

The Analysis of Financial Literacy and Its Impact on Investment Decisions: A Study on Generation Z in Jakarta

Novia Utami^{1,*}, Marsiana Luciana Sitanggang²

¹ Management Program, Faculty of Economics and Business, Atma Jaya Catholic University, Indonesia, 12930.
<novia.utami@atmajaya.ac.id and +62 8783 8688 061>

² Management Program, Faculty of Economics and Business, Atma Jaya Catholic University, Indonesia, 12930
<marsiana.luciana@atmajaya.ac.id and +62 8131 0206 765>

ARTICLE INFO

Received: (29/3/2021)
Received in revised:
(31/3/2021)
Accepted: (26/4/2021)
Published: (7/6/2021)

Open Access

ABSTRACT

The influence of digitalization has extended across industries including the financial sector. Numerous innovations for investment have been launched while financial information has now become easily accessible, raising potential for Generation Z (Gen Z) to make investment. This study aims to understand financial literacy and investment behavior of Gen Z in Jakarta, Indonesia. Data were collected using quantitative approach, particularly through adoption of online questionnaire and convenience sampling technique. The relationship between financial literacy and investment decisions was then analyzed using Structural Equation Model regression - Lisrel statistical software. Finally, it was found that financial literacy significantly influenced investment decisions of Gen Z in Jakarta.

Keywords: Generation Z, Financial Literacy, Lisrel, Investment Decision

1. Introduction

Many sectors, including financial sector, are now being digitalized. With more people being connected through the Internet as well as the advancement of technology, conventional approach in financial service is now facing challenges, including how people invest their money. Insights and knowledge of careful and meticulous financial management are critical counterbalance to the advancement of technology, particularly investment platform. Each individual must possess enough ability and sound knowledge of how to manage financial resources and assets he owns. There is an excellent chance for someone who deals with economic problems on daily basis to be more knowledgeable about finance and able to make right decisions on financial sources, the two aspects that can lead him to his goals

Investment planning is a key factor in financial management as it helps people find the right investment that can generate sustainable financial returns. Having a plan before making investment decisions helps eliminate hesitation by allowing people to make sensible decisions and avoid losses. To make plans for an investment, people need sound financial knowledge and literacy so that every decision they make leads to a clear and right direction (Copur & Gutter, 2019).

According to data published by Statistics Indonesia (Badan Pusat Statistik, 2020), there have been growing interests in investment each

year. In 2019, Indonesia's investment realization reached Rp809,6 trillion, exceeding a target of Rp792 trillion. Indonesia's investment realization has risen up to 48,4%, from Rp545 trillion in 2015, and by 12,24%, from Rp721,3 trillion in 2018. Meanwhile, according to Q1 – QIII data on investment realization published by the Indonesia Investment Coordinating Board (Badan Koordinasi Penanaman Modal, 2020), Indonesia's investment realization reached Rp611,1 trillion in 2020, with potential for growth by the end of 2020 despite the Covid-19 pandemic. According to data compiled by Indonesia Central Securities Depository (Kustodian Sentral Efek Indonesia, 2020), the number of investors rose by 56% from 2019, reaching up to 3,87 million Single Investor Identifications (SIDs) in 2020. Growing number of investors shows how knowledgeable people have become about making investment for the future.

Online investment platform with robo-advisory (automated) technology has made it easier for investors to invest. This platform aims to create an easily accessible investment process by integrating financial services into investment selections. Besides advancement of investment technology, data compiled by Financial Services Authority (Otoritas Jasa Keuangan, 2020) indicate that Indonesia's financial literacy and financial inclusion indices have improved. In 2019, financial literacy index and financial inclusion index reached 38,7% and 76,19% respectively, growing

from 29,7% and 67,8% in 2016. This growth shows how Indonesian people's knowledge and skills in implementing effective investment decision have improved.

