RETIREMENT FINANCIAL PLANNING: GENDER, AGE-RELATED, AND EXPENDITURE DIFFERENCES AMONG INDONESIAN HOUSEHOLDS

Faizah Syihab*
University of Trilogi,
Indonesia
faizah@trilogi.ac.id

Muhammad Luqman Nurhakim
University of Indonesia,
Indonesia
luqman11795@gmail.com

Abstract

This study aims to determine which factors influence household perceptions of retirement planning decisions. Age, marital status, salary, level of education, loan payment, and savings habit will be identified as significant variables in the prediction. This study employed the logistic regression (logit) model, with the sample divided into those who have enrolled in a pension plan and those who have not begun to plan for a pension fund. The sample age range was 26 to 58 years old, with a total of 2,808 respondents. This study discovered that for the age range 26-35 years old, obtaining more education, being younger, earning higher salaries, having less loan obligation, and saving less, the household were more likely to have proper retirement planning. However, between the ages of 36 and 58, planning for retirement became more likely as they get older, gain more education, enter marriage life, and have more loan obligations.

Key Words

Retirement planning; pension fund; household; logit.
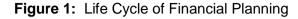
*Corresponding Author

INTRODUCTION

Longevity sounds promising and prosperous. According to the International Database on Longevity (2015), in developing countries, life expectancy has increased by more than 20 years over the last century. Globally, Indonesia had one of the top ten world's largest elderly population (Statistics Indonesia).
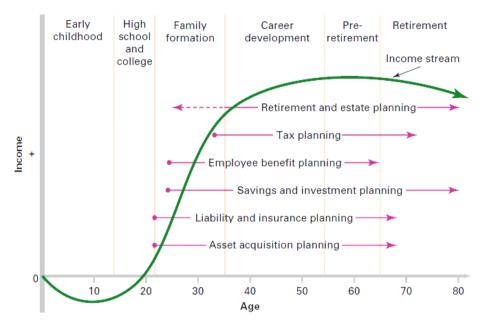
Life expectancy has risen dramatically while birth rates have fallen. Hence, Indonesia will be predicted to become an aging society over the next few decades. This prediction is a true assumption since it had been proven by the increase of life expectancy in Indonesia from 72.02 years in 2011 to 73.06 years in 2017, based on the report of Indonesia's Central Agency of Statistics (2017). This increase was due to several reasons, one of which was advances in medical science, such as the availability of antibiotic treatment, vaccines, and health care. Besides its causes, the increase of life expectancy results in the people who finally retire from their work. The retirement or pension makes the people have to pay their life. Pension funds can be a viable alternative to meeting needs and living the good life in retirement and offer an income assurance for people who are no longer working, with the amount determined by the number of contributions paid. This demonstrates how important pension funds can be in overcoming or mitigating the risk of dying prematurely or in old age.

The majority of people make three major faults when it comes to retirement planning. To begin with, most people start too late retirement planning in their late 30s or early 40s. Second, they spend less money since they do not believe that it is necessary to contribute significantly to pensions. Other financial pressures, such as real estate purchases, university tuition, and current life choices, can cause all errors at this time. Both faults result in lower expected retirement benefits. The last, most people make conservative investments in pension funds. Investing with a low expected level means eradicating high risk. As a matter of fact, the pension benefits obtained were meaningless when it came to meet every day needs throughout retirement period, and as a consequence, the pension payments gained cannot be considered to be sufficient to cover all expenses.

Financial planning, according to Gitman et al. (2011), is a dynamic process, which is defined as the processes of life changes. The life changes are the phases in life; for example, your financial needs at the age of 30 will just be different than it was when you turn 40, 50, or even 60. Financial planning needs to be dynamically adjusted to a phase which are going to be followed to avoid "financial shock". Gitman et al. (2011) define the dynamic process of financial planning as a financial planning life cycle demonstrating that financial planning begins at the stage of family formation. Financial planning is not necessary in the early stages of life, such as childhood, high school, and college, because a person is still financially dependent on parents and does not generate any revenue. Only within the family formation phases would anyone normally start working, earning a stable income, and beginning to plan their finances. When a person reaches retirement age, his or her source of revenue begins to diminish, and financial planning begins to

deteriorate, increase the risk of getting less income, and a less comfortable lifestyle. The figure below shows that financial planning of someone's cash inflow decreases during the pension period.

