

The Effect of Financial Knowledge and Income on Pension Fund Planning Behavior with Locus of Control as A Mediation Variable

Alien Nuril Wardani¹ and Mellyza Silvy²

^{1,2} Hayam Wuruk University of Perbanas, Surabaya, East Java, Indonesia

DOI: <https://doi.org/10.9744/jreemb.2.2.78-88>

Abstract

This study aims to examine the influence of financial knowledge and income on retirement planning behavior with locus of control as a mediation variable. The study included 321 respondents who met criteria such as having a total family income of at least IDR 4.000.000 per month, having worked for at least 2 years, living in Surabaya, Gresik, or Sidoarjo, and having financial management responsibilities in the family. The data analysis technique uses Partial Least Squares Structural Equation Modeling (PLS-SEM) with PLS 6.0. This study finds that financial knowledge and income positively influence retirement planning behavior, and that locus of control can mediate their effects.

This is an open access article under the CC BY license



Article Info:

Submitted: August 12, 2025
Reviewed: September 23, 2025
Published: November 30, 2025

Keywords:

financial knowledge,
income,
locus of control,
retirement planning behavior.

Corresponding Author:

Mellyza Silvy
Hayam Wuruk University of Perbanas,
Surabaya, East Java, Indonesia
Email: meliza@perbanas.ac.id

INTRODUCTION

Indonesia has now entered a phase marked by a steadily growing elderly population. According to data from the Central Statistics Agency (BPS) in 2024, the number of older adults in Indonesia reached 33.67 million, or around 12% of the total population, compared to previous years. This proportion is also reflected in the elderly dependency ratio, which in the same year reached 17,76%, which means that every 100 people of productive age have to support almost 18 older adults.

On the other hand, although awareness of old-age security and pension benefits is growing, public participation, especially in the informal sector, remains inadequate. For example, as of April 2025, the number of voluntary pension fund participants was 5.33 million, while the total number of Indonesian workers reached around 153.05 million, indicating that the majority of workers lack formal retirement planning. This is a serious challenge, considering that increasing life expectancy and the large elderly population demand a more inclusive and sustainable pension system and financial planning so that seniors can enjoy a decent old age.

Retirement is the phase in a worker's life when a person formally stops working due to reaching retirement age as stipulated by government policy or company regulations. For example, under the latest BPJS Employment Pension Guarantee Program, the age at which participants begin receiving pension benefits will be raised to 59 from January 1, 2025. In retirement, retirees, whether former employees or self-employed, expect a guaranteed life expectancy based on the benefits they have accumulated during their productive years. This financial well-being guarantee is important so they can remain independent after they stop working, including maintaining a decent standard of living, income stability, and protection from risks such as inflation and rising healthcare costs.

Retirement is the period when employers implement a policy regarding termination of employment, commonly known as retirement, for workers who have entered the retirement phase. Entering the retirement phase, retirees (former employees, retired entrepreneurs) hope to receive guaranteed welfare benefits in their future. Welfare in retirement is a dream for every human being, as workers can enjoy the benefits of their work in old age. If

welfare in retirement is met, a person can be said to be successful and happy because they are financially independent (Peter Garlans Sina, 2014; Anggraini & Yuniningsih, 2024). Employers can guarantee employee welfare through a pension fund program. Apart from being able to plan pension funds through an employer, a person can also plan pension funds directly with a financial institution by participating in an old-age security program and paying membership fees. The Indonesian government has taken preventive measures by implementing a new policy regarding pension benefits. This policy is outlined in Government Regulation of the Republic of Indonesia Number 45 of 2015, which requires every company to participate in a pension benefit program. If an employer does not enroll its employees in the pension benefit program, it is still required to provide monthly pension benefits after the employee reaches retirement age. However, this policy remains unknown to the public.

Planning for retirement funds early is important, but not everyone understands it. In Indonesia, the quality of life for the elderly remains low. This is evident in the large number of elderly who depend on their children or family for their livelihood in old age (Peter Garlans Sina, 2015). According to Hershey et al. (2007), some people believe that for retirement planning, the most important thing is having a place to live, support from family or friends, or choosing to be independent by continuing to work at retirement age to be able to meet daily needs due to economic conditions that are still lacking. Research by Hershey and Mowen (2000) and Adawiyah et al. (2025) suggests that a person's knowledge influences their financial planning. The more information they have, the greater their confidence, intention, and interest in planning for retirement. According to Ida and Cinthia (2010) and Anggraini & Yuniningsih (2024), someone with sound financial knowledge can use their funds appropriately, thereby providing economic benefits.

Another factor that can determine a person's retirement planning behavior is income. Ida and Cinthia (2010) explain that someone with more resources (income) will demonstrate more responsible financial management behavior, given that the funds they earn are available to take advantage of opportunities for responsible financial planning. Furthermore, Perry and Morris (2005) explain that someone who takes responsibility for their finances tends to create a budget, save money, and control spending. Locus of control is another factor that will influence a person's retirement planning behavior. Locus of control is a person's perspective on whether they can control events in their lives. If a person's perspective on success or failure is determined by internal control, then that person is said to have an internal locus of control. Conversely, if factors beyond a person's control determine a person's perspective on success or failure, they are said to have an external locus of control (Rotter, 1966).

