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Understanding Economic Behavior Across Genders: The Role of Financial Literacy and Savings in Retirement Planning

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Abstract:

This study aims to examine the moderating role of gender on the effect of financial literacy and saving behavior on pension fund planning of non-civil servant government employees (PPNPN) Universitas Pendidikan Ganesha. This research is causal quantitative research (cause and effect) using the survey method in data collection. The instrument used in this study was a questionnaire distributed to 184 samples. The data analysis technique used is descriptive analysis with Partial Least Square (PLS) based on the Structural Equation Model (SEM) analysis method. The results showed a positive and significant effect of financial literacy on retirement planning, saving behavior has a positive and significant effect on retirement planning, gender does not moderate the effect of financial literacy on retirement planning, and gender does not moderate the effect of saving behavior on retirement planning.

Keywords: *Retirement Planning; Gender; Financial Literacy; Saving Behavior*

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1. Introduction

Financial Planning Standards Board Indonesia in OJK (2019) defines financial planning as a process to achieve the goals of someone's life by conducting integrated and planned financial management. Financial planning also needs to be done to help someone achieve their life goals, each of which is to be able to live properly and comfortably in old age. Unfortunately, the importance of financial planning is not always in line with reality, where there are still many people who ignore the financial planning process, causing them to have difficulty managing their finances when entering old age or retirement (Hartawan et al., 2024). Financial planning for retirement funds is very important, considering that in old age all individuals are no longer able to work as actively as before, even though the cost of living needed remains the same and may increase. The increase in life expectancy and the changing demographic structure have made retirement planning even more crucial. Meeting basic needs remain the main priority that must be achieved by everyone; hence a person needs adequate motivation and financial capabilities, (Panji Gumilang, 2024). Retirement planning is also intended so that individuals can pass their old age more independently and prosperously. Therefore, every individual needs to do early retirement planning so that in old age they can live comfortably, and safely, and not depend on children or other people.

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Financial planning made by someone for retirement indicates an intention to prepare their old life to be better. This can be supported by the Theory of Planned Behaviour developed by Ajzen (1991). The theory of Planned Behaviour (TPB) according to Ajzen (in Arwani, 2017: 175) explains that attitude, subjective norms, and perceived behavioral control experienced by a person become determining factors in behavioral intentions. The reference in the development of other pension programs is also supported by the theory built by Arrow-Debreu (1954), which is the theory of state preference in optimal asset allocation under conditions of uncertainty, (Indonesian Financial Services Authority, 2019). The indicators that can be used to measure retirement planning refer to the research of Moorthy M Krishna, (2012), including financial readiness for retirement funds, standard of living, expenses during retirement, and retirement welfare. One of the most important factors said to influence retirement planning is financial literacy. A study conducted by Lusardi & Mitchell, (2014) states that low financial literacy will have an impact on poor financial decisions including in terms of retirement planning. Ngampus et al., (2023) argue that financial literacy is an awareness related to knowledge, skills, understanding, and motivation possessed by a person to manage finances wisely, knowing the risks of each decision with the intention of avoiding financial problems that can affect welfare in the future. Financial literacy has a very close relationship with financial management because from such literacy a person can distinguish between needs and wants and have better financial management, (Dewanti et al., 2023). Financial literacy can maximize one’s fund and help them to get maximum profit in order to improve their standard of living in the future (Dewi & Arya Dharmayasa, 2023). Santiara et al., (2024) add that financial knowledge not only covers income, but also related to financial management in various aspects, such as credit and financial planning. According to Chen & Volpe (1998), there is an indicator that can be used to measure someone’s literacy; which is related to the knowledge of individual finance, savings, loans, insurance, and investments. The higher the financial knowledge possessed, the higher the level of use and understanding of a person's financial products and services (Apriliani & Yudiaatmaja, 2023). Widyasanti & Suarmanayasa, (2023) stated that financial knowledge can be useful because it can affect a someone’s lifestyle to reduce spending on unimportant things and be wise in choosing needs and desires, thus it can avoid consumptive behavior. In line with Widiastiti et al., (2024), a person with adequate financial knowledge is needed to be able to guide financial decision-making and prevent problems in investing. Limited knowledge in managing family finances can have an impact on the lack of planning for old age and lack of welfare (Yanti & Suci, 2023).