Figure 1: Life Cycle of Financial Planning

Source: Gitman, Joehnk and Billingsley, Personal Financial Planning.

According to Kimiyaghalam, et al. (2017), retirement is the moment when an employee does not work after getting the standard age of retirement set by a country's laws or rules. According to Gitman et al. (2011), retirement must be planned for a long time before one approaches this stage. At this stage, when revenue is decreasing, financial targets such as maintaining a living standard, vacation, basic needs, and a variety of other expenses must be met. Carrying out proper financial planning during retirement is critical because it is a long term plan and a critical stage in one's life. According to Gitman et al. (2011), the most important objective participating in financial planning is good retirement living standards. They say retirement planning is central to financial planning when compared to another types of financial planning, and that pensions can be an important factor in achieving a comfortable life in the future.

According to Lawson & Klontz (2017), the Certified Financial Planner (CFP) Board's Financial Planning Practice Standards include six steps. The standards demonstrated the importance of evaluating personal situations such as retirement age, life expectancy, income, and financial health in terms of financial satisfaction, debt level, and saving plan. These standards assist financial planners in providing better recommendations to their clients. Thus, the aforementioned factors may have influenced people to plan their retirement.

LITERATURE REVIEW

According to Gracia Mata (2021), financial literacy had an effect on retirement planning among young adults in Mexico with gender acting as a moderator variable. The actual or intended implementation of several retirement strategies, including private pension funds, asset investing, government subsidies, and family assistance, is referred to as planning. Many young Mexican women still considered family and friends to be their primary source of financial support as they get older, especially as the number of economic dependents grows. Similarly, Zurlo (2021) discovered that unmarried women faced more financial challenges in retirement than married women.

Vivel-Búa et al. (2019) identified the factors influencing retirement planning in Spain. The study conducted 165,791 observations from 2008 to 2015 and used a probit tobit model. This study and discovered that while gender was not a significant determinant of the decision to save money for retirement in a private retirement plan, it had a negative and significant impact on the amount of money saved. Spanish women invested less in private pension schemes than men, which may be explained by their lower earnings.

In line with this, Mahdzan et al., (2017) investigated the factors influencing retirement planning and retirement portfolio choices, an area that has received little attention. Income, age, and future expectations were found to be strongly associated to the likelihood of retire behavior in Kuala Lumpur, Malaysia. Retirement planning was more likely to be implemented if people have faith in the country's financial system. A sample of 270 workforces in Malaysia was studied using logistic and ordered probit regression. While according to Onduko et al., (2015), financial literacy, earnings, and level of education of respondents were key variables of retirement planning in Nairobi, Kenya. Age and years of marriage, in contrast, had no significant influence on retirement planning. The most important factor that affected retirement planning decisions was financial literacy because it influenced both saving and portfolio selection. The study employed multiple regression on a sample of 158 people working in the formal sector who had saved for retirement.

Mansor et al. (2015) investigated the factors influencing retirement planning among Malaysian employees working in the health sector. The study revealed that age, education level, and income level were statistically significant and related to retirement planning, whereas gender had no significant impact on it. To investigate the relationship, they used demographic factors as determinants and cross tabulation analysis. The findings revealed that age increased retirement confidence, education allowed people to learn more about retirement planning, and a sufficient income was required to plan for retirement.

