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Determinants of Financial Literature as Investment Decisions (Case Study on PT Bank Rakyat Indonesia's Employees, Tbk) Employees

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Abstract

Financial literacy education is needed so that the public can optimize financial management through existing financial products and services that are appropriate and to their needs. This type of research is descriptive and quantitative. In this study, the research subjects were BRI employees. At the same time, the research object is the level of financial literacy and investment decisions. In this study, the analytical technique used is Partial Least Square (PLS). This study aimed to determine the effect of age, culture, gender, and education on investment decisions. To determine the effect of age, culture, gender, and education on financial literacy and financial literacy's effect on investment decisions. The results showed that the higher the score on financial literacy affects stock investment decisions, the more financial literacy positively influences investment decisions. Meanwhile, age, culture, gender, and education do not affect investment decisions. Improving investment decisions can be done by increasing financial literacy.

Keywords
financial literacy; investation decision; education

I. Introduction

Zahroh (2014) quotes Howell (1993) stated that financial management is an essential life skill. Almost all aspects are related to finance. Regardless of the circle, everyone applies economic concepts, at least the basic economy, from calculating funds, selling transactions buy, and saving in a piggy bank.

These basic financial skills need to be improved for better management. Financial knowledge and skills will allow people to control and allocate finances well (Robb & Woodyard, 2011). From there, sound financial management can be free from financial problems that lead to future prosperity. Individuals need to have some knowledge and skills to manage their financial resources efficiently for their well-being.

Financial literacy education is needed so that the public can optimize financial management through existing financial products and services that are appropriate and to their needs. It is hoped that people will not repeat their rash attitude in managing finances. This trial and error process in managing finances raises many economic problems. One of the universal financial problems is the problem of financial planning for the future. The economic condition of the population is a condition that describes human life that has economic score (Shah et al, 2020).

Several factors are driving the growth of financial literacy, including low-interest rates on savings, economic failure, high inflation, rising interest rates on debt, and increased personal accountability for decisions that will affect financial education that will affect their economy in the future. Now people are aware and learning to understand the features, benefits and risks, costs, rights, and obligations of financial products and services. The adverse effects of poor financial education can lead to various financial problems.

Almenberg and Dreber (2015) and Maona and Anis (2016) state that financial literacy positively affects stock investment decisions. Lusardi and Alessie (2011) also state that higher financial literacy is associated with investing in stocks to generate a higher portfolio. The explanation of the existing problems regarding the level of financial literacy, the impact of low levels of financial literacy, the relationship between the level of financial literacy and investment decisions, as well as the research gap that has been described above, the researcher wants to examine the level of financial literacy in influencing investment decisions on capital market instruments, among bank workers who are no strangers to financial management. This research will identify financial literacy in influencing investment decisions on capital market instruments BRI KC Batang workers of varying ages, cultures, gender, and education.

