

Original Article

# Analyzing the Determinants of Financial Literacy

<sup>1</sup>Muhammad Rifky Winanto, <sup>2\*</sup>Najmudin, <sup>3</sup>Ekaningtyas Widiastuti  
<sup>1, 2, 3</sup>Faculty of Economics and Business, Universitas Jenderal Soedirman, Indonesia.

Received Date: 30 December 2022

Revised Date: 10 January 2023

Accepted Date: 20 January 2023

**Abstract:** Financial literacy has meaning as the basis for carrying out an ideal financial life. In this case, universities are institutions that are competent in conducting education and financial scientific transformation. In addition, students as the main group of these tertiary institutions can implement and achieve high financial literacy. With this educational and practical atmosphere, students can manage financial attitudes, increase financial knowledge, and apply positive financial behavior. This study intends to examine how these three variables affect financial literacy. Universitas Jenderal Soedirman's Management Department active students made up the study's sample. We used the slovin method in selecting the sample and obtained ninety students received questioner. The data collected were then analyzed by applying multiple regression techniques. We discovered that each of the characteristics we studied had a favourable impact on financial literacy. These results may help you develop greater financial literacy.

**Keywords:** financial attitude, financial behavior, financial knowledge, financial literacy.

## I. INTRODUCTION

An individual can achieve his personal financial goals to enjoy life comfortably when he is able to have financial literacy and manage the resources he has appropriately. Having financial literacy can make it easier for someone to hold and spend the money or capital they hold (Stolper & Walter, 2017). Financial literacy is necessary for someone to be able to manage their finances effectively and make the appropriate financial decisions while minimising the negative effects (Chen and Volpe, 1998).

The Financial Services Authority's 2019 National Financial Literacy Survey found that 76.19% of Indonesians use financial products and services. Only 38.03 percent of them, however, are highly educated or knowledgeable about the organisations, services, and products that make up the financial services industry. According to a previous study by Margaretha and Pambudhi (2015), student financial literacy is still considered to be low.

Financial literacy is crucial for both students and working individuals, not only those in school. Students, as members of the younger generation who have not yet entered the workforce, need to develop a solid understanding of financial literacy (Muhammad et al., 2022; Zubaedah et al., 2020). This is due to the fact that a younger generation with low financial literacy skills may have an impact on future welfare and financial decision-making in both the family and workplace environments (Pariyanti and Najmudin, 2021). In accordance with these research, numerous studies support the idea that financial literacy among the younger generation is crucial for boosting skills from a young age (Beverly & Burkhalter, 2005). According to other studies, university education and financial literacy are advantageous for students before they start working in order to build a future society that will be economically productive (Rosid et al., 2020).

A number of elements, including academic learning that reflects financial understanding, have an impact on financial literacy. In his research, Widiyati (2012) illustrates how learning in higher education significantly improves financial literacy. Because financial literacy is intimately tied to all aspects of human life, this study demonstrates how crucial it is to grasp it. A fundamental skill for achieving financial well-being is financial literacy. Students should develop and expand their financial literacy as university learners because universities, as institutions of higher education, are particularly skilled at teaching and altering the financial science. By the learning and educating process, they could obtain knowledge in financial science and practice, so that they could establish their financial attitudes, and create good behavior in their financial life.

Another determinant that has received a lot of attention recently is behavior in the financial sector. This determinant is a representation of consumption behavior that describes behavior in the financial sector that is less responsible, for example in terms of budgeting for future interests, financial planning in emergencies, little savings, and insufficient investment. This determinant is related to impulsive spending practices, namely someone who has sufficient income, but he faces problems in his finances (Cole et al., 2009). Several research, like Rai et al. (2019) and Mudzingiri et al., (2018) have looked at the impact of this characteristic on financial literacy. The results demonstrate that actions in the financial industry can have a positive impact on financial literacy.

Possession of literacy in finance can detect the need for human resources that are included in the right behavior in the financial sector. Correct financial behavior has an impact on preventing negative financial behavior and major financial problems (Munoz-Murillo et al., 2020; Bhushan & Medury, 2014). Someone who keeps a lot of financial literacy and deepens a lot of expertise in managing finances, then he can get a prosperous and comfortable life in his finances. To get healthy in financial condition, the main factor that is important is to manage finances effectively and efficiently. One of the activities in managing finances is financial planning which can avoid financial problems and the wrong use of credit. Financial literacy followed by proper financial management can create optimal financial goals to maximize financial prosperity (Shim et al., 2009; Coskuner, 2016).

