

Demographic characteristics, personality characteristics, and the level of student's financial literacy

Gatot Nazir Ahmad^{a*}, Sholatia Dalimunthe^a, Siti Thahirah^a and Hania Aminah^a

^a*Faculty of Economics Universitas Negeri Jakarta, Indonesia*

CHRONICLE

Article history:

Received May 15 2020
Received in revised format May 16 2020
Accepted June 29 2020
Available online July 2 2020

Keywords:

Demographic characteristics
Financial literacy
Logistic regression
Personality characteristics

ABSTRACT

The purpose of this study is to analyze the demographic and personality characteristics toward the level of student's financial literacy. We use gender, age, parental income, pocket money, and place of residence as the proxies of demographic characteristics. In addition, financial attitude, and financial behavior are considered as proxies of personality characteristics. The population of this research is the students of business/management department of Universitas Negeri Jakarta. We use 194 students as the sample which represents twenty percent of population. The result of this study shows that the level of financial literacy of the students is in middle category. We use logistic regression as the statistical tool and also found that several proxies like age, pocket money, and financial behavior had positive effects toward the level of student's financial literacy. However, other proxies like residence and financial attitude had a negative sign on financial literacy. While gender and parental income had no significant effect on financial literacy.

© 2020 by the authors; licensee Growing Science, Canada

1. Introduction

In Indonesia, financial literacy has become one of the issues of discussion topics. This issue is a special concern for Governments and financial institutions since it establishes a way of thinking about the community in terms of good financial management and has a vision-oriented towards the future. Therefore, the development of the Indonesian society mindset is important to have a positive impact on the Indonesian economy and can enrich the community. Knowledge of finance is supposed to be given by current students. Lessons on financial management in the lecture should be taken seriously for students to have financial knowledge in the course of college. Students can find courses consisting of financial aspects of financial management, investment, and capital markets, investment management, banks, and other financial institutions, etc. (Herawati, 2017). Financial literacy not only involves knowledge and ability alone regarding financial problems but also on non-cognitive-like attitudes. Financial attitudes are interpreted as the psychological characteristics of a person relating to personal financial matters. To achieve the financial welfare of students, we need to have the knowledge, attitudes, and implementation for managing finances. Such financial attitudes are open to information, given the importance of managing finances in order not to be consumptive, future-oriented, and responsibility (Andasari, 2018). One of the factors that can affect the student's financial literacy is the demographic factor that the students have (Wardani et al., 2017:84). These demographic factors are like gender, parental income age, shelter and pocket money. Gender is one of the factors that can affect a student's financial literacy. According to Dinianty

* Corresponding author.

E-mail address: ahmad72nazir@gmail.com (G. N. Ahmad)

(2016), personality characteristics can affect the financial literacy of a student. Characteristics of the personality include financial attitude and financial behavior. According to Wardani et al. (2017), financial attitude can affect the level of financial literacy. A person who has a good level of financial literacy will have a strong belief that money can improve his/her financial literacy. Mabyakto (2017) suggests that financial behavior affects the level of financial literacy. Individuals who can make financial decisions and create short-term and long-term financial planning can also make cost and unrushed planning in making financial decisions and manage good finances and to overcome financial problems in the future that have good financial behavior. This statement is supported by research conducted by Sjam (2015) and Wardani et al. (2017) which indicate significant financial behavior against the level of financial literacy. However, some studies indicate that financial behavior would not affect the level of financial literacy (Pahrudin et al., 2018). Seeing the importance of financial literacy for a student, the utility will research the student's financial literacy rate and the factors that affect it, namely personality characteristics and demographic characteristics. The characteristics of the student's demographics used in this study include gender, age, the income of parents, allowance, and shelter. While the characteristics of personality that will be used in the research are financial attitude, and financial behavior.

2. Theoretical background

2.1 Financial literacy

According to Arif (2015), financial literacy is a knowledge and understanding of financial concepts, abilities, motivations, and beliefs in applying some of the knowledge and understanding that is stated in making effective decisions on the scope of financial context to improve the financial welfare of communities and individuals and allow it to participate in economic life. Meanwhile, according to Rachmasari (2018), financial literacy is an individual knowledge in managing economic information for decision making.

2.2 Demographic characteristics

2.2.1 Gender

According to Maulani (2016), high financial literacy is seen in the male gender compared to female students. Male traits tend not to pay attention to the decisions they take since male traits differ from women: independent, not overly emotional, logical and easy to make decisions. Female students are more considering when they want to make financial decisions, it can be seen that male students have more confidence and dare in determining the choice of comparison with women.