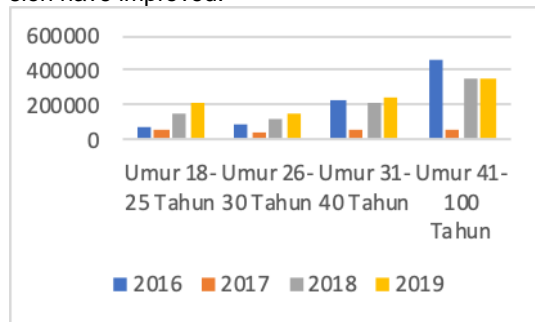


Figure 1. The Number of Investors Based on Age Groups

Source: (Bursa Efek Indonesia, 2019)

Indonesian people have started acquiring financial literacy, particularly how to optimize money for productive activities. This will certainly influence people's decisions in making investment. However, a survey conducted by Indonesia Stock Exchange (Bursa Efek Indonesia, 2019) revealed that most investors are Generation X (Figure 1). This finding differs from the existing conditions where technology has evolved rapidly, allowing young generations, particularly Gen Z, to invest.

Generation Z is a potential target group for services in financial sector. With gadgets and internet access on hand, they acquire comprehensive knowledge of financial products. However, referring to the above finding, direct participation of this generation in financial activities, especially investment, remains low. Some studies involving school students indicated an extremely low financial literacy level (Lusardi et al., 2010); (Widyawati, 2012); (Mendari & Kewal, 2013); and (Margaretha & Pambudhi, 2015).

In addition, there are only few researches conducted to understand the dynamics of this growing market segment. Previous researches in Indonesia focused solely on measurement of individual financial literacy index across professions including lecturers (Setyawati & Suroso, 2016), employees (Sobaya et al., 2016), and SME proprietors (Ariwibawa, 2016); (Hakim et al., 2017). Meanwhile, Arianti (2018) and Senda et al. (2020) found that financial literacy had no significant influence on investment decision. Baihaqqy et al., (2020) in their research also state that high financial literacy will not have a major impact on investment decision making. With such background and research gap, this research was conducted to understand financial literacy and its impact on investment decisions of Gen Z in Jakarta.

Jakarta is a metropolitan city as well as the capital city of Indonesia. It is the center of economy where mobilization of financial resources is the biggest and access to various services, including the internet, is easy to get. According to Indonesia Investment Coordinating Board, Jakarta recorded the highest investment realization at the national level in 2020. With all

these advantages including easy access to information available on their gadgets, there is enormous potential for Gen Z in Jakarta to make investment.

Generation Z

Generation Z was born with ease of access to financial institutions. This generation is exposed to major external factors such as globalization, outsourcing, foreign investment, and explosion of digital technology. Globalization has significantly influenced and shaped the characters, behaviors, and traits of Gen Z (Luntungan et al., 2014). It explains why this generation exhibits significantly different characteristics from the previous generations. Zemke et al. (2000) stated that Gen Z demonstrates attributes such as creativity, technological savvy, optimism, orientation towards achievements, friendly attitude, heroic deed, tenacity, and multitasking while prioritizing their existence much, loving diversity, requiring supervision and support, and showing the needs to be in group (as in cited Anitha and Aruna, 2016).

Gen Z is the first generation growing up with computer and internet on hand; it is, therefore, easier and faster for this generation to study about financial sector and implement it in their lives. To invest, they just need to access everything needed on the internet from their devices. According to data on projection result compiled by Statistics Indonesia and published in 2020, Indonesian population in 2019 was dominated by people of working age, ranging from 15 to 24 years old, known as Gen Z. This generation is not only faced with increased complexity of financial products, services and market, but also greater financial risks in the future. A country's national economy would remain steady and unaffected by global financial crises if its people understand financial system.

Financial Literacy

Financial literacy refers to the ability to understand how money works in this era as well as how an individual manages and invests their money (Abdeldayem, 2016). When making investment decisions, an investor needs to take into account market conditions, risks, and returns. In fact, an investor needs comprehensive financial literacy index before making investment decisions (Putri & Hamidi, 2019).

Coşkun et al., (2016) described that financial literacy is the key to making investment decisions. In addition, financial literacy helps people make better financial decisions. According to Bongomin et al., (2016), there are indicators to measure financial literacy; they include:

- Behaviour, which is related to one's efforts and objectives of using budget;
- Skill, which refers to the abilities to understand the benefits and implement simple financial calculation;
- Knowledge, which refers to one's level of understanding about financial products and their instruments; and
- Attitude, which shows one's ability to make decisions and take effective measures.

