THE EFFECT OF FINANCIAL LITERACY AND DEMOGRAPHICS ON THE SAVING BEHAVIOR OF THE MILLENNIAL GENERATION

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ABSTRACT

This study aims to determine the influence of financial literacy and demographics on the saving behavior of the millennial generation in Kupang City. This research was conducted by distributing online questionnaires and face-to-face to the millennial generation in Kupang City. In this study, as many as 100 respondents were used. The researcher used dummy variable regression. The results of the analysis show that financial literacy, dummy income 2 and 3, education level, age, and gender do not have a significant effect on the saving behavior of the millennial generation in Kupang City. Dummy income 1 has a significant effect on the saving behavior of the millennial generation in Kupang City.

Keywords: Demographics, Financial Literacy, Saving Behavior.

INTRODUCTION

Based on the 2020 population census, the total population of Indonesia is 270.20 million people. The population is dominated by generation Z (27.94%) and millennials (25.87%) (Central Statistics Agency, 2021a). According to Howe and Strauss (2000), millennials were born in 1982-2000 or aged 22-40 years in 2020. Millennials belong to the working age. The highest working age range in Indonesia is at the age of 20-44 years old (Central Statistics Agency, 2021b). In East Nusa Tenggara, which is the province of Kupang, the working age is in the range of 20-34 years old (Central Statistics Agency of East Nusa Tenggara, 2021).

The millennial generation in Kupang City generally still lives together with their parents so their daily needs are still borne by their parents. Thus, the expenses of the millennial generation in Kupang City tend to be allocated to their wishes.

Based on data from the Financial Services Authority through the National Survey on Financial Literacy and Inclusion (SNLIK), it was found that East Nusa Tenggara province became the province with the lowest level of financial literacy at 27.82% in 2019 (Financial Services Authority [OJK], 2020). This shows that financial literacy in East Nusa Tenggara is still relatively low.

Saving behavior is a person's behavior in setting aside the income earned to be stored and used in the future (Rahayu, 2020). Research conducted by Alvara Beyond Insight on the millennial generation in Indonesia found that the largest expenditure of the millennial generation is allocated for daily needs, namely 57.3% while 8.85% is for saving (Ali & Purwandhi, 2020). The percentage of savings allocated by the millennial generation in Indonesia is still relatively low because the minimum for someone to allocate their income is 20% per month for savings (Thompson, 1993).

Demographics also affect saving behavior. A study conducted by Mori (2019) said that age and education level affect saving behavior. Another study conducted by Amari et al., (2020) in France showed that age, gender, income, and education level affect saving behavior. In this study, four demographic variables will be used, namely income, education level, age, and gender.

As the income received increases, it will affect the nominal amount to be saved (Dynan et al., 2004). However, the income received by the millennial generation in Kupang City tends to be used for daily needs. It is not uncommon to find millennials in Kupang City who can spend all their income per month.
The level of education indicates how high a person has already taken his education (Azra, 1999). The higher the level of education a person achieves, the greater the opportunity to get a job and earn a high income (Aydemir, 2021).

Age is the length of life of a person whose calculation is calculated from birth (Ubaidiblah & Asandimitra, 2019). With age, the more responsible a person is in terms of finances.

Gender is the difference between males and females biologically from birth (Hungu, 2017). Men tend to save for long-term needs compared to women.

**LITERATURE REVIEW**

**Theory of Planned Behavior**

The theory of Planned Behavior (TPB) is a development of the theory of reasoned action (TRA). This theory looks at the behavior that occurs in a person. In the TPB, it is explained that a person’s behavior occurs due to intentions, these intentions are influenced by three factors, namely:

1. Attitude toward the behavior is a person’s attitude in responding to behavior both beneficial and detrimental to him.
2. Subjective norm is the social pressure or expectation that others give someone to perform or reject a given behavior.
3. Perceived behavior control is the belief in nature carrying out a behavior based on experiences both inhibiting and supportive.

**Saving Behavior**

Saving behavior is a behavior that is carried out by setting aside part of the income it has for future needs (Triardiyan & Dewi, 2014). Saving is done for certain purposes in the future such as emergency funds, pension funds, long-term needs, education funds, and so on according to one's needs (Dew & Jing Jian, 2013). For millennials, saving also has the benefit of being able to manage personal finances so that excessive spending does not occur (Chalimah et al., 2019). Based on research conducted by Thung et al., (2012), there are three indicators of saving behavior, namely:

1. Saving action is the act of someone setting aside their income for savings.
2. Saving decision.
3. Saving for future needs is the purpose of saving to meet future needs.

