

UDC 332

## THE EFFECT OF FINANCIAL LITERACY ON STOCK INVESTMENT DECISIONS

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### ABSTRACT

The purpose of this study is to analyze and explain the role of financial literacy on investment decisions made by investors. The samples used in this study were 79 respondents using non-probability sampling with a snowball approach. Sampling was done online using a questionnaire. The analytical technique used in this research is Structural Equation Modeling (SEM) and uses the SmartPLS analysis tool. The results showed that financial literacy described through financial attitudes, financial knowledge and financial behavior had a positive effect on investment decisions. The results show that attitudes, knowledge and behavior have an influence on investment decisions by an investor in accordance with the theory of planned behavior as empirical evidence and the practical implications that can be given from the findings of this study are that this study can be used as a basic model for investors in making stock investment decisions. Investors who have a good level of financial literacy will be better able to optimize profits and minimize the risks of losses that may occur in investing in stocks.

### Key words

Financial literacy, stock investment decisions, investors.

Indonesia as a developing country has a consumptive tendency. The consumptive culture of the Indonesian people has increased, especially in the last three years, while the culture of saving has decreased (OJK, 2017), this of course makes people less focused on long-term needs and investment. Investment is a commitment to invest in the form of money and other resources at this time with the hope of obtaining profits in the future (Bodie, 2005: 3). The profits obtained by an investor in investing in shares are in the form of capital gains and dividend distribution.

The development of stock investment in Indonesia can be seen in the Capital Market, where investment in Indonesia has increased by 16.2% (Ministry of Finance, 2021). The increase in the number of investors occurred by 16.35% from 3,880,753 to 4,515,103 in 2020 until February 2021 (KSEI, 2021). This increase occurred due to the emergence of fintech companies or marketplaces that traded investment products such as mutual funds and stocks. There is a change in interest from young people who previously tended to be consumptive to want to invest due to the variety of choices for purchasing company shares and the high rate of return on shares. Things that need to be considered in making an investment are the amount of risk that is borne, generally the higher the return obtained, the higher the risk that may occur. To minimize risk, investors must be rational in dealing with the stock buying and selling market, besides that, investors must have the right investment decisions (Audini et al., 2020). The importance of stock investment decisions for the state includes being able to help run the country's economy and attract foreign investors into the country, then the large number of investors who invest will certainly reduce unemployment because each additional investment has an impact on the quantity of labor, as well as increasing the country's per capita income.

A survey conducted by TICMI (The Indonesia Capital Market Institute) in 2018 showed that the highest investment choice for the millennial generation, namely 54.41%, was carried out in the capital market and the rest in banking products and the real sector. The most investment products chosen by the millennial generation (80.88%) fell to stocks, then followed by 16.18% by mutual funds, 1.47% by bonds, and finally 1.47% for other investment products. The low awareness of millennials about the importance of investing, only 7.7% of

the millennial generation who have savings even only 0.6% who invest means that the millennial generation is more likely to choose to save than to invest. The OECD (Organization for Economic Co-operation and Development) reports that every month around 51.1 percent of millennial income is spent on the 4S monthly needs, namely sugar (food and beverages), skin (beauty and personal care), sun (travel and recreation) and screen (digital screen consumption). The lack of interest of the millennial generation to invest is because the younger generation prefers to spend money for pleasure rather than saving or investing and low financial literacy (OJK, 2020).

The Organization for Economic Co-operation and Development or OECD (2013) states that there are three components in financial literacy, namely financial knowledge, financial behavior, and financial attitudes. Three components of financial literacy are used as an assessment dimension to measure the level of financial literacy (Potrich et al., (2015); Khairiyati and Krisnawati, (2019). Financial literacy is a basic concept in understanding money and its use in everyday life, including how to manage income (Kumari, 2020).

Having good financial literacy is the most important thing to get a prosperous life (Yushita., 2017). The level of public financial literacy, especially in the capital market, is still low, where only 5% of the people understand capital market products, this figure is certainly very far below the national financial literacy level which is on average 38%, this is reported on the official website of the ministry of finance.go.id. The level of financial literacy in Indonesia is lagging behind other Southeast Asian countries such as Singapore which has 90 percent of financial literacy, Malaysia of 80 percent, Thailand of 70 percent while Indonesia is still around 20 percent, as reported at the 2016 Indonesia Fintech Festival & Conference (IFF) event held at ICE BSD, Tangerang Regency, Banten. This indicates that the quality of human resources in Indonesia still needs to be improved. General knowledge of personal finance includes an understanding of several matters relating to basic knowledge of personal finance. Based on the 2020 Financial Services Authority survey on the level of financial literacy, it was found that only about 38.03 percent of the 13,000 respondents in Indonesia have a good level of financial knowledge, meaning that very few Indonesians understand financial literacy.