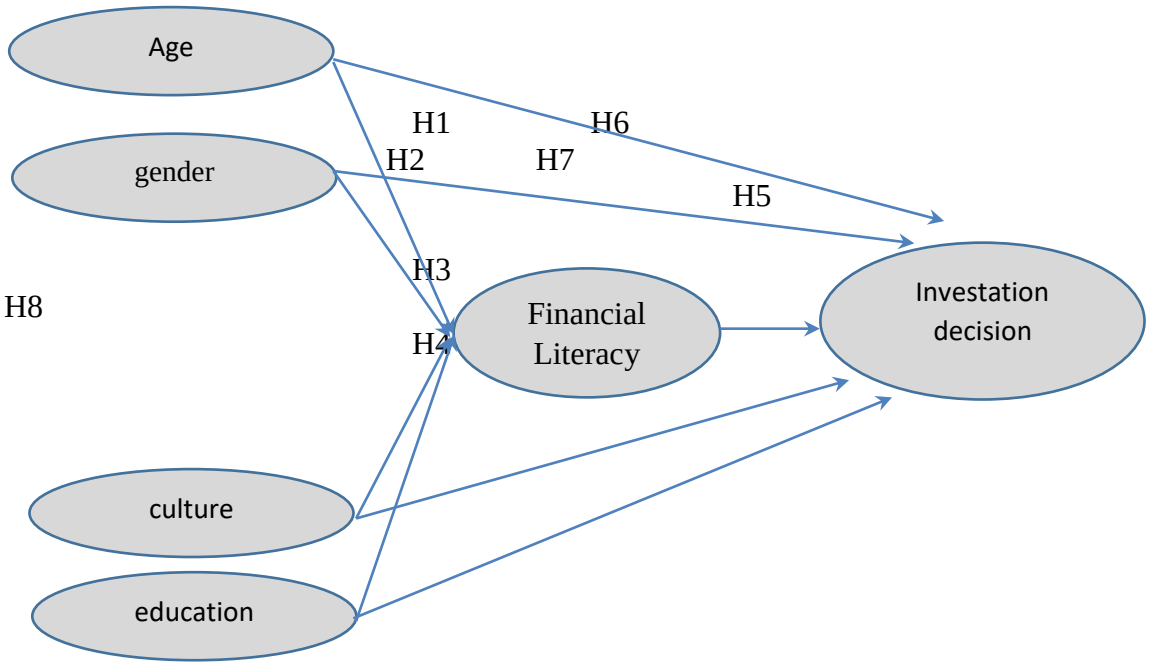
II. Review of Literature

2.1 Hypothesis Development

H1: Age has a significant effect on financial literacy
H2: Culture has a significant effect on financial literacy
H3: Gender has a significant effect on financial literacy
H4: Education has a significant effect on financial literacy
H5: Financial literacy has a significant effect on stock investment decisions.
H6: Age has a significant effect on investment decisions.
H7: Culture has a significant effect on investment decisions.
H8: Gender has a significant effect on investment decisions.
H9: Education has a significant effect on investment decisions.

2.2 Theoretical Thinking Framework

This study uses the concept of financial literacy to explain demographic factors on investment decisions.



Source: developed by the researcher himself 2021

III. Research Method

3.1 Types and Sources of Data

This type of research is descriptive quantitative. In this study, the research subjects were BRI employees. While the object of research is the level of financial literacy and investment decisions. In this study, the analytical technique used is Partial Least Square (PLS).

3.2 Population and Sample Research

The population of this research is all employees of BRI Head Office with a total of 198 employees and BRI Regional Office 124 employees along with BRI KC Batang 89 employees. To determine how many samples are needed, the Slovin formula (Indriantoro and Supomo, 1999) is used as follows:

$$N = \frac{N.\sigma k^2}{N.D + \sigma k^2}, \text{dimana } D = \frac{B^2 . M^2}{4}$$

Dengan →

B = 2.α
N = Jumlah kelompok/cluster dalam populasi
σ_k^2 = varian populasi
M^2 = rerata jumlah elemen tiap kelompok

So that the sample in this study can be calculated by the following formula:
n = 411

3.3 Variables and Research

In this study there are three types of variables, namely independent variables in This research is age (X1), culture (X2), gender (X3), and education (X4). The intervening variable in this study is financial literacy. The dependent variable in this study is the investment decision (Y).

Identification of Variables and Operational Variables Demographic

a. Age is the percentage of age of the employees of PT Bank Rakyat Indonesia, Tbk. This variable was measured using a Likert scale of 20-29; 30-39; 40-49 ; 50-58 years of Culture.
b. In this study, culture is emphasized on the pattern of financial management by employees of PT Bank Rakyat Indonesia based on region. Employees who live in cities (Jakarta and Semarang) will adhere to a matrilineal culture interpreted with a dummy variable of 1 and employees who live in districts (Batang) adhere to a patriarchal culture which is interpreted with a dummy scale of 0.
c. Gender (X3) is the number of male and female residents who make the decision to invest in shares. It is measured by a dummy scale, namely 1 if the gender is female and 0 if the gender is male.
d. Education level (X4) is the percentage of total education level of PT Bank Rakyat Indonesia employees at the Head Office, Semarang Regional Office, and Batang Branch Office. This variable was measured by a Likert scale, namely SMA – D3; S1; >= S2.

3.4 Research Methods

The procedure for retrieving information from this research is by distributing online questionnaires addressed to BRI KW Semarang and BRI KC Batang employees, intending to reach a broader range of respondents in a shorter time. The questionnaire consists of 32 questions; 6 (six) questions raise demographic and social data economics and 11 (eleven) questions to measure respondents' finance and investment descriptions. The questionnaire was divided into 3 parts; the initial section covers demographic and social variables and the economy (age, gender, culture, and level of education). This section contains questions about name, age, address, work unit office, gender, and last education. The second section identifies behavioral finance and contains 17 questions that are measured by scores on a five Likert scale. The third part (Appendix) is devoted to financial literacy levels, and consists of 3 test-type questions (true or false).

IV. Results and Discussion

4.1 Results

a. Descriptive

Analysis is used to provide an overview of the respondents used in this study, while the description of the respondents in this study is as follows:

Table 1. Respondent Profile

Information	**Total**
Number of samples	100
Work Unit Locations:	
Batang Regency/Cilacap	38
Jakarta/Semarang	62
Age:	
20 – 29 years	18
30 – 39 years	54
40 – 49 years	15
50 – 59 years	13
Gender:	
Female	45
Male	55
Education:	
SMA – D3	18
S1	71
>= S2	11

Based on the table above, it is known that the number of respondents with the location of the work unit in Jakarta/Semarang is more than the location of work units in Batang/Cilacap Regency. The number of respondents with a work unit location in Jakarta/Semarang is 62 people and a work unit location in Batang/Cilacap Regency is 38 people.

