

# Effects of Indonesian Students' Financial Literacy on Financial Behavior

Suyanto<sup>1\*</sup>, Doddy Setiawan<sup>2</sup>, Rahmawati<sup>3</sup>, Jaka Winarna<sup>4</sup>

<sup>1</sup> Universitas Sarjanawiyata Tamansiswa (UST), Yogyakarta, Indonesia

<sup>2, 3, 4</sup> Universitas Sebelas Maret, Surakarta, Indonesia

\*Corresponding author. Email: [iyant@ustjogja.ac.id](mailto:iyant@ustjogja.ac.id)

## ABSTRACT

The purpose of the study is to evaluate the effect of financial literacy on Indonesian students' financial behavior. The data were collected using questionnaires. Respondents who participated in the study were 347 students collected using a convenience sampling method. Furthermore, the data were analyzed by applying linear regression using SPSS 18. The results show that financial literacy has a positive effect on the Indonesian students' financial behavior, meaning that good financial literacy can convince someone to make better decisions about finances related to the use of funds in terms of savings and loans, insurance, and investments.

**Keywords:** *financial literacy, students' financial behavior*

## 1. INTRODUCTION

Every citizen is expected to be able to understand financial literacy, but in fact, this is not the case. According to an OJK survey conducted in 2019 on Indonesian people, the results show that the Financial Literacy Index in Indonesia is 38.03% (Media Indonesia 2020). The survey results show that not all people understand financial literacy, and have not optimally utilized financial products and services. Increasing understanding about financial literacy is very important to boost the number of users of financial products and services. Increased financial literacy is expected to have an impact on increasing the financial inclusion index so that people will save, invest, and carry out insurance for short and long-term interests.

Technological developments have an impact on the development of online shopping sites, the convenience and promos on online shopping sites, impacting the younger generation or students. Financial misunderstandings make them spend money without planning. Chen & Volpe [1], research shows that low financial literacy among students occurs due to a lack of education of personal finance at universities. Hamdani [2] and Ulfatun [3] research on economics students showed that their level of financial literacy was still low, even though students had been given knowledge about finance. This shows that lessons about financial

literacy are not sufficient for students to understand about the value of financial literacy.

Students' consumptive behavior occur because they do not have careful financial planning. Student consumption behavior cannot be separated from the influence of the family environment, friendship, economic conditions, and the beliefs of individuals [4]. One of the right steps in reducing this consumptive behavior is to manage individual expenses in a more planned and orderly manner. Most of the general public think that financial management is only applied in the scope of the company, but the fact is that personal financial management is an obligation [5]. This application should have been done early so that students will be more accustomed to managing finances and reducing consumptive behavior.

Students who come from rural areas when they study in the city, their associations will tend to follow city children who put forward appearance. If they are provided with financial education from their families, it will certainly increase their knowledge of financial literacy [6]. Parents play an important role in socializing finance [7]. Individuals must possess knowledge and skills to manage their personal financial resources effectively for their welfare. Apart from making short-term financial decisions such as savings and loans, people should consider long-term finances [8].

Learning in tertiary institutions plays an important role in shaping student financial literacy. With this learning, students are expected to be more aware of planning their finances in the future. The better the study of finance at the university, the better the financial behavior shown by students [9]. Learning in tertiary institutions also contributes to student financial behavior [10]. One way that can be given is learning about investment and savings. The level of students' financial literacy is still low, so it must be improved, especially those related to knowledge of financing, credit, savings, and investment [11].

Research related to Indonesian university students' financial literacy levels, is still limited. Most researchers conducted studies involving respondents who were only in the scope of one university so that these studies could not represent the level of financial literacy of all university students. This study aims to explore findings regarding the levels of financial literacy among a wider context by involving students from more than one university. According to [12] behavioral finance theory is a financial theory about the attitude of people ignoring everything in decision making and deliberately making a difference. Prospect theory is a theory regarding human decision-making whose results are uncertain in a situation [13]. The decision has the nature of certainty, probability, possibility. Every decision taken must have risks. The purpose of this study to evaluate the levels of Indonesian university students' financial literacy. Thus, it demonstrates that the researchers are interested in investigating the effect of financial literacy on students.

