THE INFLUENCE OF FINANCIAL LITERACY, FINANCIAL ATTITUDE AND PEER INFLUENCE TOWARD RETIREMENT SAVING BEHAVIOR MODERATED BY GENDER: A CASE IN INDONESIA

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Abstract

The purpose of this study is to determine the influence of financial literacy, financial attitude and peer influence with the moderation effect of gender and to analyze the differences in retirement saving behavior between male and female. The respondents of this study consists of 101 female and 101 male working individuals and were selected using non-probability sampling with purposive and snowballing techniques. The data collection instrument used was an online questionnaire. The data in this research were analyzed using One Way Analysis of Covariance (ANCOVA). The result showed that financial literacy influences retirement saving behavior with the moderation of gender, financial attitude influences retirement saving behavior with the moderation of gender, and peer influence influences retirement saving behavior with the moderation of gender. Another finding in this study was a difference between male and female working individuals in terms of their retirement saving behavior.

Keywords: Financial Attitude, Financial Literacy, Peer Influence, Gender, Retirement Saving Behavior.

1. INTRODUCTION

Harrod (1939) stated that there are three factors that determine the economic growth of a country namely saving ratio, the marginal efficiency of capital, and capital. The level of investing will be influenced by the amount of savings. The level of savings and investment might indicate whether a country's economy is doing well or not. On the microeconomic scale, saving is an action that is encouraged to become a habit of human existence, making it an absolute constructive activity in dealing with unexpected family economic challenges. Referred to data provided by The World Bank (2020), gross savings as share of GDP in Indonesia has decreased in the last 2 years. In 2018, Indonesia's gross savings as a share of GDP reached up to 31.8%. In the following year of 2019, the gross savings as a share of GDP decreased to 30.9%. In 2020, Indonesia's gross savings as a share of GDP decreased again to 29.61%.

Another fact says that the ratio of elderly dependence on the productive population has increased year by year and reached up to 15.54% (databoks, 2020). It means that there are more and more elderly who depend a lot on productive individuals. The increase in the dependency ratio of the elderly is directly proportional to the increase in needs, including care, thus increasing the economic costs of the productive age population to finance the elderly. This data shows that Indonesian citizens still have a difficulty to fulfill their retirement needs and the condition is getting worse each year. If this condition persists, the current generation will be unable to save for their retirement and the cycle will repeat itself. According to Financial Fitness Index research conducted by OCBC NISP (2021), Indonesians still do not have a healthy financial score with a percentage of 37,72 from 1027 respondents. This research also found that there are only 9% of respondents who already invest and 38% who felt that they can meet their needs during retirement. Another finding was 74% of respondents still had a habit of spending money due to following a friendship lifestyle. This information shows that Indonesian people still don't pay more attention to their savings habits especially for retirement and only prioritize their life in the present.

2. LITERATURE REVIEW

According to the HSBC future retirement survey held by HSBC (2019), 68% out of 1000 respondents want to have a comfortable retirement life. But 90% of respondents are still worried about their living expenses in retirement and only 30% of respondents are saving for their retirement. This survey also said that more than 75% of respondents hope their children will help their needs in retirement.

A research done by Alkhawaja & Albaity (2020) found that individuals with a strong understanding of financial planning will be able to properly prepare for their retirement, resulting in optimal savings rates. Suh (2020) found that as females, particularly those from low-income families are more likely to have a lower level of lifetime earnings, making it difficult to persuade them to save more for retirement. Meriküll, Kukk, and Room (2021) stated that many females save more in deposits while male save more in riskier financial assets that have more profits in a long-term return. Mori (2019) stated that saving is defined as using less than a specific quantity of resources in order to consume it later, in order to build up savings for future expenditure. Hauff, Carlander, Gärling, and Nicolini (2020) stated that retirement financial behavior consists of three stages which are retirement planning, retirement financial savings, and financial investment activity.

