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The Effect of Demographic Factors on Indonesian Consumers' Choice of Investment Products

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Abstract

Research on the effects of demographics on investment decisions is part of the overall map of Indonesian consumer behavior, which is different from consumer behavior in other countries. The purpose of this study is to analyze the effect of demographic factors on consumers' decisions to choose kinds of investment. In this study, four categories of investment options were considered: savings, stocks, gold, and other investments, the latter representing many other sub-types of investment. The demographic variables were gender, marital status, age, income, employment, education, and social class, with the amount of investment as another kind of variable. In terms of methodology, this research is a causal comparison that focuses on the demographic factors and types of investment. Data were taken from 631 respondents from various regions in Indonesia through an online survey using accidental sampling techniques. Data were analyzed using multinomial logistic regression analysis. This study found that the amount of investment affects the choice of investment category (savings, stocks, gold, etc.). Variables such as gender, marital status, education, and income, significantly influence at least one choice from a variety of investments. The gender variable only affects the choice of gold as an investment. Meanwhile, the variables of marital status and education level affect the decision to choose stocks. Income affects the decision to choose savings. Other variables, such as age, occupation, and social class, do not significantly affect investment choices. This research is expected to benefit investment managers incorrectly segmenting and targeting clients. The limitation of this research is that investment decisions are only based on the four categories of investment options: savings, stocks, gold, and other investments.

Keywords: Investment, Demography, Decision making, Consumer, Indonesia



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I. INTRODUCTION

The individual's decision to invest is very important for many reasons. It can take the form of a high involvement decision because it is related to value and returns. Investment is the commitment of a person's funds to derive income in the form of interest, dividend, premiums, pension, benefits, or appreciation in the value of their capital. Shares/stocks, debentures, post office savings certificates, and insurance policies are all investments in the financial sense (Bishnoi, 2014).

Demographic factors are an important factor in investment decisions (Geetha & Ramesh, 2012; Sharma, Douglas, & Jaworski, 2017). Several researchers have examined the relationship between demographic variables and investment. Few, however, have covered several demographic factors at once. Bishnoi (2014) linked demography with investment objectives, namely: safety, tax investment, and capital appreciation. Perera (2016) stated that demographic factors are related to market factors, risk-bearing capacity, lifestyle, and behavior. Meanwhile, Sadiq & Ishaq (2014) linked investment to investors' level of risk tolerance.

Singh & Yadav (2016) suggested that further research should focus on other demographic variables. Various studies show that demographic factors can significantly influence investment decisions. Bajaj & Kalra (2018) found that income, education, and gender were not significant in making investment decisions. These results are different from those of Shadiq & Ishaq (2014) and Geetha and Ramesh (2012).

This study is an analysis of how demographic factors and preferences for the category of investment affect investment decisions on savings, stocks, gold, and other types. The two main classes of investments are fixed-income investment (such as bonds, fixed deposits, preference shares) and variable income investment, such as business ownership and property ownership (Geetha & Ramesh, 2012). Traditionally, for many ethnic groups and societies in Indonesia, the concept of investment from excess income is realized in other forms of investments such as land, gold, farm animals, boarding houses, and so on.

The relationship between demographic factors and investment decisions has several implications. The study implies that income and investment objectives have a significant association between them (Bishnoi, 2014). The association between age and choice of investment objectives revealed a significant impact of age on the choice of investment objectives. Sarwar & Afaf (2016) stated that investment decision-making is very important for retail investors because it can bring them high profit or heavy losses.

II. LITERATURE REVIEW

Several previous studies show that demographic factors are inherent in the effects of investors' capacity for risk aversion and, thereafter, influence their decisions (Lodha & Baser, 2016). On the other hand, Sarwar & Afaf (2016) stated that demographic factors are generally not related to investment decisions. Differences in the results of the authors' research make the intervention of demographic factors an interesting study in terms of different types of investment options.