Another factor of retirement planning is the behavior of saving which can be measured by indicators of savings account ownership, personality or character to save, saving ability, and economic psychology, Brandstätter (2005). Saving behavior shows awareness of future needs which is characterized by decisions to save and economize (Mayasari et al., 2024).This is in line with the statement of Lee & Hanna (2015) which states that achieving welfare in retirement is closely related to saving behavior. Another theory that supports the development of this retirement program is the Life-cycle Hypothesis theory of Modigliani (1966) (in Indonesian Financial Services Authority, 2019) which states that individuals or households in the economic system will postpone their consumption by saving and will do so throughout life, when they reach retirement age they will start using their savings for consumption, shopping for goods, and leisure.

Previous research shows that someone's financial literacy and saving behavior affect retirement planning such as the results of research conducted by Fadila & Usman (2022), however, based on preliminary observations in the field, it still shows that PPNPN in the Undiksha environment who already have enough knowledge of finance, they are several people who still difficult in planning their retirement funds. In addition, in the other studies, gender variables have not been discussed in more depth regarding their influence on someone's ability to plan their retirement funds, even though if seen from the results of research conducted by Grace et al., (2010), Kadir et al., (2016), and Kumar et al., (2019) indicated the results that gender affects retirement fund planning. However, the research conducted by Sandra & Kautsar (2021) shows the result that gender does not affect retirement planning. Therefore, it is necessary to conduct further research that examines how the role of gender as moderation in influencing financial literacy and saving behavior on retirement planning.

This study refers to the research conducted by Kohar (2022) entitled Financial Literacy, Financial Management, and Saving Behavior Influence on Retirement Planning through moderating variables of Education Level. The difference in this study is in the variables tested, such as their financial literacy and saving behavior toward retirement fund planning with gender as a moderating variable. Gender is used as a moderating variable between the influence of financial literacy and saving behavior on retirement fund planning because based on a survey conducted by OJK (2016) found that men tend to be more financially literate than women, as evidenced by the financial literacy index of women in Indonesia is being lower than men. Women are an inseparable part of national development, one of which is eradication of the poor including housewives (Purnamawati & Yuniarta, 2020). Suwena et al., (2023) in their research revealed that in addition to duty of inheriting offspring, women also provide supporting income and manage family finances to ensure welfare within their families. Research by Suwena et al., (2021) also states that women are not just sexual symbols because they carry out reproductive functions in the family, but they also contribute significantly to economic stability and welfare in the household, especially since women are currently the majority population.

To help people for prepare their retirement, the government has created a retirement scheme that provides for the regular payment of a certain amount of money after the retirement of a worker, either due to reaching retirement age or early retirement due to other reasons. According to Law No. 40/2004 on the National Social Security System (SJSN), social security participation is mandatory with the aim of protecting the old age of all Indonesians. Law No. 11 of 1992 concerning pension funds mentions that there are 2 (two) types of pension programs, such as the Defined Benefit Retirement Program (PPMP) and the Defined Contribution Retirement Program (PPIP), but the regulation only regulates the pension payment scheme for Civil Servants (PNS) who apply the defined benefit pension program scheme (PPMP), while employees who do not have status as PNS such as Non-Civil Servant

Government Employees (PPNPN) do not have clear regulations related to the retirement funds. This fact certainly raises concerns among PPNPNs regarding their retirement life. This situation concerns PPNPN regarding their retirement life particularly because they are part of human resources that has an important role for the organization (Sumarta et al., 2024).

Based on the background above and considering the gap between empirical phenomenon in the field and the inconsistency results from the previous studies, the researcher is interested in conducting deeper research related to the moderating role of gender on the influence of literacy, and financial behavior on the retirement fund planning for non-civil servant government employees (PPNPN) in Universitas Pendidikan Ganesha. Gede et al., (2020) explained that Universitas Pendidikan Ganesha is one of the state universities in Bali that produces resources in the fields of education and non-education, so it is hoped that the staff/employees who work there have a higher intellectual level compared to other employees, including in terms of finance. This study aims to examine the effect of: (1) financial literacy on retirement fund planning, (2) saving behavior on retirement fund planning, (3) financial literacy on retirement fund planning with gender as a moderating variable, and (4) the saving behavior on the retirement fund planning with gender as a moderating variable.

