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Government officers: Do they have a better retirement planning?

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Abstract

This study examined the retirement planning of Indonesian civil servants (hereafter referred to as *Aparatur Sipil Negara, ASN*). The behavior of ASNs in preparing financial needs after retiring from government office was investigated in this study. The study found that financial literature plays an important role in ASN's financial planning. The study also revealed that ASNs who have better financial literature tend to do better in their financial management by having cash and pension budgets. The study finally showed that there is a positive relationship between ASNs' salary and their behavior to have non-*Taspen* (non ASN compulsory retirement saving) income. These ASNs are more likely to have a pension plan compared to those with a low salary. ASNs with a higher number of children are more likely to have a better cash budget.

Introduction

The dynamics of expenditure and needs in the future affect not only how individuals manage their current expenditures but also their views about the future, including retirement. Ideally, in retirement, a pensioner can spend their saving and investment to fulfill their needs. However, some pensioners face financial difficulties in their old age.

In Indonesia, a civil servant or ASN, is a person who receives a regular income from the government. An ASN's monthly income has a compulsory pension saving deducted, known as *Taspen*, managed by Taspen Company. This means that, automatically, an ASN makes a regular payment for their retirement funds.

However, the monthly pension earned by ASN pensioners is sometimes insufficient to pay for all their daily expenses and additional necessities such as their children's school fees, mortgages, and other expenses. Some ASN pensioners even still have debts that make their net income lower, which makes it harder to provide for their daily needs. The problem is that most ASNs do not have good retirement planning and still expect income from their Taspen paid monthly. The dynamics of necessities of life and inflation result in lowering their real income.

Since dynamic future needs exist, a contribution plan where employers and employees manage retirement planning, like in many countries, was put in place. Under such a system, an employee is given the authority to determine the type of investment and allows the ASN to choose for their retirement investments like the 401K retirement system in the United States. Some scholars have researched how this scheme can improve the workers' quality of life after entering the retirement

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period (Brown et al., 2017; Cohen & Schmidt, 2009; Huberman & Jiang, 2006; Pool et al., 2013).

Many factors influence the quality of retirement planning, including internal factors such as knowledge and behavior and external factors such as financial systems, families, and government. One of the factors that led to the lack of individual financial planning is financial literacy in financial literature. This literacy is concerned with financial knowledge, practices, behaviors, and products. Individuals with good financial literacy tend to have good financial planning (Allgood & Walstad, 2016; Bellofatto et al., 2018; Bianchi, 2018; Jappelli & Padula, 2013; van Ooijen & van Rooij, 2016).

The relationship of financial literacy with individual financial behavior will undoubtedly affect his/her retirement planning. Taspen is the institution that manages the pension fund for ASNs. Good retirement preparation expects cash flows not only from Taspen but also from other sources of income, prepared when the pensioner was still working, especially those who still have to pay for their children's school fees in their retirement. The optimal retirement planning is when a person is estimated not to experience negative cash flows. Pensioners face physical limitations and productivity in generating additional cash flows, so they need good planning before retirement.

This study analyzed financial literacy for ASNs who would retire in less than five years. This financial literacy becomes the basis for an employee, including ASN, to make investment decisions or save (Sevim et al., 2012; Van Rooij et al. 2011; 2011a). Our financial literacy study followed the methods used by the World Bank (World Bank, 2008) with three main components, namely, financial knowledge, financial behavior, and financial decision.

By identifying the ASN financial literacy data, the study then examined the relationship between the level of financial literacy and ASN retirement planning. There are hardly any studies discussing the relationship between financial literacy and retirement planning for government officials who receive income and pension funds from the government budget. Niu and Zhou (2017) argued that employees who have better financial knowledge tend to have better future planning.

This research also analysed how family characteristics influenced ASN retirement planning. Family characteristics will determine the financial burden of an ASN, especially their dependents in their retirement. An ASN who still has a school-age family member will undoubtedly face regular expenditure while their income remains limited. Financial characteristics determine employee financial behavior (Fonseca et al., 2012; Henager & Mauldin, 2015; Jorgensen & Savla, 2010; Van Rooij et al., 2011b). Additionally, this research also investigated the relationship between individual demographic factors in retirement planning. Previous studies investigated some characteristics including age, sex, education, salary and grade on personal financial decisions (Bannier & Schwarz, 2018; Ketkaew et al., 2019; Naruetharadhol et al., 2021).

