1] E. Tandelilin, "Dasar-Dasar Manajemen Investasi," *Keuangan*, p. 34, 2010.
- [2] UU No 8, *Undang-Undang Pasar Modal No. 8 Tahun 1995*. Indonesia, 1995.
- [3] Bareska, "BARESKA 2019.pdf," Jakarta: Maret, 2019.
- [4] I. Ajzen, "The theory of planned behavior," *Organ. Behav. Hum. Decis. Process.*, vol. 50, no. 2, pp. 179–211, 1991, doi: 10.1016/0749-5978(91)90020-T.
- [5] I. Arshad and Y. Ibrahim, "Uncertainty Avoidance, Risk Avoidance and Perceived Risk: a Cultural Perspective of Individual Investors," *Hasanuddin Econ. Bus. Rev.*, vol. 3, no. 1, p. 21, 2019, doi: 10.26487/hebr.v3i1.1836.
- [6] L. A. Mahastanti and E. Hariady, "Determining the factors which affect the stock investment decisions of potential female investors in Indonesia," *Int. J. Process Manag. Benchmarking*, vol. 4, no. 2, pp. 186–197, 2014, doi: 10.1504/IJPMB.2014.060407.
- [7] D. Pascual-Ezama, B. Scandroglio, and B. G. G. de Lian, "Can We Predict Individual Investors' Behavior in Stock Markets? A Psychological Approach," *Univ. Psychol.*, vol. 13, no. 1, pp. 25–36, 2014, doi: 10.11144/Javeriana.UPSY13-1.cwpi.
- [8] C. Strömbäck, T. Lind, K. Skagerlund, D. Västfjäll, and G. Tinghög, "Does self-control predict financial behavior and financial well-being?" *J. Behav. Exp. Financ.*, vol. 14, pp. 30–38, 2017, doi: 10.1016/j.jbef.2017.04.002.

- [9] F. Akhtar and N. Das, "Predictors of investment intention in Indian stock markets: Extending the theory of planned behaviour," *Int. J. Bank Mark.*, vol. 37, no. 1, pp. 97–119, 2019, doi: 10.1108/IJBM-08-2017-0167.
- [10] J. Magendans, "The cost of self-protective measures: psychological predictors of saving money for a financial buffer," University of Twente, 2014.
- [11] Z. Cuong, P. K., & Jian, "Factors influencing individual investors' behavior: An empirical study of the Vietnamese stock market," *Am. J. Bus. Manag.*, vol. 3, no. 2, pp. 77–94, 2014.
- [12] M. Muis, R. Yusuf, and N. Hamid, "The Influence of Spiritual Intelligence, Leadership, and Organizational Culture on Organizational Citizenship Behavior and Employees Performance (A Study on Islamic Banks in Makassar, South Sulawesi Province, Indonesia)," *Int. J. Bus. Manag.*, vol. 2, no. 10, p. 297, 2014.
- [13] A. A. Agus Zainul dan Irene, "The Effect of Financial Attitude, Locus of Control and Income on Financial Behavior," *Int. Conf. Econ. Business, Account.*, 2017, [Online]. Available: <https://www.ersj.eu/dmdocuments/2017-xx-3-a-43.pdf>.
- [14] H. S. Allport, G. W., & Odbert, "Trait-names: A psycho-lexical study," *Monographs*, vol. 47, no. 1, 1936.
- [15] M. M. Leary, M. D. Reilly, and F. W. Brown, "A study of personality preferences and emotional intelligence," *Leadersh. Organ. Dev. J.*, vol. 30, no. 5, pp. 421–434, 2009, doi: 10.1108/01437730910968697.
- [16] P. T. Costa and R. R. McCrae, "Personality Trait Structures as a Human Universal," *Am. Psychol.*, vol. 52, no. 5, pp. 509–516, 1997, doi: 10.1002/0471142735.im1803s100.
- [17] C. Mayfield, G. Perdue, and K. Wooten, "Investment Management and Personality Type," *Financ. Serv. Rev.*, vol. 17, no. 3, p. 219, 2008.
- [18] M. W. Allen, R. Gupta, and A. Monnier, "The Interactive Effect of Cultural Symbols and Human Values on Taste Evaluation," *J. Consum. Res.*, vol. 35, no. 2, pp. 294–308, 2008, doi: 10.1086/590319.
- [19] M. N. Sadiq and R. A. A. Khan, "Impact of Personality Traits on Investment Intention: The Mediating Role of Risk Behaviour and the Moderating Role of Financial Literacy," *J. Financ. Econ. Res.*, vol. 4, no. 1, pp. 1–18, 2019, doi: 10.20547/jfer1904101.
- [20] L. K. Li, "Investment Intention: A Customer Behavior Framework," The University of Western Australia, 2013.
- [21] T. Nandan and K. Saurabh, "Big-five personality traits, financial risk attitude and investment intentions: study on Generation Y," *Int. J. Bus. Forecast. Mark. Intell.*, vol. 2, no. 2, p. 128, 2016, doi: 10.1504/ijbfmi.2016.078154.
- [22] A. Agus Zainul, "The influence of financial knowledge, control and income on individual financial behavior," *Eur. Res. Stud. J.*, vol. 20, no. 3A, pp. 635–648, 2017, [Online]. Available: <https://ideas.repec.org/a/ers/journal/vxxy2017i3ap635-648.html>.
- [23] S. Z. Zielke and T. D. Dobbelstein, "Customers' willingness to purchase new store brands," *J. Prod. Brand Manag.*, vol. 16, no. 2, pp. 112–121, 2007, doi: 10.1108/10610420710739982.
- [24] M. Lounio, "Factors Affecting Consumer Investment Intentions. Empirical Evidence From Finland," Lappeenranta University of Technology, 2014.
- [25] V. Ricciardi, "The Psychology of Risk: The Behavioral Finance Perspective," *Handb. Financ.*, 2008, doi: 10.1002/9780470404324.hof002010.
- [26] J. Jian, C. Chen, and F. Chen, "Consumer financial capability and financial satisfaction," *Soc. Indic. Res.*, 2014, doi: 10.1007/s11205-013-0414-8.
- [27] D. Ayu Wulandari and R. Iramani, "Studi Experienced Regret, Risk Tolerance, Overconfidance dan Risk Perception pada Pengambilan Keputusan Investasi," *J. Bus. Bank.*, vol. 4, no. 1, p. 55, 2014, doi: 10.14414/jbb.v4i1.293.
- [28] P. K. Njuguna, G. s. Namusonge, and C. Kanali, "Determinant of Investment Intention: An Individual Retail Investor's Perspective from Nairobi Securities Exchange," *Int. J. Arts Commer.*, vol. 6, pp. 120–132, 2017, [Online]. Available: [https://www.ijac.org.uk/images/frontImages/gallery/Vol\\_1\\_5\\_No\\_6/11\\_120-132.PDF](https://www.ijac.org.uk/images/frontImages/gallery/Vol_1_5_No_6/11_120-132.PDF).
- [29] P. Puustinen, P. Maas, and H. Karjaluoto, "Development and validation of the Perceived Investment Value (PIV) scale," *J. Econ. Psychol.*, vol. 36, pp. 41–54, 2013, doi: 10.1016/j.joep.2013.02.009.
- [30] A. Aizcorbe, A. Kennickell, and K. Moore, "Recent changes in U.S. family finances: Evidence from the 1998 and 2002 survey of consumer finances,"