Demographic factors have a varied role in investment decisions. The top three most significant attributes are age, income level, and investment experience (Mak & Ip, 2017). The variables of occupation, income level, age, and marital status are the dominating demographic variables in investor behavior in the real estate market (Lodha & Baser, 2016). Meanwhile, Khanam (2017) found that age, education level, occupation, and income level have a significant relationship with other categorical variable investment decisions during dividend declaration. Lan, Xiong, He, & Ma (2018) stated that age, education, and income all correlate positively with the investment scale of Chinese investors' decision behavior.

Several studies have shown a relationship between demographic factors and various aspects of investing behavior. Gender significantly affects investment objectives (Bishnoi, 2014), the expectation of return (Hemalatha, 2019), behavior (Perera, 2016), and investment patterns (Chavali & Mohanraj, 2016). The objective of investment depends significantly on marital status. Age is a dominant factor in real estate investment decisions (Lodha & Baser, 2016; Afroze, Rahman, Bristy,

& Parvin, 2015). Young consumers tend to like return on investment and asset creation (Ramanathan & Meenakshisundaram, 2015). Occupation significantly affects investment objectives (Bishnoi, 2014; Hemalatha, 2019). Investment objectives differ across income. Monthly income has a significant relationship with decision making (Sarwar & Afaf, 2016). In Kadariya's (2012) research, the Nepal stock market had a high proportion of educated investors, most of whom are self-employed small investors.

The role of demographic factors in investment decisions is very interesting. This study will focus on the role of gender, marital status, age, income, occupation, education, and social class, as well as preference factors for the amount of investment. Social class was added as a variable because it was rarely included in most previous studies. Ahmed, Khan, and Samad (2016) found that the Indonesian middle class has also started to purchase financial products such as mortgages and mutual funds. Another study found that savings are still an important aspect for households under current economic conditions (Stranford and Cowling, 2016).

This research tested the following alternative hypotheses:

Ha: demographic factors, namely gender, marital status, age, income, occupation, education, and social class, and the choice of the amount of investment affect the decision to choose investment savings, stocks, gold, and other investments.

III. RESEARCH METHODOLOGY

This is comparative causal research. Research variables include demographic factors, the choice of the amount of investment, and the decision on the type of investment product. The demographic factors chosen were gender, marital status, age, family status, income, occupation, education, and social class. Investments in savings, stocks, gold, and other investment products were factors in the decision to choose investment products in this study.

The variable of choice for the amount of investment is the covariate variable in this study. Online research questionnaires were distributed to obtain data from 631 Indonesian consumers in 27 provinces in Indonesia. The research instrument took the form of closed questions. The respondents in this research were consumers in Indonesia above 17 of age or were married and had incomes. The five investment product categories were savings investments, deposits, securities, gold, and other investments. The data were analyzed using Multinomial Logistic Regression to examine the effect of demographic factors on decisions to select investment products.

IV. FINDING AND DISCUSSION

The research respondents were 631 consumers of >17 years of age and had incomes. The following table summarizes the description of the respondent.

Table 1: Respondent description

Demographic variables	N	Marginal Percentage (%)	
Investment choice	Savings	368	58.3
	Shares/stocks	33	5.2
	Gold	67	10.6
	Other	163	25.8
Sex	Male	306	48.5
	Female	325	51.5

Marital Status	Married	485	76.9
	Unmarried	146	23.1
Age	17-35	267	42.1
	36-55	316	49.8
	>55	51	8.0
Education	Bachelor degree	405	63.9
	High school	192	30.3
	Elementary school	37	5.8
Income	High	94	14.8
	Middle	202	31.9
	Low	338	53.3
Occupation	Managerial	40	6.3
	Professional	329	51.9
	Technical	105	16.6
	Other	160	25.2
Social class	Upper	33	5.2
	Middle	354	55.8
	Low	247	39.0

Source: Source: Author's own research (2019)

IV.1. Examining the effect of gender and marital status on investment preferences

When viewed from the Goodness-of-Fit, the Chi-Square value = 135.601 (Sig = 0.000), this model was declared fit for further analysis. Based on the R-square results, the Nagelkerke R Square value = 0.215. Demographic independent variables can explain 21.5 percent of the dependent variable investment choices. Based on the value of the Likelihood Ratio Tests, the choice of the number of investments, gender, and marital status has a significant effect on the decision to choose the type of investment (significance value <0.05). This means that the three independent variables significantly affect at least one investment choice.

