

Financial literacy and retirement savings ownership

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ABSTRACT: This study aims to determine the relationship of financial literacy and retirement savings ownership. This study also tests whether socio-economic characteristics, such as marital status, number of children, tenure of employment, and amount of monthly income can affect a person's decision to own retirement savings for future prosperity. The research method is quantitative, using Spearman correlation test with the sample number of 170 employees from a state-owned bank in Payakumbuh, West Sumatra, Indonesia. Results showed that only number of children and tenure of employment of the socio-economic characteristics have relationship with retirement savings ownership, while marital status and amount of monthly income have no relationship with retirement savings ownership. Moreover, results show that financial literacy has a relationship with retirement savings ownership. Hence, improving financial knowledge, especially directly related to retirement savings is necessary, to increase penetration and density of retirement savings in Indonesia.

1 INTRODUCTION

Retirement savings is one of the products of non-bank financial institutions whose penetration in Indonesian society is still very low. Data from the results of the national survey of financial literacy and inclusion in 2016 in Indonesia indicate that the inclusion rate of retirement savings or the level of access of Indonesians to retirement savings products is only 1.53% in 2013 and 4.66% in 2016. The lowest figure when compared to other non-bank financial products, namely insurance 12.08%, financing institutions 11.85% and pawnshops of 10.49%. Meanwhile, when compared to the inclusion rate of banking products in Indonesia, the figure is still far behind where the inclusion of banking products reached 57.28% in 2013 and 63.63% in 2016 (Financial Services Authority/OJK 2016a).

OJK (2016b) survey results related to the understanding and participation of the Indonesian society to the retirement fund above is still very low. This condition indicates at least two depictions of the condition of Indonesian society. The first indicates that many Indonesians do not understand that life after retirement is long, even if they still have a dependent cost for children's education or dependents of a sick family. Based on data in the book of the People's Welfare Indicator, BPS catalog (Bureau of Statistics 2015), women life expectancy in Indonesia is 72.8 years and men life expectancy is 68.9 years. Based on the number of 72.8 years, we could get people longest period of productive working time for about 33 years obtained from the difference of retirement age at 55 years and the age of 22 years for the starter, it is necessary to make saving for deposit for 17.8 years after not being productive. In the productive period, the average Indonesian worker is able to meet the needs of his life and his family, but in the

retirement period he becomes dependent on others, which is caused by the lack of understanding of the length of life that will be lived after retirement.

The second indicates that the number of retired Indonesians who are secured from pension funds is so small that many of the retired communities are dependent on their children or others. This is what makes it difficult for a family to break the chain of dependence or poverty, let alone to achieve a prosperous life and to achieve financial freedom, this condition will be very difficult to achieve.

Understanding retirement will be different for people of different backgrounds. For certain professions such as lawyers, doctors, musicians, retirement is the time when they intentionally stop doing their profession to enjoy their life, which means they can stop working whenever they want. As for employees, retirement is defined as stopping work due to an age-related rule to work in their respective companies. For employees, there are retirement age rules in 55 years, 58 years or even up to 65 years. From this overview of the understanding of pensions, it generally indicates that employees have tighter time limits which cause these employees to be disciplined in preparing their early retirement funds.

In terms of corporate retirement savings, retirement savings is one of the key points offered by companies in the work environment to attract, retain, motivate, and ultimately retire their employees (Clark et al. 2017). In addition, the management of pension funds is a key to success for a family who wants financial freedom. This financial freedom can be obtained with the discipline of expenditure and discipline of financial income so that the target of retirement income of 80% of current income can be achieved. From a case study conducted in the United States against Federal Reserve workers, information can be obtained that the workers were asked to

watch a video entitled "Your Retirement Plan". From a video of no more than 30 minutes, one of its explanations is related to suggest that retirees should save enough to replace about 80% of their final earnings. This figure will certainly be an independent financial source for one's pension age in particular and as a pool of funds that can be used for development within a country in general.