2.2.2 Age

According to Wijaya et al. (2017) age is the limit or level of living size of affecting a person's physical condition. Age plays an important role in deciding on one of the decisions in determining the appropriate financial products and services. The more mature someone's age, the wiser decision since the older people are more cautious and do not want for excess expenditure. Sakinah and Mudakir (2018) describe older students have better financial literacy rate.

2.2.3 Partial Income

Students who have high-income parents have high financial literacy for their financial management (Margaretha & Pambudi, 2015; Maulani, 2016).

2.2.4 Pocket money

Pocket money is one source of income for students. Students can train their finances by managing their pocket money to be able to meet their needs during the lecture. Also, students can try to set aside their pocket money by utilizing banking financial products, such as savings and investments (Wardani et al., 2017).

2.2.5 Place of residence

According to Maulani (2016), the students who do not live with their parents tend to have self-reliance and management of their finances. Other than that, the money they have is limited so it should be well managed to be used wisely and effectively in order not to experience financial problems.

2.3 Personality characteristics

2.3.1 Financial Attitude

According to Mien and Thao (2015), explaining the financial attitude is shaping the way people spend time, save, hoard, and waste money. According to Herdjono and Damanik (2016), financial attitude is also related to the financial difficulties that are often faced by young people.

2.3.2 Financial Behavior

According to Wicaksono (2015), the financial behavior learns how human beings behave in a financial determination, the case is to learn how psychology is the financial decisions of the company and the financial markets. Phung (2016) states that financial behavior is a relatively new field that seeks to incorporate behavioral and cognitive psychology theories with conventional economics and finances to explain why people make financial decisions.

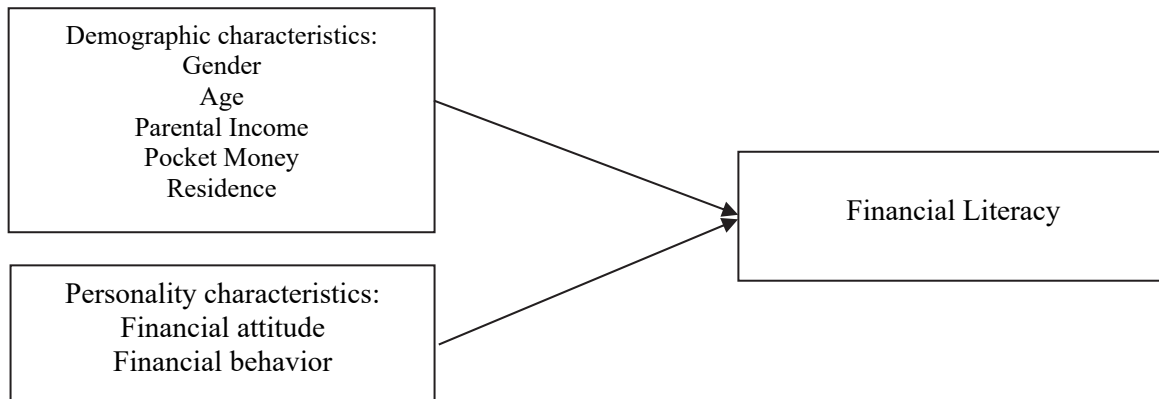


Fig. 1. Conceptual Framework

2.4 Hypothesis

Based on the conceptual framework, we formulate the following hypothesis in this study:

H₁ : gender has a significant effect on the level of financial literacy.

H₂ : age has a significant effects on the level of financial literacy.

H₃ : parent's income has a significant effect on the level of financial literacy.

H₄ : pocket money has significant effect on the level of financial literacy.

H₅ : residence has a significant effect on the level of financial literacy.

H₆ : financial attitude has a significant effect on the level of financial literacy.

H₇ : financial behavior has a significant effect on the level of financial literacy.

3. Research methodology

3.1 Population and Sample

The population used in this study is the business/management student of the Universitas Negeri Jakarta. The following are the data that became the population of this research:

Table 1

Data Student of Business/Management Program

Class	Male	Female	Total
2015	51	65	116
2016	51	77	128
2017	50	83	133
Total of Student			377

The calculation of samples in this study uses the Slovin formula, as follows:

$$n = \frac{N}{1 + N(e)^2} \quad (1)$$

where n , N and e represent the number of samples, number of population and percent tolerance to sampling errors, respectively. So, the number of samples gained with the default error of 5% is $n = \frac{377}{1+377(0.5)^2} = 194$. Then, the sample that will be used in this study is 194 students. The sampling techniques in this study used stratified random sampling.