Most of the respondents were aged 30-39 years as many as 54 people. While the respondents were aged between 20-29 years as, many as 18 people. 15 respondents aged 40-49 years, and 50-59 years old had the smallest number of respondents, namely 13 people. Respondents of the male sex were as many as 55 people and 45 women.

Respondents with SMA-D3 education were 18 people. Respondents with S1 education are the most respondents, amounting to 71 people. While respondents with education more than or equal to S2 are 11.

b. Assessing the Outer Model or Measurement Model

There are three criteria in using data analysis techniques with SmartPLS to assess *the outer model*, namely *Convergent Validity*, *Discriminant Validity*, *Composite Reliability*, and *Cronbach Alpha*

1. Validity Test with *Convergent Validity*

Convergent Validity of the measurement model with reflective indicators is assessed based on the correlation between *item scores/component scores* estimated with PLS software. In this study, a *loading factor* of 0.6 will be used.

Table 2. Outer Loadings (Measurement Model)

	Age	Culture	Gender	Education	Financial Literacy	Investment Decision
X1	1,000					
X2		1,000				
X3			1,000			
X4				1,000		
X5.1					1,000	
X6.1						0,771
X6.2						0,648
X6.3						0,828
X6.4						0,797
X6.5						0,651
X6.6						0,673
X6.7						0,608
X6.8						0,782
X6.9						0,866

Based on the table above shows that:

a) The relationship between the X1 indicator and the Age variable has an outer loading value of 1,000
b) The relationship between the X2 indicator and the Culture variable has an outer loading value of 1,000
c) The relationship between the X3 indicator and the Gender variable has an outer loading value of 1,000
d) The relationship between the X4 indicator and the Education variable has an outer loading value of 1,000
e) The relationship between the X5.1 indicator and the Financial Literacy variable has an outer loading value of 1,000
f) The relationship between the X6.1 indicator and the Investment Decision variable has an outer loading value of 0.771
g) The relationship between the X6.2 indicator and the Investment Decision variable has an outer loading value of 0.648
h) The relationship between the X6.3 indicator and the Investment Decision variable has an outer loading value of 0.828

i) The relationship between the X6.4 indicator and the Investment Decision variable has an outer loading value of 0.797
j) The relationship between the X6.5 indicator and the Investment Decision variable has an outer loading value of 0.651
k) The relationship between the X6.6 indicator and the Investment Decision variable has an outer loading value of 0.673
l) The relationship between the X6.7 indicator and the Investment Decision variable has an outer loading value of 0.608
m) The relationship between the X6.8 indicator and the Investment Decision variable has an outer loading value of 0.782
n) The relationship between the X6.9 indicator and the Investment Decision variable has an outer loading value of 0.866

Based on the results of the interpretation of the data above, it can be seen that indicators that meet the validity requirements of a data with convergent validity criteria are as follows:

Table 3. Measurement *Convergent Validity*

Indicator	*Loading Factor*	Value *Convergent Validity*	Description
X1	1,000	>0,6	Valid
X2	1,000		Valid
X3	1,000		Valid
X4	1,000		Valid
X5.1	1,000		Valid
X6.1	0,771		Valid
X6.2	0,648		Valid
X6.3	0,828		Valid
X6.4	0,797		Valid
X6.5	0,651		Valid
X6.6	0,673		Valid
X6.7	0,608		Valid
X6.8	0,782		Valid
X6.9	0,866		Valid

Based on the results of the above data processing, it shows that all *loading factors* have values above 0.60, so the indicators for all variables can be said to be valid.

2. Validity Test with *Discriminant Validity*

Conducted to ensure that each concept of each latent variable is different from other variables. The model has *discriminant validity* well if each loading value of each indicator of a latent variable has the greatest loading value with other loading values on other latent variables. Test are *discriminant validity* obtained as follows:

Table 4. Age *Discriminant Validity (Cross Loadings)*

	Culture	Gender	Education	Financial	Investment Literacy	Decision
X1	1,000	0,040	0,127	0,348	-0,038	0.096
X2	0,040	1,000	0,087	0,167	-0,136	-0,131
X3	0,127	0,087	1,000	0,119	-0,175	-0,045
X4	0,348	0,167	0,119	1,000	0.387	0,281
X5.1	-0,038	-0,136	-0,175	0,387	1,000	0,430
X6.1	0,168	-0,152	0,024	0,308	0,327	0,771
X6.2	0,072	0,127	-0,062	0,403	0,231	0,648
X6.3	0,065	-0,085	-0,102	0,231	0,378	0,828
X6.4	-0,006	-0,151	-0,046	0,199	0,351	0,797
X6.5	0,104	-0,021	-0,000	0,309	0,277	0,651
X6.6	0,019	-0,078	0,148	0,111	0,290	0,673
X6.7	0,131	-0,087	-0,025	0,102	0,256	0,608
X6.8	0,041	-0,145	-0,111	0,097	0,369	0,782
X6.9	0,051	-0,213	-0,092	0,122	0,354	0,866

From the table above, it can be seen that the *factor* for each indicator of each latent variable has the *loading factor* value compared to the *loading* when compared to other latent variables. This means that each indicator has *discriminant validity* and can be said to be valid.