Research by Grable et al. (2009) indicates that the external locus of control does not directly influence financial management behavior but can mediate the relationship between financial knowledge and financial management behavior. However, Arini and Noor (2013) argue that locus of control does not influence retirement preparation because retirement preparation is inseparable from cultural factors. Similar to the research by Ida and Cinthia (2010) and Adawiyah et al. (2025), which explains that locus of control does not influence financial management behavior. Differences in research results on the income variable also occur in studies by Perry and Morris (2005), Grable et al. (2009), and Naila and Iramani (2013). Perry and Morris (2005) explain that income influences financial management behavior and that this relationship can be mediated by locus of control. Meanwhile, Grable et al. (2009) and Naila and Iramani (2013) explain that income does not influence financial management behavior, and the relationship between income and financial management behavior cannot be mediated by locus of control.

Based on this description, the researcher is interested in conducting a study titled "The Influence of Financial Knowledge and Income on Pension Fund Planning Behavior with Locus of Control as a Mediating Variable."

LITERATURE REVIEW

Retirement Planning Behavior

Retirement planning behavior is the action individuals take to set aside funds to achieve future life goals (Moorthy et al., 2012). Financial planning during retirement is crucial for well-being in old age. According to Muratore and Earl (2010), the desire to undertake financial planning during retirement will lead to greater financial well-being in old age. Furthermore, research by Topa et al. (2009) found that the more actively a person plans for retirement, the higher their future satisfaction will be.

Workers sometimes feel that their retirement is not secure. This is due to their inability to plan financially, stemming from a lack of information and skills in applying their financial knowledge. They perceive retirement planning as simply finding a home or working well beyond retirement age (Hershey et al., 2007; Adawiyah et al., 2025). According to research by Moorthy et al. (2012), the indicators used to measure retirement planning behavior are setting aside funds for old age, purchasing insurance products for old age, preparing for business in old age, and securing welfare in old age.

Financial Knowledge

Yopie and Dewi (2015) explain that financial knowledge is the skill individuals possess to understand, analyze, and manage their wealth to make appropriate decisions and avoid financial problems. Furthermore, according to Nejati et al. (2015) and Wirawan and Basana, (2025), having financial knowledge not only enables better decision-making but also improves economic security and well-being. Therefore, the importance of financial knowledge is not only in enabling someone to use their money wisely but also in benefiting the economy. To have financial knowledge, what needs to be developed are financial skills and the use of financial tools or instruments. Financial skills are techniques for making decisions in personal financial management. Examples of financial skills include preparing a budget, selecting investments, choosing an insurance plan, and using credit. Meanwhile, financial tools or instruments are forms or charts used in making personal financial management decisions, such as checks, credit cards, and debit cards.

Financial knowledge can be acquired from various sources, methods, and levels of quality, such as through formal and non-formal education, the internet, and other people. The more financial knowledge a person has, the more confident and optimistic their perceptions will be when making financial decisions (Ida & Cinthia, 2010; Adawiyah et al., 2025). Ritma and Untung (2015) state that financial knowledge is a basic need for every member of society. Without adequate financial knowledge, they will face future financial difficulties that can be detrimental. Referring to the journal of Chen and Volppe (1998), the indicators used to describe financial knowledge are general knowledge, financial management, insurance, and investment.

Income

Elvira and Nanik (2014) explain that income is the amount of money a person receives for their results and performance. Furthermore, Intha Alice (2013) states that income is the cash flow received by a family, both the husband and the wife, used to meet household needs. This income can be categorized as salaries, wages, rent, interest, or profits from a community-owned business. Naila and Iramani (2013) and Wirawan and Basana (2025) explain that the most significant component of total income is wages and salaries. Furthermore, there are other categories of income, namely rental income, government subsidy payments, interest income, and dividend income.

An individual's income will influence their financial management behavior. Elvira and Nanik (2014) explain that the higher a worker's income, the greater their awareness of designing sound financial management behaviors for their current and future lives. Perry and Morris (2005) also explain that individuals with more resources (income) will demonstrate more responsible financial management behaviors.

Locus of Control

The concept of locus of control was first proposed by Rotter in 1966. Locus of control is a person's perspective on their ability to control events in their life. Rotter (1966) differentiates locus of control orientations into two: internal and external. Individuals with an internal locus of control tend to believe that skills, abilities, and efforts determine what they will achieve in life. Conversely, those with an external locus of control believe that a person's life is determined by external forces such as fate, destiny, luck, and powerful others. Rotter (1966) explains that the dimensions of internal and external locus of control refer to strategies for achieving goals regardless of their origin. Therefore, it can be said that locus of control is an individual's perception of the causes of success or failure in their own actions. If the results achieved are attributed to their own activities, a person can be said to have an internal locus of control. However, if success is achieved through control over surrounding circumstances or the environment, a person is said to have an external locus of control.

Based on the journal referred to by the researcher, namely Kuang et al. (2010), the indicators that will be used to measure external locus of control are failures experienced by individuals due to bad luck, futile work of far-reaching planning, events experienced in life determined by people in power, and individual success due to fate factors.