Financial attitude can be interpreted as a state of mind, opinion and judgment about finances (Ismawati and Widasari, 2019). An understanding of financial attitudes can help a person understand what he believes to be related to money. Robbins and Judge (2015:43) state that attitude is an evaluative statement both pleasant and unpleasant towards objects, individuals and events. Attitude has 3 main components, namely: cognitive which is an opinion or belief of an attitude that determines the level for something or part that is more important than attitude; affective (feeling) which is an emotional feeling that is in a person, feeling is a statement of the attitude taken and determines the behavior that will be carried out by each person; behavior or action that is a reflection of how someone behaves in a certain way towards something or someone.

Behavioral finance theory (behavioral finance theory) is an application of psychology in the discipline of finance, explaining how a person makes investments or financial-related activities that are influenced by psychological factors. The existence of these psychological factors affects investment and the results to be achieved, therefore if conducting an analysis in investing, psychology and financial science are needed. Widasari and Ismawati (2019) have conducted research and found that financial attitudes have a significant effect on investment decisions, Astiti et al., (2019) also found that financial attitudes have a significant effect on investment decisions, these findings are also supported by Atmaningrum et al., (2021) who found that financial attitudes influence investment decisions.

Having financial knowledge can enable someone to use their money wisely. Investors with good knowledge and abilities will easily predict the profits to be obtained (Riawan et al., 2019). Viantara et al., (2019) found that general knowledge of personal finance has no effect on investment decisions, this finding is supported by research conducted by Popat and Pandra (2020) that financial knowledge has no effect on financial decisions. Kumari (2020) also found that financial knowledge has no effect on financial decisions. Firda and Ismawati (2019) found that financial knowledge has a significant positive effect on investment

decisions. Atmaningrum et al., (2021) also found that financial knowledge has an effect on investment decisions, this finding is also supported by Astiti et al., (2019) that financial knowledge affects investment decision making.

Financial behavior is closely related to one's financial responsibilities related to how to manage finances. A person's financial behavior can be seen from how well he manages cash, debt, savings, and other expenses (Hasibuan et al., 2018). Financial behavior involves the nature, emotions, preferences and various other things that exist in humans as social beings who interact and underlie decisions in action (Istikomah and Bebasari, 2020). Atmaningrum et al., (2021) conducted a study and found that there is no influence between financial behavior on investment decisions while research conducted by Astiti et al., (2019) found that financial behavior affects investment decision making, the findings are supported by research that conducted by Alaaraj and Bakri (2020) that financial behavior affects investment decisions.

Researchers need to review how financial literacy affects investment decisions. This research is important and still very relevant to do because there is still a research gap from previous research, the phenomenon of the low awareness of millennials about the importance of investing and the level of financial literacy in Indonesia which is lagging behind other Southeast Asian countries, so researchers need to review it again to clarify further findings and strengthen the findings of previous studies.

Based on several studies and theories, a hypothesis can be formulated in this study, namely H1: Financial attitudes have a positive effect on stock investment decisions, H2: Financial knowledge has a positive effect on stock investment decisions, H3: Financial behavior has a positive effect on stock investment decisions.

## **METHODS OF RESEARCH**

This research is causal associative research. The data collection technique used in this study was a survey method with a questionnaire as a tool. The data from this research will be analyzed and processed using the Smart-PLS analysis tool. The research location is a place or area where the research will be carried out. The location of this research is in Indonesia. The subjects in this study are individuals who have or are currently investing in shares on the Indonesia Stock Exchange. The object studied in this study is investment decisions. Due to the limited distance and conditions that occur today, the researchers decided to use the help of the Google form application. The time of this research is from September 2021 – May 2022.

The population in this study is the millennial generation who have or are currently investing in shares on the Indonesia Stock Exchange and the total population cannot be counted (infinite population). The population in this study is the millennial generation who were born in 1981 – 1997 or aged 24-40 years, have a minimum education of SMA/SMK, have worked and have or are currently investing in shares on the Indonesia Stock Exchange. individual.

Referring to the theory of determining the sample by Sekaran and Bougie (2016:236), the minimum number of samples in this study is  $4 \times 10 = 40$  samples. The general reference for determining the appropriate sample size in research is generally more than 30 and less than 500 (Sekaran and Bougie, 2016: 236). Based on the considerations above and the distribution of the questionnaire for 1 week, the researchers obtained a total of 88 observations, but only 79 samples met the requirements, which already met the minimum requirements. The sampling technique used was non-probability sampling with a snowball approach.

