

# The Determinants of Financial Literacy towards Disparity among Indonesian Business Student

Devina Febriani Agung, Subiakto Soekarno  
Institut Teknologi Bandung  
Bandung, Indonesia  
subiakto@sbm-itb.ac.id , devina.febriani@sbm-itb.ac.id

---

## Abstract

People with a higher level of financial literacy tend to be more proper in making their financial decision, manage their money well and make contribute to their prosperity. Unfortunately, people in many levels were lack of financial literacy. Demographic factors such as age, gender, ethnicity and also financial education are generally assumed as the factors that affect financial literacy. However, there are also some evidences prove that those factors have no effect on increasing financial literacy. This research focuses on financial literacy of business students Institut Teknologi Bandung. This research is intended to examine the level of financial literacy index of students and examine which demographic factors impact financial literacy index of students using multi-linear regression as the analytical tool. The data for this research was collected through questionnaire adapted from DEFINIT-SEADI\_OJK (2013) and distributed to 300 business students in ITB. The finding of this research indicates that the financial literacy index of students is generally in low level of financial literacy and the determinants of financial literacy among business students are age, gender, and financial education

*Keywords: financial literacy; financial inclusion; education; demographics*

---

## 1. Introduction

### 1.1 Background

Financial literacy is an important factor that affects the financial condition of a country. Low level of financial literacy can influence people's money management. Ineffective money management can make countries easier to experience financial crisis (Sandra Braunstein, 2002). Increasing financial literacy is a public policy objective and become a focus of some organizations such as government and banking industries. The goal is to improve welfare through better financial decision-making (U.S. House of Representative, Financial Service Committee, 2009). People with a higher level of financial literacy will perform a better personal financial management and the financial stability. Studies show that when people participate in the financial system, they are able to start businesses, invest, and manage risk. This can help the economic stability of the country.

Indonesia is the fourth most populous nation in the world after China, India, and United States. The census conducted by Badan Pusat Statistik in 2015 reported that Indonesia has 254,9 million people. Indonesia is divided into 30 provinces and consists of many different ethnics like Javanese, Sundanese, Madurese, Chinese, and Arab that spread over the country. The economic and the financial condition for every region in Indonesia are different. Therefore, the financial knowledge of Indonesian people may different because of the diversity. It is also impact the level of financial literacy. The level of financial literacy in Indonesia are in a low level compared with other countries. It is revealed in a survey conducted by Indonesian Financial Services Authority (Otoritas Jasa



Keuangan) in 2013, it is found that Indonesia's populations still experience a relatively low rate of financial literacy. Only 21.84% of Indonesian population is categorized as well literate, 75.69% is sufficient literate, 2.06% is categorized as less literate and 0,41% not literate. Otoritas Jasa Keuangan also found the survey about financial literacy among students in Indonesia that is only 28.28%. The data indicates that Indonesia's students are lack of knowledge about financial and it becomes serious problem for Indonesia because student eventually will make up the population in Indonesia and contribute for the change in the level of financial literacy.

For most students, their college time is their first experience in managing their own finances. Students may face financial problems with their new environment. Students should be able to see how to independently arrange their finances properly and responsible for the decisions they have made. Students should have financial knowledge early to organize their finances well in the future and assume more responsibility for their own financial well-being. Therefore, Otoritas Jasa Keuangan is responsible to increase financial literacy of people in Indonesia especially in 2015, they were focus to improve literacy of Indonesia's students. They are responsible to arrange the education, literacy campaign, and also developing education infrastructure.

People who never get financial education may have lower levels of financial literacy, be less interested in financial products, and have worse financial decision. Many papers said that the impact of poor decision making due to lack of financial knowledge can be overcome through financial education, in other words financial knowledge appears to be directly correlated with self-financial literacy (Hilgert, 2003). However, questions exist concerning the effectiveness of financial education in improving financial literacy (Lyons, Palmer, Jayaratne, & Scherpf, 2006). There are also research indicated that those who took the course or financial education were no more financially literate than those who had not. (Lewis Mandell, 2009)

The factors that affect financial literacy is not only from the education, but also demographics characteristic. The example is ethnic/racial and regional differences: city-dwellers in Russia are better informed than their rural counterparts, while in the U.S., African Americans and Hispanics are relatively less financially literate than others (Lusardi A, 2011). The other example is the research from Chen and Volpe (1998), it explained that men are more understand about financial and more literate than women. This research focus on a case study that examines the determinants of financial literacy of business students in ITB who had taken the financial courses and those who had not taken any financial course.

