

Study on financial risk towards individual investor as strategy to improve urban community empowerment

F M Leon*, A Aprilia

Faculty of Economic and Business, Universitas Trisakti, Jakarta

*Corresponding Author: farahmargaretha@trisakti.ac.id

Abstract. Investor will be always influenced by its risk tolerance when investing, each investor has own risk tolerance that differ to another, although this still being questioned until now. This research aimed to know the influence of demography factor in distinguish and classify Financial Risk Tolerance (FRT) and Financial Risk Taking Behavior (FRB) to individual investor. Methodology in this research is data that used as primary data which distributed by offline and online. The sample in this research is 642 respondents in Jakarta. Logistic regression is analyze method that used in this research. The research found that there is influence of gender, marital, status, education and income level to Financial Risk Tolerance (FRT) and Financial Risk Taking Behavior (FRB). For FRT significantly 0.000 for gender and marital status; 0.010 for education and 0.001 for income level. Whereas for FRB significantly 0.000 for gender; 0.003 for marital status and 0.010 for education level. The research contribution is crucial for financial advisor to notice the characteristic investor based on demography factor such as gender, marital, status, education level and income level. Therefore, this research able to give optional decision for appropriate investment to clients as ones of strategy to improve urban community empowerment.

Keywords: demography factor, financial risk taking behavior, financial risk tolerance

1. Introduction

Investments are placements of a certain amount of funds in a given asset in the hope of gaining profit in the future. According to [1], investment is a commitment to a certain amount of money or other resources currently undertaken for the purpose of obtaining benefits in the future. Investments are conducted with the aim of improving the welfare of investment doers. Investors such as employees, entrepreneurs to pensioners invest in different levels and forms of investment. There are so many forms of investment that can be done, from opening savings and/or bank deposits, buying precious metals or gold and jewelry, buying stocks or bonds, buying mutual funds, buying land, homes or many now apartment. But before investing the investor will be faced with various investment options that also have different levels of risk.

In making a decision to invest investors will be faced with uncertainty where the possibility of the outcome of the investment is not in line with expectations or even become a loss. Investors will not only take advantage of investment but also consider the possible risks to be faced from an investment where the level of risk acceptable or tolerated by each investor varies depending on the Financial Risk Tolerance (FRT) level. FRT is the willingness of an investor to accept a negative change or decline in value of investment or loss resulting from investments made that differ from expectations [2]. Every investor has tolerant and attitudes to different risks, where the high risks considered by an investor can be regarded as a small risk to other investors [3]. In making a decision to invest, investors will be



influenced by the FRT level. FRT is a key element and plays an important role to consider in making investment decisions to achieve financial goals for both investors and investment managers [3].

In making a decision to invest an investor can consider various factors of consideration with himself or with the help of others such as financial advisor. Assigning investors into appropriate risk tolerance categories and then showing the portfolio of investments that best suits them is an important task of investment managers and advisers [3]. However, most financial advisors and / or investors often miss-equate Financial Risk Tolerance (FRT) with the Financial Risk Behavior (FRB) of an investor [4]. According to [5] in financial management in general and especially on money management, behavior can be defined as goal-oriented or whereby behavior leads to actions that can lead to positive or negative outcomes. Behavior can be seen from the point of view of the consequences or the outcome of a decision making where it is important to understand the consequences of money management rather than the behavior or actions of money management because if a mismanagement occurs it will increase the likelihood of the occurrence of financial stress [6]. Money management is a daily financial activity (storing and maintaining personal financial records and documents, creating personal financial statements such as balance sheets and cash flows, then creating and executing expenditure and budgeting plans) needed to manage current personal economic resources to get long-term prosperity [2]. The objective of money management is to generate profits and improve welfare [3], but it does not rule out welfare may decrease [3]. A decrease in wealth may cause a person to experience overdue warnings, or even to the point of bankruptcy which is the result or consequence of mismanagement or FRB [6]. It is very important for policy makers and financial advisors to understand how FRTs influence investment decisions in order to improve the quality of their services to clients [10].

Knowing and understanding FRT and financial risk is important in making investment decisions but to know and measure it is not easy to do. According to [3] to measure a person's FRT is not easy because FRT is a complex attitude. Many previous studies have examined demographic factors affecting FRT and financial FRB using variables such as gender, age, marital status, education, occupation and income. Demographics are factors associated with FRT that are often used in research, and there is general agreement among investment managers and researchers that demographic factors can be used to differentiate and classify risk tolerance levels of investors into categories [3]. Yet so far this research aimed to know the influence of demography factor in distinguish and classify Financial Risk Tolerance (FRT) and Financial Risk Taking Behavior (FRB) to individual investor.