The high financial literacy of an individual shows his ability to manage resources well in real life. An individual who has the ability to manage his funds or money can experience financial prosperity. Conversely, an individual who does not have this ability, his financial well-being can decrease (Zulfiqar & Bilal, 2016; Kamakia et al., 2017). An individual who has proper behavior in financial management shows that he has high literacy in financial field and he can be said to be financially prosperous (Munoz-Murillo et al., 2020; Mudzingiri et al., 2018).

Attitude in managing finances describes the state in the mind of an individual by considering his psychological view when he analyzes the practice of how to manage his finances. Therefore, it becomes the essence of finance in generating and building value in financial decision-making (Rajna et al., 2011). The way a person approaches managing their finances reveals the type of personality they have and how committed they are to carrying out practical financial management strategies and creating favourable conditions for the future. A person's attitude in the area of finance reflects how they feel, see, and analyse their financial circumstances. Numerous studies show how financial attitudes influence financial literacy in a way that is causally related to those attitudes (Ameliawati & Setiyani, 2018). However, other findings suggest that financial attitudes have no effect on literacy in the financial sector (Isomidinova & Singh, 2017).

The objective of this research is varied and is based on the aforementioned research challenge. The overall goal of this study is to examine how existing students in the Faculty of Economic and Business, Universitas Jenderal Soedirman, respond to different financial knowledge, behaviour, and attitude variables.

The OECD has developed a detailed definition of financial literacy that is broadly accepted. When referring to literacy in the context of finance, it is meant to refer to a person's capacity for understanding financial concepts as well as his motivation and assurance in his ability to make decisions and take actions based on his knowledge. Financial literacy can be useful in making decisions and designing actions in various financial matters. This has an impact on increasing prosperity in the finances of individuals, companies and the public and makes economic growth increase (OECD, 2014). Most of the existing studies follow the standards published by the OECD including Potrich et al. (2016).

One who has a high level of financial literacy would also have a high level of understanding to comprehend all the major ideas and fundamental ideas in finance. In other words, the knowledge possessed by an individual that includes the knowledge and practice of finance is a major element in financial literacy (Huston, 2010). Various studies have conceptualized the meaning of knowledge in finance with different points of view. Financial knowledge according to Huang et al. (2013) is a good understanding of the essences contained in financial references.

According to Huston (2010), there are 4 (four) key aspects of knowledge in the financial sector which include: the fundamental meaning of money, saving funds and investing, the meaning of borrowing funds, and the meaning of hedging (insurance management). According to OECD INFE (2011), there are 5 (five) main components that are integrated into knowledge in the financial sector: interest rates, the idea of compound interest and how it is calculated, the idea of the time value of money, the inflation rate related to prices, and the inflation rate related to investment profit. The measure for knowledge in finance proposed by Herd et al. (2012) is the understanding possessed by an individual about financial position and circumstances, fundamental financial principles, and how to apply them as a source in making financial decisions and actions.

How an individual behaves could affect significantly towards his real life of finance. The proof of behaviour dimension must therefore be included in the financial literacy measure (OECD, 2013). Participation in the stock market and other formal financial markets was more prevalent among people with high financial behaviour (Bucher-Koenen et al., 2017). Additionally, they prepare for retirement, actively save, pay their bills on time, carefully examine financial goods, and prefer saving to borrowing during times of crisis. Furthermore, they will amass and manage assets well, favour low cost borrowing, plan and monitor personal and household finances, have a bank account, formal credit, make sensible financial judgements, and have a high spending capacity.

Attitudes in the field of finance are a predisposition in one's habits that arise because of a number of beliefs in economic

and non-economic contexts (Ajzen, 1991). This attitude can also mean a statement of judgment, positive or negative emotions on aspects related to finance. People with strong financial attitudes can overcome issues with money and cash, are able to create a decent budget, and make decisions about the right investments (Agarwalla et al., 2013), lower inflation expectations (Bruine de Bruin et al., 2010), more propensity to save, less propensity to consume (Atkinson & Messy, 2012).