**Theory of Life Cycle Hypothesis**

The Theory of Life Cycle Hypothesis (LCH) was developed by Modigliani (1961). This theory explains that a person makes savings at a time when his income is high. This theory also explains that in addition to income, there are age factors that can influence. There are three periods, namely:

1. Unproductive period, that is, the period in the 0-20s years. The expenses in this period are still borne by the parents.
2. The productive period is the period in the 20s to 60s. In this period a person has already got a job so he already has his income. Therefore, a person will set aside part of his income for savings.
3. Unproductive period, that is, the period after the 60s. In this period a person already experiences such a physical decline that it is not possible to work. Therefore a person does not make such savings as in the productive period.

**Financial Literacy**

According to Chen & Volpe (1998), financial literacy is the knowledge that a person has in understanding the basic concepts of finance and being able to apply them. By understanding financial literacy, a person can allocate his finances not only for current needs but also to prepare for future needs so that financial literacy can improve one's standard of living (Lusardi & Olivia, 2014). According to Chen & Volpe (1998), there are four indicators to measure financial literacy, namely:
1. General personal finance knowledge, namely basic knowledge related to finance, making budgets, and making good financial decisions (Lusardi & Olivia, 2014).
2. Saving and borrowing, that is, a person's understanding of savings and loans. Savings is income set aside for future use. Meanwhile, a loan is made by someone if they experience a lack of funds to pay for something.
3. Insurance is a person's understanding of the purpose, benefits, and risks of buying insurance products (Shaari et al., 2013).
4. Investment is to place a certain amount of money used to buy financial instruments to make a profit (Shaari et al., 2013).

**Income**

Income is the income that a person receives for the results of work during a certain time in Rupiah units (Sukirno, 2006). In this study, four categories of income will be used, namely:
1. IDR 1,000,000 – IDR 2,500,000
2. IDR 2,500,000 – IDR 4,000,000
3. IDR 4,000,000 – IDR 5,500,000
4. IDR 5,500,000 – IDR 7,000,000

**Education Level**

Education is a process and method of teaching and learning by imparting knowledge to others through procedures that last relatively long (Ekosusilo, 1990). Based on Law No. 20 of 2003 concerning the national education system (2003) there are three levels of education in Indonesia, namely:
1. Formal Education is a structured and tiered education starting from basic education, junior secondary education, upper secondary education, higher education (Diploma), and colleges such as Undergraduate.
2. Non-Formal Education, including study groups, community learning activity centers, and course institutions.
3. Informal education is education that comes from environmental conditions and upbringing from the family and is carried out independently.

In this study, formal education was used including, elementary, junior high, high school, Diploma, and Bachelor.

**Age**

Age can be interpreted as the length of time a person has lived to the present (Hoetomo, 2005). According to (the Central Statistics Agency of East Nusa Tenggara, 2021) there are several age groups, namely the age of 20-24 years, the age of 25-29 years, the age of 30-34 years, the age of 35-39 years, the age 40-44 years, and so on. In this study, 22-34 years of age were used.

**Gender**

Gender is the difference between males and female biologically from birth (Hungu, 2017). The existence of these differences causes differences in making decisions. Men are not afraid of possible risks but are different from women. Women have a low-risk tolerance compared to men (Warshawksy-Livne et al., 2014).

**Relationships Between Concepts**

**The Effect of Financial Literacy on Saving Behavior**

Based on the TPB, the more a person understands one's financial literacy, the more someone makes savings. This is due to the background factor, namely information in the form of knowledge that will influence a person's behavioral intentions and form a behavior (Ajzen, 1991). This knowledge is in the
form of financial literacy that a person has. When a person has positive intentions, he will stick to his attitude which results in the emergence of behavior. A study conducted by Delafroz & Paim (2011) showed that a person who only has a low level of financial literacy is likely to experience financial-related problems in the future. However, it is different from someone who has a high level of financial literacy.