2. Theoretical Background

The Theory of Planned Behavior (TPB) : The theory used in this study is The Theory of Planned Behavior (TPB) known as the plan behavior theory stated by Icek Ajzen in 1991 (in Arwani, 2017:175). The plan behavior theory states that someone's behavior and attitude are affected by their belief or intentions, the stronger the intention or belief that a person has, the greater that person will act or show in their certain behaviors.

Retirement Fund Planning: Retirement planning is an activity or process carried out by a person that aims to accumulate financial resources to enable them to survive during their retirement, (Iskandarsyah, A., & Setyowibowo, 2020). Indicators of retirement planning referring to Moorthy (2012) are financial readiness, living standards for retirement funds, expenses during retirement, and welfare for old age.

Gender: Bangun (2020) states that the term gender can be interpreted as differences in values and behaviors that are seen between men and women. Gender is a dummy variable with male and female indicators.

Financial Literacy: Anggraeni (2016) states that financial literacy is one of the basic things that must be understood and mastered by everyone because financial literacy affects a person's financial status and leads to good and appropriate economic decisions. According to Chen & Vlope (1998), financial literacy indicators consist of general knowledge about money, knowledge about savings, knowledge about loans, knowledge about insurance, and investment knowledge.

Saving Behavior: Saving behavior has been taught since childhood as a culture that can provide many benefits in establishing a saving behavior and discipline in spending money for personal needs in the future, (Worang et al., 2022). The indicators in this variable refer to Brandstätter (2005) which consists of account ownership, personality or character, saving ability, and economic psychology. Kohar (2022) in his research shows that financial literacy variables and saving behavior have a positive effect on retirement planning, while financial management does not have a positive effect on retirement planning and the level of education does not moderate the effect of financial literacy on retirement planning. Sandra & Kautsar (2021) in their research show the results if the variables of financial literacy and future orientation are proven to affect retirement

3. Methodology

Based on the objectives and nature of the problem investigated, this research is a type of causal quantitative research (cause and effect). The population in this study was 337 non-government employees (PPNPN) at Undiksha. The sample according to Soegiyono (2011) is part of the number and characteristics that belong to the population. The sample size in this study was measured using Sugiyono's Slovin formula (2016) and the results of 184 samples with a sampling technique that is proportional to random sampling.

The data collection techniques used in a study are related to the research problem which involves the use of survey methods and questionnaires as research instruments. The Likert scale is used to assess the variables of financial literacy, saving behavior, and retirement planning with points 1-5. Meanwhile, the gender variable will be measured using a nominal scale, namely 0 for women and 1 for men. The data analysis technique used is Structural Equation Model (SEM) analysis based on Partial Least Square (PLS) with Smart PLS ver. 4 software for Windows. The stages in this SEM-PLS analysis consist of measurement model analysis (outer model) and structural model analysis (inner model).

4. Empirical Findings/Result

This test includes testing the validity and reliability of the research instrument by distributing questionnaires to 30 respondents outside of the sample. Based on the validity and reliability test of the instrument through SPSS, it was found that all data were valid and reliable to be distributed to respondents who became the research sample. Based on the survey by distributing questionnaires, the characteristics of the respondents can be found as follows.

1. Respondents Based on Age

Table 1. Respondents Based on Age

No	Age (Years)	Frequency (f)	Percentage (%)
1	20-25	11	6%
2	26-30	45	24%
3	31-35	46	25%
4	36-40	34	18%
5	41-45	24	13%
6	46-50	19	10%
7	51-55	5	3%
Total			**100%**

(Source: data analyzed, 2025)

Based on this data, it can be seen that the age range is dominated by respondents aged 31-35 years, which the respondents at that age have entered a mature and productive age so it is important to have good financial planning skills, especially in planning finances for old age or retirement because they have the status of PPNPN do not get retirement benefits like ASN, so they need to plan independently.