The same study was conducted by Rey-Ares et al. (2015) in Portugal and Spain. Using probit, they discovered that education, employment situation, living area, house ownership, and saving practices were all positively related, while financial risk aversion and right-wing political orientation were

negatively related. Ares et al. (2015) argued that after mortgages were paid off, households were more likely to save. The study included 1,808 individuals with an age range of 55.47. Besides that, Moorthy et al. (2012) demonstrated that the earlier generation (26-35 years) had a more positive attitude toward retirement planning and was not concerned about retirement. According to the findings, the factors influencing retirement planning behavior were age, educational level, level of income, goal clarity, viewpoint to retirement, and possible conflict in retirement. The study concluded that the ideal period to start doing retirement was range from the ages of 26 to 35. The study employed multiple regression on a sample of 300 working Malaysians ranging in age from 26 to 55 years.

Fontes (2011) used logistic regression to investigate factors influencing retirement planning in United States. This study discovered a positive and negative relation to retirement planning. The former consisted of age, education, male gender, housing, urban residence, married status, and employment, while the latter consisted of the number of children and immigrants. Hira et al. (2009) also used logistic regression to discover a positive relation, such as age, financial information, and becoming an early investor.

Devaney and Chiremba (2005) conducted research on retirement planning in the United States. The tobit model of logistic regression was used to analyze the relationship. This study discovered a positive relation among retirement planning and variables, such as age, education, risk tolerance, saver, planning horizon, married status, and white race, and a negative relation between retirement planning and independent variables, such as spending and self-employment. According to the study, obtaining additional education, willing to take risks, and saving more were all associated with having more money set aside for retirement. This study used spending versus income as study factors and discovered a negative relationship between retirement planning and spending. The more respondents spent than they earned, the less likely they were to make retirement plans.

Furthermore, Hurd (2003) explained that those who had low income throughout their working life who did not save would experience even lower levels of consumption in the years ahead and that they could raise long-term utility by reallocating spending from before to after pension. The data was collected from the Health and Retirement Study in 1992, and the study used the tobit model with a total of 12,652 respondents. According to Lum & Lightfoot (2003), respondents and spouse health were positively related to retirement planning. The logistic regression study also discovered that age, male gender, white and black race, education, and revenue were related to retirement planning among older workers.

As a result of the preceding literature on retirement planning behavior, researchers would want to conduct additional research into identifying factors influencing pension fund decisions, specifically in Indonesian households using IFLS5 from Rand Corporation Database by categorizing the sample age within the age ranges of 26-35 and 36-58. It is hoped that this study can discover the determinants of retirement planning behavior in Indonesian households since retirement planning is important for household

wealth.

DATA AND METHODOLOGY

This study used cross-section data from the Rand Corporation database. The information could be obtained from the IFLS5 questionnaires, which can be found at www.rand.org. The method used logistic regression, specifically the logit model. Purposive sampling was used to collect the data from respondents in Indonesia by using STATA. The sample was drawn by using the respective criteria: first, containing no missing values; second, excluding respondents with ambiguous answers; third, dismissing respondents under the age of 26; and finally omitting participants who did not reply to the question. By applying these criteria, the data that was originally collected 26,508 became 2,808 respondents.

According to Moorthy et al. (2012), the earlier generation age range of 26-35 years had a more positive attitude toward retirement planning and was not concerned about retirement; additionally, the study concluded that the ideal age range to begin doing retirement was between the ages of 26 and 35. Furthermore, according to the life cycle theory, financial stability after the age of 35 in the financial stage differed. As a result, the sample group in this study was divided into two age groups: 26-35 and 36-58 to determine the retirement financial planning among Indonesian households.

This study consisted of 1,335 male respondents (47.54%) and 1,473 female respondents (52.46%). Based on the total number of respondents, 95.51% of them were married and the remaining 4.49% were unmarried. The age distribution of the respondents was that 1,374 or 48.93% of respondents represented the ages between 26 and 35, while 1,434 or 51.07% of them represented the ages between 36 and 58. Based on the educational qualification level analysis, those who had elementary school holders were 603 (21.47%), junior high school holders were 381 (13.57%), senior high school holders were 982 (34.97%), and college/university holders were 842 (29.99%) respondents.