This research is of importance because of the differences in the workers' characteristics in developed and developing countries. For example, with social factors, the social difference between workers in the developed world and countries with a high social relationship is crucial to determining one's financial planning. In the United States, individuals do not have an obligation to stay together with their parents in their old age. So, this encourages workers to plan their retirement period well due to needs such as house maintenance and health insurance, which they sometimes have to pay themselves. In countries with high social relationship values such as Indonesia and Singapore, children should care for their parents, so some parents may not need to make comprehensive retirement planning because some estimated spending will be provided by their families later. This research contributes to personal behavior-based theory on how government officers behave in their future consumptions and savings.

Literature Review

Theoretical Background

This research is related to the life-cycle hypothesis theory where expected consumption tends to be smooth over the year (Liu & Hu, 2013; Modigliani & Ando, 1957). It is also related to the Permanent Income Hypothesis in which individuals spend their income based on their expected future incomes. They will save their money when their income reaches their safe income. Therefore, retirement planning is related to expected future income of individuals. The planning is also related to personal behavior-based theory of planned behavior in which financial planning is influenced by attitude, norms and behavioral control.

Retirement Planning

Financial literacy is often associated with *financial wealth*, as suggested by the empirical study conducted by

Bannier and Schwarz (2018) using 1632 samples from the SAVE dataset from 2010–2013. They found that there is a positive relationship between financial literacy and welfare, especially for women. Interestingly, for men, confidence has a more significant influence on prosperity. Then, Ketkaew et al. (2019) demonstrated that financial wealth was related to retirement planning.

One study using massive datasets was the study performed by Van Rooij et al. (2011a) which connected the financial literacy of 1508 households in the Netherlands with their retirement planning. They found a positive relationship between financial literacy and retirement planning, where respondents who had better financial literacy tend to have better financial planning than those who had only basic financial literacy. Financial knowledge is a significant factor in determining the quality of retirement planning in which individuals with better financial knowledge tend to have better planning for their retirement.

Crawford (2013) investigated how the financial crisis affected the stock price and senior workers' investment in the U.K. for retirement planning. Using ELSA's survey data, the study found no significant link between the investment assets' value due to the financial crisis against retirement planning. There was no delay in the retirement plan resulting from the financial crisis in the U.K. from 2008–2009.

In retirement planning literature, financial literacy also affects not only the probability of having a retirement plan, but also the type of investment chosen. A study conducted by Niu and Zhou (2017) investigated 28,143 households in 29 provinces in China and revealed that there was a positive association between financial literacy and good retirement planning. They also found that respondents with high financial literacy tend to choose the money market for their retirement planning. Furthermore, Ketkaew et al. (2019) investigated retirement plans of 240 entrepreneurs in Thailand. Their study implied the positive relationship between expected future earning and retirement plan.

Financial Literature and Financial Decision

Calcagno and Monticone (2015), who investigated the importance of financial literacy in making investment decisions, found that there is a relationship between financial literacy and investor's decision in forming portfolios. Investors with high literacy are more confident when selecting securities for their portfolio. Gathergood and Weber (2017a) also claimed that there is a linear relationship between low financial literacy and poor portfolio choices. Poor, literate investors tend to choose low-return securities. The influence of literacy affects not only investor's behavior but also the development of the capital market in both the sale of equity and bond (Van Rooij et al., 2011c). In their empirical study, Van Rooij et al. (2011a) found that knowledge of securities attributes such as yield, risk, and interest rates influences investment decisions and impacts the behavior in purchasing securities in capital market. Furthermore, they also found that there is a relationship between literacy and demographic factors such as education and income in investing. Low literacy will result in poorer portfolio diversification in low-educated and lower-income investors.

Further, Noussair (2016) investigated the presence of behavioral anomalies in the making of investment decisions made by individuals. Over-/under confidence tends to occur in investor behavior. It is in contrast with the rational market literature proposed by Fama (1969, 1991, 1998), and the behavior theory developed by Campbell and Shiller (1988), Case and Shiller (1989), Shiller (1987; 2003). For behaviorists, investment decisions are heavily influenced by behavioral patterns or the psychology of investors. These attitudes are sometimes influenced by their knowledge of investment assets (Gallery et al., 2011).