2. Respondents Based on Gender

Table 2. Respondents Based on Gender

No	Gender	Frequency (f)	Percentage (%)
1	Male	98	53%
2	Female	68	47%
Total		**184**	**100%**

(Source: data analyzed, 2025)

Table 2 shows that the number of male respondents is greater than the number of female respondents, such as 98 male respondents, or 53%, and 68 female respondents, or 47%. This is also because there are more male PPNPNs than female PPNPNs in the total population.

3. Respondents Based on the Period of Works

Table 3. Respondents Based on the Period of Works

No	Period of Works (Years)	Frequency (f)	Percentage (%)
1	1-5	57	31%
2	6-10	68	37%
3	11-15	51	28%
4	16-20	8	4%
Total		**184**	**100%**

(Source: data analyzed, 2025)

The data above shows that most respondents have worked for 6-10 years, there are even 8 respondents who have worked for 16-20 years. After knowing the characteristics of the respondents, the outer and inner model tests were then carried out through the SmartPLS application.

Measurement Model Analysis (Outer Model)
Validity Test
Based on the first data analysis on financial literacy variables, there are 2 invalid instruments (<0.7), such as X1.4 and X1.5 and the others are valid (>0.7). In the saving behavior variable, there is 1 invalid instrument/indicator, which is X2.2 and the others are valid. Meanwhile, in the retirement planning variable, all instruments/indicators are valid because all instruments/indicators have a loading factor value> 0.7. Based on these results, the instrument/indicator that is invalid must be eliminated or removed from the model. To fulfill the requirements of convergent validity in the research data, the second data analysis is carried out by removing the previous invalid instruments/ indicators. The results of the second data analysis can be seen in the following figure.

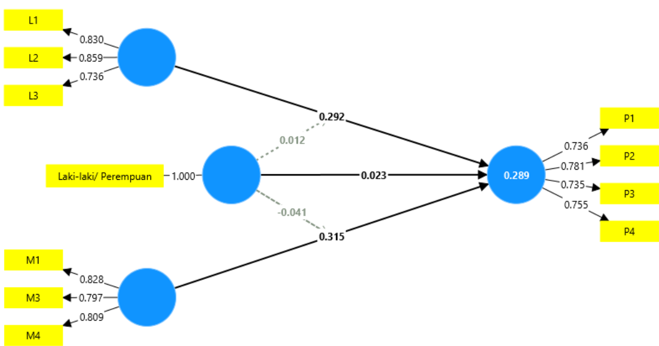

Figure 1. The result of the Sem PLS Test

Reliability Test
Composite reliability testing is carried out to measure the reliability of a construct with reflection indicators, which can be done by examining the value of Cronbach's alpha and composite reliability > 0.7.

Table 4. Composite Reliability

	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)
X1: Financial Literacy	0.738	0.750	0.851
X2: Saving Behavior	0.741	0.745	0.852
Y: Retirement Planning	0.745	0.748	0.839

(Source: data analyzed, 2025)

Based on the table, it can be seen that the composite reliability test results show a value > 0.7, which means that all variables are reliable.

Convergent Validity

Table 5. Validity Convergence

	Average variance extracted (AVE)
X1: Financial Literacy	0.656
X2: Saving Behavior	0.658
Y: Retirement Planning	0.565

(Source: data analyzed, 2025)

AVE value > 0.50 in each variable indicates good convergent validity.

Discriminant Validity

Table 6. Fornell Lacker

	X1	X2	Y	Z
X1	**0.810**			
X2	0.562	**0.811**		
Y	0.470	0.478	**0.752**	
Z	0.004	0.072	0.047	**1.000**

(Source: data analyzed, 2025)

The value on the diagonal axis is the AVE root. The AVE root for X1 is 0.810, which has a larger value than its correlation with other variables. Thus, discriminant validity for the correlation variable is fulfilled.