In terms of loan payments, 1,419 respondents (50.53%) had loan obligations, while 1,389 respondents (49.47%) did not have any loan payments. In terms of saving habits, 2,735 respondents (97.40%) had a saving habit, while the remaining (2.6%) did have any. Most workers were private workers represented by 1,858 respondents (66.17%) and the remaining consisted of government workers represented by 659 respondents (23.47%), casual workers in agriculture represented by 237 respondents (8.44%), and casual workers not in agriculture represented by 54 respondents (1.92%).

Retirement planning is the dependent variable. The respondent was asked, "What type of pension plan are you enrolled in?" This study would investigate whether respondents can improve their retirement planning by improving their level of education, budgeting, subjective perception, and anticipating the necessity for financial education. The relevant factors will be explained further.

Respondents' criteria included those who received pension funds as an employee and had enrolled in a pension plan. The responses were divided into two categories, namely 1 indicated that the respondent had started to make retirement plans and 0 indicated that the respondent had not begun to make retirement plans. This binary value was used to determine why an individual decided a retirement planning.

This study used the independent variables. The first independent variable was age (x_1_age) for the question "how old are you?". Age, as a demographic factor, is the most used variable in retirement planning studies. Based on the life cycle of financial planning, the age range was divided into two categories, namely 26-35 and 36-58 years old, to investigate the differences in behavior between them. The second variable was gender (x_2_gender) as another demographic factor for asking whether the respondents were male or female, which was coded 1 for male and 0 for female. The third variable was Marital Status (x_3_marstat) by classifying the study with 1 for "married" status and 0 for other than "married" status. Salary (x_4_salaries) was the fourth independent variable showing monthly earnings by asking the following question: "Approximately what was your salary/wage during the last month (including the value of all benefits)?". The fifth independent variable was education level (x_5_edulvl) by classifying the respondents into six categories: elementary school (12 years), junior high (15 years), senior high (18 years), college education (22 years), and university education (24 - 29 year). The sixth independent variable was Loan Payment (x_6_loan), which represented respondents' debt repayment spending by asking, "What is the total loan that has been paid in the last 12 months?". Finally, Saving (x_7_saving) was the seventh independent variable.

The following statements become the research hypothesis.

H_1: Respondent age had a significant impact on the likelihood of retirement planning.

H_2: Male respondents were more likely than female respondents to have retirement plans.

H_3: Married respondents were more likely to make retirement plans than unmarried respondents.

H_4: Salary had a significant influence on the likelihood of retirement planning.

H_5: Respondents with more years of education were more likely to plan for pension funds than those with fewer years of education.

H_6: Loan payments had a significant impact on the likelihood of retirement planning.

H_7: Saving habits had a significant impact on the likelihood of retirement planning.

EMPIRICAL FINDINGS AND DISCUSSION

When a predictor variable is a linear function of another independent variable in the same model, this is referred to as multicollinearity. The correlation between all independent variables were tested to see whether there was any

multicollinearity in the model. The model has no multicollinearity, as evidenced by this result.

Table 1: Correlation Matrix

	x1_age	x2_gender	x3_marstat	x4_salaries	x5_edulvl	x6_loan	x7_saving
x1_age	1.0000						
x2_gender	0.0956	1.0000					
x3_marstat	- 0.0180	0.0134	1.0000				
x4_salaries	0.0374	0.0018	0.0099	1.0000			
x5_edulvl	0.0254	0.0667	0.0144	0.0597	1.0000		
x6_loan	0.0158	0.0000	0.0142	0.0031	0.1243	1.0000	
x7_saving	0.0308	-0.0850	0.0010	0.0170	0.0330	0.0173	1.0000

Source: Rand Corporation, IFLS5.