**The Effect of Income on Saving Behavior**

Based on the Theory of Life Cycle Hypothesis that in the productive period, a person will get a high income which will affect saving behavior (Modigliani, 1961). The income a person receives within a certain time with a certain nominal will affect the nominal amount to be saved (Dynan et al., 2004). Another study conducted by Delafroz & Paim (2011), found the conclusion that a person who has a high income is likely to save.

**The Effect of Education Level on Saving Behavior**

The higher the level of education a person takes, the better decision-making is compared to someone who is poorly educated. A person who is highly educated has a more mature mindset or outlook because one of the sources of knowledge he derives from the education pursued (Mahdzan & Tabiani, 2013). This research is supported by research conducted by Juaria et al., (2009) that there is a positive influence between the level of education and a person's saving behavior.

**The Effect of Age on Saving Behavior**

Based on the Theory of Life Cycle Hypothesis that the age of 22-34 years belongs to the productive period. At that age, a person will start working so that he already earns income for the tube. In addition, as a person gets older, they are also more responsible for their finances. This is supported by research conducted by Rangarajan et al., (2016) that age influences saving behavior.

**The Effect of Gender on Saving Behavior**

Gender can also affect saving behavior. The existence of sex differences results in different levels of risk tolerance. women are more risk-averse than men (Fisher, 2010). In addition, the expenses made by women are also greater than those of men.

![Figure 1. Conceptual Framework](image-url)

**METHODOLOGY**

This study is using quantitative research methods. The population used is the millennial generation in Kupang City who was born in 1982-2000. To determine the sample, purposive sampling is used with criteria, namely:
1. Born, grown, and living in Kupang City
2. Aged 22-34 years
3. Unmarried
4. Already earn income

The number of populations in this study is not known so Lemeshows calculations were used to determine the number of samples.

\[
Population = \frac{Z^2 \times P \times (1 - P)}{d^2}
\]  

(1)

Based on Lemeshow's calculations, the number of samples used was 100 respondents.

The type of data in this study is primary data collecting data directly from respondents through a google form. In this study, the regression of dummy variables was used. Dummy variables use values 1 and 0 to describe variables. If a variable consists of several categories, the formula m-1 is used for dummy variables, where m is the number of k iterates of a variable (Yan & Su, 2009). This study used dummy variables for financial literacy and demographic variables.

The data analysis techniques that will be carried out are:
1. Compile a descriptive analysis of variables
2. Validity and reliability test
3. Constructing regression equation

\[
Saving \ Behavior = \beta_0 + \beta_4 dFL_{1i} + \beta_5 dFL_{2i} + \beta_6 dPND_{1i} + \beta_7 dPND_{2i} + \beta_8 dPND_{3i} + \beta_9 TP_{1i}
\]

\[
+ \beta_{10} dTP_{2i} + \beta_{11} dTP_{3i} + \beta_{12} dTP_{4i} + \beta_{13} dU_{1i} + \beta_{14} U_{2i} + \beta_{15} dJ K_i + \epsilon_i
\]

(2)

4. Goodness of fit
5. Test the hypothesis

ANALYSIS AND DISCUSSION

Descriptive Research Variables

Financial Literacy

Chen & Volpe (1998) divided financial literacy into 3, namely low (<60%), medium (60-79%), and high (≥80%). Based on the results of respondents' answers to 10 financial literacy questions, the majority of respondents have low financial literacy, namely 68 respondents. Furthermore, 31 respondents with medium financial literacy, and only 1 respondent had high financial literacy.

Demographics

This study used a sample of millennials in Kupang City as many as 100 respondents. A total of 51 respondents were male and 49 respondents were female. The age of respondents is dominated by the age of 25-29 years, namely, 49 respondents, aged 22-24 years as many as 35 respondents, and aged 30-34 years as many as 16 respondents. Based on the last level of education taken, the majority were Bachelor, namely 61 respondents. Next is senior high school students as many as 24 respondents, as many as 14 respondents for Diploma, and 1 respondent whose last level of education is elementary school. There was no respondent whose last education was junior high school. Based on monthly income, dominated by Rp. 1,000,000 – Rp. 2,500,000, namely 50 respondents. A total of 24 respondents with an income of Rp. 2,500,000 – Rp. 4,000,000 per month. A total of 14 respondents with an income of Rp. 4,000,000 – Rp. 5,500,000 per month. The remaining 11 respondents with an income of Rp. 5,500,000 – Rp. 7,000,000.
Saving Behavior

Based on the results of respondents' answers to 7 saving behavior statements, the saving action (SB1) indicators for future need (SB7), and saving decision (SB4) have a high mean. Shows that respondents already have the awareness to save.