The existence of retail investors also gained attention in financial literature. Some studies have tried to see the role of retail investors as a price mover. Barber, Odean, and Zhu (2009) concluded that retail investors' selling activities could underprice the security. They also claimed that the role of retail investors is significant on price changes. Barber et al. (2009) also found that there is a significant role played by retail investors in option prices, whereby retail investors' purchases increase.

The studies of the relationship between financial literacy and financial behavior are widely discussed in financial literature. These include the empirical study conducted by Grohmann (2018) on the legal community's financial literacy in Thailand. He found that the middle-income families in developing countries have the same financial literacy as those in developed countries. High welfare and educated communities tend to have high financial literacy. Interestingly, this study found no difference in financial literacy based on gender, where there are no differences in financial literacy between men and women. Financial literacy is related to the type of investment chosen, where respondents who have high financial literacy tend to choose higher-risk investments such as stocks.

Gathergood and Weber (2017a), who investigated the relationship between financial literacy and *mortgage ownership* by using a sample of 350,000 households in England and Wales, found that young households with sound financial literacy tend to have a home compared to households with financial literacy. The study also found that there is a relationship between financial literacy and the selection of mortgage types. Respondents who have high financial literacy values tend to choose a low-risk mortgage. Conversely, respondents who have low literacy are likely to get stuck on high-risk mortgages.

Niu et al. (2020) studied the relationship of financial literacy and retirement planning. They found a significant relationship between those two variables. Gallego-Losada et al. (2021) also reported the importance of financial literacy in retirement planning of government officers. Those who have good financial literacy are more likely to have a good personal financial planning, especially for retirement planning. Ansar et al. (2019) also found the importance of financial literacy in determining personal financial management. However, Tan and Singaravelloo (2020) found no relationship between financial literacy and retirement plans of government officers in Malaysia.

Methodology

This study used the descriptive analysis and hypothesis testing. Hypothesis testing was conducted to see the influence of the financial literacy variable and family characteristics on the Indonesian civil servant retirement plan. The combination of the two methods aimed to qualitatively and quantitatively take the research conclusions through the data obtained from surveys and interviews.

The population of this research consisted of Indonesian civil servants (ASN), especially West Sumatra civil servants. The purposive sampling method was employed using the following criteria: civil servants retiring in ten years or less. This aimed to reduce the selection of bias that would impact the quality of research results. It means that by regulation No. K.26-30/V.119-2/99 dated October 3, 2017, civil servants who fell within this timeframe were those aged 49 years old for non-functional and above 54 for functional categories. The second variable consisted of those having a family. Accordingly, 115 ASNs from some government institutions were surveyed.

For retirement planning, some proxies that described ASN financial planning from a different perspective were used. First, *non-Taspen saving* was used for our dependent variable. Then, *cash budgeting,* and pension budgeting were used for our dependent variable. Those three variables explain our retirement plan variable.

This research tested the hypotheses with the following model:

$$\text{Retirement Plan} = a_i + b_i \text{FinLit} + c_i \text{ASNChar} + d_i \text{FamChar} + \varepsilon_i$$

Where Retplan is retirement planning, Finlit is Financial Literacy, ASNChar is ASN Characteristics including *MPP, Male, Grade,* and *Education,* FamChar is Family Characteristics including *QChildren, Qfamily, Family Income, PNS Salary,* and *Children* in Retirement and ε_i is Standard Error. We employed above multiple regression model since we used cross-sectional data.

Results and Discussion

Descriptive Analysis

Table 1 shows the respondent's literacy rate. The average financial literacy rate of respondents was 25.79 percent, with a standard deviation of 18.97 percent. It shows that ASN financial literacy was still relatively low, even lower

Table 1 Financial literacy

Characteristics		Mean (%)	*SD* (%)	Min (%)	Max (%)
All		25.79	18.87	0	80
Gender	Male	27.56	18.35	0	60
	Female	22.39	19.62	0	80
Education	High School	25.99	18.08	0	66.67
	Diploma	24.76	20.98	0	53.33
	Bachelor	24.63	19.78	0	80
	Magister	34.29	19.02	0	53.33
Time to Retirement	6 to 10 years	24.62	17.48	0	60
	1 to 5 years	27.35	20.65	0	80

than the national average of 53 percent. Some of them had good literacy, where the maximum rate was 80 percent. However, it is far below the national target of 83 percent.