Based on the results of table 1, the correlation coefficient among independent variables is 0.80 or less, meaning that multicollinearities did not occur in the data in this study. This indicates that in the model, there was no independent variable that was a linear function from another independent variable.

The Goodness of Fit test measures how accurately a model explains the correlation among the dependent and independent variables. Pseudo R^2 is one of the parameters used for the Goodness -of -fit test in logistic regression.

Table 2: Summary of Goodness of Fit based on Age Range

	Age 26-35	Age 36-58
Number of Observation	1374	1434
Pseudo R^2	0.2023	0.1659

Source: Rand Corporation, IFLS5

According to table 2, the Pseudo R^2 value in the age group 26-35 years (20.23%) is greater than in the age range 36-58 years (16.59%), indicating that the model with all predictor factors could better explain Indonesian households' decision to have retirement planning in the age range 26-35 years than in the age range 36-58 years.

The Likelihood Ratio was employed to assess whether all the predictor variables have an effect on the dependent variable, which is represented by a probability value greater than chi-square (Prob>chi^2). Following is the hypothesis:

H_0: All independent variables had no effect on the dependent variable under consideration.

H_1: All independent variables had an effect on the dependent variable being tested at the same time.

Table 3: Likelihood Ratio

	Age 26-35	Age 36-58
Wald chi^2	216.28	196.32
Prob > chi^2	0.0000	0.0000

Source: Rand Corporation, IFLS5.

Table 3 shows that H_0 is rejected with a 95% confidence level (Likelihood Ratio statistic is 0.0000), meaning that all seven predictor variables (age, gender, marital status, salaries, educational levels, loan payment, and saving habit) were indeed influencing household decisions to have retirement planning at the same time. The likelihood ratio value (Prob > chi^2) of 0.000 described how predictor variables in the model could simultaneously explain the retirement planning decisions of Indonesian households.

By examining Prob > chi^2 from each predictor variables, the partial test determines whether each predictor variable influences the dependent variable. The relations among independent and dependent variables are as follows:

Table 4: Partial Test

	Age 26-35	Age 36-58		Age 26-35	Age 36-58		Age 26-35	Age 36-58
Variables	Coefficient			P>z			Odd Ratio	
x_1_age	-0.0573	0.0582		0.0230	0.0000		0.9443*	1.0601*
x_2_gender	0.0865	-0.1159		0.5420	0.3570		1.0903	0.8906
x_3_marstat	-0.5046	1.1485		0.1110	0.0010		0.6037	3.1534*
x_4_salaries	3.11E-07	-1.50E-09		0.0000	0.1020		1*	1
x_5_edulvl	0.2389	0.2199		0.0000	0.0000		1.2698*	1.2459*
x_6_loan	-2.07E-09	3.17E-08		0.0420	0.0000		1*	1*
x_7_saving	-4.64E-09	2.08E-09		0.0410	0.3860		1*	1

*Significance at Confidence level = 95%
Source: Rand Corporation, IFLS5.

Age, salary, education level, loan payment, and saving habit influenced retirement planning behavior among people aged 26 to 35. For the age range 36-58 years old, retirement planning behavior was influenced by age, marital status, educational levels, and loan payment.

The following is the Equation:

Pension Fund (age 26-35) = - 0.0573Age + 3.11x10^{-7}Salaries + 0.2389EduLvl - 2.07x10^{-9}Loan - 4.64x10^{-9}Saving …………… (1)
Pension Fund (age 36-58) = 0.0582Age + 1.1485MarStat + 0.2199EduLvl + 3.17X10^{-8}Loan ……………………......... (2)

The logit model's resulting coefficients cannot be directly interpreted. The coefficient's value is meaningless because it only indicates the direction of the predictor variable's influence on dependent variable. To interpret the coefficient values, the coefficients of the estimated logit findings must be changed into natural antilogarithm to acquire the odds ratio. Odd Ratios result is shown in table 4.