The finding of Dhar & Zhu (2006) demonstrates that the trend impact and investors' financial literacy are significantly correlated. These findings inform that an investor who works professionally and has high knowledge of finance displays a low trend effect. Another study conducted by Robb & Woodyard (2011) found that high knowledge of finance is a vital variable that determines high financial literacy and high level of expertise in making financial decisions and actions. The previous research suggests a positive influence of knowledge in the financial sector on literacy so that in this study the following hypothesis can be stated:

H<sub>1</sub>: Financial literacy benefits from having a good understanding of finances

The definition of behaviour in the context of finance is the way a person manages his money in day-to-day life in relation to psychological elements that can be helpful when making decisions about one's own finances, those of their company, and those involving the stock market. A number of studies, including those by Mudzingiri et al. (2018) and Rai et al. (2019) have found that financial literacy is positively influenced by financial behavior. Because financial sector conduct has a significant positive impact on literacy, the following hypothesis can be made about this study:

H<sub>2</sub>: Financial conduct has an advantageous effect on financial literacy

Ajzen (1991) suggests that attitudes in the field of finance are a predisposition in one's habits that arise as a result of a number of beliefs in economic and non-economic contexts. This attitude can also mean a statement of judgment, positive or negative emotions on aspects related to finance. High financial attitude individuals are able to solve money and cash flow issues, create an effective budget, and choose the best investments. Ameliawati & Setiyani (2018) declared that attitudes around money management can have a favourable impact on financial literacy levels. Therefore, this research develops a hypothesis as follows:

H<sub>3</sub>: Financial attitude has a favourable impact on financial literacy



**Fig. 1 Research Model**

Figure 1 depicts a schematic representation of the combined effect of financial knowledge, financial behaviour, and financial attitude on financial literacy in accordance with the explanation of the factors that determine financial literacy.

## II. MATERIALS AND METHODS

The participants in this study are students in the management class for the academic year 2018–2020 at the Faculty of Economics and Business, Universitas Jenderal Soedirman. In July 2022, the questionnaire collection phase of this study began. The reporting of the study's findings ended in August 2022. Distributing and filling out questionnaires directly with respondents is how the primary data are collected. Responses to statements in the questionnaire about the respondent's financial attitude, behaviour, and knowledge are included.

The participants in this study are students doing management courses at the Faculty of Economics and Business, Universitas Jenderal Soedirman. Students make up the study's population of 515. In this study, Slovin's formula was used to choose the sample from the population.

$$n = \frac{N}{1 + Ne^2}$$

Where:

n : Number of sample  
N : Number of population  
e : error tolerance (10%)

The Slovin formula states that 30 samples from each class make up the number of samples (n) used. The 84 minimum samples required for research are evident from the computation above. In order to ask each class of students from 2018 to 2020 if they would be willing to complete the provided questionnaire, 30 samples will be taken from each class.

Online surveys are utilised as the data collection strategy. Each variable that was mentioned in the conceptual framework was covered by questions in this document. Due to the 2019 Coronavirus Disease (Covid-19), which has an impact on every industry across the nation, online surveys were implemented by requesting respondents to affirm via online surveys and filling out Google forms, which indirectly spread the questionnaires. Additionally, in every statement, we also instruct respondents on how to complete the online survey. This collecting method of data was adopted from the study of Sari & Najmudin (2021) during the Covid-19 Pandemic.

The financial literacy required to make the best financial decisions and to prevent issues in finances is the understanding of and proficiency with managing incoming and outgoing cash (Munoz-Murillo et al., 2020). Based on Chen & Volpe (1998), Basic financial understanding, borrowing and saving, insurance, and investment are all indications of financial literacy. The OECD claims that understanding finances is necessary to assess someone's financial literacy. Inflation, risk and return, simple and compound interest, and other related concepts are all addressed in the questions (Atkinson & Messy, 2012). According to Lusardi et al. (2010), saving, risk management, credit and debt management, investing, and money management are all signs of financial knowledge.

Financial behavior was defined as a human behavior in real life related to make decision and action in arranging effective finance (Xiao, 2008). Behavior in the financial sector combines elements of managing cash flows, debts, saving funds, and investing in assets (Hilgert et al., 2003). Another opinion adds that behavior in the financial sector includes the responsibility of an individual regarding how to manage all financial aspects in the form of estimating the budget, assessing the amount of funds to buy, assessing debts that must be repaid related to the future (Ida & Dwinta, 2010). According to Wicaksono (2015), timely payment of bills, estimation of expenditure and expenditure, recording of expenditure and expenditure, provision of funds for unforeseen expenses, periodic savings, and comparison shopping before making a purchase are all signs of good financial conduct.

Attitudes in the field of finance are a predisposition in one's habits that arise because of a number of beliefs in economic and non-economic contexts (Ajzen, 1991). In contrast, according to Sohn et al. (2012), obsession, power, effort, insufficiency, retention, and security are signs of a negative financial attitude. To measure the instrument, this research utilizes Likert's scale that is a type of rating scale utilized to convert opinions or decisions. This scale shows how respondents responded when asked to grade statements according to their level of agreement, from strongly disagree to strongly agree, on a scale of 1 to 5.