Table 7. HTMT Value

	X1	X2	Y	Z	Z x X1	Z x X2
X1						
X2	0.756					
Y	0.622	0.632				
Z	0.025	0.087	0.138			
Z x X1	0.268	0.081	0.079	0.001		
Z x X2	0.062	0.107	0.044	0.010	0.569	

(Source: data analyzed, 2025)

The HTMT value of each variable shows a value <0.90, therefore the discriminant validity evaluation with HTMT is fulfilled. In addition, the variance divided by the variables is higher for the respective measurement items than divided into other variable items. The evaluation of discriminant validity with HTMT is fulfilled.

Structural Model Analysis (Inner Model)
VIF Test

Table 8. Inner VIF

	VIF
X1 -> Y	1.601
X2 -> Y	1.529
Z -> Y	1.008
Z x X1 -> Y	1.616
Z x X2 -> Y	1.536

(Source: data analyzed, 2025)

Before testing the structural model, it is necessary to check the multicollinearity between variables with Inner VIF. VIF value < 5, it can be said that there is no multicollinearity between variables that affect retirement fund planning.

Hypothesis Testing

Table 9. Structural Model Testing / Hypothesis Testing

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (O/STDEV)	P values
X1 -> Y	0.292	0.309	0.081	3.593	0.000
X2 -> Y	0.315	0.310	0.088	3.598	0.000
Z -> Y	0.023	0.023	0.066	0.345	0.730
Z x X1 -> Y	0.012	0.019	0.084	0.144	0.886
Z x X2 -> Y	-0.041	-0.047	0.080	0.516	0.606

(Source: data analyzed, 2025)

The financial literacy variable (X1) has a statistical t-value of 3.593> 1.96 or a p-value of 0.000 <0.05. It means that H1 is accepted, which means financial literacy affects retirement planning. The saving behavior variable (X2) has a statistical t-value of 3.598> 1.96 or a p-value of 0.000 <0.05. It means that H2 is accepted, which is saving behavior affects retirement fund planning. The gender variable (Z) on financial literacy (X1) on retirement fund planning has a statistical t-value of 0.144 < 1.96 or a p-value of 0.886 > 0.05. It means that H3 is rejected, which means that gender cannot moderate the effect of financial literacy on pension fund planning. The gender variable (Z) on saving behavior (X2) towards retirement fund planning has a statistical t-value of 0.516 < 1.96 or a p-value of 0.606> 0.05. It means that H4 is rejected, which means gender cannot moderate the effect of saving behavior on retirement planning.

Effect Size (F-Square)

Table 10. F-Square

	f-square
X1: Financial Literacy -> Y: Retirement Fund Planning	0.083
X2: Savings Behavior -> Y: Retirement Fund Planning	0.093

(Source: data analyzed, 2025)

The effect of financial literacy on retirement planning is 0.083, it means considered weak. Meanwhile, the effect of saving behavior towards the retirement fund planning of 0.093 is also considered weak.

R-Square

The changes that occur in the R-square value will explain the substantive influence between certain dependent variables on the independent variable. The model can be categorized as strong, moderate, and weak if the R-square value is 0.75, 0.50, 0.25 respectively. The following are the R-square results using SmartPLS 4.0.

Tabel 11 R-square

Variable	**R-*square***	**R-*square adjusted***
Y: Retirement Fund Planning	0.287	0.279

(Source: data analyzed, 2025)

The table above shows the results for the R-square of the retirement fund planning is 0.279, which means that the financial literacy and saving behavior variables are able to explain the retirement fund planning variable by 27.9% and the model can be categorized as weak because it has a value above 0.25 but less than 0.50.

Q-Square

Q2 predictive relevance value to present the synthesis of cross-validation and fitting functions with predictions of observed variables and estimates of construct parameters.

Table 12. Predictive Relevance

	Q^2predict
Y: Retirement Fund Planning	0.253

(Source: data analyzed, 2025)

Based on the results above, it shows that the Q2 predict result is 0.253> 0 and in the moderate category, the model has predictive relevance or exogenous latent variables, including the financial literacy and good saving behavior (appropriate) as explanatory variables that are able to predict the endogenous variable, which is the retirement planning.