Furthermore, a research conducted in some countries around the world shows that not only do individuals indicate low levels of financial literacy, but also that low financial knowledge can be attributed to lack of financial planning and lack of resources in retirement period (Lusardi & Mitchell 2011). This is in line with the conditions in Indonesia, where the level of understanding and membership of retirement funds is still very low. The author conducted a study in one of state-owned enterprises in Payakumbuh West Sumatra aimed to see the relationship between financial literacy with retirement savings ownership. This is due to the phenomenon of the very low penetration and density of pension products in Indonesia, especially in West Sumatra province, while on the other hand, the membership of the retirement fund is actually obliged to all employees in Indonesia by the Government. Meanwhile, unpreparedness in facing retirement will be a fatal mistake that results in a very long term, causing dependence and welfare for the individual and leading to an increase in the poverty rate and the level of crime of poverty in a country. Therefore, this study will also look at the relationship between socio-economic factors such as marital status, number of children, tenure of person's employment and the amount of monthly income with the ownership of retirement funds. The objective is to strengthen the analysis of the findings by determining whether there are differences in the decision of ownership of retirement savings based on marital status, number of children, tenure of person's employment and the amount of individual monthly income.

1.1 *The life-cycle hypothesis theory*

The Life-cycle Hypothesis theory of Modigliani (1963) states that the individual or household in the economy will delay consumption by making saving. The savings will be collected until the individual/household reaches retirement age. After retirement, new individuals use their retirement savings to meet retirement needs. The author uses the theory of Modigliani as a basis in doing this research where, whether it is realized or not, the individual will do saving activities to deal with his retirement. Furthermore, whether the level of individual financial literacy has any relationship with the ownership of retirement savings will be researched in this study.

1.2 *Socio-economic characteristics*

Based on a research conducted by several experts in several countries in the world, most found

researches are related to the relationship between economic demographic characteristics with pension preparation, where empirical differences are found among some countries. Based on age demographic factors, Clark et al. (2017) found that, in the United States, each additional 10 years of age was associated with 1.2 percentage points more pay being contributed to the DC plan, the findings in the Netherlands from the research conducted by Alessie et al. (2011), show that respondents do not tend to think much about retirement when they are young and retirement is a distant concept. Similar findings from a study conducted in Canada by Boisclair et al. (2015), that age also has a significant effect, with older individuals being more likely to hold retirement savings. Different findings are found in Germany by Koenen & Lusardi (2015) which reveal that there is no significant difference in retirement planning between age groups, and there are no large differences in planning across education. Nevertheless, the author still has not found a study that specifically examines the relationship between socio-economic characteristics with the ownership of retirement savings.

Therefore, this study will investigate the relationship of socio-economic characteristics including marital status, number of children, tenure of employment and the amount of monthly income of individuals with retirement savings ownership. The hypothesis shall be as follows:

- H1. There is a significant relationship between socioeconomic characteristics and the ownership of retirement savings.
- H1a. There is a significant difference in Retirement Planning ownership based on marital status
- H1.b. There is a significant difference in ownership of Retirement Planning based on the number of children
- H1.c. There is a significant difference in ownership of Retirement Planning based on the tenure of employment.
- H1.d. There is a significant difference in Retirement Planning ownership based on the amount of monthly income.

1.3 *Financial literacy*

Several literacy-related studies in relation to retirement planning have been conducted in several countries such as America, Canada and the Netherlands. The results of studies in these countries show some issues related to the relationship of financial literacy with the level of management of personal retirement funds. A case study conducted on Federal Reserve employees in America found that the most financially knowledgeable employees are more likely to participate in their pension plans, contribute a higher percent of their pay, and hold more equity in their account requirements. (Clark et al. 2017). Findings from a Canadian study

found that retirement planning is strongly associated with financial literacy. Typically, in Netherlands, most of the retirement saving decision, are beyond employees' control and the pension system is perceived as quite generous, and this might contribute to the low number of households (one in eight) claiming to have thought a lot about retirement. (Alessie et al. 2011).

Considering the low penetration and density of pension products in Indonesia, researcher is interested in investigating the relationship between a person's financial literacy and the ownership of the person's retirement savings. Whether someone who has higher financial literacy will better show a higher level of retirement savings ownership will be known from the results of this study. The hypothesis tested shall be follows:

H2. There is a significant relationship between financial literacy and retirement savings ownership.