### *1.2 Research Question*

1. What are the determinants of financial literacy of students?
2. What is the level of financial literacy index of students?
3. What are the recommendation for policy maker and further researcher?

### *1.3 Research Objective*

This research will examine the determinants of financial literacy among Indonesian business students and measure the financial literacy index of Indonesian business students based on each demographic factors and the overall index. This research will also give recommendation from policy makers and further researcher.

## **2. Literature Review**

### *2.1 Financial Literacy*

Financial literacy is the ability to use knowledge and skills to manage financial resources effectively for lifetime financial security (Huston, 2010). Another definition referred to (Annamaria Lusardi, 2009), financial literacy is an important component of financial decision-making. Lack of financial literacy may cause someone more likely to have a problem with debt, involved in high credit costs, and unlikely to plan their financial planning for the future (Lusardi and Mitchell, 2010). (Chang and Hanna 1992) found that individuals with high levels of financial knowledge appeared to make more efficient decisions when contrasted with those possessing lower levels of financial knowledge. Educational attainment is one of important determinants of financial literacy, but they are not the sole determinants. Research also found that financial knowledge among the young is strongly influenced by family background (Annamaria Lusardi, 2009).

Another remarkable finding has to do with persistent international sex differences in financial literacy: in most cases, women are less financially knowledge than are men. There is a systematic and persistent difference between men and women in financial literacy (Lusardi A, 2011). Women typically participate less than men in the stock market, while also scoring lower on financial literacy. Grouping people by such characteristics as income, gender,

age, or rural residence can reveal important gaps in account ownership (Asli Demirguc-Kunt, 2015). This statement strengthened by (Arindam Laha, 2011) that said economic status and the level of education of the household is found to be positively and significantly correlated with the degree of the knowledge and the use of financial products.

## 2.2 Financial Literacy Variables

To measure the financial literacy, most studies use the variables defined by (Lusardi, 2007). It classifies the level of financial literacy into basic financial literacy and advanced financial literacy.

### 2.2.1 Basic Financial Literacy

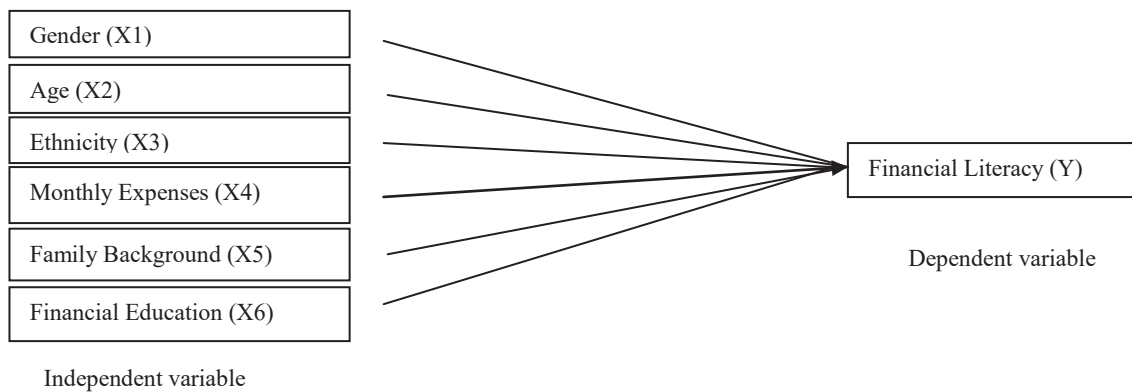
Basic financial literacy evaluates the knowledge of basic economic concepts and formal financial products like the knowledge of saving account in bank, ability to calculate basic financial numeracy such as simple interest, compound interest, inflation, discounting, and risk diversification.

### 2.2.2 Advance Financial Literacy

Advance financial literacy covers topics such as the concept of risk return, difference between stocks and bonds, the function of the stock market, the relationship between bond prices and interest rates.

## 2.3 Conceptual Framework and Hypothesis

Figure 2.1 Theoretical Framework



H1: Gender is significantly and positively influences financial literacy index of students

H2: Age is significantly and positively influences financial literacy

H3: Ethnicity is significantly and positively influences financial literacy

H4: Monthly expenses is significantly and positively influences financial literacy

H5: Family background is significantly and positively influences financial literacy

H6: Financial education is significantly and positively influences financial literacy

## 3. Methodology

This research used primary data collected by questionnaires distributing to the 300 business students of Institut Teknologi Bandung. After the data collected, each variables of Basic Financial Literacy and Advance Financial Literacy are assigned score 1 for correct answer and 0 for incorrect answer or do not know. In allocating the weight for each financial literacy variables, the method utilized is simple weight method by sum up the total score for each variables multiplied by its weight. Based on SEADI (2013), the rule for financial literacy categorizes as follow :