Discriminant validity in the indicator reflective measurement model can also be assessed based on the value of AVE (Average Variance Extracted) > 0.5. The following are the results of data processing using smart PLS 3 by looking at the AVE indicators as follows:

Table 5. Average Variance Extracted

Variable	***Average Variance Extracted (AVE)***	**Value *Convergent Validity***	**Description**
Age	1,000	>0,5	Valid
Cultural	1,000		Valid
Gender	1,000		Valid
Education	1,000		Valid
Literacy Financial	1,000		Valid
Investment Decision	0,549		Valid

Based on the table above, it shows that all variables have valid indicators because the AVE value of each latent variable has a value greater than 0.5.

3. Reliability Test with *Composite Reliability*

Reliability criteria can be seen from the *composite reliability* of each construct. The construct is said to have high reliability if the *composite reliability* is more than 0.70.

Table 6. Composite Reliability

	Composite Reliability	**Value *Convergent Reliability***	**Description**
Age	1,000	>0,7	Reliabel
Culturally	1,000		Reliabel
Gender	1,000		Reliabel
Educational	1,000		Reliabel
Literacy Financial	1,000		Reliabel
Investment Decision	0,915		Reliabel

Based on the table above the variables Age, Culture Gender, Education, and Financial Literacy have a value *composite reliability* that is equal to 1,000. While the Investment Decision variable has a *composite* of 0.915. So it can be concluded that all constructs meet the reliable criteria. This is indicated by the *composite reliability* above 0.70 as recommended criteria.

4. Reliability Test with *Cronbach Alpha*

Reliability criteria can be strengthened by the *Cronbach Alpha* of each construct. The construct is said to have reliability if the *Cronbach Alpha* is more than 0.60

Table 7. Cronbach Alpha

	Cronbach Alpha	**Value *Convergent Reliability***	**Information**
Age			
Culturally			
Gender			
Educational			
Literacy Financial			
Investment Decision			

Based on the table above Variables Age, Culture Gender, Education, and Financial Literacy have the *Cronbach Alpha* of 1,000. While the investment decision variable has a *Cronbach Alpha* of 0.895. So it can be concluded that all constructs meet the reliable criteria. This is indicated by the *Cronbach Alpha* above 0.60 as recommended criteria.

c. Testing the Structural Model (*Inner Model*)

1. R Square Test

In assessing the model with PLS, it begins by looking at *the R-Square* for each dependent latent variable. The following table is the result of *R-Square* using SmartPLS 3

Table 8. Value –*Square*

Variable	***R***
Financial Literacy	0.215
Investment Decision	0.264

The table above shows the *R-Square* literacy variable financial obtained by 0.215. These results show that age, culture, gender, and education together affect financial literacy by 21.5%. While the remaining 78.5% is influenced by other variables outside the variables of age, culture, gender, and education.

The *R-Square* variable investment decision is 0.264. These results show that age, culture, gender, education, and financial literacy together influence investment decisions by 26.4%. While the remaining 73.6% is influenced by other variables outside the variables of age, culture, gender, education and financial literacy.

2. Q Square test

Q-Square predictive relevance for structural models can measure how well the conservation value is generated by the model and also the estimated parameters.value *Q-square* > 0 indicates the model has *predictive relevance*; on the other hand, if the value *of Q-Square* 0 indicates that the model lacks *predictive relevance*. The following table is the result of *Q-Square* using SmartPLS 3.