2. Research Method

2.1. Financial Risk Taking Tolerance (FRT)

The FRT variable describes the level of ability of an investor to accept risk. This variable is measured by a liker scale of 1 to 4, where 1 = agree, 2 = strongly agree, 3 = disagree, 4 = strongly disagree using 5 question items adopted from [15]. The five items of the question are a) investing is too difficult to understand, b) I feel more comfortable to put my money in the bank than on the stock market, c) when I think about the word risk, then the word loss comes instantly in my mind, d) making money / profits through the purchase of shares and bonds is based on luck factor, and e) in terms of investment, security is more important than the rate of return.

2.2. Financial Risk Taking Behavior (FRB)

FRB variable refers to the result of money management. This variable is measured using 4 items of questions adopted from [5] where the value of 1 if the respondent answered Yes and 0 if the respondent answered No. The items of the question are a) have you ever experienced a wage / salary deduction?, b) have you ever experienced bankruptcy? c) Have you ever received overdue notices from creditors? d) Have you ever experienced vehicle seizure by creditors?

2.3. Demographic Variables, Population and Sample

Demographic variables used include gender, age, status, employment changes affected results. Sampling method in this research is done by purposive sampling that is withdrawal sample based on

certain criterion determined by researcher [9]. Here are certain criteria in sampling: a) respondents are domiciled in Jakarta, b) respondents have jobs, c) respondents have at least 2 (two) types of investment. Of the 250 questionnaires distributed only 217 questionnaires were returned but 13 questionnaires were not filled completely so they could not be used for the study. While from the questionnaire online obtained as many as 449 questionnaires so that the total questionnaire received back is as much as 653. Of the total 653 questionnaires returned but only as many as 642 questionnaires that can be used.

2.4. Data Analysis Method

The method of analysis used in this research is to use binary logistic regression analysis using a program of SPSS version 22. The purpose of knowing the influence of independent variable to its dependent variable where the dependent variable is dichotomy variable. In binary logistic regression analysis no normality test is required [11]. The regression equation used in this research is as follows:

$$\ln \frac{p}{1-p} = \beta_0 + \beta_1 \text{ Gender} + \beta_2 \text{ Age} + \beta_3 \text{ Marital Status} + \beta_4 \text{ Education} + \beta_5 \text{ Work} + \beta_6 \text{ Income} \quad (1)$$

or:

$$\ln \frac{p}{1-p} = e^{(-\beta_0 + \beta_1 \text{ Gender} + \beta_2 \text{ Age} + \beta_3 \text{ Marital Status} + \beta_4 \text{ Education} + \beta_5 \text{ Work} + \beta_6 \text{ Income})} \quad (2)$$

3. Results and Discussion

Regression analysis (Table 1) aims to determine whether there is an influence of independent variables on the dependent variable. The basic decision-making decision are a) if the significance value < 0.05 then there is influence of independent variable to dependent variable, b) if the value of significance > 0.05 then there is no influence of independent variables on the dependent variable.

H_{1a}. There is a gender effect on FRT

From the results of Table 1 obtained value of p-value significance of 0.000 < 0.05 indicating that gender has a significant influence on FRT. An odds ratio of 3.884 indicates that men tend to have a higher FRT 3,884 times compared with women. These results are supported by research conducted by [13] who found that men had risk tolerance compared with women. Similar results have also been found by [12] that women have lower levels of risk tolerance than men.

H_{1b}. There is gender influence on FRB

From the results of Table 1 shows a significant value for gender of 0.000 < 0.05 which indicates that gender significantly affect FRB. Table results show an odds ratio of 4.395 which means that men tend to have higher FRBs 4.395 times compared with women. This result is reinforced by a study that has been done previously by [6] who found that men had higher FRBs than women.

Table 1. Table of logistic regression analysis result (Source: SPSS data processing).

Dependent Variable	Independent Variable	B	S.E.	Wald	Sig.	Exp (B)
Financial Risk Tolerance (FRT)	Gender	1.357	0.185	53.819	0.000	3.884
	Age	0.016	0.010	2.641	0.104	1.017
	Marital Status	1.066	0.214	24.845	0.000	2.907
	Education	0.840	0.325	6.693	0.010	2.317
	Occupation	0.043	0.233	0.034	0.854	1.044
	Income	0.701	0.219	10.289	0.001	2.017
	Constant	-2.407	0.492	23.967	0.000	0.090
Financial Risk Taking Behavior (FRB)	Gender	1.481	0.177	69.961	0.000	4.395
	Age	0.002	0.010	0.049	0.825	1.002
	Marital Status	0.612	0.204	9.031	0.003	1.844
	Education	0.397	0.321	1.529	0.216	1.487
	Occupation	0.329	0.226	2.122	0.145	1.389
	Income	0.597	0.214	7.812	0.005	1.816
	Constant	-1.768	0.476	13.775	0.000	0.171

H_{2a}. There is an age effect on FRT

From the results of Table 1 it is known that age has a p-value of $0.104 > 0.05$. This shows that age has no significant effect on FRT. The results of this study differ from the results of research conducted by [6] which in his research found that there is influence of age to FRT. However, the results of this study are supported by previous research results that have been done by [11] who found that there is no significant effect of age on FRT. These results indicate that the elderly or younger a person's age but if not supported by adequate education then it will not have a significant effect on FRT.