1. Financial Literacy Index that lower than or equal to 60 is categorized as low financial literacy index ( $0 < FLI \leq 60$ )
2. Financial Literacy Index that higher than 60 and less than or equal to 80 is categorized as moderate financial literacy index ( $60 < FLI \leq 80$ )
3. Financial Literacy Index which is higher than 80 is categorized as high financial literacy index ( $80 < FLI$ )

Multilinear regression used to examine the determinants of financial literacy index of students based on demographic factors. The model is as follows:



$$FL = \beta_0 + \beta_1 GENDER_1 + \beta_2 AGE_2 + \beta_3 ETHNIC_1 + \beta_4 ETHNIC_2 + \beta_5 ETHNIC_3 + \beta_6 ETHNIC_4 + \beta_7 EXPENSES_4 + \beta_8 EDU_5 + \beta_9 FAMBACKGROUND_6 + e$$

<i>FL</i>	= Financial Literacy Index		
<i>GENDER</i> <sub>1</sub>	= Gender	<i>ETHNIC</i> <sub>4</sub>	= Ethnic Minang
<i>AGE</i> <sub>2</sub>	= Age	<i>EXPENSES</i> <sub>4</sub>	= Monthly Expenses
<i>ETHNIC</i> <sub>1</sub>	= Ethnic Jawa	<i>EDU</i> <sub>5</sub>	= Financial Education
<i>ETHNIC</i> <sub>2</sub>	= Ethnic Sunda	<i>FAMBACKGROUND</i> <sub>6</sub>	= Family Educational Background
<i>ETHNIC</i> <sub>3</sub>	= Ethnic Batak		

#### 4. Result and Analysis

##### 4.1 Financial Literacy Index

Table 4.1 Financial Literacy Index

	Basic Literacy	Advance Literacy	Overall Literacy
mean	67.48	50.72	59.10
median	72.73	58.33	61.74
st. deviation	24.26	26.76	23.88
minimum	9.09	0.00	8.71
maximum	100.00	100.00	100.00

From table above, it can be seen that the mean in basic literacy index of students is 67.48 and categorized as moderate level ( $60 < FLI \leq 80$ ), while the advance literacy index of students is 50.72 and categorized as low level ( $0 < FLI < 60$ ). The overall financial literacy index is 59.10, so this is suggesting that the financial literacy of Indonesian students is still at the low level.

Table 4.2 Financial Literacy Index of Each Demographic Factor

FACTORS		BFL index	AFL index	Overall index
Gender	Male	74.29	56.71	65.50
	Female	62.42	46.27	54.35
Age	17	42.21	23.81	33.01
	18	54.45	38.95	46.70
	19	64.56	45.32	54.94
	20	78.62	60.80	69.71
	21	89.22	74.81	82.01
	22	82.95	73.96	78.46
Ethnic	Jawa	66.39	50.21	58.30
	Sunda	60.89	45.24	53.07
	Minang	65.45	48.33	56.89
	Batak	77.45	55.67	66.56
	Others	73.82	55.17	64.50
Monthly Expenses	<1,000,000	67.36	49.73	58.54
	1,000,000–2,500,000	68.13	51.31	59.72

	2,500,001–4,000,000	62.34	48.81	55.57
	4,000,001–5,500,000	63.26	48.96	56.11
Family Background	SMA	65.66	51.85	58.75
	D3	68.18	43.06	55.62
	S1	65.77	50.52	58.14
	S2	69.86	51.83	60.84
	S3	67.88	47.78	57.83
Financial Education	No	53.76	35.61	44.68
	Yes	81.09	64.44	72.77

#### 4.2 Regression of Demographic Factors and Financial Literacy Index

Table 4.3 Result of Multilinear Regression

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-66.157	19.514		-3.390	.001
GENDER	5.716	2.116	.119	2.701	.007
AGE	6.117	1.057	.311	5.787	.000
ETHNIC1 (Jawa)	-4.892	2.866	-.100	-1.707	.089
ETHNIC2 (Sunda)	-5.522	3.242	-.094	-1.703	.090
ETHNIC3 (Batak)	-.133	4.343	-.002	-.031	.976
ETHNIC4 (Minang)	-6.107	3.811	-.082	-1.602	.110
MONTHLY EXPENSE	.396	2.594	.007	.153	.879
FINANCIAL EDUCATION	19.546	2.520	.410	7.755	.000
FAMILY EDUCATION BACKGROUND	-1.249	2.354	-.024	-.531	.596
Adjusted R Square	0.453				

Referring to the Table 4.3 the regression equation that correlate the independent variable and the dependent variable can be shown as follows:

The adjusted R square in this research is 0.453 , it means that 45.3% of financial literacy were affected by gender, age, ethnic, monthly expense, financial education, and family background. While the rests 54.7 % were influenced by other variables, which are not mentioned in this research.