The multiple regression analysis is used to test a hypothesis regarding the relationship between independent and dependent variables and the calculation of coefficients. This technique was applied in many studies among others Nahdi et al. (2013) and Yuliastari et al. (2021). The following is how the regression equation for this study is written:

$$FCL = \alpha + \beta_1 FCK + \beta_2 FCB + \beta_3 FCA + e$$

Where:

FCL : Financial Literacy  
FCK : Financial Knowledge  
FCB : Financial Behavior  
FCA : Financial Attitude  
 $\beta_i$  : Regression coefficients

### III. RESULTS AND DISCUSSION

The gender-based data attributes will be split into two groups, male and female. It is crucial to understand the quantity and proportion of respondents by gender in this study. According to the gender description, it is clear that men make up the bulk of respondents 64 pupils, or 69.9 percent while women make up 26 people, or 31.1 percent.

In order to categorise the age-related aspects of the data, there will be three groups: < 20 years, 20–22 years, and >22 years. According to data on respondents' ages, students between the ages of 20 and 22 account for 65 respondents, or 67.4 percent, of all respondents overall. Respondents above the age of 22 accounted for 18 respondents, or 21.5 percent, and respondents under the age of 20 accounted for 7 respondents, or 15.1 percent.

Using July 2022, face-to-face interviews were combined with online questionnaires on Google Forms. There were 22 statements total in the questionnaire, including 4 questions on financial literacy, 6 questions about financial knowledge, 6 questions about financial behaviour, and 6 questions regarding financial attitude. During this study, a total of 90 questionnaires were given out to participants. We verified that 90 respondents had agreed to finish the survey, and that after three weeks, the data could be processed using statistical methods. The summary of the online questionnaire distribution reveals that every questionnaire sent to every responder was fully completed. As a result, the respondents' questionnaires can continue to be processed.

The mean, standard deviation, and lowest and maximum values for each variable in this study are shown in table 1 as part of the statistical descriptive analysis: financial literacy (FCL), financial knowledge (FCK), financial behavior (FCB), and financial attitude (FCA). The minimal value for the financial knowledge variable from 90 respondents is 15, for financial conduct it is 15, for financial attitude it is 11, and for financial literacy it is 14. The maximum value for the financial knowledge variable is 30, while the maximum values for behaviour, attitude, and literacy are 25, 20, and 24, respectively. In addition, mean value for financial knowledge is 23.2, financial behavior is 19.4, financial attitude is 15.6, and financial literacy is 19.3. Financial conduct is 2.59, financial attitude is 2.26, and financial literacy is 2.61, while the standard deviation for financial understanding is 3.32.

**Table 1: Descriptive Statistic**

Statistic Descriptive	Minimum Value	Maximum Value	Mean Value	Standard Deviation	Average Score
FCK	15	30	23.2	3.32	22.5
FCB	15	25	19.4	2.59	20.0
FCA	11	20	15.6	2.26	15.5
FCL	14	24	19.3	2.61	19.0

The data are examined using multiple linear regression to test the impact of independent variables. The following findings from the regression analysis are displayed in Table 2. We arrive to the following multiple regression equation:

$$FCL = 1.159 + 0.851 FCK + 0.466 FCB + 0.627 FCA$$

Financial knowledge's (FCK) regression coefficient, which is 0.851, is positive. In other words, if financial knowledge rises while maintaining the same level of financial behaviour and attitude, financial literacy will rise as well. Financial behavior's (FCB) regression coefficient is 0.466 and exhibits a positive value. This suggests that an increase in financial conduct will result in an increase in financial literacy if financial knowledge and attitude remain constant. Financial attitude (FCA) has a regression coefficient of 0.627, which is positive. This means that if one's attitude about money changes while one's behaviour and attitude toward money remain unchanged, one's financial literacy will also change.

**Table 2: Result of Multiple Linear Regression**

Model	Coefficient	t-Statistic	Prob. Value
Constant	1.159	1.789	.077
FCK	.851	11.201	.000
FCB	.466	8.326	.000
FCA	.627	6.937	.000

The F distribution, which assesses the relationship between F statistic and F table values, evaluates the simultaneous impact of independent factors on the dependent variable. When all independent variables simultaneously affect financial literacy, the decision-making rule is F statistic > F table and probability value < 5%. The study revealed that the F statistic and F table both have values of 27.027 and 2.46, respectively. The model, which states that financial knowledge, financial conduct, and financial attitude have a simultaneous impact on financial literacy, is appropriate to employ in this research since F statistic is 27.027, which is greater than F table 2.46 with probability value 0.000.