Validity Test and Reliabilities

This test is carried out for financial literacy variables that contain multiple-choice questions. The purpose of this test is to measure the indicators used in the questions that are appropriate or valid and the consistency of the answers given or reliable.

Table 1. Reliability and Validity Test Results.

<table>
<thead>
<tr>
<th>Question</th>
<th>Corrected item-total correlation</th>
<th>r table</th>
<th>Cronbach alpha</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>FL1</td>
<td>0.500</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FL2</td>
<td>0.664</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FL3</td>
<td>0.405</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FL4</td>
<td>0.485</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FL5</td>
<td>0.246</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FL6</td>
<td>0.282</td>
<td>0.195</td>
<td>0.61</td>
<td>Valid and reliable</td>
</tr>
<tr>
<td>FL7</td>
<td>0.403</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FL8</td>
<td>0.421</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FL9</td>
<td>0.419</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FL10</td>
<td>0.400</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 1 shows the corrected item-total correlation value on each FL question has a > value with the table's r value of 0.195. The r value of the table used for the number of data is 100 with a significance level of 5%. It can be concluded that the question about financial literacy is valid. Meanwhile, to test the reliability of the Cronbach alpha test, which is 0.61. The value is greater than 0.6 so it can be concluded that the question is reliable.

Compiling Regression Model Equations

Table 2. Regression Test Results

<table>
<thead>
<tr>
<th>Type</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>0.000</td>
</tr>
<tr>
<td>dummy financial literacy 1</td>
<td>0.321</td>
</tr>
<tr>
<td>dummy financial literacy 2</td>
<td>0.811</td>
</tr>
<tr>
<td>dummy income 1</td>
<td>0.046</td>
</tr>
<tr>
<td>dummy income 2</td>
<td>0.753</td>
</tr>
<tr>
<td>dummy income 3</td>
<td>0.320</td>
</tr>
<tr>
<td>Dummy Education Level 2</td>
<td>0.374</td>
</tr>
<tr>
<td>dummy education level 3</td>
<td>0.219</td>
</tr>
<tr>
<td>dummy education level 4</td>
<td>0.078</td>
</tr>
<tr>
<td>dummy age 1</td>
<td>0.727</td>
</tr>
<tr>
<td>dummy age 2</td>
<td>0.956</td>
</tr>
<tr>
<td>dummy gender</td>
<td>0.142</td>
</tr>
</tbody>
</table>

\[
\text{Saving Behavior} = 3.194 - 0.169FL_{1i} + 0.177FL_{2i} + 0.384PND_{1i} + 0.073PND_{2i} + 0.246PND_{3i} + 0.665TP_{1i} + 0.943TP_{3i} + 1.304TP_{4i} - 0.059U_{1i} + 0.012U_{2i} - 0.229JK_i + \epsilon_i
\]

Goodness of Fit

Goodness of Fit is carried out by conducting a coefficient of determination test (Test R2). Based on the test results, it shows an adjusted value of R2 of 0.138. That is, the independent variables used can explain saving behavior by 13.8% and the rest is influenced by other factors.
Hypothesis Test

Based on Table 2, it is concluded that:
1. Dummy income 1 is significant. This means that accept H0, indicating that dummy income 1 have a significant effect on the saving behavior of the millennial generation in Kupang City.
2. Dummy income 2 and 3 are insignificant. This means that it fails to reject H0, indicating that income does not have a significant effect on the saving behavior of the millennial generation in Kupang City.
3. Financial literacy is insignificant. This means that it fails to reject H0, indicating that financial literacy does not have a significant effect on the saving behavior of the millennial generation in Kupang City.
4. The level of education is insignificant. This means that it fails to reject H0, indicating that the level of education does not have a significant effect on the saving behavior of the millennial generation in Kupang City.
5. Age is insignificant. This means that it fails to reject H0, indicating that age has no significant effect on the saving behavior of the millennial generation in Kupang City.
6. Gender is insignificant. This means that it fails to reject H0, indicating that gender has no significant effect on the saving behavior of the millennial generation in Kupang City.