Ajzen (1991) wrote in his research about Theory of Planned Behavior (TPB) indicates that people's intentions motivate them to engage in certain behavior. There are three determinants of intention which are attitude, perceived behavioral control, and subjective norms. Attitude is the feeling of the behavior, perceived behavioral control is the perception of the behavior performance, and subjective norms reflect the influences of an individual's environment. In the case of retirement saving behavior, TPB could be implemented by using financial literacy as a proxy of perceived behavioral control, financial attitude for attitude, and peer influence for subjective norms.

Based on the explanation above, it can be said that many Indonesians are still not confident in meeting their retirement needs independently and only a few people are saving for their retirement. Therefore, by modifying TPB, this research aims to analyze the influence of financial literacy, financial attitude, and peer influence on retirement saving behavior and investigate the difference of retirement saving behavior based on gender in Indonesia.

3. METHOD

Research Design and Data Collection

This research was conducted using a quantitative approach by using primary data. The data were obtained by distributing an online questionnaire to 101 males and 101 females, selected using a non-probability sampling which were purposive and snowballing sampling techniques.

Research Instrument

This research uses questionnaire as an instrument in data collection. The questionnaire is divided into three sections: introduction, demographic profile, and the measurement statements of each variable. The introduction section is a screening question to filter the sample as part of the population. The populations are working individuals in Indonesia. The demographic profile consists of gender, age, last education, monthly income and saving allocation. The last part is the variables' measurement. Each variables were measured by using five measurement statements which were adapted from some previous scholars. There are four variables are investigated, which are three independent variabel (financial literacy, financial attitude, and peer influence) and one dependent variable (retirement saving behavior). Therefore, there were 20 measurement statements. This research uses 10 points Likert scale to measure the variable through its measurement statements.

Data Analysis Technique

Each measurement statements were tested by validity and reliability test. After all the statements were valid and reliable, the next step was to do descriptive analysis and inferential analysis. One Way Analysis of Covariance (ANCOVA) test is used in inferential analysis. ANCOVA is an inferential statistic to test the significant differences between two or more groups and to test if the independent variable influences the dependent variable (Mishra, Pandey, Singh, Gupta, Sahu, and Keshri, 2019). It is essential to apply the test for the normality distribution and homogeneity of variance of the group before applying the ANCOVA test.

Hypothesis Development

As mentioned on the introduction part, the first determinant of retirement saving behavior is financial literacy. Financial literacy is a fundamental understanding of economic and financial principles, as well as the ability to apply that knowledge and other financial skills to efficiently manage financial resources over the course of a lifetime (Hung, Parker, and Yoong, (2011).

Widjaja, Arifin, and Setini (2020) stated that financial literacy has positive correlation with saving behavior. This research result is inline with the result from Hauff et al. (2020), which stated that financial literacy has a significant effect on retirement saving behavior including planning of retirement, retirement savings, and managing investment for retirement. Another research conducted by Amari, Salhi, and Jarboui (2020) stated that the positive behavior of savings was associated with being financially literate. Moreover, Gilenko and Chernova (2021) stated that financial literacy has a positive impact on adolescents to save. Besides financial literacy, Kumaraguru & Geetha (2021) found that people who have an understanding in saving, interest rate, retirement schemes, financial instruments, and overview of investment would like to have a good preparation for their retirement. From these scholars' findings, it can be concluded that financial literacy influences retirement saving behavior.

In terms of gender, Potrich, Vieira, and Kirch (2018) found that there were more male who have a better financial literacy compared to female. Meanwhile, a research done by Adil, Singh, and Ansari (2021) found that for both male and female, financial literacy has significant influence and favorable impact on the decisions of investing. Therefore, it can be said that there is an effect of gender on financial literacy which impacts an investment decision.

Based on these two facts, researchers develop the first hypothesis as follows:

H1: With the moderation of gender, there is a difference in retirement saving behavior that was influenced by financial literacy.

The second determinant of retirement saving behavior is financial attitude. Attitude is a set of thoughts, feelings, and ideas about learning that leads to the ability to respond appropriately (Potrich, Vieira, and Mendes, 2016). According to Fitri and Otoluwa (2020), financial attitude consists of controlling monthly expenses, setting financial targets for the future, saving money, money management, having planning about monthly expenditure plans and still keeping on track and staying within the available budget.