The respondent's gender characteristics were analyzed. Male ASN were more likely to have higher financial literacy. Their financial literacy was 27.56 percent, higher than females' average financial literacy, which was only 22.39 percent. Based on the educational background, there was no significant difference between the financial literacy of respondents who held high school, diploma, or bachelor degree. However, ASNs who held a master degree tended to have better financial literacy, where the average financial literacy was 34.28 percent.

Table 2 shows the research variables by explaining the mean value, deviation standard, minimum, and maximum of the research variables. *Non-Taspen* variable shows the average ASN respondents who did not have non-*Taspen* savings. Most of them used *Taspen* as a source of income in their retirement days. For *the Cash Budget* variable, the majority of ASNs had a cash budget. Initially, this suggests that they had planned for future income and expenditures. As for the retirement budget, 50 percent of ASNs had a pension budget. The respondent's financial literacy was very low compared to the acceptable financial literacy standards of the Indonesian Financial Service Authority (OJK) version (60%). The average financial literacy of respondents was only 25 percent with a maximum of 67 percent. This research even included an ASN who had zero literacy. For the retirement preparation period (MPP), it can be seen that the average respondent would retire within three years.

The average ASNs who would enter the retirement period during current research included respondents having *an IIId* grade and a background of high school education and diploma. The average number of children owned by ASNs was three children with a maximum of 7 children. At the same time, the number of family liabilities was not very different from the number of children. The average number of ASN dependents was three people; it shows that some ASNs no longer had child dependency. Most respondents claimed that they still had a child's liabilities in their retirement time. Most respondents stated that they still had to finance their children when they retired. They claimed that some of their children would still be in school-age when they retired.

Multivariate Analysis

The relationship between financial literacy variables and ASN characteristics towards their retirement planning is explained in multivariate analysis with the multiple regression model. Table 3 explains the regression analysis of factors affecting the ownership of investments or savings of *non-Taspen* by using logit regression methods which aims to see the explanatory variables' influence against the ASN probability of having a *non-Taspen* investment. The literacy variable did not significantly influence ownership, which was found to be an insignificant coefficient. The *MPP* variable also did not influence the probability of *non-Taspen* ownership. There was also no significant difference between women and men in possession of non-Taspen investments, evidenced by Male variables' insignificant coefficient.

Table 2 Descriptive analysis of variables

Variables	Mean	Var	*SD*	Min	Max
Non-Taspen	0.40625	0.248992	0.498991	0	1
Budget Plan	0.625	0.241936	0.491869	0	1
Pension Budget	0.5	0.258065	0.508001	0	1
Financial Literacy	25.20831	420.7428	20.51202	0	66.667
MPP	3.21875	0.69254	0.83219	1	4
Male	0.3125	0.221774	0.470929	0	1
Grade	7.375	3.33871	1.827214	4	11
Education	2.90625	0.990927	0.995453	2	5
QChildren	3.0625	1.995968	1.412787	1	7
QFamily	3.15625	3.039315	1.743363	1	8
Family Income	2.71875	0.853831	0.92403	2	5
PNS Salary	0.25	0.193548	0.439941	0	1
Children in Retirement	0.8125	0.157258	0.396558	0	1

Table 3 Logit regression on non-Taspen saving

Dep: Non-Taspen Income	1	2	3
Financial Literacy	0.00322		-0.0139
	(0.30)		(-0.97)
MPP		0.0405	0.0431
		(0.44)	(0.46)
Male		-0.139	-0.110
		(-0.24)	(-0.19)
Grade		0.207	0.245
		(1.12)	
in possession ofn		-0.0506	-0.102
		(-0.18)	(-0.36)
QChildren		-0.174	-0.197
		(-0.79)	(-0.89)
QFamily		-0.278*	-0.287*
		(-1.81)	(-1.87)
Family Income		-0.115	-0.00519
		(-0.32)	(-0.01)
PNS Salary		1.827***	1.917***
		(3.25)	(3.31)
Children in Retirement		0.0487	0.0360
		(0.08)	(0.06)
Constant	-0.791**	-1.133	-1.156
	(-2.30)	(-0.66)	(-0.67)