Investment Decision

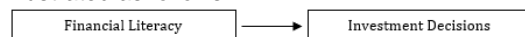
Rational investors will make decisions based on financial literacy and take relevant information into consideration; meanwhile, irrational investors make decisions based on good experiences, especially based on a number of successful past investments that eventually make them overconfident. Investment basically refers to the act of putting certain amount of money in the expectation of returns in the future. To generate the expected profit, investors need investment planning to help them make the right decisions (Halim, 2019); the planning process includes such as determining investment objectives, analyzing one or more stocks, building a stock portfolio, evaluating stock performance; and making revision for stock performance. Putri and Hamidi, (2019), mentioned some indicators to measure investment decisions, which include:

- a. Return, which refers to a profit from an investment;
- b. Risk, with high expected returns come high risks (high risk high return principle);
- c. Time value of money, determining the length of investment period is critical as it determines how much profit and risk an investor should bear.

Research Framework

This research investigates the variable that influences investment decisions. Financial literacy refers to knowledge and understanding about financial concept that can be seen from indicators such as behavior, skills, knowledge and attitudes, and aims to make effective decisions in financial context. This research measures how significant the influence of financial literacy is in investment decision making, particularly among Gen Z in Jakarta.

Behavior refers to one’s efforts and purposes in using the budget to achieve welfare and prosperity. Skills refer to an individual’s ability to make a simple calculation of returns and interests in financial products or services. Knowledge is related to one’s level of understanding about the purpose of using financial products and their instruments, including benefits, risks, rights, and obligations as an investor to achieve financial welfare. Attitudes refer to one’s ability to take effective measures at the present time for a better future, as well as the ability to manage one’s financial affairs (Bongomin et al., 2016). Researches conducted by Alaaraj and Bakri, (2020), Kumari, (2020), Abdeldayem, (2016), Awais et al., (2016), and Putri and Hamidi, (2019) showed impacts of financial literacy on investment decisions. However, there is also a research, conducted by Senda et al., (2020), finding that financial literacy did not influence investment decision. With such gap, researchers aim to examine the influence of financial literacy on investment decision. If someone is financially literate, he will make the right investment decisions. Referring to the above description, framework for research hypothesis can be illustrated as follows:



- H₀ = Financial literacy does not influence investment decisions of Gen Z in Jakarta
- H₁ = Financial literacy positively influences investment decisions of Gen Z in Jakarta

2. Method

Data Collection Technique

This research adopted a quantitative approach to achieve its objectives and purposes. Quantitative approach was selected due to its ability to collect large number of data and its capability for testing the hypothesis. As to research instrument, online questionnaire was administered for a number of reasons. Questionnaire was developed by modifying the instrument implemented in studies conducted by Bongomin et al. (2016) and Putri and Hamidi (2019). Firstly, online questionnaire is capable of reaching more Gen Z in Jakarta, a generation that is heavily reliant on the internet, and social media in particular. Jakarta was selected as research population for it is the center of economy in Indonesia and for its easy access to Gen Z. Secondly, samples were selected using convenience sampling technique by considering factors such as accessibility, time and costs. The use of convenience sampling was due to large population size that made random samples hard to take.

Data Analysis

Population of this research was members of Generation Z living in Jakarta ages 10 to 24. Samples totalling 200 respondents were collected using questionnaires, which were later processed in some stages. After collection, data were then translated and coded before being put in Excel. To test validity and reliability of the questionnaire, LISREL and SPSS were used. Validity test measures accuracy of research instrument (questionnaire) in measuring the variables being studied. In contrast, reliability test assesses the ability of the questionnaire to generate the same results repeatedly. Furthermore, using SPSS and classical assumption test, descriptive statistics were generated to understand characteristics of the respondents. Goodness of fit test was performed to see how effective the model is in representing variable data. Hypothesis was then tested using Structural Equation Model regression and by means of LISREL program. Exogenous and endogenous variables in this research are financial literacy and investment decisions respectively.