Multiple regression analysis reveals a R square or coefficient of determination of 75.5 percent. It reveals that financial literacy is influenced by independent variables financial knowledge, financial behaviour, and financial attitude simultaneously by 75.5 percent. While the research's operationalized variables account for 24.5 percent of the total contribution.



The results of a statistical test indicate that the factor of financial knowledge significantly affects financial literacy. It follows that the pupils' financial literacy will be higher the more financial information they have. However, the lower the level of financial literacy, the worse it was owned. Empirically, this conclusion is consistent with earlier research by Robb & Woodyard (2011), which suggested that having a working knowledge of finance is essential for becoming literate and making sound financial decisions.

Theoretically, Sanderson (2015) state that literacy in finance is ability of person to utilize their understanding and skills in achieving right decision in financial field and obtaining optimum output from the management resources. Knowledge and understanding in the field of finance for students and youth can be increased through educational processes based on lectures or school institutions. Observations by Howlett et al. (2008) and Van Rooij, et al. (2011) show that people who have a broad level of knowledge about finance have high literacy and have the capability to manage cash or funds well.

The statistical analysis demonstrates that financial activity significantly affects financial literacy. Therefore, it may be said that a student's level of financial literacy increases with better financial conduct. On the other side, financial literacy decreased along with poorer financial conduct. Empirically, many previous researches have observed on investing behavior, planning in finance behavior, paying bills behavior, and budgeting behavior to get the level of financial literacy for the women. Kalekye & MBA (2015) define financial behavior as the behavior of an individual related to decisions and actions in the financial sector in the form of making neat budgets, controlling the budget, controlling bills regularly, and disciplined saving activities.

Financial behavior is the main and basic part that is included in financial literacy (OECD, 2013). A person's ability to plan spending and keep their money stable are only two examples of good financial conduct that can raise their degree of financial literacy. Conversely, negative financial behavior can lead to low financial prosperity, for example finance that relies on debt or without savings (Atkinson and Messy, 2012). According to research by Mudzingiri et al. (2018), financial conduct has a favourable influence on financial literacy.

According to the findings of a statistical test, the variable of financial attitude significantly affects financial literacy. As a result, it may be said that students' financial literacy increases with their better financial attitudes. The worse one's financial attitude has been correlated with poorer financial literacy, on the other hand. Empirically, this conclusion is also consistent with earlier research by Ameliawati and Setiyani (2018), which suggested that financial attitude has a favourable impact on financial literacy.

Financial actors need good capabilities in financial literacy, which can be a major factor in all financial decisions and actions. To make wise financial judgements and experience great prosperity in their financial lives, they must acquire a high level of financial literacy. Tertiary institutions have a duty to educate people about finance in order for financial players like students and the academic community to reach the highest possible degree of financial literacy.

Theoretically, a person's habits in the area of finance are a predisposition brought on by a variety of ideas in both economic and non-economic situations (Ajzen, 1991). This attitude can also mean a statement of judgment, positive or negative emotions on aspects related to finance. OECD (2013) suggests that an important aspect related to literacy in financial field is attitude. High-level financial thinkers are able to solve money and cash flow issues, create an effective budget, and decide which investments to make (Agarwalla et al., 2013).

Financial attitude also shows an evaluation response and an attractive or unattractive emotion towards other individuals, events or certain objects. Previous study from Kasman et al. (2018) found that literacy and attitude in financial area of youth has relationship. It suggests that attitude of youth for arranging fund could rise literacy in their finance. Furthermore, another study of Soroshian and Teck (2014) shows that attitude in arranging fund for students has a positive effect on their literacy in decision of financing. An essential aspect in determining one's level of financial literacy, according to previous research, is one's general financial attitude.

#### **IV. CONCLUSION**

A number of conclusions were drawn from study on the relationship between financial literacy and financial knowledge, behaviour, and attitude, including:

- a. Financial literacy is significantly influenced favourably by students' financial understanding. It implies that students' financial literacy will increase in direct proportion to their level of financial understanding.
- b. Student financial behaviour significantly improves financial literacy. Accordingly, the pupils' financial literacy will increase as they demonstrate improved financial conduct.