Previous research conducted by Abbas, Ali, Nohong, and Sobarsyah (2020) found that financial attitude is the strong predictor of financial behavior. Individuals with positive attitude toward money are more likely to plan their finances by limiting their daily spending, deferring gratification, being frugal, and engaging in useful consumption (Ameliawati and Setiyani, 2018). Baistaman, Awang, and Mustapha (2019) found that the financial attitude of an individual has a favorable influence on retirement planning and a direct link with it. Another research conducted by Willowsa (2020) stated that the advantages of retirement planning are undeniable. It has a favorable impact on a person's financial attitude and their financial behavior. A greater emphasis on assisting individuals in determining how much to save for retirement is required. It is even more useful to place additional emphasis on formulating and sticking to a plan. These scholars findings show that there is an influence of financial attitude towards retirement saving behavior.

In term of gender, Yogasnumurti, Sadalia, and Irawati (2020) stated that gender is a strong factor to strengthen the financial attitude where male shows a better attitude in managing their finances compared to female.

Based on these two facts, researchers develop the second hypothesis as follow:

Ha2: With the moderation of gender, there is a difference in retirement saving behavior influenced by financial attitude.

The third determinant of retirement saving behavior is peer influence. Peers provide motivation for people's thoughts, perceptions, and actions. For individuals who are participating in the learning process, peers play a critical role in shaping an action and behavior (Wentzel, 2017). Kadir, Shoukat, Naghavi, and Jamaluddin (2021) concluded that peer influence is effective in shaping saving behavior of an individual's friend and encouraging people to spend just on necessities in order to avoid spending too much.

The effect of peer influence on saving behavior are studied by some scholars. Chavali (2020) found that peer influence has a significant effect on saving and spending habit. Raue, D'Ambrosio, and Coughlin (2020) stated that when participants thought their performance was ordinary or below average, they were more likely to change their behavior. Karunaanthy, Karunanithy, and Santhirasekaram (2017) stated that peer influence has also been shown to have a substantial impact on savings. Mpaata, Koskei, and Saina (2020) also found that social influence that includes friends has significant effect on saving behavior.

In terms of gender, Gerrans, Moulang, Feng, and Strydom (2018) found that male peers in investment strategy for retirement make an increase in likelihood to change in behavior and decision.

Meanwhile, the likelihood to likelihood to make a change in behavior for female peers increases significantly higher than the effect of male peers. Suki (2018) found that females are more reliant on people's influence including peers in choosing their bank or institution for their savings.

Based on these facts, researchers develop the third hypothesis as follows:

Ha3: With the moderation of gender, there is a difference in retirement saving behavior influenced by peers.

Based on the three hypotheses above, the researcher addressed a theoretical framework that showed in Figure 1.

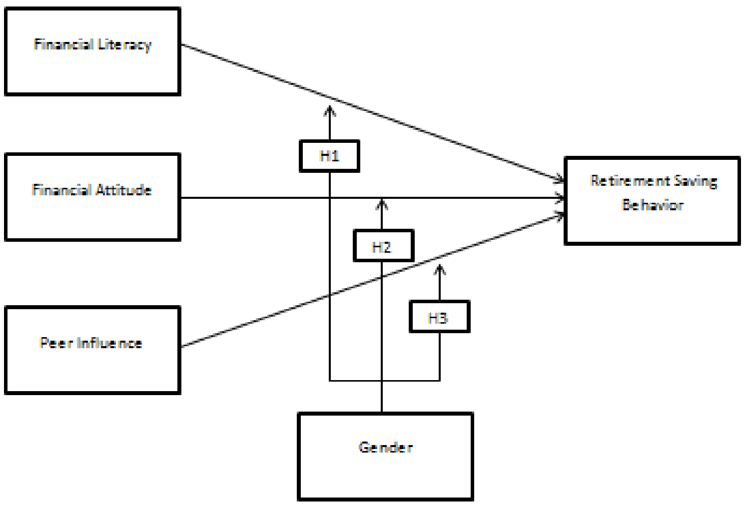

Figure 1
Theoretical Framework

4 . RESULT AND DISCUSSION

This section consists of validity test reliability test, normality test, homogeneity test, descriptive analysis, and hypothesis testing.