3. Result and Discussion

Validity and Reliability

Table 1. Validity Test on Financial Literacy

No	Question Numbers	t value	t table	Notes
1	I am not sure how I spend my money every month	2,73	1,96	Valid
2	I always set my money aside for emergencies	5,76	1,96	Valid
3	I always save up	6,47	1,96	Valid

	on regular basis			
4	I always set my own financial budget	5,81	1,96	Valid
5	I spend money based on the budget I made	5,17	1,96	Valid
6	I compare prices of products carefully before making any purchase	2,71	1,96	Valid
7	I am always active in any kind of investment every month	4,48	1,96	Valid
8	I have the ability to calculate profits and losses from financial transactions	8,10	1,96	Valid
9	I have the ability to allocate my personal budget	8,57	1,96	Valid
10	I have remarkable ability to use financial products and services	8,14	1,96	Valid
11	I am always interested in financial news	5,33	1,96	Valid

Source: Data Processed using Lisrel (2021)

Table 2. Validity Test on Investment Decisions

No	Question Numbers	t value	t table	Notes
1	I am attracted to investment that provides high returns.	4,52	1,96	Valid
2	I look for information from various sources to find out the rate of return that I will receive	6,76	1,96	Valid
3	Before investing, I will examine all the risks that I will face	9,17	1,96	Valid
4	I understand how to minimize investment risks	4,16	1,96	Valid
5	I invest to fulfil my future needs	10,31	1,96	Valid
6	I invest to gain sustainable profits	10,72	1,96	Valid
7	I believe in my ability to overcome financial	5,74	1,96	Valid

	problems			
8	I believe that I can do things right	5,94	1,96	Valid

Source: Data Processed using Lisrel (2021)

According to the above results of LISREL validity test, the t-values of all items are greater than t-distribution table (1,96); this finding indicates validity of all variable items and their fitness for research. Results of validity test can be illustrated below:

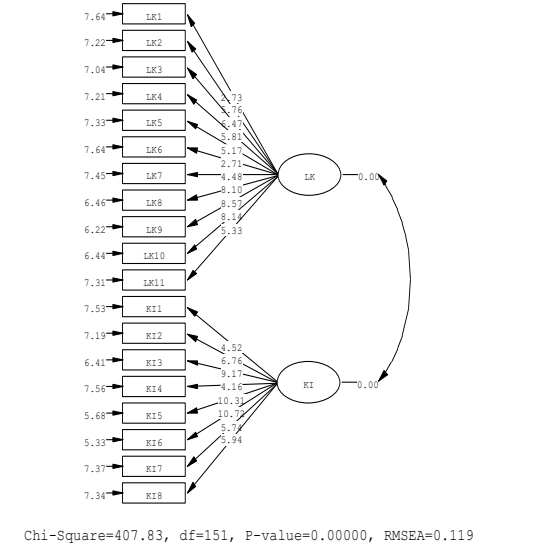


Figure 2. Output of Validity Test
Source: Data Processed using Lisrel (2021)

Reliability, on the other hand, was measured using Cronbach's alpha, which then generated the following results:

Variable	N of Items	Cronbach's Alpha	Notes
Financial Literacy	11	0,792	Reliable
Investment Decisions	8	0,809	Reliable

Source: Data Processed using SPSS (2021)

Referring to the above results, with Cronbach's alpha values being greater than 0,7, both variables are considered reliable.

Goodness of Fit Test

Goodness of fit test is used to see fitness of the model to the data being observed. Results of goodness of fit test in this research are shown in the Table 4. As can be seen, as many assumptions fall into poor fit category, the model is considered a poor fit to the data and therefore requires modifications as suggested by LISREL program (Table 5).