Standardized Root Mean Square Residual (SRMR)

Table 13. SRMR Value

	Saturated model	**Estimated model**
SUMMER	0.086	0.086
d_ULS	0.492	0.492
d_G	0.172	0.172
Chi-square	188.537	188.542
NFI	0.695	0.695

(Source: data analyzed, 2025)

The SRMR value is 0.086 <0.10. According to Karin Schermelleh, et. al., (2003) if the SRMS value <0.10 is still acceptable. It means that the proposed model is suitable/close to the empirical data, and the estimated model correlation matrix is close to the empirical data correlation matrix.

PLS Predict

Table 14. Q Square Predict

	Q^2 predict	**PLS-SEM_ RMSE**	**PLS-SEM_ MAE**	**LM_ RMSE**	**LM_ MAE**
P1	0.128	0.612	0.473	0.618	0.473
P2	0.120	0.536	0.441	0.544	0.444
P3	0.084	0.606	0.479	0.604	0.474
P4	0.182	0.479	0.412	0.474	0.387

(Source: data analyzed, 2025)

The Q^2 predict value for the retirement fund planning is 0.225 > 0 which indicates the model has predictive relevance. This value also indicates that the model has low predictability because it is less than 0.50. In addition, for most indicators (4 out of 8), PLS-SEM has lower RMSE and MAE values than the linear regression model (LM). It shows that the PLS-SEM model has medium predictive power.

Multigroup Analysis

Multigroup analysis (MGA) in PLS-SEM is useful to see whether the population is divided into certain segments based on demographic characteristics by comparing the significance of the path coefficient between these segments. This analysis is a continuation of the analysis method with moderating variables when the measurement scale of the moderating variable is "categorical data", for instance using gender/sex. If there is a significant difference, it indicates heterogeneity in the population.

Table 15. Path Coefficients Bootstrap Result

	Original (Male)	Original (Female)	p-value (Male)	p-value (Female)
X1: Financial Literacy -> Y: Retirement Fund Planning	0.316	0.270	0.001	0.028
X2: Savings Behavior -> Y: Retirement Fund Planning	0.285	0.367	0.014	0.003

(Source: data analyzed, 2025)

Based on the data above, it can be seen that financial literacy has a bigger influence on retirement planning for males (0.361) than for females (0.270). Meanwhile, saving behavior has a bigger influence on retirement fund planning in females (0.367) than in males (0.285).

Table 16. Bootstrap MGA

	Original (Male)	Original (Female)	Difference (Male-Female)	2-tailed (Male vs Female) p-value	
X1 -> Y	0.316	0.270	0.046	0.774	No Significance
X2 -> Y	0.285	0.367	-0.082	0.626	No Significance

(Source: data analyzed, 2025)

Based on this data, it can be seen that there is no significant difference between male and female in influencing financial literacy and saving behavior towards the retirement planning.

5. Discussion

Financial Literacy Affects the Retirement Fund Planning

Financial literacy has a positive and significant effect on retirement planning. Based on these results, it can be said that the higher the financial knowledge of PPNPN, the better the retirement planning will be. This is in line with the theory of planned behavior which states that someone's behavior is strongly influenced by beliefs or intentions, so it will be better for a person's financial literacy or knowledge, the intention to make financial planning will be better. This is also in line with research by Sofiyan, et. al., (2024) which states that financial literacy and planning are closely related because financial literacy includes the knowledge and skills needed to make the right decisions about their finances, including budgeting, setting financial goals, and investing. Good financial knowledge will encourage someone's intention or desire to make financial planning, each of which is retirement planning.

These findings are in line with research conducted by Sandra and Achmad (2021) which shows a significant effect of financial literacy on retirement planning. Kohar (2022) also shows a significant positive effect of financial literacy on retirement planning. Wardani's research (2018) also shows the results of a significant positive influence between financial knowledge on retirement planning behavior, in his research it is stated that someone's financial knowledge can encourage the individual to plan for retirement funds.

Saving Behavior Affects Retirement Fund Planning.