This research uses behavioral finance theory and prospect theory. Behavioral finance is a financial theory about the attitude of people ignoring everything in decision making and deliberately making a difference [12]. One of the essential elements in decision making is a psychological factor. Psychological factors determines investment decision making of an investor and the results to be achieved. Psychological factors tend to influence a person to act rationally. Prospect theory asserts that one does not always act according to financial theory standards under the risk of certainty, one adds psychological factors and erratic behavior to rational choices. This purpose of this study is to to evaluate descriptively the levels of Indonesian university students' financial literacy. In this study, the levels of student literacy are evaluated based on their understandings about personal finance in terms of savings and loans, investment, and insurance.

## **2. LITERATURE REVIEW**

Behavioral finance discusses the psychological and sociological elements determining the decision-making process of individuals, groups, and organizations [14]. Research conducted by [14] explains four points of

view, namely overconfidence, financial cognitive dissonance, regret theory, and prospect theory. Behavioral finance explains what causes some errors that have been observed and reported in financial literacy, behavioral finance provides many benefits that can be used for professional-level investing [15]. Behavioral finance is built on the framework of financial standards into a descriptive theory. This theory shows different models of individual habits constructed by different components such as prospect theory, cognitive errors, problems of self-control, and pain of regret [16].

Prospect theory was introduced by [13], which is a theory regarding human decision-making whose results are uncertain in a situation. Thus, this theory demonstrates how investors estimate and calculate the opportunity to gain or lose by risk based on stock and capital specifications [14]. It also assumes that losses and gains are measured differently. Therefore, individuals make decisions based on perceived benefits and not perceived losses.

### **2.1. Financial Literacy**

literacy is financial knowledge with welfare purposes [17]. Welfare tends to be measured from the level of an individual's economy, whereas to regulate an economic condition requires planning to use good finances. This is done to reduce the use of funds that are not in accordance with the needs, whether intentionally or unintentionally. Students must increase their understanding of personal finance, especially in the investment sphere [8].

According to OJK (2013), the level of public financial literacy in Indonesia is divided into 4 parts, namely Well Literate, namely possessing knowledge and belief about financial service institutions and financial service products, including features, benefits and risks, rights, and obligations related to financial products and services. and have skills in using financial products and services; Sufficient Literate is possessing knowledge and confidence about financial service institutions and financial service products, including features, benefits and risks, rights, and obligations related to financial products and services; Less Literate is only possessing knowledge about financial service institutions, financial products, and services; Not Literate is do not possess knowledge and confidence in financial service institutions and financial products and services, and do not possess skills in using financial products and services.

According to a survey conducted by the OJK (2013), most Indonesians are in the level, Sufficient Literate namely 75.69%, while Well Literate is 21.84%, Less Literate is 2.06%, and Not Literate is only 0.41%. This proves that most people already understand

financial literacy but have not used the financial products and services provided to the fullest.

Financial education in the family is able to provide good provisions in financial planning. If a student has been provided with good planning, it will have an impact on the awareness of students in managing their finances so that they do not become consumptive students when they are away from their family [18]. This education can be in the form of increasing shopping behavior, saving, and using credit cards [19]. According to a study [20] states that on average students use ATM cards only for pocket money withdrawals, those with deficits will make loans to fellow students, this is also exacerbated by their low understanding of investment.

Financial literacy, in this case is to help individuals avoid financial problems due to financial processing errors [21]. The development and enhancement of personal finance attitudes can be done in ways such as keeping financial records, spending not to exceed income, making insurance payments, diversifying investments, and avoiding loans [22]. For example, the intention to purchase insurance for students in [23] shows that the largest proportion of students have high self-esteem scores but low security scores. The intention to buy insurance is determined by the value of security and self-esteem, subjective financial knowledge, and attitudes towards life insurance.