## **RESULTS AND DISCUSSION**

Based on the results of the validity tests carried out, it is known that the validity tests that have been carried out using the questionnaire in this study are valid. The value of the

Pearson product moment correlation coefficient has exceeded 0.3, then the statement item is valid.

Table 1 – Reliability Test

Variable	Dimension	Cronbach Alpha	Information
Investation decision		0,935	Reliable
Financial Literacy	Financial Attitude	0,966	Reliable
	Financial Knowledge	0,917	Reliable
	Financial Behavior	0,973	Reliable

Source: Primary Data, Processed Data, 2021.

The test results in Table 1 show that all studies have a Cronbach alpha correlation coefficient greater than 0.60 so that all variables are said to be reliable, then the instrument can be continued.

Judging from the value of the outer loading indicator, each variable is above the number 0.5, which means this value is feasible to be used as a measurement in this study. The largest number, which is 0.929, is on the active savings indicator, for the lowest value on the value of the outer loading indicator, which is the inflation knowledge indicator, which is 0.570, but it is still said to be feasible because it is already above 0.5. The following is a diagram of the outer loading value of each indicator:

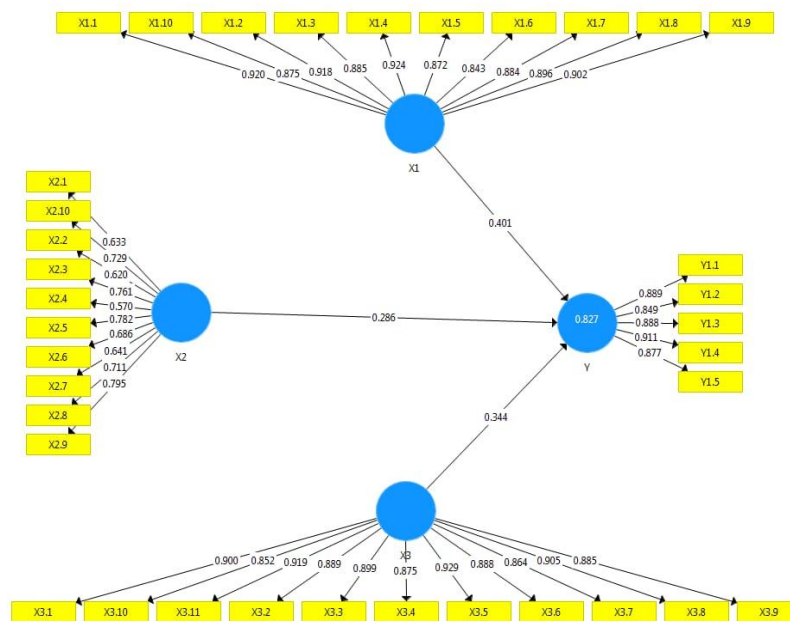


Figure 2 – Outer Loading value chart. Source: Processed Data, 2021 (Smart-PLS)

Table 2 – Discriminant Validity

	Financial Attitude (X1)	Financial Knowledge (X2)	Financial Behavior (X3)	Investation decision (Y)
Financial Attitude (X1)	0.892			
Financial Knowledge (X2)	0.690	0.696		
Financial Behavior (X3)	0.651	0.642	0.892	
Investment Decision (Y)	0.823	0.784	0.789	0.883

Source: Processed Data, 2021.

Another method that can be used to see discriminant validity is to look at the value of the square root of average variance extracted (AVE). The recommended value is above 0.5 (Vinzi et al, 2010). The output results of SmartPLS 3.2.6 in the value of the square root of average variance extracted (AVE) are as follows:

Table 3 – Average Variance Extracted Research Variables

Variables	Average Variance Extracted (AVE)
Investment Decision (Y)	0.78
Financial Attitude	0.796
Financial Knowledge	0.709
Financial Behaviour	0.795

Source: Processed Data, 2021.

In Table 3. it can be seen that each investment decision variable, financial attitude, financial knowledge and financial behavior has an Average Variance Extracted (AVE) value of more than 0.5. Based on the test results, all variables have met the discriminant validity requirements, so it can be concluded that all indicators are valid and feasible indicators to be able to measure their respective variables.

Based on the composite reliability and Cronbach's alpha values presented in Table 4., each variable obtained measurement results with values above 0.70. Thus, the measurement model in this study has good reliability on each of the variables.