- c. A student's financial attitude has a big impact on how financially literate they are. Therefore, the higher a student's financial attitude, the better their financial attitude must be.

We offer numerous implications based on the findings of the above mentioned research. Practically, it has an important effect to concern for literacy in arranging finance as it could solve the financial problem. Another conclusion of this study is that it may encourage students to focus on learning about financial management, to put their financial attitudes and behaviours into practise, and to make financial decisions in a way that will improve their financial literacy.

As the study has finished its processes, we have realize that there are some weaknesses on the study. First, the study has observed on students of management class only that may not be applicable in other university. Second, the size of sample was not large to represent the population. The future research could add research subjects not only students at management class, but also within the scope of one faculty, two faculties, or with people outside the university such as high school students or the equivalent, or people around the university. In addition, future research could analyze the other important determinants of financial literacy among others cultural factor, family factor or environmental factor.

## V. REFERENCES

- [1] Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50, 179–211.
- [2] Agarwalla, S. K., Barua, S. K., Jacob, J., & Varma, J. R. (2013). Financial Literacy among Working Young in Urban India. *World Development*, 67(2013), 101–109.
- [3] Ameliawati, M., & Setiyani, R. (2018). The Influence of Financial Attitude, Financial Socialization, and Financial Experience to Financial Management Behavior with Financial Literacy as the Mediation Variable. *KnE Social Sciences*, 3(10), 811. <https://doi.org/10.18502/kss.v3i10.3174>
- [4] Atkinson, A., & Messy, F. A. (2012). Measuring financial literacy: Results of the OECD/International Network on Financial Education (INFE) pilot study. Retrieved from <https://www.oecd-ilibrary.org/docserver/5k9csfs90fr4-en.pdf?expires=1547457090&id=id&accname=guest&checksum=FD9322B38CB025C91153D94767BA7924>
- [5] Beverly, Sondra G. & Burkhalter, Emily K. (2005). Improving the Financial Literacy and Practices of Youths. *Children & Schools*, Volume 27, Issue 2, April 2005, Pages 121–124. <https://doi.org/10.1093/cs/27.2.121>
- [6] Bhushan, P., & Medury, Y. (2014). An empirical analysis of inter linkages between financial attitudes, financial behavior and financial knowledge of salaried individuals. *Indian Journal of Commerce and Management Studies*, 5(3), 58.
- [7] Bruggen, E. C., Hogreve, J., Holmlund, M., Kabadayi, S., & Löfgren, M. (2017). Financial wellbeing: A conceptualization and research agenda. *Journal of Business Research*, 79, 228–237. <http://dx.doi.org/10.1016/j.jbusres.2017.03.013>
- [8] Bruine de Bruin, W., Vanderklaauw, W., Downs, J.S., Fischhoff, B., Topa, G., & Armantier, O. (2010). Expectations of inflation: The role of financial literacy and demographic variables. *Journal of Consumer Affairs*, 44, 381–402.
- [9] Bucher-Koenen, T., Lusardi, A., Alessie, R., & Van Rooij, M. C. J. (2017). How financially literate are women? An overview and new insights. *Journal of Consumer Affairs*, 51(2), 255–283. <https://doi.org/10.1111/joca.12121>
- [10] Chen and Volpe, 1998. Chen, H., & Volpe, R. P. (1998). An analysis of personal financial literacy among college students. *Financial Services Review*, 7(2), 107–128.