Relationship Between Concepts

The Influence of Financial Knowledge on Retirement Planning Behavior

Research conducted by Howlett et al. (2008) and Adawiyah et al. (2025) explains that future-oriented individuals are more likely to participate in retirement plans and possess financial knowledge. Furthermore, Ririn and Hartoyo (2013) state that greater financial knowledge is associated with greater self-confidence and a more positive perception of retirement financial planning, thereby increasing the intention to undertake retirement financial planning. With strong intentions, individuals will habituate themselves to saving for their retirement needs. This aligns with research by Elvira and Nanik (2014), which shows that respondents with mature and adequate financial knowledge are more likely to fulfill their financial needs for education and retirement, thereby reducing the risk of errors in financial decision-making.

Hershey and Mowen (2000) explain that the more information or knowledge a person has regarding retirement financial planning, the more positive their perceptions will be and the greater their intention to plan for retirement and how to handle money. Based on this description, the following hypothesis can be formulated in this study:

H₁: Financial knowledge has a positive influence on retirement planning behavior.

The Influence of Income on Pension Planning Behavior

Perry and Morris (2005) explain that someone with more resources (income) will demonstrate more responsible financial management behavior. With more income, a person can manage their finances more wisely by creating a budget, saving money, and controlling expenses. This is similar to research by Ida and Cinthia (2010), which concluded that high-income workers make bold, responsible decisions about accepting financial risks. Referring to research conducted by Elvira and Nanik (2014), they stated that income also significantly influences all aspects of retirement planning. Based on this description, the following hypothesis can be formulated in this study:

H₂: Income has a positive effect on retirement planning behavior.

The Influence of External Locus of Control on Pension Fund Planning Behavior

Rotter (1966) defined locus of control as a person's perception of the sources that control events in their life, consisting of internal and external locus of control. Someone who relies on others for retirement planning and believes that the success or failure of financial planning is outside their control believes in the existence of an external locus of control (Ida & Cinthia, 2010; Adawiyah et al., 2025). Furthermore, according to Grable et al. (2009), an external locus of control leads people to believe that fate, luck, and opportunity are the most important factors in determining life. Therefore, financial planning will depend heavily on fate, luck, and opportunity if someone has an external locus of control. People feel retirement planning depends on their feelings about their lives, referring to research by Mien and Thao (2015), which found that an external locus of control negatively affects financial management behavior. Perry and Morris (2005) also expressed a similar view, hypothesizing that there is a negative relationship between an external locus of control and responsible financial management behavior. Based on this description, the following hypothesis can be formulated in this study.

H₃: External locus of control has a negative effect on pension planning behavior.

The Influence of Financial Knowledge on Pension Planning Behavior Mediated by External Locus of Control

Perry and Morris (2005) stated that locus of control can act as an indirect mediating variable between financial knowledge and financial management behavior. This means that how an individual applies financial knowledge will depend on whether they believe they have control over their success. Perry and Morris (2005)

argue that individuals may not fully utilize their financial knowledge if they feel they are in control of their own destiny.

In a study conducted by Grable et al. (2009), it was explained that locus of control can mediate the influence of financial knowledge on financial management behavior. By using mediating variables, one can find the indirect effect of financial knowledge on retirement planning behavior through the external locus of control. Based on this description, the following hypothesis can be formulated in this study:

H₄: The influence of financial knowledge on pension planning behavior mediated by the external locus of control.

The Effect of Income on Pension Planning Behavior Mediated by External Locus of Control

In addition to the external locus of control mediating the influence of financial knowledge on financial management behavior, Perry and Morris's (2005) theory also explains that locus of control can act as an indirect mediating variable between income and financial management behavior. An individual's income management depends on whether they believe their income can control their success and failure (Anggraini & Yuniningsih, 2024). An individual's income may not be fully utilized if they feel they can control their own destiny regardless of the income generated. Therefore, income is not the primary factor in determining success in life. By using a mediating variable, one can examine the indirect effect of income on retirement planning behavior via the external locus of control. Based on this description, the following hypothesis can be formulated in this study.

H₅: The influence of income on pension planning behavior mediated by the external locus of control.

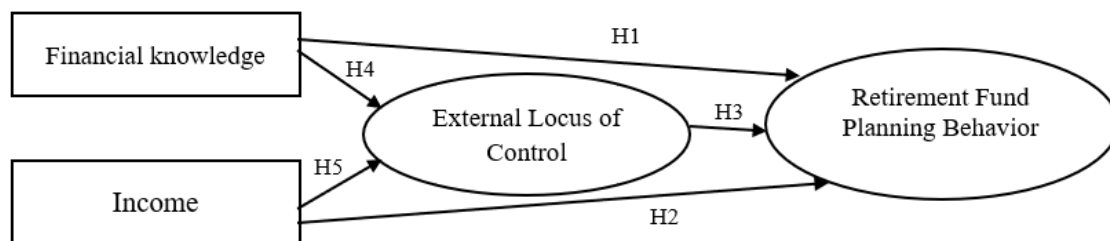


Figure 1. Thinking Framework

RESEARCH METHOD

The population selected in this study was respondents domiciled in the Surabaya, Gresik, and Sidoarjo areas. The sample selection in this study used a non-probability sampling method. The researcher sets several criteria to ensure the selected respondents are appropriate. Therefore, the researcher used a purposive sampling technique. In addition, the researcher used convenience sampling to ensure the desired sample was readily accessible. The following are the criteria set: having a minimum family income of IDR 4,000,000/month, having worked for at least 2 years, the questionnaire distribution area being Surabaya, Gresik, and Sidoarjo, and, lastly, having a financial management role in the family. The data collection method used a questionnaire-based survey, so the data source is primary.