Saving behavior has a positive and significant effect on retirement fund planning. It means that the better someone's saving behavior, the better his retirement planning will tend to be, (Kohar, 2022). Based on these results, it can be seen that a person who tries to prepare for a prosperous retirement in various ways, such as by setting aside part of his income by saving. These results are also supported by behavioral finance theory which states that someone's financial decisions can be influenced by psychological and emotional factors. Therefore, based on the results of the study, it can be said that the PPNPN's habit of saving can affect their ability to make financial plans, including planning for their retirement funds. This result is in line with the results of Kohar's research (2022) which shows that a person's saving behavior affects retirement planning.

Gender Moderates the Effect of Financial Literacy on the Retirement Fund Planning

Gender does not moderate the effect of financial literacy on retirement planning. This finding indicates that both males and females with the same level of financial literacy have similar retirement planning abilities. It means that it is not in line with behavioral finance theory, which states that someone's ability to think and behave is strongly influenced by psychological and sociological factors. Thus, gender differences in the theory are said to affect how a person makes financial decisions. However, the results showed that both male and female PPNPNs did not have significant differences related to financial knowledge that could affect their decisions in making financial plans, such as retirement fund planning.

The results of this study are in line with research conducted by Ramadhanty, et. al., (2022) which shows that a person with financial literacy and financial behavior does not affect retirement planning. However, the results of this study are not in line with research conducted by Gracia Mata (2001) which states that gender has an influence on retirement planning through behavioral control and financial behavior. In addition, the results of this study are different from the findings of Timuke (2015) which states that gender has an impact on retirement plans through financial literacy.

Gender Moderates the Effect of Saving Behavior on Retirement Planning

Gender does not moderate the effect of saving behavior on retirement planning. These results also mean that both males and females with the same saving pattern show the ability to plan for retirement funds which is also relatively the same. This is not in line with behavioral finance theory which states that a person's thinking and behaving to make a financial decision can be influenced by psychological or sociological factors.

In this study, gender is a social factor, according to behavioral finance theory, which is said to affect respondents' behavior in saving money to plan for retirement. However, the results of the study show that existing gender differences cannot weaken or strengthen the relationship between saving behavior and retirement planning. In saving behavior for retirement planning in this study, both males and females have patterns that are not significantly different.

These findings are not in line with the research of Komalasari and Mulyadi (2023) who found the effect of gender as a moderator on retirement saving behavior. The results of this study are also not in line with research conducted by Wibisono and Anastasia (2024) which shows that gender has a relationship with saving behavior for retirement. Several factors that can cause gender to be unable to moderate the effect of saving behavior on pension planning include the access and opportunities possessed by PPNPN at Undiksha, both male and female, which are relatively equal to financial resources, information, and pension policies so that gender differences do not have too much impact on the relationship between saving behavior and pension planning. In addition, respondents in this study, both male and female, have relatively similar saving behavior and they also have an awareness to set aside part of their income for savings even though they have not specifically allocated their savings for the retirement fund. This shows that the PPNPN at Undiksha has almost similar characteristics of both males and females in saving.

6. Conclusions

Based on the research that has been conducted, the conclusions can be made as follows:

1. Financial literacy affects the retirement fund planning. It means that the better financial literacy a person has, the better retirement planning will be.
2. Saving behavior affects the retirement fund planning. It means that the better a person's saving behavior, the better also their retirement planning.
3. Gender cannot moderate the effect of financial literacy on retirement fund planning. It means that financial literacy has the same effect on pension fund planning, both in men and women.
4. Gender cannot moderate the effect of saving behavior on the retirement fund planning. It means that saving behavior affects the retirement planning in the same way without being influenced by gender factors.

This research is expected to provide recommendations to PPNPN and contract employees with non-ASN status, especially those at Undiksha to plan and prepare their retirement funds early on by setting aside part of their income for retirement savings. This is important to be able to ensure that life in old age can run safely and comfortably like during productive age without burdening others. Suggestions for future researchers are to add other variables that can affect retirement planning that have not been discussed in this study. In addition, the researcher can develop a different research object background and it is expected that it will be able to provide other insights and findings in the research to be able to develop a research model that is supported by the latest theories and issues.

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