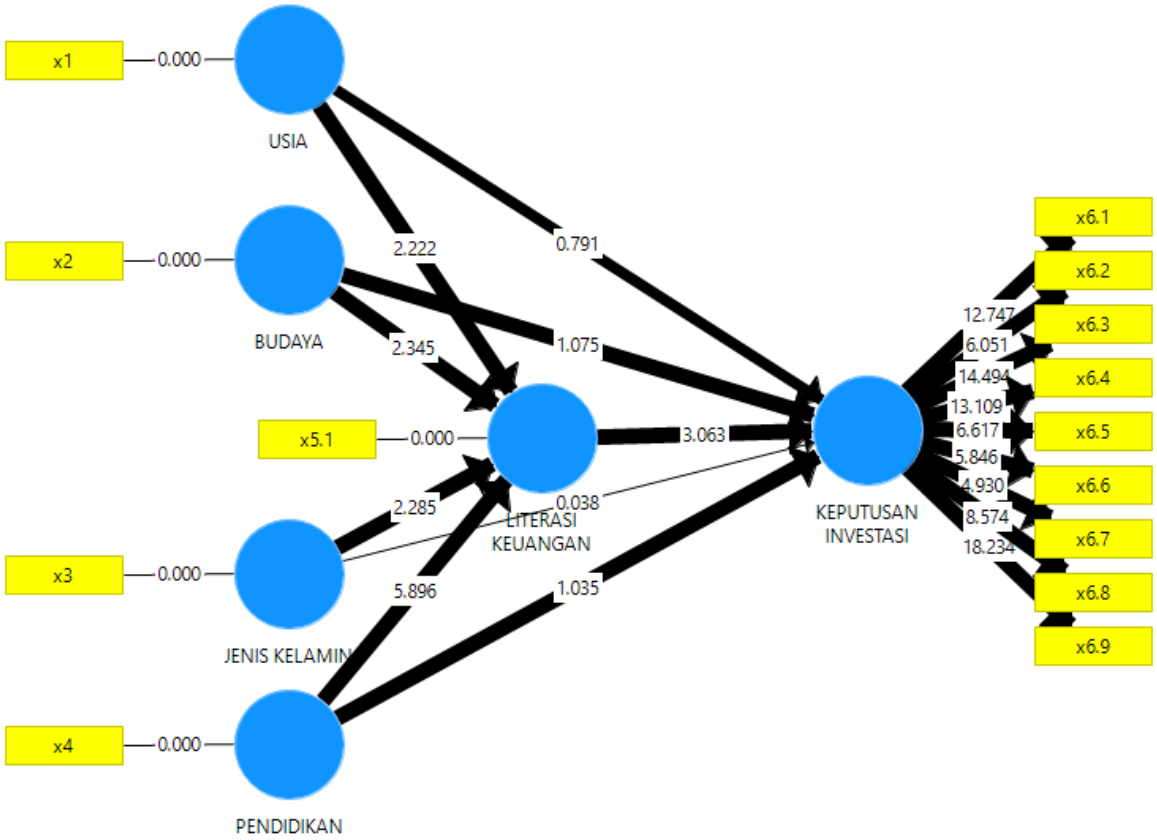
Table 9. Value *Q-Square*

Variable	***Q-Square***
Financial Literacy	0.210
Investment Decision	0.090

The table above shows the *Q-Square* literacy variable financial of 0.210. These results indicate that the model has *predictive relevance* because the *Q-Square* is more than zero. Likewise for the investment decision variable, it has a *Q-Square* of 0.090. These results indicate that the model has *predictive relevance* because the *Q-Square* is more than zero.

3. Hypothesis Testing

The significance of the estimated parameters provides very useful information about the relationship between research variables. In PLS statistical testing of each hypothesized relationship is carried out using simulation. Method is applied *bootstrap* to the sample. Testing with *bootstrap* is also intended to minimize the problem of abnormal research data. Test *bootstrapping* from the PLS analysis are as follows:



d. Inner Model Bootstrapping

1. Testing Hypothesis 1: The Effect of Age on Financial Literacy

Table 10. Bootstrapping (Path Coefficient) Hypothesis 1

	***Original Sample* (O)**	***Sample Mean* (M)**	***Standard Deviation* (STDEV)**	***T Statistics* (|O/STDEV|)**	**P Values**
Age → financial literacy	-0,182	-0,182	0,082	2,222	0,026

Financial *Values* / |), *standard deviation is* 0.082, *t statistics* is 2.222, and *p values* 0.026. This shows that hypothesis 1 can be accepted, because the measurement results show that *t statistics* (2.222) are greater than the *t table* (1.96), or the *p values* (0.026) are less than (0.05). So it can be concluded that the sample data for the age variable has a negative and significant relationship (the *original sample* negative) and significant to the financial literacy variable

2. Testing Hypothesis: The Effect of Culture on Financial Literacy

Table 11. Bootstrapping (Path Coefficient) Hypothesis 2

	***Original Sample* (O)**	***Sample Mean* (M)**	***Standard Deviation* (STDEV)**	***T Statistics* (|O/STDEV|)**	**P Values**
culture → financial literacy	-0,197	-0,195	0,084	2,345	0,019

Financial *Valuesthe sample is* -0.197, the *sample mean* -0.195, *the standard deviation is*, *t statistics is* 2.345, and *p values* 0.019. This shows that hypothesis 2 can be accepted, because the measurement results show that *t statistics* (2.345) is greater than the value of *t table* (1.96), or the value of *p values* (0.019) is less than (0.05). So it can be concluded that the sample data of cultural variables has a negative and significant relationship (the *original sample* negative) and significant to the financial literacy variable.