2 METHOD

2.1 Research approach

In this study, the approach used is a quantitative approach through the use of hypotheses to find the relationship between variables.

2.2 Sample and data collection

Methods of data collection is using questionnaires that are directly distributed to all employees of one of the state-owned commercial banks (BUMN) located in Payakumbuh, West Sumatra Province, Indonesia. The total population was 274 people and the number of questionnaire returns was from 170 people who subsequently author set as the number of samples in this study. For information, as requested by the BUMN leadership board where the research is conducted, the name of SOE is not mentioned in this research. If you need for more information, you may contact the author directly.

2.3 Questionnaire design

Questionnaire design in this research consists of 2 parts: (1) Section of information related to the background and socio-economic characteristics of the respondents, (2) The question section consists of 5 questions to determine the level of basic financial literacy of the respondents where the question standard refers to Babiarz & Robb (2014). The author adjusts some questions solely for ease of understanding of respondents in Indonesia and adjustment of the economic condition of the respondent without removing the original meaning of the question.

2.4 Measurement of variables

Measurements of variables in this study are described in Table 1 as follows:

Table 1. Measurement of variables.

Variable	Phenomenon
Dependent Variable	
Retirement savings ownership	Retirement savings ownership
Independent Variable	
Financial Literacy	Interest Inflation Bond Price Mortgage Portfolio Score of Financial Literacy
Social Ec. Characteristic	
Marital Status	Marital Status Category
Number of Children	Number of Children Category
Tenure of Employment	Tenure of Employment Category
Monthly Income	Monthly Income Category

2.5 Data analysis technique

The analysis of the relationship between socioeconomic characteristics with the ownership of retirement savings and the relationship between financial literacy and retirement savings ownership using Spearman correlation test is using SPSS 20 statistical tool.

3 RESULT AND DISCUSSION

Based on cross tabulation between marital status and retirement savings ownership, it can be seen that in unmarried respondents and did not have retirement savings of 26 people or 15.3%, while the respondents were unmarried and had retirement savings of 23 people or 13.5%. For married respondents who do not have retirement savings are 46 people or 27.1%, and married respondents who have retirement savings of 74 people or 43.5%. While from a divorced respondent, she did not have retirement savings. From the data above it can be noted that married respondents and has a retirement savings have the largest percentage, which is 43.5%. To find out whether there is a relationship between marital status with retirement savings ownership, it can be seen on spearman correlation test result. Based on Spearman correlation test between marital status and retirement saving ownership, it can be seen that the significance value is $0.126 > 0.05$, so it can be concluded that there is no relationship between marital status and retirement savings ownership.

Furthermore, based on cross-tabulation between the number of children and retirement savings ownership, it can be seen that the respondents who do not have children actually have the highest retirement savings ownership rate, which is 35 people or 20.6% of the total respondents. This figure is almost comparable with respondents who have no children and no retirement savings, i.e. as many as 33 people or 19.4% of the total respondents.

Table 2. Descriptive statistic.

Marital Status		
Single	49	28.8%
Married	120	70.6%
Divorce	1	0.6%
Number of Children		
0	68	40.0%
1	49	28.8%
2	37	21.8%
3	16	9.4%
Tenure of Employment < 5 years		
< 5 years	98	57.6%
5 - 10 years	49	28.8%
> 10 years	23	13.5%
Monthly Income		
< 5 million	145	85.3%
5 - 10 million	23	13.5%
> 10 million	2	1.2%
Financial Literacy		
Very Low	21	12.4%
Low	24	14.1%
Medium	56	32.9%
High Enough	55	32.4%
High	13	7.6%
Very High	1	0.6%
Retirement Saving Ownership		
Do not have	73	42.9%
Have	97	57.1%

To determine whether there is a relationship between the number of children and retirement savings ownership, it can be seen on spearman correlation test where the significance value is $0.020 < 0.05$ so it can be concluded that there is relationship between number of children and retirement savings ownership.

For the factors of tenure of employment and retirement savings ownership can be seen in cross tabulation where the tenure of employment is divided into 3 classes and most respondents are in the first class with the duration of work less than 5 years with a total of 98 respondents. For the largest number of retirement savings ownership in respondents with tenure of employment is less or equal to 5 years, that is 49 people or 28.8% from respondent. This amount is exactly equal to the tenure of employment less than or equal to 5 years and that has no retirement savings.