The variables in the current study include the dependent variable (retirement planning behavior), the independent variables (financial knowledge and income), and the mediating variable (external locus of control). Retirement planning behavior is the action individuals take to set aside funds for future life goals (Moorthy et al., 2012). According to Moorthy et al. (2012), the indicators used are setting aside funds for old age, providing products/insurance for old age, making preparations/efforts for old age, and providing welfare for old age. Measurement of retirement planning behavior variables uses a Likert scale with a range of (1) strongly disagree, (2) disagree, (3) undecided, (4) agree, (5) strongly agree.

Yopie and Dewi (2015) explain that financial knowledge is a skill that enables individuals to understand, analyze, and manage their wealth to make informed decisions and avoid financial problems. Referring to the journal of Chen and Volppe (1998), the indicators used are general knowledge, financial management, insurance, and investment. Measurement of the financial knowledge variable uses a ratio scale with the help of questions consisting of correct (1) or incorrect (0) answers. The score calculation for measuring the financial knowledge variable is (number of correct answers/number of questions x 100). Meanwhile, the respondent

criteria are based on the total answers to questions about financial knowledge: <60% is categorized as low, 60% ≤ to <80% as medium, and ≥ 80% as high (Chen & Volpe, 1998).

Elvira and Nanik (2014) explain that income is the amount of money a person receives for their results and performance. This income can be categorized as salary, wages, rent, interest, or profits from a community-owned business. The income variable is measured using an ordinal scale, with the income amounts grouped in Table 1.

Table 1. Measurement of Income Variables

Score	Category
1	IDR 4.000.000 to < IDR.7.000.000
2	IDR 7.000.000 ≤ to < IDR 10.000.000
3	IDR 10.000.000 ≤ to < IDR13.000.000
4	≥ IDR 13.000.000

Rotter (1966) explains that the external locus of control is an individual's belief that their life is determined by external forces such as fate, destiny, luck, and powerful others. Referring to Kuang et al. (2010), the indicators to be used are failures due to bad luck, long-term planning of futile work, life events determined by people in power, and individual success due to fate factors. Measurement of the external locus of control variable uses a Likert scale with a range of (1) strongly disagree, (2) disagree, (3) undecided, (4) agree, (5) strongly agree. This study uses Partial Least Squares Structural Equation Modeling (PLS-SEM) in the WarpPLS 6.0 program to test the influence of dependent, independent, and mediating variables.

RESULTS AND DISCUSSION

Descriptive analysis provides an overview of the research outcome variables based on respondents' responses to the research questionnaire, which can be presented as questions or statements. The following is the average score for respondents' responses to each variable in Table 2.

Table 2. Respondents' Responses

Variables	Skor Mean	Information
Retirement Fund Planning Behavior	3.77	Behave Well
External Locus of Control	1.98	High Internal Control

Based on Table 2, respondents' retirement planning behavior is positive. This indicates that they agree with retirement planning. Furthermore, respondents' perspectives on success stem from internal factors. This is evident in the average score for the external locus of control variable, which refers to internal control and determines a person's success, as shown in Table 3.

Table 3. Respondents' Responses to Financial Knowledge Variables

Value Interval	Category	Number of Respondents
< 60 %	Low	29
60 ≤ to < 80 %	Medium	104
≥ 80%	High	188
Mean score		77.45%

Based on Table 3, respondents have excellent financial knowledge. Of 321 respondents, 188 answered the questions with a score of ≥ 80. In the income variable, the highest income range reported by respondents was the middle range between IDR 4,000,000 and IDR 6,990,000, accounting for 58.57%.

The following are the test results from Table 4 using the PLS-SEM WarpPLS 6.0 program.

Based on the results of the model estimation for hypothesis 1, H1 is accepted, and H0 is rejected. This indicates that financial knowledge positively affects pension planning behavior, as evidenced by a β coefficient of 0.15 and a p-value of 0.02. Based on the model estimation results for hypothesis 2, H1 is accepted, and H0 is rejected. This indicates that income has a positive effect on pension planning behavior, as evidenced by a β coefficient of 0.13 and a p-value of 0.02. Based on the model estimation results for hypothesis 3, H1 is accepted, and H0 is rejected. This means that the external locus of control negatively affects pension planning behavior, as the β

coefficient is -0.23 and the p-value is below 0.05. Based on the model estimation results for hypothesis 4, H_{1} is accepted, and H_{0} is rejected. This means that the financial knowledge variable has a significant effect on external locus of control, so the influence of financial knowledge on pension planning behavior can be mediated by external locus of control, as indicated by the p-value for financial knowledge on external locus of control below 0.05.