## **2.2. Students' Financial Behavior**

A study [24] reported that students' financial behavior is determined by individual saving habits. There were nine personal financial behaviors, the first four were grouped as planning behavior and the other five were grouped as implementing behavior [25]. Research conducted by [26] shows that there are no differences in financial behavior according to the level of individual financial literacy. Individuals who have sufficient savings for unexpected expenses have a greater influence on financial literacy [2]. Individual consumptive behavior can be reduced by increasing financial understanding [27]. Additionally, self-control is also able to reduce the negative impact of individual consumptive behavior [28].

A good understanding of savings and loans, insurance, and investment can illustrate that the level of individual literacy is good in managing and making individual decisions [11]. Savings and loans, insurance, and investments are financial products that can provide benefits for the future. The study [29], showed that male students with large incomes and long work experience had high literacy levels. This could be because men have the view that they have more responsibility than women. In contrast, the results of research conducted by [30] states that gender, age, academic ability, and work experience do not affect

individuals' financial behavior. Thus, the proposed hypothesis of this study is that financial literacy has a positive effect on students' financial behavior.

## **3. RESEARCH METHODOLOGY**

This study used a descriptive method by distributing questionnaires. The population used is students in Indonesia. The samples obtained were 383 respondents from various universities in Indonesia, but only 347 respondents could be processed further. The results of the study provide an overview of the levels of financial literacy among university students in Indonesia. The sampling technique used was random sampling. The questionnaires used were selected based on the completeness of the data provided. Students' financial literacy and financial behavior variables are measured using indicators of a Likert scale of 1-5. This study used a statistical test of simple linear regression analyzed using the SPSS 18.

Financial literacy uses indicators of personal financial understanding: (1) I use financial planning to consider daily expenses; (2) I prepare a financial plan for financial needs and purposes; (3) I know the purpose of financial planning to escape financial difficulties; (4) My net worth is the difference between income and expenses; (5) I don't spend excessively because I have done financial planning; (6) I know the purpose of insurance for protection due to unforeseen risks; (7) I know that the capital market is a means of funding for companies and the government; (8) I know the capital market is an investment tool.

Financial behavior is measured by indicators of savings and loans consist of seven question items, namely: (1) I use a bank to store savings; (2) Deposits are designated for individual customers in the form of securities; (3) If the credit card has reached the limit, I will stop using it; (4) If we have money in the bank then make payments for shopping for goods, can use a debit card; (5) The calculation of compound interest will continue to increase from year to year calculated from the previous year's capital; (6) The benefit of saving in personal financial management is to save money for future needs; (7) I made a loan because of financial difficulties.

Insurance consists of three questions, namely: (1) I have already had life insurance coverage for me; (2) All community groups can use insurance services to protect any assets; (3) Insurance helps me to protect myself and my family from losses due to various risks.

Investment consists of five questions, namely: (1) I know that not all capital market products are high risk, some are medium and low risk; (2) I understand very well that by investing the lower the risk, the higher the profit; (3) Investments that generate high returns also have a high risk; (4) I choose to invest for future profit;

(5) I know the understanding of investment from studying investment related to university.

## 4. RESULTS AND DISCUSSION

### 4.1. Respondents' Characteristics

Most respondents of the study were women (69.17%). The majority of student respondents were 19 years - 22 years old (76.37%), and the majority of education was S1 degree of 307 or (88.47%).

**Table 1.** Respondents' Characteristics

Characteristics	Frequency	Percent
<b>Gender</b>		
Male	107	30.83
Female	240	69.17
<b>Age</b>		
Less than 19 Years	20	5.76
19 Years - 22 Years	265	76.37
Above 20 Years	62	17.87
<b>Education</b>		
D3	18	5.19
S1	307	88.47
S2	9	2.60
S3	13	3.74

### 4.2. Validity and Reliability

The results of the validity test show that the value of the corrected item-total correlation > from r-table (0.1053) and it is declared valid. The value Cronbach's alpha based on std>0.70 and it is declared reliable.