Validity Test

The data measurement's efficiency can be conveyed by using an approach called validity (Heale & Twycross, 2015). This research uses bivariate correlations based on the correlation between a test score and a conceptually related construct (Devellis & Thorpe, 2021). According to Swank & Mullen (2017) if the data are interval, a Pearson correlation can be used to test the validity. The criteria for a valid statement of the Pearson correlation significant value should be less than 0,05. Table 1 shows the

Pearson correlation significant value. Each statements were represented by symbol from each variable; FL for financial literacy, FA for financial attitude, PI for peer influence, and RSB for retirement saving behavior. It can be seen that all statements are valid since the Pearson correlation significant values for all statements are below 0.05.

Table 1
Pearson Correlation Significant Value for Validity Test

Financial Literacy		Financial Attitude		Peer Influence		Retirement Saving Behavior	
Indicator	Sig Value	Indicator	Sig Value	Indicator	Sig Value	Indicator	Sig Value
FL1	0.00	FA1	0.00	PI1	0.00	RSB1	0.00
FL2	0.00	FA2	0.00	PI2	0.00	RSB2	0.00
FL3	0.00	FA3	0.00	PI3	0.00	RSB3	0.00
FL4	0.00	FA4	0.00	PI4	0.00	RSB4	0.00
FL5	0.00	FA5	0.00	PI5	0.00	RSB5	0.00

Source: Statistical Software Output

Normality Test

To check the normality distribution, the researcher used the Kolmogorov-Smirnov Test. The criteria for normal distribution are the significant Exact P value of the sample should be more than 0.05. According to Mehta & Patel (1996) It is highly recommended to use exact P value as a criterion. In this research, the Exact P Value is 0.185 meaning that the distribution of the data is normal. Table 3 shows the result for Kolmogorov-Smirnov normality test.

Table 3
Kolmogorov-Smirnov Test

One-Sample Kolmogorov-Smirnov Test		
		Unstandardized Residual
N		202
Normal Parameters[a,b]	Mean	.0000000
	Std. Deviation	1.31210090
Most Extreme Differences	Absolute	.076
	Positive	.068
	Negative	-.076
Test Statistic		.076
Asymp. Sig. (2-tailed)		.007[c]
Exact Sig. (2-tailed)		.185
Point Probability		.000

Source: Statistical Software Output

Homogeneity Test

To check homogeneity the researcher used Levene's test with the criteria of $P \geq 0.05$ or considered as homogeneous. If the data is homogeneous then the ANCOVA test can be executed. The influence in variables can be seen with criteria $P < 0.05$ (Sileyew, 2019).

In this research, the significant value of the Levene's test is 0.142 meaning that the data is homogenous. Table 4 showed the result of Levene's test**.**

Table 4
Levene's Test

Levene's Test of Equality of Error Variances[a]			
Dependent Variable: Retirement Saving Behavior			
F	df1	df2	Sig.
2.171	1	200	.142

Source: Statistical Software Output

Descriptive Analysis

Descriptive statistic is a statistical tool for validly and meaningfully summarizing results (Mishra et al, 2019). Since this research is quantitative, the descriptive analysis is central tendency. The measures of central tendency usually used in quantitative research is mean ($\bar{x}$) and standard deviation (SD). The following tables (Table 5 and Table 6) show the descriptive statistic.