Based on Spearman correlation test between tenure of employment and retirement savings ownership, it can be seen that the significance value is $0.014 < 0.05$ so it can be concluded that there is a relationship between tenure of employment and retirement savings ownership.

The next factor is monthly income which can be seen in cross tabulation result where monthly income is divided into 3 classes and most

respondents are in first class with income below IDR 5 million with the number of retirement savings ownership is 79 people or 46.5% of the total respondents and who have no retirement savings ownership is 66 people or 38.8% of the total respondents. Then when further examined, respondents with income greater than or equal to 10 million who do not have retirement savings are 2 or 1.2%.

To find out whether there is a relationship between income with retirement savings ownership, it can be seen on spearman correlation test where the significance value is $0.125 > 0.05$ meaning no relationship between monthly income with retirement savings ownership.

The last factor observed is the financial literacy and retirement savings ownership that can be seen in cross tabulation. The division of the financial literacy level is divided into 5 classes, namely very low, low, medium, high enough and high. For the largest number of respondents are in the medium class of financial literacy with a total of 56 respondents. For the largest number of retirement savings ownership in respondents with financial literacy is high enough, as many as 40 people or 23.5% of the total respondents.

Furthermore, based on Spearman correlation test results between financial literacy and retirement savings ownership, it can be seen that the significance value of $0.002 < 0.01$ so it can be concluded that there is a relationship between financial literacy and retirement savings ownership.

From the results of the number of children with retirement savings ownership there is a significant relationship. Cross tabulation results can be seen that those with children less than or equal to 1, the ratio between those who have retirement saving with those who otherwise is almost the same. But once the individual has more than or equal to 2 children, the ownership of the retirement savings is two to four times higher than those who have no retirement savings. It is possible that the need for the cost of Child Education still exists when the individual has retired.

From the results, there is significant relationship between the tenure of employment with retirement savings ownership there is a significant relationship. Cross tabulation results show that when an individual enters an employment period of less than or equal to 5 years, the amount of retirement savings equals to those with no retirement savings. However, when entering an employment period above 5 years, the percentage of retirement savings ownership is higher than the percentage with no retirement savings of 1.5 to 3 times. It is possible that individuals are increasingly aware that retirement is getting closer so they prepare their retirement savings.

From the results, there is a significant relationship as well between the financial literacy with retirement savings ownership. Cross tabulation results show that individuals with very low financial literacy have retirement savings rate of 4.7%. It is lower than

those without retirement savings with the rate of 7.6% from the total of 12.4% of respondents that have very low rate of literacy. Furthermore, the percentage comparison of the rate of ownership of retirement savings is higher than the percentage that has no retirement savings when the level of individual literacy is higher. The most distinguishable percentage difference is in the high level of financial literacy where individuals with retirement savings reach almost 3 times that of no retirement savings. This suggests that financial literacy is a driver of retirement savings. This is also in line with the results of previous studies which found that financial literacy has a relationship or effect on retirement planning or retirement savings.

In relation to the results of this study with the low penetration rate and the density of retirement fund products in Indonesia, it can be said that there are still incomplete programs to improve the financial literacy of Indonesian society especially for retirement products, either by the government or other stakeholders. In addition, it should also be noted that there is cultural community who make pension fund preparation by using traditional instruments such as investing in land, building land, gold or pledge of gold. Traditional investment is not recorded in the system but prevalently done by the community, especially people in West Sumatra who became the object of research. This is expected to cause the penetration rate and the density of retirement fund products to be low.

4 CONCLUSION

From the statistic test result in regards to socio-economic characteristic relationship to retirement savings ownership, it can be seen that there is a significant correlation between factor of number of children, tenure of employment and financial literacy with retirement savings ownership. Meanwhile, there is no significant relationship to marital status and the amount of monthly income. For

future research, it is very interesting to do the development of a vibrant society culture perform traditional ways of preparing for retirement. In addition, the development of research can also be done by using qualitative research methods with the intent to find more in depth how the true meaning of the relationship or the influence of financial literacy on ownership of retirement savings in Indonesia.

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