3. Testing Hypothesis 3: The Effect of Gender on Financial Literacy

Table 12. Bootstrapping (Path Coefficient) Hypothesis 3

	***Original Sample* (O)**	***Sample Mean* (M))**	***Standard Deviation* (STDEV)**	***T Statistics* (|O/STDEV|)**	**Values**
Gender → Literacy	-0,195	-0,191	0,085	2,285	0,022

Financial shows the *original sample* of -0.195, the *sample mean* of -0.191, *standard deviation of* 0.085, *t statistics* of 2.285, and *p values* of 0.022. This shows that hypothesis 3 can be accepted, because the measurement results show that *t statistics* (2.285) are greater than the *t table* (1.96), or *p values* (0.022) are less than (0.05). So it can be concluded that the sample data for the gender variable provides a negative relationship (the *original sample* negative) and is significant for the financial literacy variable.

4. Testing Hypothesis 4: The Effect of Education on Financial Literacy

Table 13. Bootstrapping (Path Coefficient) Hypothesis 4

	***Original Sample* (O)**	***Sample Mean* (M)**	***Standard Deviation* (STDEV)**	***T Statistics* (|O/STDEV|)**	**Values**
Education → Financial Literacy	0,507	0,499	0,086	5,896	0,000

Based on the table above, the results of testing the fourth hypothesis show that in testing hypothesis 4 where education has an effect on financial literacy, the *original sample* 0.507, the *sample mean* 0.499, *standard deviation is* 0.086, *t statistics* 5.896, and *p values is* 0.000. This shows that hypothesis 4 can be accepted, because the measurement results show that *t statistics* (5.896) are greater than the *t table* (1.96), or *p values* (0.000) are less than (0.05). So it can be concluded that the education variable sample data provides a positive relationship (positive *original sample*) and is significant to the financial literacy variable.

5. Testing Hypothesis 5: The Effect of Financial Literacy on Stock Investment Decisions

Table 14. Bootstrapping (Path Coefficient) Hypothesis 5

	***Original Sample* (O)**	***Sample Mean* (M)**	***Standard Deviation* (STDEV)**	***T Statistics* (|O/STDEV|)**	**P Values**
Financial Literacy → Decision	0,367	0,371	0,120	3,063	0,002

Based on the table above shows the results of testing the fifth hypothesis, it shows that in testing hypothesis 5 where financial literacy on stock investment decisions shows the *original sample* of 0.367, *sample mean* of 0.371, *standard deviation of* 0.120, *t statistics* of 3.063, and *p values* of 0.002. This shows that hypothesis 5 can be accepted, because the measurement results show that *t statistics* (3.063) are greater than the *t table* (1.96), or the *p value* (0.002) is less than (0.05). So it can be concluded that the sample data on the financial literacy variable provides a positive relationship (positive *original sample*) and is significant for the investment decision variable.

6. Testing Hypothesis 6: The Effect of Age on Stock Investment Decision

Table 15. *Bootstrapping* (Path Coefficient) Hypothesis 6

	***Original Sample* (O)**	***Sample Mean* (M)**	***Standard Deviation* (STDEV)**	***T Statistics* (|O/STDEV|)**	**P Values**
Age→Decision	0,068	0,070	0,086	0,791	0,429

Based on the table above, the results of testing the sixth hypothesis show that in testing hypothesis 6 where age on stock investment decisions shows the *original sample* of 0.068, *sample mean* of 0.070, *standard deviation of* 0.086, *t statistics* of 0.791, and *p values* of 0.429. This shows that hypothesis 6 is rejected, because the measurement results show that *t statistics* (0.791) are smaller than the *t table* (1.96), or the *p values* (0.429) are more than (0.05). So it can be concluded that the sample data of the age variable is not significant to the investment decision variable.

7. Testing Hypothesis 7: The Influence of Culture on Stock Investment Decisions

Table 16. Bootstrapping (Path Coefficient) Hypothesis 7

	***Original Sample* (O)**	***Sample Mean* (M)**	***Standard Deviation* (STDEV)**	***T Statistics* (| O/STDEV|)**	**P Values**
Culture →Investment Decision	-0,106	-0,116	0,099	1,075	0,282

On the table above shows the results of testing the seventh hypothesis, it shows that in testing hypothesis 7 where culture on stock investment decisions shows the *original sample* of -0.106, the *sample mean* - 0.116, *standard deviation* 0.099, *t statistics* of 1.075, and *p values* of 0.282. This shows that hypothesis 7 is rejected, because the measurement results show that *t statistics* (1.075) are smaller than the *t table* (1.96), or the *p values* (0.282) are more than (0.05). So it can be concluded that the sample data of the cultural variable is not significant to the investment decision variable.