**Table 2.** Validity and reliability

Financial Literacy		Financial Behavior	
PK1	0.528	TP1	0.276
PK2	0.497	TP2	0.363
PK3	0.474	TP3	0.239
PK4	0.258	TP4	0.442
PK5	0.402	TP5	0.295
PK6	0.323	TP6	0.191
PK7	0.358	A1	0.274
PK8	0.375	A2	0.518
		A3	0.524
		I1	0,509
		I2	0.204
		I3	0.501
		I4	0.512
		I5	0.369
		I6	0.261
<i>Cronbach's alpha based on std</i>			
	<b>0.712</b>		<b>0.767</b>

From Table 1, it can be seen that all the questions are declared valid, for variable financial literacy and financial behavior otherwise reliable.

### 4.3. Classical Assumptions

The results of the classical assumption test of the effect of financial literacy on financial behavior consisting of normality test (Kolmogorv-Smirnov test), multicollinearity test (VIF and tolerance), and heteroscedasticity test (Park test) can be seen in the table below.

**Table 3.** Classical Assumption Test

Normality	Multicollinearity		Heteroscedacity
	Toll	VIF	
0.729	1.000	1.000	0.098

Based on the classical assumption test results, it can be concluded that the normality test data is declared normal because of the asymp. Sig> 0.05, in the multicollinearity test the data stated that there was no multicollinearity because the tolerance value> 0.1 and the VIF value <10, the heteroscedasticity test stated that there was no heteroscedasticity because the sig value> 0.05

### 4.4. Hypothesis Test

The results of hypothesis testing in Table 4 show the hypothesis that the effect of financial literacy on student financial behavior is accepted with a significant value <0.05.

**Table 4.** Test results

Hypothesis	Std. Coeff	T	Sig	Coeff. Determination
	Beta			
LK → PK	0.577	13.127	0.000	0.333

#### 4.4.1. The Effect of Financial Literacy on Students' Financial Behavior

The relationship between financial literacy and students' financial behavior is evidenced by a statistical T value of 13.127, a statistical T value> of 1.96. Therefore, it can be concluded that there is an effect of financial literacy on students' financial behavior. Thus, the hypothesis is accepted. Financial behavior is influenced by financial literacy of 0.333 or 33.3, while 66.7 can be influenced by other variables and the direction of the relationship between financial literacy and student financial behavior is a positive relationship, meaning that good financial literacy can convince someone to make a decision. about finances better.

Therefore, with a strong understanding, students will be able to manage finances wisely and will not act consumptively.

The findings of this study support studies done by [32], [33], ([34] which state that financial literacy determines financial behavior. A study conducted by [32] stated that young people who really understand financial literacy will automatically have an impact on their financial behavior. Students with high financial literacy have good financial behavior [33]. With the financial knowledge obtained, students will be helped in managing their personal finance so that they can avoid financial problems in the future.

## 5. CONCLUSION

Good financial literacy is able to determines Indonesian university students' financial behavior to be better. It is in line with a study done by [31] which showed that financial literacy has a significant influence on personal financial behavior among students. A study conducted by [8] suggested that students had to improve their financial literacy about personal finance, especially about investing. Therefore, it is needed to be done to provide knowledge to students to possess abilities to manage their finances. This financial literacy can be used in making decisions regarding the use of funds in terms of savings and loans, insurance, and investments.

From the findings of the study, the researchers hope that university students will be more aware of the importance of planning and managing finances properly so that these funds can be useful for more important things both for the present and the future. The limitation of this research is the uneven number of respondents in each region. There is a fairly high data imbalance between the western part of Indonesia and the eastern part of Indonesia. One of the suggestions for further research is to increase the number of variables as well as equalizing the distribution of respondents so that the data used to describe are in a balanced level of literacy. Furthermore, adding more factors or variables that might affect students' financial literacy and financial behavior and expanding the scope of respondents outside university students, such as employees are highly suggested in future studies.

## ACKNOWLEDGMENTS

The researchers would like to thank Universitas Sarjanawiyata Tamansiswa (UST) Yogyakarta Indonesia and Universitas Sebelas Maret Indonesia for their support in conducting this research.