Table 5
Descriptive Statistic for Male Respondents

Descriptive Statistics											
Financial Literacy			Financial Attitude			Peer Influence			Retirement Saving Behavor		
No	$\bar{x}$	SD	No	$\bar{x}$	SD	No	$\bar{x}$	SD	No	$\bar{x}$	SD
FL1	7.60	1.86	FA1	8.38	1.86	PI1	5.93	2.22	RSB1	7.16	2.10
FL2	7.50	1.69	FA2	8.43	1.56	PI2	4.29	2.57	RSB2	6.41	2.33
FL3	7.40	1.54	FA3	8.42	1.47	PI3	4.97	2.37	RSB3	7.29	2.30
FL4	7.48	1.79	FA4	7.75	1.71	PI4	5.98	2.31	RSB4	7.49	2.05
FL5	7.25	1.73	FA5	8.16	1.74	PI5	5.97	2.36	RSB5	7.16	2.15
Total Average		7.45	Total Average		8.23	Total Average		5.43	Total Average		7.10

Source: Statistical Software Output

Table 6.
Descriptive Statisic for Female Respondents

Descriptive Statistics											
Financial Literacy			Financial Attitude			Peer Influence			Retirement Saving Behavor		
No	$\bar{x}$	SD	No	$\bar{x}$	SD	No	$\bar{x}$	SD	No	$\bar{x}$	SD
FL1	7.48	1.67	FA1	7.92	2.42	PI1	5.92	2.09	RSB1	6.93	1.91
FL2	7.32	1.50	FA2	8.68	1.71	PI2	5.35	2.32	RSB2	5.89	2.39
FL3	7.38	1.73	FA3	8.58	1.62	PI3	5.31	2.32	RSB3	7.03	2.29
FL4	7.43	1.69	FA4	7.99	1.86	PI4	6.04	2.49	RSB4	7.32	2.03
FL5	7.10	1.75	FA5	8.16	1.71	PI5	6.10	2.21	RSB5	6.90	2.02
Total Average		7.34	Total Average		8.27	Total Average		5.74	Total Average		6.81

Source: Statistical Software Output

Based on the data above, it can be seen that males are more financially literate than female but the female's financial attitude is higher than male. In terms of managing their money, females are more influenced by peer than males. In terms of retirement saving behavior, males tend to have more knowledge, understanding, and better skills in managing their finances compared to females. Males are more likely to make meaningful financial contributions to their voluntary retirement savings plan and also more confident that their savings will able to fulfill their retirement needs in the future.

Hypothesis Testing

This research uses One Way Analysis of Covariance (ANCOVA) to analyze the data and to answer the hypotheses. Table 7 shows the result of the test between subjects effects.

Table 7.
Test of Between Subjects Effects

Dependent Variable: Retirement Saving Behavior					
Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	368.569[a]	4	92.142	53.551	.000
Intercept	5.753	1	5.753	3.343	.069
FL	49.503	1	49.503	28.770	.000
FA	18.031	1	18.031	10.479	.001
PI	98.574	1	98.574	57.289	.000
Gender	7.076	1	7.076	4.112	.044
Error	338.968	197	1.721		
Total	10482.720	202			
Corrected Total	707.537	201			

Source: Statistical Software Output

Based on the result, the significant value of financial literacy, financial attitude, and peer influence are below 0.05; which means there are an influence of financial literacy, financial attitude, and peer influence on retirement saving behavior. For gender, it has 0.044 as its significant value which means less than 0.05 resulting moderating effects between male and female in retirement saving behavior.

In partial, the researcher analyzed the effect of independent variables towards dependent variable between male and female working individuals using t-test. Table 8 and Table 9 show the males model summary and females model summary respectively.

Table 8.
Males Model Summary

Model Summary[b]									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.715[a]	.511	.504	1.3220	.511	68.947	3	198	.000

Source: Statistical Software Output

Table 9.
Females Model Summary

Model Summary[b]									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.764[a]	.584	.572	1.2540	.584	45.467	3	97	.000

Source: Statistical Software Output

The result shows that the effect of independent variables for female is bigger compared to males with an R square value of 0.584 against 0.511. It means that the effect of independent variable towards dependent variable for female is 58% and 51% for male.

To know the differences in retirement saving behavior between male and female, Table 10 shows the estimated marginal means for gender. Based on the result, there is a difference between retirement saving behavior between males and females with males having a higher average score of 7.145 compared to females with the average score of 6.768.