8. Testing Hypothesis 8: The Effect of Gender on Stock Investment Decisions

Table 17. Bootstrapping (Path Coefficient) Hypothesis 8

	***Original Sample* (O)**	***Sample Mean* (M)**	***Standard Deviation* (STDEV)**	***T Statistics* (|O/STDEV|)**	**P Values**
Gender → Decision	0,004	0,006	0,102	0,038	0,970

Based on the table above shows the results of testing the eighth hypothesis showing that in testing hypothesis 8 where gender on stock investment decisions shows the *original sample* of 0.004, *sample mean* of 0.006, *standard deviation of* 0.102, *t statistics* of 0.038, and *p values* of 0.970. This shows that hypothesis 8 is rejected, because the measurement results show that *t statistics* (0.038) are smaller than the *t table* (1.96), or the *p value* (0.970) is more than (0.05). So it can be concluded that the sample the gender variable is not significant to the investment decision variable.

9. Testing Hypothesis 9: Effect of Education on Stock Investment Decision

Table 18. *Bootstrapping* (Path Coefficient) Hypothesis 9

	***Original Sample* (O)**	***Sample Mean* (M)**	***Standard Deviation* (STDEV)**	***T Statistics* (|O/STDEV|)**	**P Values**
Education → Decision	0,133	0,135	0,128	1,035	0,301

The results of testing the ninth hypothesis show that in testing hypothesis 9 where education on stock investment decisions shows the *original sample* of 0.133, *sample mean* of 0.135, *standard deviation of* 0.128, *t statistics* of 1.035, and *p values* of 0.301. This shows that hypothesis 9 is rejected, because the measurement results show that *t statistics* (1.035) is smaller than the *t table* (1.96), or the *p value* (0.301) is more than (0.05). So it can be concluded that the sample data of the education variable is not significant to the investment decision variable.

4.2 Discussion

a. Testing Hypothesis 1

In this study, hypothesis 1 states that age hurts financial literacy. The output of smartPLS 3 in the table shows that the age variable has a negative and significant effect on the financial literacy variable. It can be seen in the table that the t statistics (2.222) is greater than the t table (1.96), or the p-value (0.026) is less than (0.05). This shows that the age variable's indicator influences the financial literacy variable. The table shows a negative direction, which means that when you are younger, it will affect the increase in financial literacy. The results of this study are also by the research conducted by Bottazzi and Luzardi. Bottazzi and Luzardi (2020) reported that young age in women affects financial literacy.

b. Testing Hypothesis 2

In this study, hypothesis 2 states that culture harms financial literacy. The output of smartPLS 3 in the table shows that the cultural variable has a negative and significant effect on the financial literacy variable. It can be seen that the table shows the value of t statistics (2.345) is greater than the value of t table (1.96), or the value of p values (0.019) is less than (0.05). This shows that indicators reflecting cultural variables influence financial literacy variables. The table shows the negative direction. The results of this study are also by research conducted by Bottazzi and Luzardi (2020). The research resulted in a negative and significant influence between cultures on financial literacy.

c. Testing Hypothesis 3

In this study, hypothesis 3 states that gender harms financial literacy. The output of smartPLS 3 in the table shows that the gender variable has a negative and significant effect on the financial literacy variable. It can be seen that the table shows the value of t statistics (2.285) is greater than the value of t table (1.96), or the value of p values (0.022) is less than (0.05). This shows that indicators that reflect the gender variable influence the financial literacy variable. The table shows the negative direction.

The results of this study are also from research conducted by several researchers. Research studies by Margaretha and Pambudi (2015) and Bottazzi and Lusardi (2020), gender affects the level of financial literacy. Research by Bucher-Koenen et al. (2017) reveals that women's financial literacy is lower than men's. Even in young women who are educated and have promising careers, for example, in the research of Mahdavi and Horton (2014) women from elite American universities show a significant lack of financial literacy. In the context of financial knowledge, Chen and Volpe (2002) found that students were less confident and enthusiastic about financial topics. Women show lower confidence in financial analysis than men.

d. Testing Hypothesis 4

In this study, hypothesis 4 states that education positively affects financial literacy. The output of smartPLS 3 in the table shows that the education variable has a positive and significant effect on the financial literacy variable. It can be seen in the table that the t statistics (5.896) is greater than the t table (1.96), or the p-value (0.000) is less than (0.05). This shows that indicators that reflect the education variable influence the financial literacy variable. The table shows a positive direction, which means that the higher the level of education, the higher the level of financial literacy. The results of this study are also from research conducted by several researchers. Muntasar (2020) and Ansong Giyensen (2016) studies report that education has a positive and significant effect on financial literacy.

e. Testing Hypothesis 5

In this study, hypothesis 5 states that financial literacy positively affects stock investment decisions. The output of smartPLS 3 in the table shows that the financial literacy variable has a positive and significant effect on the investment decision variable. It can be seen that the table shows that the value of t statistics (3.063) is greater than the value of the t table (1.96), or the value of p values (0.002) is less than (0.05). This shows that indicators reflecting financial literacy variables influence investment decision variables. The table shows a positive direction, which means that the higher the financial literacy, the higher the level of investment decisions.