- [11] Cole, S. A., Sampson, T. A., & Zia, B. H. (2009). Financial literacy, financial decisions, and the demand for financial services: evidence from India and Indonesia. Harvard Business School Cambridge, MA.
- [12] Coskuner, S. (2016). Understanding factors affecting financial satisfaction: The influence of financial behavior, financial knowledge and demographics. *Imperial Journal of Interdisciplinary Research*, 2(5), 377–385.
- [13] Dhar, R., & Zhu, N. (2006). Up close and personal: Investor sophistication and the disposition effect. *Management Science*, 52(5), 726–740
- [14] Financial Services Authority. (2019). Otoritas Jasa Keuangan (OJK): Survei Nasional Literasi dan Inklusi Keuangan. Survey Report, 1–26.
- [15] Herd, P., Holden, K., & Su, Y. T. (2012). The links between early-life cognition, schooling, and late-life financial knowledge. *Journal of Consumer Affairs*, 46(3), 411–435.
- [16] Hilgert, M. A., Hogarth, J. M., & Beverly, S. G. (2003). Household financial management: The connection between knowledge and behavior. *Federal Reserve Bulletin*, 309–322
- [17] Howlett, E., Kees, J., & Kemp, E. (2008). The role of self-regulation, future orientation, and financial knowledge in long-term financial decisions. *Journal of Consumer Affairs*, 42(2), 223–242.
- [18] Huang, J., Nam, Y., & Sherraden, M. S. (2013). Financial knowledge and child development account policy: A test of financial capability. *Journal of Consumer Affairs*, 47(1), 1–26.
- [19] Huston, S. J. (2010). Measuring Financial Literacy. *Journal of Consumer Affairs*, 44(2), 296–316.
- [20] Ida, I., & Dwinta, C. Y. (2010). Pengaruh locus of control, financial knowledge, dan income terhadap financial management behavior. *Jurnal Bisnis dan Akuntansi*, 12(3), 131–144.
- [21] Isomidinova, G., & Singh, J. S. K. (2017). Determinant of Financial Literacy: A Quantitative Study among Young Students in Tashkent, Uzbekistan. *Electronic Journal of Business and Management*. Vol. 2 (1): 61–75.
- [22] Kalekye, P., & Memba, F. (2015). The role of financial literacy on the profitability of women owned enterprises in Kitui Town, Kitui Country, Kenya. *International Journal of Science & Research*, 4(6), 2360–2365.
- [23] Kamakia, M. G., Mwangi, C. I., & Mwangi, M. (2017). Financial Literacy and Financial Wellbeing of Public Sector Employees: A Critical Literature Review. *European Scientific Journal*, ESJ, 13(16), 233. <https://doi.org/10.19044/esj.2017.v13n16p233>
- [24] Kasman, M., Heuberger, B., & Hammond, R. A. (2018). Recommendations for improving youth financial literacy education. Retrieved from [https://www.brookings.edu/wp-content/uploads/2018/10/ES\\_20181001\\_FinancialLiteracy-Recommendations.pdf](https://www.brookings.edu/wp-content/uploads/2018/10/ES_20181001_FinancialLiteracy-Recommendations.pdf)
- [25] Lusardi, A., Mitchell, O. S., & Curto, V. (2010). Financial literacy among the young. *Journal of Consumer Affairs*, 44(2), 358–380.
- [26] Lusardi, A., & Mitchell, O. S. (2008). Planning and financial literacy: How do women fare? *American Economic Review*, 98(2), 413–17.
- [27] Margaretha, F & Pambudhi, R.A. (2015). Tingkat Literasi Keuangan pada Mahasiswa S-1 Fakultas Ekonomi. *Jurnal Manajemen dan Kewirausahaan*. Vol 17 No 1 (76–85).
- [28] Mudzingiri, C., Muteba Mwamba, J. W., & Keyser, J. N. (2018). Financial behavior, confidence, risk preferences and financial literacy of university students. *Cogent Economics and Finance*, 6(1), 1–25. <https://doi.org/10.1080/23322039.2018.1512366>