Financial Literacy = -66.157 + 5.716 Gender + 6.117 Age – 4.892 Jawa ethnic – 5.522 Sunda ethnic - 0.133 Batak ethnic – 6.107 Minang ethnic + 0.396 Monthly Expense + 19.546 Financial Education – 1.249 Family Educational Background

Those equations can be explained as follows:

Gender is significantly and has positive effect to financial literacy. Financial literacy of men is 5.716 higher than female. It means that male students are more literate than female. It suitable with previous research by (Lusardi, 2011) said that women uniformly know less, and they know they know less, than do men, in terms of financial knowledge.



Age is significantly and has positive effect to financial literacy. If age increase by 1 level, financial literacy will increase 6.117. It is because along with the increasing in their age, they get more knowledge and awareness to manage their finance better.

Ethnic is not significantly affecting the financial literacy. It because the ethnic of students may not pure and they live in Bandung. So they have to adapt the situation and their behavior become one. So, their ethnicity cannot reflect their literacy. However, from the descriptive index, batak ethnic is the highest, it means that from the five ethnics, batak is more literate than others and followed by, jawa, minang, and sunda.

Monthly Expenses is not significantly affecting the financial literacy. It because the expenses of students cannot represent their financial knowledge. Besides that, the monthly expenses of students are quite the same and still depend on their parents. So the index is not too different.

Financial Education is significantly and has positive effect to financial literacy. The index of students who had taken the financial course is 19.546 higher than students who had not taken the financial course. It can be said that the financial education they had is effective and has a positive impact to the financial literacy.

Family background that is the last education of head family is not significantly affecting the financial literacy. Even though their parents had low education, it did not mean that the knowledge of students is also low.

## 5. Conclusion and Recommendation

### 5.1 Conclusion

Based on the result of questionnaire related to basic and advanced financial knowledge using simple weight analysis method, the results show that Indonesian students have low level of financial literacy (below 60). The descriptive analysis shows the determinants of financial literacy, which are gender, age, and financial education. Other demographic factors are not significant, but the level of financial literacy of each demographic factor is show.

### 5.2 Recommendation

The findings suggest to the policy maker to improve the financial literacy of Indonesian students because the level of the financial literacy is low. Since the level in advance financial literacy is severely low, the policy makers may focusing more on the advance financial knowledge. Financial education that has proven effective is needed in order to increase student's financial literacy and better financial decision-making. It is recommended also for non-business students to also get financial education to increase the financial literacy of all student in Indonesia. Finally, future research could extend this research by expanding the area of the research and investigate more variable that affect the financial literacy.

## 6. References

- Alfred Hannig, S. J. (2010). Financial Inclusion and Financial Stability: Current Policy Issues. *ADBI Working Paper Series*.
- Annamaria Lusardi, O. S. (2009). Financial Literacy among the Young : Evidence and Implications for Consumer Policy. *NATIONAL BUREAU OF ECONOMIC RESEARCH*.
- Asli Demircuc-Kunt, L. K. (2015). Measuring Financial Inclusion around the World. *World Bank Group*.
- Hilgert, H. B. (2003). Household Financial Management: The Connection Between Knowledge and Behavior. *Federal Reserve Bulletin, Vol. 89 Issue 7, p7*
- Huston, Sandra (2010). Measuring Financial Literacy. *The Journal of Consumer Affairs*.
- Johan Almenberg and Anna Dreber (2012). Gender, Stock Market Participation and Financial Literacy. *SSE/EFI Working Paper Series in Economics and Finance, No 737*.
- Lewis Mandell, L. S. (2009). The Impact of Financial Literacy Education on Subsequent Financial Behavior. *Association for Financial Counseling and Planning Education*.
- Maarten van Rooij, Lusardi A and Rob J. M. Alessie (2007). Financial Literacy and Stock Market Participation. *No 66, CeRP Working Papers from Center for Research on Pensions and Welfare Policies, Turin (Italy)*
- Braunstein S and Carolyn Welch (2002). Financial Literacy: An Overview of Practice. *Federal Reserve Bulletin*
- Emmanuel K (2014). Analysis of the Level of Financial Literacy among South African Undergraduate Students. *Journal of Economics and Behavioral Studies Vol. 6, No. 3, pp. 242-250*