3.2 Operational Definitions and Measurements

3.2.1 Dependent variable (Y)

Financial literacy is the ability to make consideration and make effective decisions related to the management of money usage. According to Rachmasari (2018), there are four (4) indicators in measuring the level of financial literacy which are general personal financial knowledge, savings, insurance, and investments.

3.2.2 Independent variable

- Gender (X1), physical and psychic properties distinguish between males and females. The gender is divided into two (2) categories, which are 0 for female and 1 for male.
- Age (X2), the level of living size which affects a person's physical condition. Age is divided into two (2) categories of 0 for ≤ 20 years of age and 1 for > 20 years of age.
- Parent's income (X3), the amount of money gained by parents both the outcome of work and the business that the student's parents have. Parent's income is divided into two (2) categories, which are 0 for \leq Rp 5 million and 1 for $>$ Rp 5 million.
- Pocket Money (X4), the money received by students in terms of a month that comes from parents. Pocket Money is divided into two (2) categories, namely 0 for \leq Rp 2 million and 1 for $>$ Rp 2 million.
- Housing (X5), where students live during the lecture period. Student residence is divided into two (2) categories, which are 0 for parent's/Guardian's house and 1 for boarding/rented/dormitory.
- Financial attitude (X6), is interpreted as a state of mind, opinion, and assessment of finances. According to Prihastuty and Rahayuningsih (2018), financial attitude indicators, are obsession, power, effort, inadequacy, retention, and security.
- Financial behavior (X7), a person's behavior on how to treat its financial resources in making a monetary decision. According to Mabyakto (2017), financial behavior indicator are setting financial goals, accurately estimate the cost, planning and aging the current shopping, adjusting to meet the state of emergency finances, meet deadlines or bills on time, plan the savings, and manage expenses, minimize waste.

Then, the measurement of the financial attitude variable and financial behavior using the Likert scale, as follows:

4. Results and discussion

The results show the distribution of respondents based on demographic characteristics:

Table 4
Respondents demographic characteristics

Variables		Number of Respondents	Percentage(%)
Gender:	1. Female	117	60.3
	2. Male	77	39.7
Age:	1. ≤ 20 years	68	35
	2. > 20 years	126	65
Parental income:	1. \leq Rp. 5.000.000	116	59.8
	2. $>$ Rp. 5.000.000	78	40.2
Pocket money per month:	1. \leq Rp. 2.000.000	140	72.2
	2. $>$ Rp. 2.000.000	54	27.8
Residence:	1. Parent's house	154	79.4
	2. Rent/dormitory	40	20.6

According to Table 4, it can be seen that female respondents are amounted to 177 or 60.3% and males are counted for 77 or 39.7%. The age of the most respondents was in the range of > 20 years, which is because respondents come from semester 6-8. According to the income of parents, more parents who have an income \leq Rp 5 million or 59.8% and the most allowance are in the range \leq Rp 2 million or 72.2%.

4.1 Analysis of Descriptive

Table 5
Level of student's financial literacy

	Minimum	Maximum	Mean	Std. Dev
Percentage (%)	35	90	70.77	9.5

According to Table 5, the lowest value is 35% and the highest is 90%, which shows that out of 20 questions about financial literacy, there are respondents who can only answer 7 questions correctly (35%) out of the 20 questions, then there were also

respondents who were able to answer 18 questions correctly (90%) out of the 20 questions asked. According to Mabyakto (2017), financial literacy category is divided into three categories, are:

1. < 60%, which means individuals have low financial knowledge.
2. 60-79%, which means individuals know intermediate or moderate finances.
3. > 80%, indicating that the individual has a high financial literacy.

Based on the category, the results of the research in Table 5, the average rate (mean) the answer from the respondent is 70.77% which means that the level of financial literacy of the sample is at a level that is deterrent or moderate (60-79%). The standard financial literacy deviation of 9.50% means that respondents' answers are varied.

Table 6

Level of student's financial literacy each indicator

Indicator		Category Of Financial Literacy		
		Low (<60%)	Moderate (60% -79%)	High (>79%)
General Knowledge of Personal Finances	Average		68.76%	
Savings	Average			84.85%
Insurance	Average		60.10%	
Investment	Average		69.38%	

According to Table 6, we learn about the financial literacy rate of the Faculty of Economics of Jakarta State University, the lowest is on the insurance indicator (60.10%) and the highest is on savings indicators (84.85%).