Table 4 – Composite Reliability Coefficient and Cronbach's Alpha

Variables	Cronbach's Alpha	Composite Reliability	Information
Financial Attitude (X1)	0.971	0.975	Reliable
Financial Knowledge (X2)	0.880	0.903	Reliable
Financial Behavior (X3)	0.974	0.977	Reliable
Investment Decision (Y)	0.929	0.946	Reliable

Source: Primary Data, Processed Data, 2021.

Table 5 – Value of R-Square ( $R^2$ ) Dependent Variable

Variables	R-Square	Criteria
Investment Decision (Y)	0,827	Strong
Financial Attitude (X1)	-	-
Financial Knowledge(X2)	-	-
Financial Behavior (X3)	-	-

Source: Primary Data, Processed Data, 2021.

The R-Square ( $R^2$ ) value of all variables is more than 0.50 so that it is included in the strong criteria, it can be said that the model formed is considered strong enough. Calculation of Q-Square (Predictive Relevance) produces a value of 82.7% which means that the model has a very good value. This means that 82.7% of the relationship between variables can be explained by the model while the remaining 17.3% is explained by other variables outside the model. Based on the results of the above calculations, it can be continued with the analysis of hypothesis testing.

Table 6 – Path Coefficients

	Coefficient	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics ( O/STDEV )	P Values
X.1 – Y	0.401	0.404	0.177	2.273	0.023
X.2 – Y	0.286	0.268	0.114	2.516	0.012
X.3 – Y	0.344	0.350	0.173	1.985	0.048

Source: Primary Data, Processed Data, 2021.

Note: Y = Investment Decision; X.1 = Financial Attitude; X.2 = Financial Knowledge; X.3 = Financial Behavior.

Table 6 shows that the effect of financial attitudes (X.1) on investment decisions (Y) has a p-value of 0.023. Because the p-value is less than 0.05, H1 is accepted so that it can be concluded that financial attitudes (X.1) have a significant effect on investment decisions (Y). The effect of financial knowledge (X.2) on investment decisions (Y) has a p-value of 0.012. Because the p-value is less than 0.05, H2 is accepted, so it can be concluded that financial knowledge (X.2) has a significant effect on investment decisions (Y). The influence

of financial behavior (X.3) on investment decisions (Y) has a p-value of 0.048. Because the p-value is less than 0.05, H3 is accepted, so it can be concluded that financial behavior (X.3) has a significant effect on investment decisions (Y).

This study found that financial attitudes have a positive and significant effect on investment decisions, so that hypothesis one can be accepted. Based on this, it shows that the level of investor's financial attitude greatly influences the investment decision of a stock investor. The results of this study are in accordance with the Theory of Reasoned Action (TRA) which states that the decision to perform certain behaviors is the result of a rational process. Investors will take an action if they view the action as positive so that the investor's attitude will be influenced by the belief in the opinions of others and the motivation to obey that opinion. The better the application of financial principles in managing one's finances, the better the level of planning and decision making in investing (Humaira and Sagoro, 2018). This study supports the results of previous studies and is in line with the results of research conducted by Atmaningrum et al., (2021) found that there is an influence of financial attitudes on investment decisions, these findings are also supported by research conducted by Ismawati and Widasari et al., (2019 ); Kristanto and Hendry (2020); Astiti et al., (2019) found that financial attitudes have a significant positive effect on investment decisions.

This study found that financial knowledge has a positive and significant effect on investment decisions, so that the second hypothesis can be accepted. Investing in stocks has the characteristics of returns and risks that are difficult to predict so that the financial knowledge possessed by investors will influence the investment decisions of a stock investor. The wider financial knowledge owned by investors can help investors to identify factors that influence investment decision making such as fundamental analysis, technical analysis, macroeconomic issues and conditions, this is in accordance with the theory of planned behavior which states that knowledge is one of the background factors ( information) that is knowledge that can influence a person's behavior or actions. This study supports the results of previous studies and is in line with the results of research conducted by Atmaningrum et al., (2021) found that there is an influence of financial knowledge on investment decisions, these findings are also supported by research conducted by Ismawati and Widasari et al., (2019 ) who found that financial knowledge had a significant positive effect on investment decisions, as well as research conducted by Fitra et al., (2018); Pertiwi, et al. (2020) who found that financial knowledge had a significant effect on investment decisions.