Table 10.
Estimated Marginal Means for Gender

Gender				
Dependent Variable: Retirement Saving Behavior				
Gender	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Female	6.768[a]	.131	6.509	7.026
Male	7.145[a]	.131	6.887	7.404

Source: Statistical Software Output

Based on the result above, the inferential analysis results could be summarized to answer the hypotheses tests as follow:

Ha1: With the moderation of gender, there is a difference in retirement saving behavior that are indluenced by financial literacy is accepted.

Ha2: With the moderation of gender, there is a difference in retirement saving behavior that are influenced by financial attitude is accepted.

Ha3: With the moderation of gender, there is a difference in retirement saving behavior that are influenced by peers is accepted.

Discussion

The result shows that financial literacy has an influence on retirement saving behavior moderated by gender. This finding supported Hauff et al (2020) which states that financial literacy has a significant effect on retirement saving behavior including planning of retirement, retirement savings, and managing investment for retirement. Potrich et al (2018) also stated that the proportion of male having a better financial literacy is more than female. This condition applies the same as this research finding in the descriptive analysis that overall, males have a higher average score in financial literacy compared to females. The researchers believe that the importance of literature towards financial management starts from the planning and knowledge about financial instruments really need to be encouraged to trigger the desire to save and values the importance of sufficient savings for retirement.

This research found that with the moderation of gender, financial attitude influences the retirement saving behavior. This finding supported Abbas et al (2020) which stated that financial attitude is the predictor of financial behavior. Yogasnumurti et al (2020) also stated that gender is the strong factor to strengthen the financial attitude where men show a better attitude in managing their finances.

This research also found that peers influence the saving behavior of individual moderated by gender. This result supported Chavali (2020) and Yogasnumurti et al. (2020). Peers take a role of becoming a predictor for retirement saving behavior. This finding is also similar to the research conducted by Gerrans, Moulang, Feng, and Strydom (2018), which stated that the likelihood of female peers to make a change in behavior increases significantly higher than the effect of male peers. Choosing the right peers or friends around the environment are very essential, since peers are a source of inspiration for individuals to think and act with who they are involved with (Wentzel, 2017). The possible reason is females tend to follow their peers and environment in starting something new compared to male.

5. CONCLUSION

This research was conducted to find the influence in Retirement Saving Behavior by Financial Literacy, Financial Attitude and Peer Influence through Gender as the moderating variables. The researcher addressed 3 hypothesis that were already answered:

- This research found that with the moderation of gender, there is a difference in Retirement Saving Behavior that influences by Financial Literacy among working individuals in Indonesia.
- This research found that with the moderation of Gender, there is a difference in Retirement Saving Behavior that influences by Financial Attitude among working individuals in Indonesia.
- This research found that with the moderation of Gender, there is a difference in Retirement Saving Behavior that influences by Peers among working individuals in Indonesia.

In light of the preceding conclusion, it is suggested that working individuals need to deepen their financial literacy through classes or workshops that discuss financial management, investment, and asset development for the long term. Besides that, instilling the perception of being able to manage income and expenses that are ideally in accordance with the portion of needs and desires are very important. Choosing a circle of friends who have good financial management is also essential, another option is to become a pioneer in the circle of friends and encourage them to improve their financial management so that more people will be able to have better saving habits for retirement and create healthy communities.

For financial institutions, they can conduct a campaign with the theme ‘Independent Women’ that discusses a beautiful independent woman as a woman who is able to be independent professionally in career, daily life, and financially independent. The activities can consist of seminars, workshops, classes or courses, discussion or sharing session, and competition. Besides being expected to be able to improve financial literacy and financial management, activities like this also have the opportunity to build communities who are able to encourage others to save for their retirement. Financial institutions can also encourage women to be more active in savings through direct approach by giving them some insight such as literacy or what kind of knowledge is needed to meet savings in retirement, giving them illustration to what distinguish their attitude from the attitude of men in managing their finances.

Future research can investigate the differences in retirement saving behavior by adding another independent variable or using another moderating variable such as culture, education level, income, etc. Future research can also narrow the survey area or choose research objects from other community groups. Another recommendation for further research is doing research about the factors that caused distraction in savings of women in Indonesia would be important.

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