4.2 Binary Logistic Regression Test

4.2.1 Testing for goodness and fit

This test uses Hosmer and Lemeshow goodness of Fit Test. This test was conducted to test the zero hypothesis that empirical data matches or fits the model. Here's hypothesized:

1. H_0 : Model that is hypothesized fit with data
 2. H_a : A hypothesized Model is not fit with data
1. If the probability > 5% then H_0 is accepted and H_a is rejected.
 2. If the probability of < 5% then H_0 is rejected and H_a is accepted.

Table 7

Hosmer and lemeshow test

Step	Chi-square	df	sig.
1	2.950	8	.937

Table 7 indicates that the probability value is $0.937 > 0.05$ then H_0 Accepted. It is stated that the model is hypothesized to be fit with data and worth testing in logistic regression.

4.2.2 Value of Nagelkerke R Square

The value of Nagelkerke R Square is a modification of the coefficients of Cox & Snell R Square and can be interpreted as the value of R Square in multiple regression. The values of R Square are as follows:

Table 8

Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	29.997 ^a	.144	.541

Table 8 shows the R Square value of 0541. This is to say that there are contributions of gender variables, age, parental income, allowance, shelter, financial attitude and financial behavior in predicting the level of financial literacy jointly at 54.1%. The remaining 45.9% is influenced by other factors outside of the research model.

4.2.3 Hypothesis Test Results

Table 9
Variables in the equation

Variables	Coefficient	Standard error	Sig	Exp(B)
Age	4.259	1.995	0.033**	70.757
Gender	-1.637	1.647	0.320	0.195
Parent's income	-2.730	1.547	0.077*	0.065
Pocket money	8.080	3.658	0.027**	3229.8
Residence	-3.572	1.378	0.010***	0.028
Financial attitude	-0.518	0.210	0.014**	0.596
Financial behavior	0.607	0.275	0.027**	1.835

*: significant at 10% level

** : significant at 5% level

***: significant at 1% level

Based on the results Table 9, binary logistics regression equation is as follows:

$$\ln(p/1-p) = -0.856 - 1.637 X_1 + 4.259 X_2 - 2.730 X_3 + 8.080 X_4 - 3.572 X_5 - 0.518 X_6 + 0.607 X_7 + e$$

4.3 Discussion

Gender influence on The Level of Student Financial Literacy

Results from the study show that the gender variables had no significant effect on the student's financial literacy rate. It is shown that students with both female and male gender have no influence and difference in the level of financial literacy, since both female students and male students of Faculty of Economics management The Jakarta State University Force 2015-2017 were equipped with a science of finance in courses during the lecture and gender did not make a difference in the level of financial literacy. It is supported by the research of Laily (2016) Irman, Sakinah and Mudakir (2018) who say gender has no significant effect on financial literacy. The ability and intelligence of a person in managing his or her finances are not determined by their gender (Laily, 2016). There is no difference in the financial literacy rate of male and female students because both male and female students already have the same knowledge of financial terms, forms of good financial knowledge and have a concern for their finances (Sakindah and Mudakir, 2018).

Age influence on The Level of Student Financial Literacy

The results of the study show that the age variable has a significant effect on the student's financial literacy rate. The direction of a positive relationship, which means the higher the age of the students will be accompanied by the increasing level of their financial literacy. This suggests that senior students tend to have better financial knowledge in terms of management and decision-making in finance, as they have more experience with financial problems than new student attending college (junior). It is supported by Thapa (2015), Margaretha & Pambudhi (2015), Lazar and Chandirasekar (2016), Wardani et.al (2017), Sakinah and Mudakir (2018) stating that the age has significant positive effect on the level of financial literacy. Age has a positive and significant influence over the level of financial literacy, students with higher age tend to have better financial literacy rates and students who have younger age tend to have a lower level of financial literacy as well (Sakinah & Mudakir, 2018). Students who are new to college will have low financial literacy when compared with the students with the final level (Lazar & Chandirasekar, 2016). Age indicates how much experience a person has gained in his or her life about financial problems. Senior students will have a better attitude in making financial decisions compared to junior students because senior students more have a lot of experience related to it (Wardani et al., 2017; Widyastuti et al., 2020; Zulaihati et al., 2020).