This study found that financial behavior has a positive and significant effect on investment decisions, so that the third hypothesis can be accepted. Financial behavior is related to a person's ability to be responsible for financial management, behavioral finance theory explains how a person invests or activities related to finance are influenced by psychological factors. These factors affect the investment and the results to be achieved, so that good financial behavior can be reflected in financial planning and management as well as making the right investment decisions. A person who tends to have responsible financial behavior will use his money better in investing so as to produce the right investment decisions. This research supports the results of previous studies and is in line with the results of research conducted by Astiti et al., (2019) found that financial behavior affects investment decision making, these findings are supported by research conducted by Bebasari and Istikomah (2020) which also found that financial behavior finance has a positive and significant effect on investment decisions.

## **CONCLUSION**

Based on the results of the analysis conducted, it can be concluded that financial attitudes have a positive effect on investment decisions. Investors will take an action if they view the action as positive, the attitude of investors will also be influenced by the belief in the opinions of others and the motivation to obey that opinion. Financial knowledge has a positive effect on investment decisions. Investing in stocks has the characteristics of returns and risks that are difficult to predict, so investors need well enough knowledge to make a

correct stock investment decisions. Financial behavior has a positive effect on investment decisions, so it can be concluded that investors who tend to have responsible financial behavior will use their money better in investing so as to produce the right investment decisions.

Based on the results of the discussion and conclusions, the suggestions that can be given are as follows for investors who want to have investments so that they should have sufficient knowledge and have good financial literacy to be able to choose and make various investment decisions by taking into account the level of risk, concepts, knowledge and understanding financial targets and future financial targets that will enable investors to prevent or avoid possible risks of loss in investing in stocks so that the profits obtained will be more optimal. For further researchers who wish to conduct similar research, they are expected to be able to add other variables such as income, demographics and others. Further research is to add other factors commonly used by investors to analyze an investment decision in stocks. These factors include fundamental analysis, technical analysis, issues, macroeconomic conditions and others so that research will be more interesting and is expected to be able to examine investors in other investment instruments such as mutual fund investments, gold, bonds and others.

## REFERENCES

1. Akben-Selcuk, E. (2015). Factors Influencing College Students' Financial Behaviors in Turkey: Evidence from a National Survey. *International Journal of Economics and Finance*, 7(6), 87–94. <https://doi.org/10.5539/ijef.v7n6p87>.
2. Alvara Research Center. (2020). The Battle of Our Generation: Indonesia Gen Z and Millennial Report 2020. 134. <https://alvara-strategic.com/indonesia-gen-z-and-millennial-report-2020/>
3. Alaaraj hasan and Bakri Ahmed. 2020. The Effect of Financial Literacy on Investment Decision Making in Southern Lebanon. *International Business and Accounting Research Journal*. Vol. 04. No. 01. pp 37-43.
4. Amin, S., & Shahzaib, P. S. (2014). Theory of behavioral finance and its application to property market: A change in paradigm. *Research Journal of Finance and Accounting*, 5(13), 132–139.
5. Anthony, R. A. R. (2011). Knowledge, Attitude, Practice And Satisfaction On Personal Financial Management Among The Medical Practitioners In The Public And Private Medical Services In Malaysia. Thesis. Universiti Kebangsaan Malaysia. <https://doi.org/10.13140/RG.2.1.4640.0409>.
6. Arianti, B. F. 2018. The influence of financial literacy, financial behavior and income on investment decision. *EAJ (Economics and Accounting Journal)*, Vol. 1, No. 1, pp. 1-10.
7. Astiti, N. P. Y., Warmana, G. O., & Hidayah, M. (2019). Financial Literation and Investment Decision Behavior of Entrepreneurs in Bali. *International Journal of Applied Business and International Management*, 4(3), 64–68. <https://doi.org/10.32535/ijabim.v4i3.683>.
8. Atmaningrum, S., Kanto, D. S., & Kisman, Z. (2021). Investment Decisions: The Results of Knowledge, Income, and Self-Control. *Journal of Economics and Business*, 4(1), 100–112. <https://doi.org/10.31014/aior.1992.04.01.324>.
9. Audini, A. F. (2020). Pengaruh Literasi Keuangan Terhadap Keputusan Investasi Dengan Perilaku Kuangan Sebagai Variabel Moderasi. *Niagaawan*, 9(2), 102. <https://doi.org/10.24114/niaga.v9i2.19035>.
10. Ariani, S., Rahmah, P. A. A. A., Putri, Y. R., Rohmah, M., Budiningrum, A., & Lutfi, L. (2016). Pengaruh literasi keuangan, locus of control, dan etnis terhadap pengambilan keputusan investasi. *Journal of Business & Banking*, 5(2), 257. <https://doi.org/10.14414/jbb.v5i2.706>.
11. Bebasari, N., & Istikomah, A. (2020). The Effect of Investment Motivation, Financial Literation, and Financial Behavior on Investment Decisions (Studies on Management Students at Pelita Bangsa University). *Journal of Research in Business, Economics, and*