## REFERENCES

- [1] Chen, H., & Volpe, R. (1998). An Analysis of Personal Financial Literacy Among College Students. *Financial Services Review*, 7(2), 107–128. <https://doi.org/10.3788/CJL201643.0811001>
- [2] Hamdani, M. (2018). Analisis Tingkat Literasi Keuangan Dan Pengaruhnya Terhadap Perilaku Keuangan Pada Mahasiswa Prodi Manajemen Universitas Terbuka. *Jurnal Bakti Masyarakat Indonesia*, 1(1), 139–145.
- [3] Ulfatun, T., Udhma, U. S., & Dewi, rina sari. (2016). Analisis Tingkat Literasi Keuangan Mahasiswa Fakultas Ekonomi Universitas Negeri Yogyakarta Tahun Angkatan 2012-2014. *Pelita*, XI Nomor 2, 1–13.
- [4] Septiana, A. (2012). Fenomena Perilaku Konsumsi Mahasiswa Dilihat Dari Literasi Keuangannya. *Universitas Trunojoyo*, 1–10.
- [5] Muttaqin, N., Agustina, H., & Khusnah, H. (2018). Perencanaan Keuangan Pribadi Untuk Remaja. *Jurnal Unusa*, 2(1), 17–20.
- [6] Putri, A. R., & Asrori. (2018). Determinan Literasi Finansial Dengan Gender Sebagai Variabel Moderasi. *Economic Education Analysis Journal*, 7(3)(3), 529–536.
- [7] Cude, B. J., Lawrence, F. C., Lyons, A. C., Metzger, K., LeJune, E., Marks, L., & Machtmes, K. (2006). Eastern Family Economics and Resource Management Association College Students and Financial Literacy: What They Know and What We Need to Learn. *Eastern Family Economics and Resources Management Association*, 102–109.
- [8] Farah Margaretha, R. A. P. (2015). Tingkat Literasi Keuangan Pada Mahasiswa S-1 Fakultas Ekonomi. *Jurnal Manajemen Dan Kewirausahaan*, 17(1), 76–85.
- [9] Erawati, N., & Susanti. (2017). Pengaruh Literasi Keuangan, Pembelajaran di Perguruan Tinggi, dan Pengalaman Bekerja terhadap perilaku Keuangan Mahasiswa Fakultas Ekonomi Universitas Negeri Surabaya. *Jurnal Pendidikan Akuntansi (JPAK)*, 5(1), 1–7.
- [10] Herawati, N. T. (2015). Kontribusi pembelajaran di perguruan tinggi dan literasi keuangan terhadap perilaku keuangan mahasiswa. *Jurnal Pendidikan Dan Pengajaran*, 1–3(48), 60–70. <https://doi.org/10.23887/jppundiksha.v48i1-3.6919>