Discussion

The Effect of Financial Literacy on Saving Behavior

Based on the test results, it shows that dummy financial literacy 0, which is low with a percentage of financial literacy below 60%, does not have a significant effect on the saving behavior of the millennial generation in Kupang City. This is due to the lack of information or knowledge received by the millennial generation in Kupang City. The millennial generation in Kupang City can’t correctly answer questions about tabs and loans, general financing of personal finance, and investment. Although the majority of millennials in Kupang City have low financial literacy where they only manage to answer questions below five correctly, millennials in Kupang City realize the importance of saving for future needs. The awareness of the millennial generation in Kupang City about the importance of saving can be seen from the answer to the statement of saving behavior which is quite high. However, awareness of saving is not supported by knowledge of good finances. Based on the TPB, the higher the financial literacy, the better the saving behavior. However, based on the test results, the majority of millennials in Kupang City have low financial literacy. According to Hassan & Anood (2009) that a person with a low level of financial literacy will tend to borrow money instead of saving. This may happen due to a lack of knowledge about finances so borrowing money without knowing the risks.

The Effect of Income on Saving Behavior

Based on the results of the regression test, it shows that the dummy income of 0, namely Rp. 1,000,000 – Rp. 2,500,000, does not have a significant effect on the saving behavior of the millennial generation in Kupang City. The income received is low enough that the income is only used to meet daily living expenses. Therefore, with an income of Rp. 1,000,000 – Rp. 2,500,000 per month, the millennial generation in Kupang City cannot set aside part of their income for savings. In addition, dummy income 1, namely Rp. 2,500,000 – Rp. 4,000,000, has a significant effect on the saving behavior of the millennial generation in Kupang City because it has a significant value of < 5%. Although the income received is still relatively low, the millennial generation in Kupang City can set aside part of their income for savings even though the percentage is not large. Based on the regression test, it shows that dummy income 2, namely Rp. 4,000,000 – Rp. 5,500,000 and dummy income 3, which is Rp. 5,500,000 – Rp. 7,000,000, does not have a significant effect on the saving behavior of the millennial generation in Kupang City. Both income ranges are quite high for millennials in Kupang City. However, not all millennials in Kupang City have high incomes. Based on the Theory of Life Cycle Hypothesis that a person at the age of 22-34 years will make savings by allocating part of his income. However, this theory is not in line with the millennial generation in Kupang City because
it is adjusted to the economic conditions of the region, not all regions have high incomes so they cannot save.

**The Effect of Education Level on Saving Behavior**

Based on the test results, it shows that dummy education has no significant effect on the saving behavior of the millennial generation in Kupang City. This can happen if, during formal education, millennials in Kupang City are not taught about saving behavior. A total of 61 respondents were Bachelor graduates (S1/S2). Although the number of respondents at this level of education is large, the knowledge obtained by respondents is different because the respondent's major when taking a Bachelor (S1/S2) is unknown. The results of this study are not in line with research conducted by Mori (2019) that the level of education affects saving behavior.

**The Effect of Age on Saving Behavior**

Based on the test results, it shows that dummy age does not have a significant effect on the saving behavior of the millennial generation in Kupang City. This is because the millennial generation in Kupang City is more concerned with fulfilling their wishes than preparing for future needs. According to the Theory of Life Cycle Hypothesis that the age of 22-34 years is a productive period during which a person will allocate his income for savings. However, the millennial generation in Kupang City still attaches importance to their wishes compared to future needs. The results of this study are not in line with the research conducted by Amari et al., (2020) that age has a significant effect on saving behavior.

**The Effect of Gender on Saving Behavior**

Based on the test results, shows that gender does not have a significant effect on the saving behavior of the millennial generation in Kupang City. This is because the number of respondents by gender is almost balanced where men are 51 respondents and women are 49 respondents. There is a balance in the number of respondents so that there is no gender influence on the saving behavior of the millennial generation in Kupang City. These results are not in line with research conducted by Amari et al., (2020) which says that sex has a significant effect on saving behavior.

**CONCLUSIONS AND RECOMMENDATIONS**

Based on the results of the study, it was found that financial literacy, income, education level, age, and other types of income did not have a significant effect on the saving behavior of the millennial generation in Kupang City. The advice for millennials in Kupang City is to be able to prepare for future needs by saving and for researchers to then add other variables to increase the adjusted value of R2.

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