- Education, 2(4), 842–851. <http://e-journal.stie-kusumanegara.ac.id/index.php/jrbee/article/view/124>.
12. Baihaqqy Mochammad Rizaldy Insan., Disman., Nugraha., Maya Sari & Ikhsan Sugiyanto. 2020. The Effect of Financial Literacy on the Investment Decision. *Budapest International Research and Critics Institute-Journal (BIRCI-Journal)*, 3(4), 3073-3083.
  13. Bagus, I., Febri, P., & Herawati, N. T. (2021). Pengaruh Literasi Keuangan, Persepsi Risiko, Dan Locus of Control Terhadap Keputusan Investasi Pengusaha Muda Di Singaraja. 768–780.
  14. Chen, H. Dan Volpe, R. P. 1998. An Analysis of Personal Financial Literacy Among College Students. *Financial Service Review*, 7(2): 107-128.
  15. Dewi Ayu Wulandari dan Rr. Iramani. 2014. “Studi Experienced Regret, Risk Tolerance, Overconfidence, Dan Risk Perception pada Pengambilan Keputusan Investasi Dosen Ekonomi”. *Journal of Business and Banking*. Volume 4, No. 1, hlm. 55 – 66.
  16. Dewi, I.M. & Purbawangsa, I.B.A. 2018. “Pengaruh Literasi Keuangan, Pendapatan Serta Masa Bekerja Terhadap Perilaku Keputusan Investasi”. *E-Jurnal Ekonomi dan Bisnis Universitas Udayana*, 7.7: Hlm. 1867–1894.
  17. D.A.T Kumari. 2020. The Impact of Financial Literacy On Investment Decisions: With Special Reference To Undergraduates In Western Province, Sri Lanka. *Asian Journal of Contemporary Education*. Vol. 4. No. 2. pp 110-126.
  18. Dz, Abdul Salam. (2018). Inklusi Keuangan Perbankan Syariah Berbasis Digital-Banking: Optimalisasi dan Tantangan. *Jurnal Al-Amwal*. Vol. 10. No. 1. Hal 60-80.
  19. Ghozali, Imam. 2016. *Aplikasi Analisis Multivariate Dengan Program SPSS*. Semarang: Badan Penerbit Universitas Diponegoro.
  20. Gutter, Michael dan Zeynep Copur. 2011. Financial Behaviors and Financial Well-Being of College Students: Evidence From a National Survey. *Journal of Family and Economic Issues*, Vol 32 No 4. Hal 699-714. (<http://link.springer.com/article/10.1007/s10834-011-9255-2>).
  21. Hair, Jr et.al. (2010). *Multivariate Data Analysis (7th ed)*. United States : Pearson.
  22. Hasibuan, B. K., Lubis, Y. M., & HR, W. A. (2018). Financial Literacy and Financial Behavior as a Measure of Financial Satisfaction. January. <https://doi.org/10.2991/ebic-17.2018.79>.
  23. HC, R. H. K., & Gusaptono, R. H. (2020). The Impact of Financial Literacy on Investment Decisions Between Saving and Credit: Studies on Sharia Bank Customers in the Special Region of Yogyakarta. *Journal of Economics and Business*, 3(4). <https://doi.org/10.31014/aior.1992.03.04.291>.
  24. HERISPON, H. (2019). Pendekatan Inklusi Keuangan Dan Teori Perilaku Terencana Dalam Analisis Perilaku Utang. *JEBI (Jurnal Ekonomi Dan Bisnis Islam)*, 4(2), 193. <https://doi.org/10.15548/jebi.v4i2.245>
  25. Humaira, I., & Sagoro, E. M. (2018). Influence of Financial Knowledge, Attitudes Finance, and Personality towards Financial Management Behavior in SME Players at the Batik Handicraft Center, Bantul Regency. *Nominal Accounting and Management Research Barometer*, 7 (1), 96-110.
  26. <https://www.bkpm.go.id/id/publikasi/siaran-pers/readmore/2420901/71101>, diakses 24 November 2021.
  27. Ida, & Dwinta, C. Y. (2010). Pengaruh Locus of Control, Financial Knowledge, Income Terhadap Financial Management Behavior. *Jurnal Bisnis Dan Akuntansi*, 12(3), 131–144.
  28. Ismawati & Widasari Firda. (2019). The Influence of Financial Knowledge And Financial Attitudes Towards Society Investment Decision In Makassar. *Conference Proceeding*, Vol. XX. No. XX. pp 247-260.
  29. Kempson, E., Finney, A., & Poppe, C. (2017). Financial Well-Being A Conceptual Model and Preliminary Analysis. In *Consumption Research Norway*.
  30. Khairiyati Citra & Krisnawati Astrie. (2019). Analisis Pengaruh Literasi Keuangan Terhadap Keputusan Investasi Pada Masyarakat Kota Bandung. *Jurnal Alman: Manajemen dan Bisnis*, 3(2), 301-312.