Table 4. Model Estimation Results

Hypothesis	Information	β Coefficient Value	P-Values	Test Results
H1	FK → RFPB	0.15	<0.01	H_{1} accepted
H2	Income → RFPB	0.13	<0.01	H_{1} accepted
H3	ELoC → RFPB	-0.23	<0.01	H_{1} accepted
H4	FK → ELoC	-0.37	<0.01	H_{1} accepted
H5	Income → ELoC	-0.19	<0.01	H_{1} accepted

Based on the results of the acceptance criteria for the mediating variables, it can be explained that the external locus of control partially mediates. Based on the model estimation results for hypothesis 5, H_{1} is accepted, and H_{0} is rejected. This means that the income variable has a significant effect on external locus of control, so the influence of income on pension planning behavior can be mediated by external locus of control, as indicated by the p-value for income on external locus of control below 0.05. Based on the results of the acceptance criteria for mediating variables, it can be explained that the external locus of control partially mediates.

Financial knowledge is the skill possessed by individuals to understand, analyze, and implement the ability to manage their wealth resources to make appropriate decisions. The results of the first hypothesis test show that financial knowledge has a significant positive effect on retirement planning behavior. This means that the higher a person's level of financial knowledge, the better their behavior in planning their finances in retirement. Financial knowledge can include general knowledge, financial management, insurance, and investment. An individual's financial knowledge will make them wiser in managing their finances for both short-term and long-term interests. According to Nejati et al. (2015), by having financial knowledge, individuals are not only able to become wiser in managing their finances but can also benefit the economy. The results of the hypothesis test are relevant to research conducted by Mien and Thao (2015), Grable et al. (2009), and Howlett et al. (2009), which explain that financial knowledge has a positive effect on financial management behavior. However, this differs from the results of Naila and Iramani's (2013) research, which found that financial knowledge does not influence financial management behavior.

Based on the research results, respondents have good financial knowledge, which is associated with better retirement planning behavior. Respondents have understood general knowledge about finance, including that preparing for retirement funds can be done early and that BPJS Ketenagakerjaan products not only cover old-age security and pension insurance, but also include work accident insurance and death insurance. Furthermore, respondents have also understood how to manage finances well. Respondents are aware that each month a person needs to set aside 10 percent - 30 percent of their funds for retirement, because pension funds are not savings for emergencies but rather savings for welfare in old age. In addition, planning for retirement funds can be done by taking out a pension fund insurance policy. Understanding the importance of pension fund insurance is an effort to protect oneself against future uncertainty, as pension funds are a form of long-term investment. Based on respondents' responses, many have a total monthly family income of around IDR 4,000,000 to IDR 6,990,000, while the majority have monthly expenses of around IDR 3,000,000 to IDR 4,990,000. This means that the difference between income and expenses is likely used for investment. Understanding financial knowledge will improve a person's retirement planning behavior.

A person's financial knowledge can motivate them to plan for retirement. Financial knowledge can be acquired from various sources and methods, such as formal and informal education, internet access, and through other people. The more information about finances, the more confident a person will be in planning for retirement, allowing them to make informed decisions. Income is the amount of money a person receives for their results and performance. The results of testing the second hypothesis indicate that income has a positive effect on retirement planning behavior. This means that the higher a person's income, the greater their awareness of retirement planning behavior. This finding is similar to that of research by Elvira and Nanik (2014) and Perry and Morris (2005), which shows that the higher a person's income, the greater their awareness of sound financial management behavior. A person with a higher income is more likely to be responsible in managing their finances. However, research by Naila and Iramani (2013) and Grable et al. (2009) indicates that income

does not have a positive effect on financial management behavior. The difference in results is because in Naila and Iramani's (2013) research, the income criteria set was IDR 1,500,000 in accordance with the 2012 UMR in Surabaya, while the current researcher set a minimum total family income of IDR 4,000,000 above the average UMR in Surabaya, Gresik, and Sidoarjo, so that respondents have incomes above the standard of living conditions in the area. In addition, based on the results of Grable et al. (2009), income does not have a positive effect on financial management behavior because Americans tend not to save, resulting in poor financial management.

Based on the research results, many respondents have an income of around IDR 4,000,000 to IDR 6,990,000. This is related to the respondents' monthly expenditure levels. The results of the study explain that the majority of respondents' expenditure levels range from IDR 3,000,000 to IDR 4,990,000. This means that the income earned by respondents is still greater than their expenses. Respondents with higher incomes will be wiser in managing their finances. If income is equal to expenses or possibly even income is less than expenses, respondents will experience difficulties in managing their finances, so the importance of long-term financial planning is still not considered, considering that short-term needs are still not met. The high expenditure that must be incurred by a person can come from the number of dependents that must be supported. The results of the study explain that the majority of respondents have 2 to 4 dependents. With an income ranging from IDR 4,000,000 to IDR 6,990,000 and 2 to 4 dependents, respondents are considered to be able to manage their finances well because they don't have many needs to meet. Of course, things would be different if the respondent's family size were more than four people and the total income ranged from IDR 4,000,000 to IDR 6,990,000.