Equation:

$$\begin{aligned} \text{Ln Savings} &= 3.113 - 0.948 \text{ Investment}^{**} - 0.290 \text{ Sex1} - 0.172 \text{ Status1} \\ \text{Ln Stocks} &= 1.224 - 0.686 \text{ Investment}^{**} - 0.411 \text{ Sex1} - 1.077 \text{ Status1}^{**} \\ \text{Ln Gold} &= -0.997 - 0.377 \text{ Investment}^{**} - 1.015 \text{ Sex1}^{**} - 0.569 \text{ Status1} \end{aligned}$$

Of the three forms of investment, the investment preference variable has a significant effect on the choice of investment in the gender and marital status groups. The gender variable only affects the choice of gold investment (exp B = 0.362), which means that the probability of men choosing gold investment is 0.362 times compared to female consumers. In stock investment, the variable of marital status has a significant effect; married consumers are more likely to choose stock investments by 0.341 times higher than unmarried consumers.

IV.2. Examining the influence of demographic variables of age, education, occupation, income, and social class on preferences for choosing types of investment

Based on the results of Goodness-of-Fit, it was found that the Chi-Square significant > 0.05, namely 0.058, which means that the next equation was not significant at the 0.05 level, but significant at 0.1. Based on the results of the R-square, the value of Nagelkerke R Square = 0.350.

Demographic independent variables explain 35 percent of the dependent variable investment choices.

The variables of investment preference, education, and income have a significant effect (Sig < 0.05) on at least one investment choice. Other variables, namely age, occupation, and social class, have no significant effect. The investment preference variable has a significant effect on the selection of savings, stocks, and gold. In savings investment, the income class variable has a significant effect on the choice of savings. Based on exp (B) for choosing savings, middle-educated consumers are 1.9 times more likely to choose savings than other investments. Based on occupation, the higher the level of work to the level of managerial work, the greater the possibility of choosing savings-investment over other investments (exp-B value up to 2.013).

Age, education, occupation, income, and social class significantly affect the choice of investment. In saving investment, the middle and high-income consumer has a significant (Sig < 0.05) effect on the choice of savings compared to the low income. The consumer with high school education, compared to other education groups, tends to choose savings 1.9 times (Exp B = 1.914) higher than other investments. The more consumers that have a managerial level of work than a technician, the more likely they are to choose higher savings than other investments.

The level of education significantly affects the selection of stock investments compared to other investments. Although not significant, the upper social class tends to choose stock investments five times higher than other investments (exp B = 5.329). Demographic factors (age, education level, income, type of work, social class) do not significantly affect a choice to invest in gold.

Equation

$$\begin{aligned} \text{Ln Savings} &= 3.789 - 0.525 \text{ Investment}^{**} - 0.973 \text{ Age1}^{*} - 0.882 \text{ Age2}^{*} - 0.457 \text{ Edu1} + 0.649 \\ &\quad \text{Edu2} - 1.692 \text{ Income1}^{**} - 0.867 \text{ Income2}^{**} + 0.700 \text{ Occupation1} + \\ &\quad 0.472 \text{ Occupation2} + 0.284 \text{ Occupation3} - 0.773 \text{ ISP1} - 0.320 \text{ ISP2} \end{aligned}$$

$$\begin{aligned} \text{Ln Shares/} \\ \text{stocks} &= -16.437 - 0.448 \text{ Investment}^{*} - 0.161 \text{ Age1} - 0.668 \text{ Age2} + 17.333 \text{ Edu1}^{**} + \\ &\quad 18.112 \text{ Edu2}^{**} - 1.745 \text{ Income1} - 0.266 \text{ Income2} - 1.257 \text{ Occupation1} - 0.804 \\ &\quad \text{Occupation2} - 0.806 \text{ Occupation3} + 1.673 \text{ ISP1} - 0.007 \text{ ISP2} \end{aligned}$$

$$\begin{aligned} \text{Ln Gold} &= -16.225 - 0.398 \text{ Investment}^{**} - 0.119 \text{ Age1} - 0.369 \text{ Age2} + 16.542 \text{ Edu1} + \\ &\quad 16.067 \text{ Edu2} - 0.058 \text{ Income1} + 0.029 \text{ Income2} - 0.390 \text{ Occupation1} - 0.111 \\ &\quad \text{Occupation2} - 0.461 - 0.455 \text{ ISP1} - 0.661 \text{ ISP2} \end{aligned}$$