Parental Income influence on The Level of Student Financial Literacy

Results from the study show that the parent's income variables had no significant effect on the student's financial literacy rate. This indicates that the student's financial literacy rate does not depend on the income of the student's parents. It is supported by Lazar and Chandirasekar (2016), Herawati (2017), Sakinah and Mudakir (2018) who say parents' income has no significant effect on literacy (Sakinah & Mudakir, 2018).

Pocket Money influence on The Level of Student Financial Literacy

The results of the study show that the pocket money variable had a significant effect on the student's financial literacy rate. The direction of positive relationship indicates that students who have a monthly allowance > Rp 2 million have a level of financial literacy compared with the students who have monthly pocket money ≤ Rp 2 million Those who have high allowance tend to

train students to manage their finances, as well as saving behavior. With high pocket money, students can set aside part of their pocket money for savings. This can be seen from the aspect of financial literacy, saving aspect has the highest average compared with other aspects.

Residence influence on The Level of Student Financial Literacy

The results of the study show that the residential variables have a significant effect on the student's financial literacy rate. The negative direction indicates that the students living together with the parents have high financial literacy rates compared to the students who live alone as in the cost/Kontrakan/hostel. This suggests that students living together with their parents are likely to get more attention from their parents. Parents are more likely to monitor and control the finances of their children, parents will also provide an understanding of good finances so that students can apply an understanding of the financial knowledge they have by making decisions effective financial. This will impact students who reside together with their parents will have high financial literacy. The question is consistent with Rachmasari (2018) which reveals that with the good knowledge that parents give to their children can help students to have a prosperous life in the future. The results of the statistical analysis can also be seen in the majority of respondents live together with their parents versus staying alone. However, this hypothesis does not support research conducted by Maulani (2016). Students who are not living with parents tend to have higher financial literacy rates than students who reside with their parents. This self-reliance can train students to be able to manage their finances well to prepare a prosperous life in the future. (Wardani et al., 2017).

Financial Attitude influence on The Level of Student Financial Literacy

The results of the study show that the financial variable has a significant effect on the student's financial literacy rate. The negative direction of the Ubungan gives the meaning that the negative or lower financial attitude will be accompanied by increasing financial literacy. Likewise, more positive or higher the financial attitude will be accompanied by declining financial literacy. This suggests that students who have an opinion, thinking, and assessment of money have attitudes such as the utilization of money they use. Since the money they have is only to be kept for themselves but cannot determine the exact attitude in terms of finance, either in financial management, personal financial budgeting or make decisions about the form of investment that will be useful for the future. Students who have the attitude towards financial assets in their possession do not show that students have an understanding of good financial literacy and this will impact the welfare of their finances. The understanding of low financial literacy shows that students do not have a strong belief in money and do not have a good attitude to make use of the money they have. The statement is supported by Rachmasari (2018) who said that the students who have a good financial literacy understanding will think to plan their future finances by investing. The above hypothesis is backed by the research conducted by Venkataraman and Venkatesan (2018) stating that the financial attitude significantly negatively affects financial literacy.

Financial Behavior influence on The Level of Student Financial Literacy

The results of the study show that the financial behavior variable had a significant effect on the student's financial literacy rate. The obtained results show that students already had good behavior in managing their finances. This is because respondents are the majority of students with the 5th semester and above, where the students already can plan, organize and manage good finances during their lecture period. The results of this study were supported by previous research conducted by Mabyakto (2017), Venkataraman and Venkatesan (2018) who said the financial behavior has a significant positive effect on the literary literacy. Mabyakto (2017) in his research stated that individuals capable of establishing financial objectives, able to make short-and long-term planning, make accurate cost planning following the revenues received and not hastily make financial decisions to manage good finances and overcome financial problems in the future and this suggests that the individuals have good financial behavior may succeed in financial planning.

5. Conclusion

Based on the results of the analysis, we can conclude that the students have moderate financial literacy. We have also found that most of the independent variables affect to financial literacy but excluding parents' income. In addition, insurance product is the least popular of financial instrument. This research-work has limitation due to the survey was accomplished in the small population, hence we are also concerned regarding the sampling technique. We also suggest to use other analysis method such as partial least square due to we predict that parent's income and gender are mediated the independent variables to the financial literacy.

References

Aghasi, S., Dalvi, M., & Biglari, S. (2014). An investigation on the effects of financial management skills, wealth and financial intelligence on investors' risk tolerance: Empirical evidence from Tehran Stock Exchange. *Management Science Letters*, 4(5), 1027-1032.