*Federal Reserve Bulletin*, vol. 86, no. January 2003, pp. 1–32, 2003.

[31] A. C. G. Potrich, K. M. Vieira, and W. Mendes-Da-Silva, “Management Research Review Development of a financial literacy model for university students For Authors Development of a financial literacy model for university students,” *Manag. Res. Rev. Iss J. Risk Financ. African J. Econ. Manag. Stud. Iss Int. J. Soc. Econ.*, vol. 3944, no. 7, pp. 356–376, 2016, doi: 10.1108/MMR-06-2014-0143.

[32] W. Andayani, S. Atmini, D. Sadewo, and J. K. Mwangi, “GOVERNANCE AND THE INTELLECTUAL PROPERTY: AN EXTERNAL STRATEGY OF THE MANAGEMENT TO INCREASE THE COMPANY’S VALUE,” in *National Conference on Management Research 2008*, 2008, no. 40, pp. 1–18, [Online]. Available: <http://ssrn.com/abstract=1327513>.

[33] P. Puustinen, *Towards a Consumer-Centric Definition of Value in the Non-Institutional Investment Context Conceptualization and Measurement*. 2012.

[34] L. Kang Lie, “Investment Intention: Consumer Behaviour,” *Univ. West. Aust.*, vol. 84, pp. 487–492, 2013.

[35] N. Christanti and L. A. Mahastanti, “Faktor-faktor yang dipertimbangkan investor dalam melakukan investasi,” *J. Manaj. Teor. dan Terap.*, vol. 4, no. 3, pp. 37–51, 2011.

[36] R. Bhukya and S. Singh, “The effect of perceived risk dimensions on purchase intention,” *Am. J. Bus.*, vol. 30, no. 4, pp. 218–230, 2014, doi: 10.1108/ajb-10-2014-0055.

[37] J. F. Hair, C. M. Ringle, and M. Sarstedt, “PLS-SEM: Indeed a Silver Bullet,” *J. Mark. Theory Pract.*, vol. 19, no. 139–151, 2011, doi: 10.2753/MTP1069-6679190202.

[38] J. F. Hair, L. M. Matthews, R. L. Matthews, and M. Sarstedt, “PLS-SEM or CB-SEM: Updated guidelines on which method to use,” *Int. J. Multivar. Data Anal.*, vol. 1, no. 2, pp. 107–123, 2017.

[39] Y. Ibrahim and I. Arshad, “Examining the impact of product involvement, subjective norm and perceived behavioral control on investment intentions of individual investors in Pakistan,” *Invest. Manag. Financ. Innov.*, vol. 14, no. 4, pp. 181–193, 2017, doi: 10.21511/imfi.14(4).2017.15.

[40] M. N. Sadiq and R. A. A. Khan, “Impact of Personality Traits on Investment Intention: The Mediating Role of Risk Behaviour and the Moderating Role of Financial Literacy,” *J. Financ. Econ. Res.*, vol. 4, no. 1, pp. 1–18, 2019, doi: 10.20547/jfer1904101.

[41] M. Lounio, “Factors Affecting Consumer Investment Intentions. Empirical Evidence from Finland.,” no. Mimm, p. 160, 2014.