The odds ratio describes the ratio of two possibilities, that is the possibility of success and the possibility of failure. The slope sign above indicates the following statements:

1. The tendency of people in the age range 26-35 to have pension funds decreased by 0.9443 times for every year of age increase. In the age range 36-58, an increase in age developed the likelihood of having pension funds by 1.0601 times.
2. Married people between the age of 36 and 58 had a 3.1534 times greater chance of having pension funds. There was no effect of marital status on individual behavior in having pension funds for those in the ages of 26-35.
3. In the age range of 26-35, an increase in salary increased the likelihood of having pension funds by one.
4. Educational levels had a positive effect on retirement planning in both age groups. The odds ratio values showed that the higher the education level, the greater the likelihood of having pension funds in the age range of 26-35 and 36-58, respectively.
5. Among people aged 26 to 35, the likelihood of having a retirement plan decreased each time the loan payment increased by one. On the other hand, as loan payments rose by one percentage point, the number of people who plan for retirement rose.
6. The likelihood of people having retirement plans between the ages of 26 and 35 would decrease each time the respondent's savings increased by one.

This finding suggests that the relationship between all predictor factors and retirement planning variable could explain the majority of the theory. Age, marital status, salary, educational levels, loan, and savings were important factors to consider when planning a retirement in Indonesia. This study concluded that the appropriate age to begin implementing retirement planning varied from the age of 26 and 35.

Age, as a demographic factor, can explain the life cycle of financial planning and the theory of planned behavior. Age indicates which stage of the life cycle the respondent is currently in and can be used as a subjective norm that directs behavior. Respondents aged 26 to 35 had different results on their choice to save for retirement. Salary is a consideration for younger people in the transition phase of the financial planning life cycle because they do not have many financial responsibilities in their daily lives, so the younger they are, the more likely they are to invest in retirement funds. This is consistent with the discoveries of Huberman et al. (2007), which discovered a diminishing relationship of age and the decision to have retirement funds. Even though there were differences, the findings in this study were supported by previous studies. Age was not always a detriment to retirement planning; in the older group, age had a positive influence on retirement planning. Mansor et al. (2015) discovered a positive relation between age and retirement planning behavior among respondents aged 36-58 years, as did Moorthy et al. (2012), Fontes (2011), Hira et al. (2009), and Devaney and Chiremba (2005). This behavior was in accordance with the life-cycle theory. According to the life-cycle economic approach, people tend to invest in pension funds as they get older. Individuals are more likely to be motivated to take action for retirement as they get older, so age can help pre-retirees plan their retirement.

Marital status is regarded as a subjective norm that influences one's behavior when he or she married. According to this study, marital status was not a statistically significant predictor of retirement planning in the younger group, but married respondents were more likely to plan for retirement than unmarried ones in the older group. Married respondents had a greater tendency to be concerned regarding their family's financial stability, causing them to be more likely to invest in retirement planning. In other words, the decision to plan for pension was made together within the marriage. Both outcomes were consistent with the life cycle of financial planning, as awareness of retirement planning begins in the phase of career development that is over 35 years old.

One of the demographic factors that influences both younger and older people's retirement planning behavior is educational level. This is in line with previous research findings (DeVaney & Chiremba, 2005; Fontes, 2011; Hira et al., 2009; Moorthy et al., 2012; Mansor et al., 2015; Onduko et al., 2015). Education level can be considered as attitude toward retirement planning behavior because education level can help to understand retirement behavior. Individuals with a higher education level are more likely to have pension funds because education allows individuals to explore more information about retirement planning, and the sources of information influence their decision.

Another financial variable is loan and saving habits, both of which have a negative impact on younger people's retirement planning behavior. As previously stated, income becomes a consideration for younger groups in the transition phase of the financial planning life cycle when they have many financial responsibilities in their daily needs (loan and saving), resulting in insufficient funds. As a result, the likelihood of them using retirement funds is low or difficult to predict. Ares et al. (2015) and DeVaney & Chiremba (2005) used saving habits as a factor to determine retirement planning and discovered that those who save had a higher likelihood of planning for retirement.