- [29] Muhammad, N., Najmudin, N., and Kurniasih, R. (2022). Examining the Contribution of Internal Factors of an Investor in Driving the Investment Decision. *International Journal of Economics, Business and Management Studies (EBMS)*, 9 (9), 25-35.
- [30] Munoz-Murillo, M., Alvarez-Franco, P. B., & Restrepo-Tobón, D. A. (2020). The role of cognitive abilities on financial literacy: New experimental evidence. *Journal of Behavioral and Experimental Economics*, 84 (February), 1–21. <https://doi.org/10.1016/j.socec.2019.101482>
- [31] Nahdi, H. M., Jaryono, and Najmudin. (2013). Pengaruh Current Ratio, Debt To Total Asset Ratio, Total Asset Turnover (TATO), Beban Operasional Pendapatan operasional (BOPO), dan Dana Pihak Ketiga (DPK) Terhadap Profitabilitas Bank Umum Syariah. *Performance*, 17 (1).
- [32] OECD. (2013). Financial literacy and inclusion: Results of OECD/INFE survey across countries and by gender. Paris: OECD Centre.
- [33] OECD. (2022). Organization for Economic Cooperation and Development. Accessed from <https://www.oecd.org/>.
- [34] Pariyanti, E. and Najmudin, N. (2021). Reducing Employee Conflict through Islam Spirituality in Workplace "Analyzing Employee Performance in Islamic Banks". *IJEBD International Journal of Entrepreneurship and Business Development*, 4 (2), 140-144.
- [35] Potrich, A. C. G., Vieira, K. M., & Mendes-Da-Silva, W. (2016). Development of A Financial Literacy Model for University Students. *Management Research Review*, Vol. 39, Issue 3.
- [36] Rai, K., Dua, S., & Yadav, M. (2019). Association of Financial Attitude, Financial Behavior and Financial Knowledge towards Financial Literacy: A Structural Equation Modeling Approach. *FIIB Business Review*, 8(1), 51–60.
- [37] Rajna, A., Ezat, W. P. S., Al Junid, S., & Moshiri, H. (2011). Financial management attitude and practice among the medical practitioners in public and private medical service in Malaysia. *International Journal of Business and Management*, 6(8), 105. <https://doi.org/10.5539/ijbm.v6n8p105>
- [38] Robb, C. A., & Woodyard, A. (2011). Financial knowledge and best practice behavior. *Journal of Financial Counseling and Planning*, 22(1), 60–70
- [39] Rosid, A., Najmudin, and Suwanto. (2020). The Mediating Role of Job Satisfaction on the Relationship of Workplace Spirituality and Organizational Justice on Workplace Deviance Behavior. *Proceeding of The 2nd International Conference of Business, Accounting and Economics ICBAE*.
- [40] Sanderson, A. (2015). Importance of financial literacy. Bankers Association of Zimbabwe (BAZ) Newsletter. Retrieved from <http://www.baz.org.zw/consumer-centre/education-centre/importance-financial-literacy>
- [41] Sari, A. P. and Najmudin. (2021). Perceptions of Proactive Personality and Innovative Work Behavior during the Covid-19 Pandemic. *South East Asia Journal of Contemporary Business, Economics and Law*, 24 (5), 162-170.
- [42] Shim, S., Xiao, J. J., Barber, B. L., & Lyons, A. C. (2009). Pathways to life success: A conceptual model of financial wellbeing for young adults. *Journal of Applied Developmental Psychology*, 30(6), 708–723.
- [43] Sohn, S. H., Joo, S. H., Grable, J. E., Lee, S., & Kim, M. (2012). Adolescents' financial literacy: The role of financial socialization agents, financial experiences, and money attitudes in shaping financial literacy among South Korean youth. *Journal of Adolescence*, 35(4), 969–980.
- [44] Soroshian, S., & Teck, T. (2014). Spending behaviour of a case of Asian university students. *Asian Social Science*, 10(2), 345.
- [45] Stolper, O. A., & Walter, A. (2017). Financial literacy, financial advice, and financial behavior. *Journal of Business Economics*, 87(5), 581–643. <https://doi.org/10.1007/s11573-017-0853-9>
- [46] Van Rooij, M., Lusardi, A., & Alessie, R. (2011). Financial literacy and stock market participation. *Journal of Financial Economics*, 101(2), 449–472.
- [47] Wicaksono, E. D. (2015). Pengaruh Financial Literacy Terhadap Perilaku Pembayaran Kartu Kredit Pada Karyawan di Surabaya. *Finesta*, 3(1), 85-90.
- [48] Widiyati, Irin. 2012. Faktor–Faktor Yang Mempengaruhi Literasi financial Mahasiswa Fakultas Ekonomi dan Bisnis Universitas Brawijaya. *Jurnal Akuntansi dan Pendidikan*, Vol. 1, No. 1, 89-99.
- [49] Xiao, J. J. (2008). Applying behavior theories to financial behavior. In N. York (Ed.), *Handbook of Consumer Finance Research* (pp. 69–81). Springer. [https://doi.org/10.1007/978-0-387-75734-6\\_5](https://doi.org/10.1007/978-0-387-75734-6_5)
- [50] Yulastari, M., Najmudin, N., and Dewi, M. K. (2021). The Influence of Financial Ratios and Macroeconomic Indicators in Predicting Financial Distress (Empirical Study in the Consumer Goods Sector Companies). *Sustainable Competitive Advantage, (SCA)* 11 (1).
- [51] Zubaedah, A., Najmudin, and Widuri, R. (2020). Analisis Kausalitas Gerakan Literasi, Pemanfaatan Koleksi Perpustakaan dan Motivasi Belajar Terhadap Hasil Pembelajaran. *Soedirman Economics Education Journal*, 2 (1), 72-84.
- [52] Zulfiqar, M., & Bilal, M. (2016). Financial wellbeing is the goal of financial literacy. *Research Journal of Finance and Accounting*, 7(11), 94–103. Retrieved from <https://www.iiste.org/Journals/index.php/RJFA/article/view/31504>