H_{2b}. There is an age effect on FRB

From Table 1 obtained significance value of $0.825 > 0.05$. This shows that age has no significant effect on FRB. This result is not in accordance with the results of a study that has been done by [6] who found that there is an age effect on FRB. This indicates that a person who is either young or old but if not supported with unmarried status then it will not have a significant effect on FRB. Because a person with an unmarried status has no responsibility to finance household needs, so the more daring to invest in an investment that has a greater risk.

H_{3a}. There is influence of marital status to FRT

From the results of Table 1 obtained the value of significance for marital status of $0.000 < 0.05$ indicating that marital status has a significant influence on FRT. The odds ratio of 2.904 indicates that an unmarried person tends to have a higher FRT 2.904 times compared with a married couple. This result is supported by research conducted by study [15] who found that married respondents had lower levels of FRT compared with unmarried respondents. Then the results of this study also supported by the results of research that has been done by study [12] who found that an unmarried person has a higher risk tolerance compared with married couples

H_{3b}. There is influence of marital status to FRB

From the results of Table 1 obtained a significant value for marriage status of $0.003 < 0.05$, the marriage status indicates has a significant influence on FRB. The odds ratio of 1.844 indicates that an unmarried person tends to have a higher FRB 1,844 times compared with a married couple. These results are supported by [14] who found that an unmarried person has a high FRB as well.

H_{4a}. There is an influence of education level on FRT

From table 1, there is a significance value for education of $0.010 < 0.05$ which indicates that education has an influence on FRT. The odds ratio for education of 2.317 indicates that higher education levels tend to have FRT 2.317 times higher than lower education levels. Similar results have also been found by [5] who found that respondents with higher levels of education had higher risk tolerance than those with lower levels of education. In addition, this result is also reinforced by the results of research conducted by [13] who found that respondents with higher levels of education had higher FRTs than respondents with lower levels of education.

H_{4b}. There is an influence of education level on FRB

From Table 1 obtained significant value for education of $0.216 > 0.05$ which means that there is no significant effect of education level on FRB. This result is different from the results of the research that has been done by [16]. However, the results of this study are reinforced by the results of research that has been done by [6] who found that there is no significant effect of education level on FRB. According to [6] this can be attributed to the highly subjective nature of respondents where the likelihood of the respondent being a highly competitive person so as to enhance their competitive advantage tends to avoid FRB.

H_{5a}. There is an influence of the type of work to FRT

From the results of Table 1 for the work obtained a significant value of $0.854 > 0.05$. This shows that there is no significant effect of the type of work on FRT. This result is different from the results of previous studies done by [6] who found that there is an influence of the type of work on FRT.

However, the results of this study are supported by the results of a study conducted by [7] who found that there was no significant effect of employment status on FRT. The results of this study indicate that a person who works as a salaried-employee or self-employed but if not supported by income that is considered to have to meet the needs then will not have a significant influence on FRT. Because if the income increases then someone will be more daring to invest in investment products that have a high risk.

H_{5b}. There is an influence of the type of work to FRB

From the results of Table 1 obtained significance value of $0.145 > 0.05$. This shows that there is no significant effect of the type of work on FRB. This result is different from the results of previous studies that have been done by [6]. The results of this study indicate that a person who works either as a salaried-employee or self-employed but if not supported by marriage status that has not yet married it will not have a significant influence on FRB. Because a person with an unmarried status has no responsibility to finance household needs, so they more daring to invest in an investment that has a greater risk.

H_{6a}. There is an effect of earnings on FRT

From the results of Table 1 obtained significance value for income of $0.001 < 0.05$ which means that income has significant effect on FRT. An odds ratio of 2.017 indicates that respondents with higher income levels tend to have FRT 2.017 times greater than respondents with lower income levels. The results of this study are reinforced by the results of studies that have been conducted by [12] who found that risk tolerance increases with increased incomes. According to [6] someone with a high income level is more daring to take a higher risk than someone with lower income.