Loan variables affect retirement planning behavior in the older and younger group, but in the opposite direction. The outcome was in accordance with the previous studies which used categorical spending variables rather than numerical spending variables like the one used in this study (DeVaney & Chiremba, 2005; Fontes, 2011; Rey-Ares et al., 2015). However, the results showed the same effect on retirement planning in the younger group but having a different positive relationship in the older group. The behavior was quite fascinating that individuals were likely to have pension funds regardless of the other expenses that they must meet. Based on the financial planning life cycle, respondents between the ages of 36 and 58 were more likely to have a pension plan, despite rising loan payments.

Gender variable does not significantly affect an individual decision in making retirement planning. This can be observed from the respondent readiness of pension funds plan. Retirement readiness is a cognitive marker for behavior from rejection or support for change efforts and maturity points in the form of preparedness, readiness, and maturity to be able to accept the transition to a new lifestyle, in this case it always involves changing roles,

changing desires and values, and changes to the individual's lifestyle that manifest in the form of behavior (Safitri, 2013). From the sample, employees who had retirement preparedness with female gender were 435 employees (29.53%), and male were 430 employees (32.21%). Thus, it can be concluded that employee retirement readiness in both genders were equally for not being concern in preparing their future retirement planning.

CONCLUSION

The theories presented in this study can explain retirement planning behavior. Based on the financial planning life cycle, retirement planning becomes more important as people reach the age of 36, the career development stage. The financial planning process can influence retirement planning behavior because it evaluates financial status such as income, savings, and loan payments. This study discovered that households with more education, being younger, earning higher salaries, having less loan obligation, and saving less were more likely to have saved for retirement (for age group of 26-35).

Based on the findings of this study, the ideal age range for Indonesians to begin retirement was between the ages of 36 and 58. This age group had entered the career development stage and was more concerned with financial planning, particularly retirement. Outcomes are consistent with the financial planning life cycle, as awareness of retirement planning begins in the phase of career development that is over 35 years old.

In the 35-58 age group, obtaining more education, as they get older, being in marital life, and having more loan obligations would most likely influence household decisions to have retirement planning. This study discovered that when income increased in the early stages of life, it tended to determine retirement planning. The theory of planned behavior dominated in explaining retirement behavior, as evidenced by the strength of the influence of age, marital status, and education level. People's awareness of retirement planning behavior will increase as they get older, married, and more educated.

The findings could help policymakers understand the factors that influence retirement planning behavior. Any policy implementation aimed at assisting individuals in adequately preparing for retirement should consider the fact that different groups have different retirement saving behaviors. This study showed once again that behavioral approaches play a significant role in retirement planning behavior without ignoring the influence of such financial variables. It is suggested to encourage retirement planning behavior by increasing people's knowledge of retirement planning. These findings help people understand the significance of retirement planning. In general, the most influential variable is education level. It is necessary for educational institutions to educate people about the importance of retirement planning.

Although some facts were discovered, this study still had the following limitations. First, due to a cross-sectional study, it cannot be observed over

time, it can only capture retirement behavior at a specific point in time. Second, while this study is being conducted using secondary data, using primary data for specific purposes such as questioners will allow the study to become more accurate in terms of the study objective.

REFERENCES

DeVaney, S. A., Chiremba, S. T. (2005). Comparing the Retirement Savings of the Baby Boomers and Other Cohorts. Compensation and Working Conditions Online, U.S. Department of Labor, Bureau of Labor Statistics, March 16, 1–12.