Based on the Regional Minimum Wage (UMR) for Surabaya, Gresik, and Sidoarjo in 2017, which averaged IDR 3,293,506.25, the determination of the UMR in each region will vary. One factor influencing differences in UMR determination across regions is the region's economic conditions and families' standard of living. In the current study, researchers set the minimum total family income at IDR 4,000,000 because the average UMR in Surabaya, Gresik, and Sidoarjo is IDR 3,293,506.25. Researchers set the income criteria above the UMR for Surabaya, Gresik, and Sidoarjo because they assume that the UMR is income-adjusted to regional economic conditions and family living standards, so that UMR income is the primary income. If respondents have income above the UMR, they are considered to have more income. This is in accordance with the theory that someone with a higher income will be more effective at managing family finances.

External locus of control is a person's perspective on success or failure as being determined by fate, destiny, luck, and powerful others. The results of testing hypothesis three indicate that the external locus of control negatively impacts retirement planning behavior. This means that the more a person perceives success or failure as being determined by external factors such as fate, destiny, luck, and powerful others, the worse their retirement planning behavior will be. Conversely, if a person does not perceive success as being caused not by external factors but by internal factors such as skill, ability, and effort, their retirement planning behavior will be positive. This finding is similar to those of research by Mien and Thao (2015) and Perry and Morris (2005), which found that an external locus of control negatively affects financial management behavior.

Someone with an external locus of control believes that their life is determined by external forces such as fate, destiny, luck, and other powerful people (Rotter, 1966). When someone believes in external forces, they will ignore their financial problems, leading to worse retirement planning behavior. Someone with an external locus of control will assume that financial problems and well-being in retirement are determined by fate, destiny, luck, and other influential people, so they do not need to think about their old age now because planning far into the future is a futile task.

Based on the research results, respondents disagreed that failure is due to bad luck. Respondents considered that failure is the result of one's own efforts, not due to bad luck. In addition, respondents considered planning for the future to be a necessary task. Respondents strongly disagreed that planning for the future is a futile task. Planning for the future is an obligation that every individual must fulfill. If one does not plan for the future, for example, planning for finances in old age, then one's well-being in old age is not guaranteed.

Furthermore, based on the research results, respondents believe that the events in their lives do not originate with people in power. Well-being in old age is the result of the individual's efforts to prepare well. Furthermore, respondents also disagreed that success is determined by fate. Respondents considered that events in their lives

do not originate from external factors but rather from the skills, abilities, and efforts made by themselves (Rotter, 1966). Grabel et al. (2009) explained that if someone has an external locus of control, they will have a strong belief in fate, luck, and chance, so long-term financial planning will not be effective.

The results of testing hypothesis four indicate that the external locus of control can mediate the influence of financial knowledge on retirement planning behavior. Based on the model estimation results, financial knowledge has a significant adverse effect on external locus of control, and external locus of control has a significant adverse effect on retirement planning behavior. Based on the model's estimation results, it can be interpreted that the higher a person's financial knowledge, the more their perspective on success stems not from external factors such as fate, destiny, luck, and powerful others, but rather from internal factors such as skills, abilities, and effort, thus improving retirement planning behavior. Conversely, the lower a person's financial knowledge, the more their perspective on success stems from external factors such as fate, destiny, luck, and powerful others. This will have a detrimental impact on retirement planning.

A person with financial knowledge will have a mindset that success in managing finances comes from efforts to acquire financial knowledge through formal education, informal education, internet access, or other people. Suppose someone does not have financial knowledge or even has financial knowledge but does not apply it to managing finances. In that case, that person assumes or has a mindset that external factors, such as fate, destiny, luck, and people in power, will determine success in managing finances in old age. If someone has the perspective that success comes from effort, then their retirement planning behavior will be better. However, if someone views success as determined by fate, their retirement planning behavior will be poor because they consider planning for retirement finances a futile task.

Perry and Morris (2005) explain that how individuals apply financial knowledge will depend on whether they believe they have control over their success. Some people actually have financial knowledge but do not use it because they believe external factors will determine their success. Perry and Morris (2005) explain that how individuals apply financial knowledge will depend on whether they believe they have control over their success.

The results of this study are similar to those of Naila and Iramani (2013) and Grable et al. (2009), which explain that the external locus of control can mediate the influence of financial knowledge on financial management behavior. However, based on Mien and Thao's (2015) study, the hypothesis that the external locus of control mediates the relationship between financial knowledge and financial management behavior is rejected. The difference in the results of the current research test compared with those of Mien and Thao (2015) can be attributed to the respondent criteria. The age criteria in Mien and Thao's (2015) study were 19 to 30 years old, so the mindset regarding financial knowledge and the perspective on their ability to manage finances will differ from those of someone over 30, given that the majority of respondents are over 30.

The results of the fifth hypothesis test indicate that the external locus of control mediates the influence of income on retirement planning behavior. Based on the model estimation results, it can be concluded that income at the external locus of control has a significant adverse effect, and the external locus of control has a significant adverse effect on retirement planning behavior. Based on the results of the model estimation, it can be interpreted that the higher a person's income, the more their perspective on success does not originate from external factors such as fate, destiny, luck, and other influential people, but rather from internal factors such as skills, abilities, and efforts made, so that retirement planning behavior will be good. However, the lower a person's income, the more their sense of success comes from external factors such as fate, destiny, luck, and powerful people. This will have a more significant impact on retirement planning.