31. Kumar, S., Watung, C., Eunike, J., & Liunata, L. (2017). The Influence of Literacy towards Financial Behavior and Its Implication on Financial Decision: A Survey of President University Student in Cikarang-Bekasi. *FIRM: Journal of Management Studies*, 2(1), 14–23.
32. Lie, R. L., & Wiagustini, N. L. P. (2020). The Effect of Financial Literacy And Sociodemographic Factors On Millennial's Investment Decision-Making Behavior. *International Journal of Economics and Management Studies*, 7(7), 132–139. <https://doi.org/10.14445/23939125/ijems-v7i7p116>.
33. Lee, Nancy R and Philip Kotler. (2011). *Social Marketing :Influencing Behaviors for Good*. US. Sage Publication, Inc.
34. Lusardi, A. & Tufano, P. (2008), "Debt Literacy, Financial Experience, and over indebtedness," mimeo, Harvard Business School. 4849
35. Lutfi. 2010. The Relationship Between Demographic Factors and Investment Decision in Surabaya. *Journal of Economics, Business and Accountancy Ventura*. 2010.
36. Marsh, B. A. (2006). Examining The Personal Finance Atitudes, Behaviors, and Knowledge Levels of First-Year and Senior Students at Baptist Universities in The State of Texas. Bowling Green State University.
37. Mien, N. T. N., & Thao, T. P. (2015). Factors Affecting Personal Financial Management Behaviors: Evidence from Vietnam. *Proceedings of the Second Asia-Pacific Conference on Global Business, Economics, Finance and Social Sciences (AP15Vietnam Conference)*, 10–12.
38. Muir, K., Hamilton, M., J.H, M., A., S., & Saunders, P. (2017). Exploring Financial Wellbeing In The Australian Context. Australia.
39. Nuryassin, S. M. (2020). Pengaruh Literasi Keuangan dan Risk Tolerance Terhadap Keputusan Investasi di Pasar Modal (Studi Pada Investor Saham di Galeri Investasi Universitas Pertamina .... 1(1). <https://library.universitaspertamina.ac.id/xmlui/handle/123456789/962>.
40. Otoritas Jasa Keuangan. (2017). Laporan Strategi Nasional Literasi Keuangan Indonesia. Retrieved February 22, 2018, from OJK. Website: [https://www.ojk.go.id/id/berita-dan-kegiatan/publikasi/Pages/Strategi-Nasional-Literasi-Kuangan-Indonesia-\(Revisit-2017\)-.aspx](https://www.ojk.go.id/id/berita-dan-kegiatan/publikasi/Pages/Strategi-Nasional-Literasi-Kuangan-Indonesia-(Revisit-2017)-.aspx) diakses pada tanggal 18 Maret 2021.
41. P.Kennedy, Brian, *Teory Perilaku Terencana dan Literasi Keuangan: Model Prediktif untuk Utang Kartu Kredit*, Marshall University Digital Scholar, 2013.
42. Potrich, A. C. G., Vieira, K. M., & Kirch, G. (2015). Determinants of financial literacy: Analysis of the influence of socioeconomic and demographic variables. *Revista Contabilidade e Financas*, 26(69), 362–377. <https://doi.org/10.1590/1808-057x201501040>.
43. Popat Disha A. and Pandra Hemal. B. 2018. Evaluating the Effect of Financial Knowledge on Investment Decisions of Investors from Gandhinagar District. *International Journal of Engineering and Management Research*. Vol. 8. No. 6. pp 226-237.
44. Putri, wilantika W., & Hamidi, M. (2019). Pengaruh Literasi Keuangan, Efikasi Keuangan, dan Faktor Demografi terhadap Pengambilan Keputusan Investasi (Studi Kasus pada Mahasiswa Magister Manajemen Fakultas Ekonomi Universitas Andalas Padang). *Jurnal Ilmiah Mahasiswa Ekonomi Manajemen*, 4(1), 398–412. <http://www.jim.unsyiah.ac.id/EKM/article/view/10703>.
45. Pertiwi, T. K., Wardani, N. I. K., & Septentia, I. (2020). Knowledge, Experience, Financial Satisfaction, and Investment Decisions: Gender As a Moderating Variable. *Jurnal Manajemen Dan Kewirausahaan*, 22(1), 57–64. <https://doi.org/10.9744/jmk.22.1.57-64>.
46. Prawirasasra, K. P., & Dialysa, F. (2015). Implikasi Behavioral Finance Pada Proses Pengambilan Keputusan Investasi Di Masa Pensiun. *Jurnal Sekolah Tinggi Ilmu Ekonomi*, 21–36.
47. Putri, P. T., & Simanjuntak, M. (2020). The Role of Motivation, Locus of Control and Financial Literacy on Women Investment Decisions Across Generations. *Journal of Consumer Sciences*, 5(2), 102–123. <https://doi.org/10.29244/jcs.5.2.102-123>.