Fontes, A. (2011). Differences in the Likelihood of Ownership of Retirement Saving Assets by the Foreign and Native-Born. Journal of Family and Economic Issues, 32(4), 612–624. https://doi.org/10.1007/s10834-011-9262-3

García Mata, O. (2021). The effect of financial literacy and gender on retirement planning among young adults. International Journal of Bank Marketing, 39(7), 1068–1090. https://doi.org/10.1108/IJBM-10-2020-0518

Gitman, L. J., Joehnk, M. D., Billingsley, R. S. (2011). Person Financial Planning (Mason (ed.); 12th ed.). Joe Sabatino.

Hira, T. K., Rock, W. L., Loibl, C. (2009). Determinants of retirement planning behaviour and differences by age. International Journal of Consumer Studies, 33(3), 293–301. https://doi.org/10.1111/j.1470-6431.2009.00742.x

Huberman, G., Iyengar, S. S., Jiang, W. (2007). Defined contribution pension plans: Determinants of participation and contributions rates. Journal of Financial Services Research, 31(1), 1–32. https://doi.org/10.1007/s10693-007-0003-6

Hurd, M. (2003). and Unexpected Events. In Washington D. C (Ed.), Fifth Annual Conference of the Retirement Research Consortium. Michigan Retirement Research Centre.

Kimiyaghalam, F., Mansori, S., Safari, M., Yap, S. (2017). Parents' Influence on Retirement Planning in Malaysia. Family and Consumer Sciences Research Journal, 45(3), 315–325. https://doi.org/10.1111/fcsr.12203

Lawson, D. R., Klontz, B. T. (2017). Integrating behavioral finance, financial psychology, and financial therapy theory and techniques into the financial planning process. Chinese Economic Planning: Translations From Chi-Hua Ching-Chi, July, 100–114.

Lum, Y. S., Lightfoot, E. (2003). The effect of health on retirement savings among older workers. Social Work Research, 27(1), 31–44. https://doi.org/10.1093/swr/27.1.31

Mahdzan, N. S., Mohd-Any, A. A., Chan, M. K. (2017). The influence of financial literacy, risk aversion and expectations on retirement planning and portfolio allocation in Malaysia. Gadjah Mada International Journal of Business, 19(3), 267–289. https://doi.org/10.22146/gamaijb.24441

Mansor, M. F., Hong, C. C., Abu, N. H., Shaari, M. S. (2015). Demographic Factors Associated with Retirement Planning: A Study of Employees in Malaysian Health Sectors. Asian Social Science, 11(13), 108–116. https://doi.org/10.5539/ass.v11n13p108

Moorthy, Ze, K.N. (2012). A Study on the Retirement Planning Behaviour of. International Journal of Academic Research in Economics and Managament Sciences. International Journal of Academic Research in Economics and Management Sciences, 1(2), 54–72.

Onduko, E. M., Gweyi, M. O., Nyawira, J. (2015). Analysis of the Determinants on Retirement Planning in Kenya: A Survey of Registered Pension Schemes in Nairobi. Research Journal of Finance and Accounting, 6(3), 208–216. http://www.iiste.org/Journals/index.php/RJFA/article/view/19961

Rey-Ares, L., Fernández-López, S., Vivel-Búa, M. (2015). The determinants of privately saving for retirement: the cases of Portugal and Spain. European Journal of Applied Business and Management, 1(1), 69–92. http://nidisag.isag.pt/index.php/IJAM/article/view/26

Safitri, B. R. (2013). Kesiapan Menghadapi Masa Pensiun Ditinjau dari Peran Gender Karyawan. Jurnal Ilmiah Psikologi Terapan, 01(02), 191–204. https://doi.org/https://doi.org/10.22219/jipt.v1i2.1577

Vivel-Búa, M., Rey-Ares, L., Lado-Sestayo, R., Fernández-López, S. (2019). Financial planning for retirement: the role of income. International Journal of Bank Marketing, 37(6), 1419–1440. https://doi.org/10.1108/IJBM-09-2018-0253

Zurlo, K. (2021). Session 2425 (paper). Innovation in Aging, 5(Supplement_1), 241–241. https://doi.org/10.1093/geroni/igab046.930