Someone with a higher income tends to strive to manage their finances well. A simple example of sound financial management is not spending more than one's income, so that some income remains to be invested for well-being in old age. With more income, someone may think that by setting aside money for retirement, internal factors will control the success of their retirement planning. However, on the other hand, if someone does not have more income, or even if they have more income but do not use it to plan for retirement, then the success of their retirement financial planning will be left to fate, destiny, luck, and those in power, given that the financial conditions for long-term financial planning cannot be met. This will affect poor retirement planning due to limited financial resources.

Perry and Morris (2005) explain that how an individual uses their income will depend on whether they believe they have control over their success. Therefore, an individual's income may not be fully utilized if they feel

they can control their own destiny regardless of the income they generate. The results of this study are consistent with those of Perry and Morris (2005), who found that an external locus of control can mediate the influence of income on financial management behavior. However, this differs from the findings of Naila and Iramani (2013) and Grable et al. (2009), which indicated that locus of control does not mediate the influence of income on financial management behavior. This may occur because the research by Naila and Iramani (2013) used an income criterion of IDR 1,500,000, so the income obtained was still equivalent to the minimum wage in Surabaya in 2012 and was considered difficult to manage finances responsibly. Furthermore, the differences in the results of the research by Grable et al. (2009) are due to differences in respondents' domiciles. Respondents in the research by Grable et al. (2009) were Native Americans and South Koreans who lived non-permanently in the United States. Differences in culture and orientation towards income led to differences in the research results.

CONCLUSION

Based on the analysis, the results of the first hypothesis test indicate that financial knowledge positively affects retirement planning behavior. The results of the second hypothesis test prove that income has a positive effect on retirement planning behavior. The results of the third hypothesis test indicate that external locus-of-control factors negatively affect pension planning behavior. The results of testing the fourth hypothesis indicate that the external locus of control mediates the influence of financial knowledge on pension planning behavior. The results of testing hypothesis five show that the external locus of control mediates the influence of income on pension planning behavior. Based on the research, improvements can be provided to future researchers. It is recommended that future researchers discuss the variable internal locus of control; further, they can modify the model developed in the research. When creating the questionnaire, it is recommended that subsequent researchers not repeat questions or statements that represent the same indicators, so that the questionnaire does not contain too many questions or statements, and that the questionnaire be distributed in areas where the research can expand its scope.

REFERENCES

- Adawiyah, R. A., Ritmaya, C. L., & Soebijanto, A. (2025). Financial planning (Fiping) project: Educational website in improving student understanding through literacy finance and financial planning independently. *Jurnal Riset Ekonomi, Manajemen, dan Bisnis*, 2(1), 6–18. <https://doi.org/10.9744/jremb.2.1.6-18>
- Anggraini, D., & Yuniningsih, Y. (2024). The influence of financial ratio on shares prices of commercial banks that experience profits on the Indonesian Stock Exchange. *Jurnal Riset Ekonomi, Manajemen, dan Bisnis*, 1(1), 9–20. Retrieved from <https://ojs-isei.petra.ac.id/index.php/jrem/article/view/21>
- Arini, W & Noor, R.H (2013). Peran Core Self Evaluation dalam Memprediksi Persiapan Pensiun. *Jurnal Humanitas*. 11(2), 93-102
- Badan Pusat Statistik. diakses melalui : <https://sp2010.bps.go.id> (diakses pada 8 September 2022)
- Badan Kependudukan dan Keluarga Berencana Nasional. diakses melalui www.jambi.bkkbn.go.id/lists/artikel/DispForm.aspx?ID=788&ContentTypel (diakses pada 8 September 2022)
- CIA World Factbook. (2016). diakses melalui www.cia.gov (diakses pada 8 September 2022)
- Chen, H., & Volpe, R.P. (1998). An Analysis of Financial Literacy Among College Students. *Financial Services Review*. 7(2), 107-128.
- Eliana Rika. (2003). *Konsep diri Pensiunan*. digitized by USU digital library
- Elvira, U. & Nanik, L. (2014). Analisa hubungan faktor demografi dengan perencanaan dana pendidikan dan dana pensiun pada masyarakat Ambon. *Jurnal Finesta*, 2(2), 29-34
- Grable, John E., Park, Joo-Yung, & Joo, So-Hyun Joo. (2009). Explaining financial management behavior for Koreans living in the United States. *The Journal of Consumer Affairs*. 43(1), 80-107
- Hershey, D.A., Jacob-Lawson, J.M., Mc Ardle, J. J., & Hamagami, F. (2007). Psychological Foundations of Financial Planning for Retirement. *Journal of Adult Dev*, 14, 26-36
- Hershey, D.A., & Mowen, J. C. (2000). Psychological determinants of Financial Preparedness for Retirement. *The Gerontologist*, 40(6), 687-697
- Howlett, Elizabeth., Kees, Jeremy, & Kemp, Elyria. (2008). The Role of self-regulation, future orientation and financial knowledge in long term financial decision. *The Journal of Consumer Affairs*. 42(2), 223-242
- Ida & Cinthia Yohana Dwinta. (2010). Pengaruh Locus of Control, Financial Knowledge, Income Terhadap Financial Management Behavior. *Jurnal Bisnis dan Akuntansi*. 12(3), 131-144