The results of this study are also from research conducted by several researchers. Moana and Anis (2016) and Lusardi and Mitchell (2014) state that the level of economic understanding influences stock investment decisions. Van Rooij (2011) has researched this in the Netherlands, and the result is that financial literacy has a significant effect on investment decisions. This can increase the sharpness and accuracy of choosing the best investment instruments and minimize risk. Financial literacy in investing continues in growing to remain rational in making investment decisions. This theory is by the research of Dr. Khairiyati & Krisnawati (2019), Novianggie & Asandhimitra (2019) and Nur, et al (2016), and Almenberg and Dreber (2015). They report that financial literacy has a significant effect on investment decisions. Meanwhile, Koenen et al (2021) conclude a positive and significant correlation between financial literacy and share ownership participation.

f. Testing Hypothesis 6

In this study, hypothesis 6 states that age has no significant effect on stock investment decisions. Based on the output of smartPLS 3 in the table shows that the age variable has no significant effect on the investment decision variable. It can be seen in the table that the *t statistics* (0.791) is smaller than the *t table* (1.96), or the *p value* (0.429) is more than (0.05). This shows that hypothesis 6 is rejected. From these results, it shows that indicators that reflect the age variable have no significant effect on the investment decision variable. The age range of BRI employees is 20-59 years old, which is an age that is still productive and digitally literate. Even though the age gap is very wide, in this digitalization era, everyone can access the internet and get information easily, including websites and online stock trading applications. Currently, BRI also provides some bonuses for its employees in the form of BRI share ownership, so that in terms of managing finances into stock instruments, it is not a foreign thing to do.

g. Testing Hypothesis 7

Hypothesis 7 states that culture does not affect stock investment decisions in this study. The output of smartPLS 3 in the table shows that the cultural variable has no significant effect on the investment decision variable. It can be seen in the table that the t statistics (1.075) is smaller than the t table (1.96), or the p-value (0.282) is more than (0.05). This shows that hypothesis 7 is rejected. These results show that indicators reflecting cultural variables have no significant effect on investment decision variables.

It can be interpreted that the culture between BRI employees in urban and rural areas is almost the same, they both have almost the same investment power. This is due to the high mobility of BRI employees, some of the employees working in urban areas come from rural areas, and vice versa. BRI employees also have almost the same digital skills, they have open communication skills and are familiar with financial products, including investment.

h. Testing Hypothesis 8

Hypothesis 8 states that gender does not affect stock investment decisions in this study. Based on the output of smartPLS 3 in the table, the gender variable has no significant effect on the investment decision variable. It can be seen in the table that the t statistics (0.038) is smaller than the t table (1.96), or the p-value (0.970) is more than (0.05). This shows that hypothesis 8 is rejected. These results show that indicators that reflect the gender variable have no significant effect on the investment decision variable. In

this case, BRI employees have the same ability and right to invest because there is no gender limit when investing their finances in stock instruments.

i. Testing Hypothesis 9

Hypothesis 9 says that education does not affect stock investment decisions in this study. The output of smartPLS 3 in the table shows that the education variable has no significant effect on the investment decision variable. It can be seen in the table that the t statistics (1.035) is smaller than the t table (1.96), or the p-value (0.301) is more than (0.05). This shows that hypothesis 9 is rejected. These results show that the indicators that reflect the education variable have no significant effect on the investment decision variable.

The education level factor does not significantly affect investing in-stock instruments because of the internet to invest in stocks. Investing in stock instruments is not a science that can only be obtained in school or college. Everyone has the same opportunity to be able to invest in-stock instruments.

V. Conclusion

Based on the test results and analysis that has been explained based on the sample used in this study, it can be concluded that the research problem is that financial literacy variables perfectly moderate the variables of age, culture, gender, and education on stock investment decisions. Awareness of the importance of investing, especially share ownership by PT BRI employees, can be built through financial literacy. The higher the score of financial literacy affects stock investment decisions. Improving investment decisions can be done by increasing financial literacy. This is because financial literacy has a positive influence on investment decisions. Meanwhile, age, culture, gender, and education do not affect investment decisions. Improving investment decisions can be done by increasing financial literacy. In terms of increasing financial literacy, it can be done by providing training, education, or socialization related to stock investment decisions, the implementation of which is based on the classification formed by considering factors of age, culture, gender, and education so that financial literacy material can be well received. Future expectations of financial literacy will increase so that investment decisions will also increase.

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