With regard to the result of Exp (B) on savings-investment, persons in managerial occupations have a tendency to invest in savings more than other investments. In the selection of stock investments, the level of education significantly affects the selection of stock investments compared to other investments. The results of research on education levels are found to have a significant effect on a stock investment, such as in the research of Bishnoi (2014), Sarwar & Afaf (2016), Afroze, Rahman, Bristy, & Parvin (2015), Khanam (2017), and not significant in the findings of Mak & Ip (2017). Secondary education tends to choose to invest in gold more than other groups and other types of investment. Meanwhile, gold investment is not influenced by demographic variables other than gender.

The results showed that the investment preference variable had a significant effect on the choice of investment in gender and marital status. Among demographic factors, gender only affects the choice of investing in gold, while marital status has a significant effect on choosing to invest in a stock. These results are in line with Mak & Ip (2017), but it is different from Sadiq & Ishaq (2014). Men are said to be more risk-takers than women (Patel & Modi, 2017). In terms of marital status, Bishnoi (2014) states that there are differences in the order of preference for investment objectives between married and unmarried respondents.

Geetha & Ramesh (2012) generally associate the level of education with investment decisions. Meanwhile, several studies have linked the level of education with stock investment (Khanan, 2017; Mak & Ip, 2017). This study confirms that the educational cohort only affects stock selection. Higher educated consumers tend to be higher than other educational groups in choosing stocks than other investments.

Income is referred to as one of the predictors of investor behavior (Lan, Xiong, He, & Ma, 2018). For savings investment, medium and high-income consumers tend to be significantly more likely to choose savings than low-income consumers. Nguyen & Schüßler (2012) mentioned income has an effect on investment attribution, and Sadiq & Ishaq (2014) stated that it affects the choice of investment risk. Meanwhile, Bajaj & Kalra (2018) stated that income does not have a significant effect on investment decisions.

In this study, the occupation is related to the choice of savings-investment, although it is not significant. The more consumers have a managerial level of work than a technical level, the more likely they are to choose savings than other investments. In Lodha and Baser's (2016) research, the type of work determines the choice of real estate investor behavior. On research, Hemalatha (2019) work distinguishes investment objectives and investment risk factors (Sadiq & Ishaq, 2014).

Age, occupation, and social class do not significantly affect all types of investment choices. Even though it is not significant, the upper social class tends to prefer stock investments over other investments. Demographic factors, namely age, education level, income, type of work, and social class, do not have a significant effect on the choice of gold investment.

V. CONCLUSION AND FURTHER RESEARCH

This study aimed to find the relationship between demographic factors and decisions to choose investment products such as stocks, gold, and other investments. The decision to invest in savings is influenced by the preference of the number of investments and income groups. High income tends to choose savings over other income groups and other types of investment. Stock investment decisions are influenced by investment preference and marital status, and education level. Married consumer and middle and high educated groups tend to prefer stock investment. Gold investment decisions are influenced by gender and by the amount of investment. The variables of investment preference, gender, education, and income have a significant effect on at least one investment choice of savings, gold, stocks, or others. Other variables, namely age, occupation, and social class, do not have a significant effect on investment choices.

Since behavioral finance is a new and promising branch of finance, financial advisors should scan the behavior of investors and their preferences (Singh & Yadav, 2016). Many researchers have discussed investment behavior and attempted to enhance the understanding of people managing investments in different ways (Rizvi & Abrar, 2015). However, because investment decisions are individual, behavioral finance is necessary to reveal the factors that affect investors' decisions and choice of options (Kanten, Girgin, & Kurt, 2018). In the future, these demographic indicators could

become more important due to the shifting demographic reality of the current world (González, 2017).

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