- Imam Ghozali & Hengky Latan. (2014). *Partial Least Squares Konsep, Metode dan Aplikasi Menggunakan Program WarpPLS 4.0*. Semarang: Badan Penerbit Universitas Diponegoro
- Intha Alice Muskananfolo. (2013). Pengaruh Pendapatan, Konsumsi dan Pemahaman Perencanaan Keuangan Terhadap Proporsi Tabungan Rumah Tangga Keluarga. *1*(2), 61-66.
- Kementerian Keuangan Republik Indonesia. Penduduk Lansia dan Bonus Demografi Kedua. Diakses melalui <http://www.kemenkeu.go.id/artikel/penduduk-lansia-dan-bonus-demografi-kedua> (diakses pada 8 September 20122)
- Kuang, Chi Hsin., Hueryren, Yeh., & Yuling, Chen. (2010). The moderating effect of locus of control on customer orientation and job performance of salespeople. *Journal The Business Revie Cambridge*. *16*(2), 142-146
- Mien, Nguyen Thi Ngoc., & Thao, Tran Phuong. (2015). Factors Affecting Personal Financial Management Behaviours: Evidence from Vietnam. *Proceedings of the Second Asia-Pacific Conference on Global Business, Economics, Finance and Social Sciences* ISBN: 978-1-63415-833-6 Danang-Vietnam, 10-12 July, 2015 Paper ID: VL532
- Moorthy, M. K., Sien, C. S., Leong, L. C., Kai, N. Z., Rhu, W. C., & Teng, W. Y. (2012). A Study on the Retirement Planning Behaviour of Working Individuals in Malaysia. *International Journal of Academic Research in Economics and Management Sciences*. *1*(2), 54-72
- Mudrajad Kuncoro. 2013. *Metode Riset Untuk Bisnis dan Ekonomi*. Edisi 4. Jakarta : Erlangga.
- Muratore, A. M., & Earl, J. K. (2010). Predicting retirement preparation through the design of a new measure. *Journal of Australian Puchologis*. *45*(2), 98-111
- Naila Al Kholilah & Rr. Iramani. (2013). Studi financial management behavior pada masyarakat Surabaya. *Journal Business and Banking*. *3*(1), 69-80
- Nejati, Farzaneh, Ahmadi, Mousa, & Lali, Mona. (2015). The impact of financial literacy on retirement planning and household wealth. *Journal of Fundamental and Applied Life Sciences*. *5*, 806-815
- Otoritas Jasa Keuangan. (2015). *Buku Statistik Dana Pensiun 2015*. diakses melalui : www.ojk.go.id (diakses pada 8 September 2022)
- Peraturan Pemerintah Republik Indonesia Nomor 45 Tahun 2015
- Perry, V.G., & Morris, M.D., (2005). Who is control? The role of self-perception, knowledge, and income in explaining consumer financial behavior. *Journal of Consumer Affairs*, *39*(2), 299-312.
- Peter Garlans Sina. (2015). Wealth Management untuk Pensiun Sejahtera. *Jurnal Economica*. *11*(2), 186-199
- Peter Garlans Sina. (2014). Motivasi sebagai penentu perencanaan keuangan. *Jurnal Ilmiah Akuntansi dan Bisnis*. *9*(1), 42-48
- Ririn Nindia Astuti & Hartoyo. (2013). Pengaruh nilai, tingkat pengetahuan dan sikap terhadap perencanaan keuangan hari tua. *Jurnal Ilmu Keluarga dan Konsumen*. *6*(2), 109-118
- Ritma Pritazahara & Untung Sriwidodo. (2015). Pengaruh pengetahuan keuangan dan pengalaman keuangan terhadap perilaku perencanaan investasi dengan self control sebagai variabel moderating. *Jurnal Ekonomi dan Kewirausahaan*, *15*(1), 28-37
- Rotter, Julian B. (1966). *Generalized expectancies for internal versus external control of reinforcement*. Psychological Monographs, *80*(1).
- Topa, G. Moriano, J. A., Depolo, M., Alcover, C., dan Morales J. F. (2009). Antecedents and consequences of retirement planning and decision-making: A meta-analysis and model. *Journal of Vacationl Behaviour*. *75*, 38-55
- Undang-undang Republik Indonesia Nomor 11 Tahun 1992
- Wirawan, R. T., & Basana, S. R. (2025). The Influence of Profit Management on The Financial Performance of Initial Public Offering Companies Listed on The Indonesian Stock Exchange, 2010-2018. *Jurnal Riset Ekonomi, Manajemen, dan Bisnis*, *2*(1), 28–38. <https://doi.org/10.9744/jremb.2.1.28-38>
- Yopie Kurnia Erista Halim dan Dewi Astuti. (2015). Financial stressor, financial behavior, risk tolerance, financial solvency, financial knowledge dan kepuasan finansial. *Jurnal Finesta*. *3*(1), 19-23