48. Riawan, Kurniasih.R., Wahyuningsih.DW., (2019). Workshop Trading Saham Online Dalam Memberikan Pemahaman Kepada Masyarakat Ponorogo Untuk Berinvestasi Di Bursa Efek Indonesia. *Jurnal Budimas*, 01(01).
49. Robbins, Stephen P and Timothy A. Judge (2015). *Organizational Behavior*. Pearson. United State America. Edisi 16.
50. Sekaran, Uma dan Bougie, Roger. 2016. *Research Methods For Business: A Skill Building Approach*, 7th Edition. New Jersey: Wiley.
51. Senda, D. A., Rahayu, C. W. E., & Tri Rahmawati, C. H. (2020). The Effect of Financial Literacy Level and Demographic Factors on Investment Decision. *Media Ekonomi Dan Manajemen*, 35(1), 100. <https://doi.org/10.24856/mem.v35i1.1246>.
52. Sara Khuzaimah. 2019. Pengaruh Financial Knowledge, Financial Attitude, Financial Experience, Income, Dan Tingkat Pendidikan Terhadap Financial Behavior Pada Pegawai.
53. Pt. Angkasa Pura li (Persero) Kantor Cabang Bandara Internasional Kualanamu. Skripsi. Sumatera Utara: Program Studi Strata 1 Manajemen Ekstensi Departemen Manajemen Fakultas Ekonomi Dan Bisnis Universitas Sumatera Utara.
54. Saputro Rizky Eko Harry and Diyan Lestari. 2019. Effect of Financial Literacy And Risk Perception On Student Investment Decisions In Jakarta. *Review of Management and Entrepreneurship*.. Vol. 03. No. 02.
55. Tambunan, D. (2020). Investasi Saham di Masa Pandemi COVID-19. *Widya Cipta: Jurnal Sekretari Dan Manajemen*, 4(2), 117–123. <https://doi.org/10.31294/widyacipta.v4i2.8564>
56. KANISIUS Edisi Elektronik Utomo, M. N., & Kaujan, K. (2019). Peran Literasi Keuangan Dalam Meningkatkan Kinerja Ukm Dikota Tarakan. *Jurnal Manajemen Indonesia*, 19(2), 139. <http://journals.telkomuniversity.ac.id/ijm/article/view/1853>.
57. Viantara, A., Worang, F. G., Tumewu, F. J., Universitas, D. I., Ratulangi, S. A. M., & Tumewu, F. J. (2019). Effect of Financial Literacy on Investment Decision (Study Case on Students of Faculty of Economy and Business At Sam Ratulangi University). *Jurnal EMBA: Jurnal Riset Ekonomi, Manajemen, Bisnis Dan Akuntansi*, 7(4), 4777–4786. <https://doi.org/10.35794/emba.v7i4.25428>.
58. Vinzi, V. E., Trinchera, L., & Amato, S. (2010). PLS Path Modeling: From Foundations to Recent Developments and Open Issues for Model 242 Assessment and Improvement. In V. E. Vinzi, W. W. Chin, J. Henseler, & H. Wang (Eds.), *Handbook of Partial Least Squares Concepts, Methods and Applications* (pp. 47-82). Berlin: Springer. Pankow, D., 2003. Financial Values, Attitudes and Goals.
59. Yushita, A. N. (2017). Pentingnya Literasi Keuangan Bagi Pengelolaan Keuangan Pribadi. *Nominal, Barometer Riset Akuntansi Dan Manajemen*, 6(1). <https://doi.org/10.21831/nominal.v6i1.14330>.