H_{6b}. There is an effect of earnings on FRB

From the results of Table 1 obtained value significance for income of $0.005 < 0.05$ which means that income has a significant influence on FRB. The odds ratio of 1.816 indicates that respondents with higher income tend to have higher FRB at 1.816 times compared with respondents with low income level. These findings are reinforced by the results of research done by [6] who found that there is a significant effect of income on FRB.

4. Conclusion

The research found that there is influence of gender, marital status, education level and income level to FRT and FRB. The managerial implications for investment service providers in assigning investors into the risk tolerance and risk-taking behavior categories should consider the demographic factors of gender, marital status, education and income from investors or clients, as by classifying investors into financial categories risk tolerance and appropriate financial risk-taking can help to produce the most fit and proper investment portfolio for its clients. As for investors to consider the demographic factors, especially income, because the income owned by investors can affect the financial risk tolerance and financial risk-taking behavior. In addition, marital status is also known to have an effect on financial risk tolerance and financial risk-taking behavior. So this study can be implementation as a strategy to improve urban community especially in Indonesia.

References

- [1] Bodie K, Kane A, & Marcus A J, Investment, 10th Edition. New York : McGraw-Hill. 2014.
- [2] Grable J E, and Lytton R H. FRT 1999. Revisited: The Development of A Risk Assessment Instrument. *Financial Services Review*, 8:163-181.
- [3] Anbar A, and Eker M. 2010. An Empirical Investigation for Determining of The Relation Between Personal FRT and Demographic Characteristic. *Ege Academic Review*, 10(2):503-522. Davey G. Measuring Client Risk Tolerance. Reed Business Information Pty Ltd. 16. 2006.
- [4] Grable J, and Roszkowski M. 2008. The Influence of Mood on the Willingness to Take Financial Risks. *Journal of Risk Research*. 11(7):905-923.

- [5] Kannadhasan M. 2015. Retail Investors FRT and Their Risk Taking Behaviour : The Role of Demographics as Differentiating and Classifying Factors. *IIMB Management Review*, 27:175-184.
- [6] Sina P G, and Raturomon LT. 2012. Analisis Stres Finansial Pada Gender. *Jurnal Ekonomi & Pendidikan*, 9(1):102-112.
- [7] Kapoor J R, Dlabay L R, & Hughes RJ. *Personal Finance*. New York : McGraw-Hill. 2012.
- [8] Hermawan Asep. *Penelitian Bisnis :Pendekatan Kuantitatif, Kualitatif dan Metode Campuran*. Jakarta : Universitas Trisakti. 2013.
- [9] Wagner J. An Empirical Analysis Linking A Person's Financial Risk Tolerance and Financial Literacy to Financial Behaviors. Accessed November 02, 2015 from <https://www.aeaweb.org/aea/2014conference/program/retrieve.php?pdfid=764>. 2013.
- [10] Ghozali I. *Aplikasi Analisis Multivariat Dengan Program IBM SPSS 21*. Edisi 7. Semarang : BP Universitas Dipenogoro. 2013
- [11] Hallahan T A, Faff R W, & McKenzie M D. 2003. An Empirical Investigation of Personal FRT. *Financial Services Review*. 13:57-78.
- [12] Yao R. And Hanna, S D. 2005. The Effect of Gender and Marital Status on FRT. *Journal of Personal Finance*. 4(1), 66-85. 2005.
- [13] Roussanov, N and Savor, P. Status, Marriage, and Managers Attitudes To Risk. Accessed Januari 03, 2015 dari http://www.usc.edu/schools/business/FBE/seminars/papers/F_4-8-11_ROUSSANOV-Rev.pdf. 2011.
- [14] Grable J E. 2000. FRT and Additional Factors That Affect Risk Taking in Everyday Money Matters. *Journal of Business and Psychology*. 14(4):625-630
- [15] Cole S, Paulson A. and Shastry G K. Smart Money? The Effect of Education on Financial Outcomes. Accessed Januari 13, 2015 from http://www.hbs.edu/faculty/Publication%20Files/cps-smart%20money%202013%20august_d4fb3555-e078-415a-8b20-aa50dc878205.pdf. 2013.
- [16] Chattopadhyay S, and Dasgupta R. 2015. Demographic and Socioeconomic Impact on Risk Attitudes of The Indian Investors – An Empirical Study. *Asian Economic and Financial Review*, 5(4):601-623.
- [17] Yao R, Sharpe D L, & Wang F. 2011. Decomposing the Age Effect on Risk Tolerance. *The Journal of Socio-Economics*. 40:879-887
- [18] Sadiq M N, and Ishaq H M. 2014. The Effect of Demographic Factors on the Behaviour of Investors During the Choice of Investment : Evidence from Twin Cities of Pakistan. *Global Journal of Management and Business Research: C Finance*, 14(3):47-56.