- Andasari, P.I. (2018). Pengaruh Financial Attitude dan Lingkungan Sosial Terhadap Literasi Keuangan Mahasiswa. Skripsi. Universitas Kristen Satya Wacana.
- Arif, K. (2015). Financial literacy and other factors influencing individuals investment decisions: Evidence from a developing economy (Pakistan). *Journal of Poverty, Investment and Development: An International Peereviewed Journal*, 12, 74-84.
- Dinianty, J. (2016). Pengaruh Karakteristik Demografi dan Karakteristik Personalitas terhadap Tingkat Literasi Keuangan Mahasiswa Program Studi Manajemen Universitas Kristen Marantha. Undergraduate thesis, Universitas Kristen Marantha.
- Herawati, N. T. (2017). Tingkat Literasi Keuangan Mahasiswa Serta Faktor-Faktor Yang Mempengaruhinya. *Jurnal Pendidikan dan Pengajaran*, 131- 137.
- Herdjono, I & Damanik, L.A. (2016). Pengaruh Financial Attitude, Financial Knowledge, Parental Income terhadap Financial Management Behaviour. *Journal Manajemen Teori dan Terapan*, 9(3).
- Laily, N. (2016). Pengaruh literasi keuangan terhadap perilaku mahasiswa dalam mengelola keuangan. *Journal of Accounting and Business Education*, 1(4).
- Mabyakto, G. (2017). Analisis Tingkat Literasi Keuangan Mahasiswa. Skripsi. Universitas Sanata Dharma, Yogyakarta.
- Margaretha, F., & Pambudhi, R. A. (2015). Tingkat literasi keuangan pada mahasiswa S-1 fakultas ekonomi. *Jurnal Manajemen dan Kewirausahaan*, 17(1), 76-85.
- Maulani, S. (2016). Analisis Faktor-Faktor Yang Mempengaruhi Literasi Keuangan. Skripsi. Universitas Negeri Semarang.
- Mien, N. T. N., & Thao, T. P. (2015, July). Factors affecting personal financial management behaviors: Evidence from Vietnam. In *Proceedings of the Second Asia-Pacific Conference on Global Business, Economics, Finance and Social Sciences (API5Vietnam Conference)* (pp. 10-12).
- Otoritas Jasa Keuangan. (2017). Survei Nasional Literasi dan Inklusi Keuangan (Revisi 2017). 23 Maret 2019. www.ojk.go.id
- Pahrudin, Hakim, I.M., Shollina. (2018). Analisis Tingkat Literasi Keuangan Mahasiswa Dan Faktor-Faktor Yang Mempengaruhinya. *Jurnal Pendidikan Ekonomi dan Kewirausahaan*, hal 118-129. Volume 2, Nomor 2, Desember 2018.
- Phung, A. (2016). Behavioral Finance: Introduction. http://www.investopedia.com/university/behavioral_finance/. Diakses pada 25 Maret 2019
- Prihastuty, R.D., & Rahayuningsih, S. (2018). Pengaruh Financial Literacy, Financial Behavior, Financial Attitude, Dan Demografi Terhadap Perilaku Konsumtif. *Jurnal Hasil Penelitian*. Vol. 03 No. 02 (2018): September, 121 -134.
- Rachmasari, A. (2018). Faktor-Faktor Yang Mempengaruhi Literasi Keuangan Mahasiswa. Skripsi. Unisversitas Islam Indonesia, Yogtakarta.
- Sakinah, G., & Mudakir, B. (2018). Analisis Literasi Keuangan Mahasiswa S-1 Fakultas.
- Venkataraman, R., & Venkatesan, T. (2018). Analysis of factors determining financial literacy using structural equation modelling. *SDMIMD Journal of Management*, 9(1), 19-29.
- Wardani, M. P., Fahrudin, A., & Yulianda, F. (2017, October). Analysis of successful strategy to develop sustainable marine ecotourism in Gili Bawean Island, Gresik, East Java. In *IOP Conference Series: Earth and Environmental Science* (Vol. 89, No. 1, p. 012036).
- Widyastuti, U., Sumiati, A., Herlith, H., & Melati, I. (2020). Financial education, financial literacy, and financial Behaviour: What does really matter?. *Management Science Letters*, 10(12), 2715-2720.
- Zulaihati, S., Susanti, S., & Widyastuti, U. (2020). Teachers' financial literacy: Does it impact on financial behaviour?. *Management Science Letters*, 10(3), 653-658.



© 2020 by the authors; licensee Growing Science, Canada. This is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC-BY) license (<http://creativecommons.org/licenses/by/4.0/>).