The employee group also did not influence the probability of non-Taspen investment ownership. An insignificant coefficient was also found in the Educational variable, meaning there was no significant influence of *education* variables on having non-Taspen savings. Children, Q *children*, also did not have a significant coefficient, as well as Family *Income*. Meanwhile, the number of dependents affected ASN retirement planning. ASNs who had a significant number of dependents tended to have a low probability of having non-Taspen savings. It can be seen from the negative coefficients -0.278 (Model 2) and -0.287 (Model 3), significant at .10. Simultaneously, the single income source from civil servant salary had a significant influence on non-Taspen ownership. The coefficient on the variable *civil servant* was 1.827 (model 2) and 1.917 (Model 3), significant at 1 percent. So, two variables affected the ownership of the non-*Taspen* savings: the total liabilities of ASN and income source.

Table 4 shows how big a role financial literacy plays in the making of the budget for civil servants. Model 1 demonstrated a positive coefficient of 0.052, significant at 1 percent level, for the *financial literacy* variable. These results are consistent with Model 3, which also had a significant 0.0456 positive coefficient at a 1 percent level. These results demonstrate that ASN with financial literacy are better and more likely to draft retirement budgets because they know how the effects of interest rates and inflation affect their monetary value. By understanding financial literacy, they will know the benefits and risks of an investment, consistent with Niu and Zhou (2017) findings.

We found a significant link with the ASN salary on the preparation of the retirement budget. ASN with higher salaries tends to prepare a pension budget compared to the ASN with a lower salary. The coefficient was positive 1.154, significant at 5 percent on model 2 and 1.061 significant at 5 percent on Model 3, suggesting a positive relationship between ASN salary and the likelihood of preparing a retirement budget. Meanwhile, the *child-dependent* variables did not have a significant relationship with preparing the retirement budget.

Conclusion and Recommendation

This research aimed to conduct a retirement planning investigation on the ASN entering retirement age. The retirement period, where an individual is no longer productive, undoubtedly becomes a burden, especially in

Table 4 Logit regression on pension budget

Dep: Pension Budget	1	2	3
Financial Literacy	0.0520***		0.0456***
	(4.17)		(3.18)
MPP		0.0181	0.000681
		(0.25)	(0.01)
Male		-0.268	-0.309
		(-0.52)	(-0.56)
Grade		0.206	0.120
		(1.34)	(0.74)
Education		-0.339	-0.170
		(-1.34)	(-0.63)
QChildren		-0.0757	-0.0188
		(-0.37)	(-0.08)
QFamily		-0.0311	-0.0165
		(-0.23)	(-0.11)
Family Income		0.207	-0.161
		(0.65)	(-0.45)
PNS Salary		1.154**	1.061**
		(2.29)	(2.00)
Children in Retirement		-0.735	-0.663
		(-1.46)	(-1.26)
Constant	-1.362***	-0.661	-0.841
	(-3.64)	(-0.44)	(-0.53)

fulfilling financial needs. A random survey was conducted with ASN entering retirement age to know their financial literacy and plan of their finances.

From the survey results on the 115 ASN entering retirement age, if their financial literacy was relatively low, they obtained on average only 25 percent, far below the OJK literacy target of about 60 percent. This low financial literacy is mostly in their knowledge of the *time value of* money. However, knowledge about TVM is essential because it will explain how inflation impacts their real income.

The subsequent survey also found how ASN did financial planning for life in their retirement. This research found that the majority of ASNs relied solely on the savings of their Taspen, which is cut monthly from their salary to meet their financial needs in the pension lifetime. Only one-third of the respondents had non-Taspen retirement savings. Also, very few of the ASN planned the cash budget and retirement budget. That behavior is caused by the poor financial planning among ASN for their retirement.

The study found the importance of the role of financial literature in ASN's financial planning. The ASN with better financial literature, tend to be better in their financial management, drafting a cash budget and retirement budget, while the family characteristics that relate to the individual financial contemplation and the population is the number of dependents.

Our research supported the behavior-based theory, where an individual behaves toward their future financial decisions depending on literacy, and personal characteristics. In practice, the government should have some programs to enhance ASNs financial literacy in order to improve personal skills in managing incomes, investments and savings.

Conflict of Interest

There is no conflict of interest.

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