- [11] Rosyeni, R. (2012). Analisis Tingkat Literasi Keuangan Mahasiswa Program Studi Manajemen Fakultas Ekonomi Universitas Negeri Padang. *Jurnal Kajian Manajemen Bisnis, 1*, No Pages.
- [12] Bodie, Z., Kane, A., & Marcus, A. J. (2013). *Manajemen Portofolio dan Investasi*.
- [13] Kahneman, D., & Tversky, A. (1979). Prospect theory: An analysis of Decision Under Risk. *Econometrica, 47*(2), 263–292. <https://doi.org/10.2307/1914185>
- [14] Ricciardi, V., & K. Simon, H. (2000). What Is Behavioral Finance? *Handbook of Finance*, (May 2014). <https://doi.org/10.1002/9780470404324.hof002009>
- [15] Fuller, R. J. (1998). Behavioral Finance and the Sources of Alpha. *Journal of Pension Plan Investing, 2*(3).
- [16] Statman, M. (1995). *Behavioral Finance versus Standard Finance. 81*(1–2), 14–21. <https://doi.org/10.1007/BF02149112>
- [17] Lusardi, A., & Mitchell, O. S. (2014). The Economic Importance of Financial Literacy: Theory and Evidence. *Journal of Economic Literature, 52*(1), 5–44.
- [18] Astuti, K. D. (2018). Tingkat Kesadaran Mahasiswa Dalam Menyusun Perencanaan Keuangan Pribadi. *Journal of Chemical Information and Modeling, 53*(9), 1689–1699.
- [19] Rina, L. (2017). *Upaya Peningkatan Literasi Keuangan Melalui Pendidikan Keuangan Dalam Menciptakan Perilaku Menabung Di Kalangan Mahasiswa*.
- [20] Suryanto. (2017). Pola Perilaku Keuangan Mahasiswa Di Perguruan Tinggi. *Jurnal Ilmu Politik Dan Komunikasi, VII*(1), 11–20.
- [21] Yushita, A. N. (2017). Pentingnya Literasi Keuangan Bagi Pengelolaan Keuangan Pribadi. *Jurnal Nominal, VI*(1), 11–26.
- [22] Leon, F. M. (2017). Pemahaman Pengetahuan Keuangan Dalam Menghadapi Masyarakat Ekonomi Asean. *Jurnal Manajemen Bisnis, 12*(2), 103–116.
- [23] Pratiwi, N. A., & Hartoyo, H. (2014). Analisis Niat Beli Asuransi Jiwa pada Mahasiswa: Aplikasi Theory of Planned Behavior. *Jurnal Ilmu Keluarga Dan Konsumen, 7*(1), 58–66. <https://doi.org/10.24156/jikk.2014.7.1.58>
- [24] Wildayati. (2018). Pengaruh Financial Behavior dan Literasi Keuangan Terhadap Saving Behavior. *Jurnal Elektronik Riset Ekonomi Bidang Manajemen Dan Akuntansi, 20*, 138–148.
- [25] Heck, R. K. Z., & Trent, E. S. (1999). *The Prevalence of Family Business from a Household Sample* (pp. 209–219). pp. 209–219.
- [26] Rizkiana, Y. P., & Kartini. (2017). *Analisis Tingkat Financial Literacy Dan Financial Behavior Mahasiswa S-1 Fakultas Ekonomi Universitas Islam Indonesia. 7*(1), 76–99.
- [27] Imawati, I., Susilaningsih, & Ivada, E. (2013). Pengaruh Financial Literacy Terhadap Perilaku Konsumtif Remaja Pada Program IPS SMA Negeri 1 Surakarta Tahun Ajaran 2012/2013. *Jupe UNS, 2*(1), 48–58.
- [28] Dikria, O., & W, S. U. M. (2016). Pengaruh literasi keuangan dan pengendalian diri terhadap perilaku konsumtif mahasiswa jurusan ekonomi pembangunan fakultas ekonomi universitas negeri malang angkatan 2013. *Jurnal Pendidikan Ekonomi, 09*(2), 128–139.
- [29] Lantara, I. W. N., & Kartini, N. K. R. (2016). Financial Literacy Among University Students: Empirical Evidence From Indonesia. *Journal of Indonesian Economy and Business, 29*(3), 247–256. <https://doi.org/10.22146/jieb.10314>
- [30] Laily, N. (2016). Pengaruh Literasi Keuangan Terhadap Perilaku Mahasiswa Dalam Mengelola Keuangan. *Journal of Accounting and Business Education, 1*(4). <https://doi.org/10.26675/jabe.v1i4.6042>
- [31] Fatimah, D. N. (2017). Pengaruh Literasi Keuangan Terhadap Perilaku Keuangan Mahasiswa (Perbandingan Mahasiswa Ekonomi Dan Non Ekonomi). *Skripsi*.
- [32] Kumar, S. (2017). The Influence of Financial Literacy Towards Financial Behavior and its Implication on Financial Decisions : A survey of President University Students in Cikarang - Bekasi. *Firm Journal of Management Studies, 2*(1), 169–179.
- [33] Arofah, A. A., Purwaningsih, Y., & Indriayu, M. (2018). Financial Literacy, Materialism and Financial Behavior. *International Journal of Multicultural and Multireligious Understanding, 5*(4), 370.
- [34] Edirisinghe, U. C., Keerthipala, Y. M. S., & Amarasinghe, A. R. (2017). Financial literacy and financial behavior of management undergraduates of Sri Lanka. *International Journal of Management and Applied Science, 3*(7), 1–5. <https://doi.org/10.4324/9780429431968-3>