Goodness of Fit	Analysis Result	Cut-off Value	Category
χ^2 (Chi-Square)	674,68	Expected small	Not Fit
Probability	0,000	$\geq 0,05$	Not Fit
GFI	0,71	$\geq 0,90$	Marginal

AGFI	0,66	≥ 0,90	Not Fit
NFI	0,49	≥ 0,90	Not Fit
NNFI	0,61	≥ 0,90	Not Fit
CFI	0,64	≥ 0,90	Not Fit
IFI	0,65	≥ 0,90	Not Fit
RMSEA	0,094	≤ 0,08	Marginal

Source: Data Processed using Lisrel (2021)

Results of goodness of fit modification test are as follows:

Table 5. Results of Goodness of Fit Modification Test

Goodness of Fit	Analysis Result	Cut-off Value	Category
χ^2 (Chi-Square)	522,24	Expected small	Not Fit
Probability	0,000	≥ 0,05	Not Fit
GFI	0,77	≥ 0,90	Marginal
AGFI	0,72	≥ 0,90	Marginal
NFI	0,61	≥ 0,90	Marginal
NNFI	0,76	≥ 0,90	Marginal
CFI	0,78	≥ 0,90	Marginal
IFI	0,79	≥ 0,90	Marginal
RMSEA	0,067	≤ 0,08	Good fit

Source: Data Processed using Lisrel (2021)

The above results demonstrate how most parts of the model fall into marginal fit category indicating that assumptions of goodness of fit model are generally acceptable. In other words, there is a fit between model and the data observed in this research.

Descriptive Statistics

Table 6. Results of Descriptive Statistics for Financial Literacy

	N	Min	Max	Mean	Std Deviation
LK1	200	1,00	4,00	20,826	,95382
LK2	200	2,00	4,00	33,058	,66887
LK3	200	1,00	4,00	29,174	,71399
LK4	200	1,00	4,00	24,876	,72014
LK5	200	1,00	4,00	23,884	,69967
LK6	200	1,00	4,00	33,471	,69175
LK7	200	1,00	4,00	22,645	,90156
LK8	200	1,00	4,00	28,182	,71880
LK9	200	1,00	4,00	29,917	,66453
LK10	200	1,00	4,00	28,843	,69750
LK11	200	1,00	4,00	27,355	,73902
Valid N (list-wise)	200				

Source: Data Processed using SPSS (2021)

Table 7. Results of Descriptive Statistics for Investment Decisions

	N	Min	Max	Mean	Std Deviation
KI1	200	1,00	4,00	32,810	,60859
KI2	200	1,00	4,00	30,083	,65187
KI3	200	1,00	4,00	33,636	,57735

KI4	200	1,00	4,00	26,942	,85482
KI5	200	1,00	4,00	34,132	,58693
KI6	200	1,00	4,00	34,215	,60211
KI7	200	2,00	4,00	30,826	,57135
KI8	200	2,00	4,00	31,653	,48900

Valid N (list-wise) 200

Source: Data Processed using SPSS (2021)

As can be seen from Table 6 and 7, there were 200 respondents participating in this research. Results also show that mean of each variable is greater than its standard deviation, which suggests that data are clustered about the mean and no outliers are present.

Characteristics of Respondents

Table 8. Data on Respondents

Sex		Freq.	%	Valid %	Cum %
Valid	Male	94	47,0	47,0	47,0
	Female	106	53,0	53,0	100,0
	Total	200	100,0	100,0	
Age		Freq.	%	Valid %	Cum %
Valid	10 - 24 years old	200	100,0	100,0	100,0
	Total	200	100,0	100,0	
Occupation		Freq.	%	Valid %	Cum %
Valid	Students	167	83,5	83,5	83,5
	Private sector employees	27	13,5	13,5	97,0
	Freelance workers	5	2,5	2,5	99,5
	Unemployed	1	0,5	0,5	100,0
	Total	200	100,0	100,0	
Education		Freq.	%	Valid %	Cum %
Valid	Middle School	16	8,0	8,0	8,0
	High School	83	41,5	41,5	49,5
	Undergraduate	101	50,5	50,5	100,0
	Total	200	100,0	100,0	
Monthly Income		Freq.	%	Valid %	Cum %
Valid	< 1.000.000	65	32,5	32,5	32,5
	1.000.000-2.500.000	59	29,5	29,5	62,0
	2.500.001-5.000.000	51	25,5	25,5	87,5
	> 5.000.000	25	12,5	12,5	100,0
	Total	200	100,0	100,0	
Investment Experiences		Freq.	%	Valid %	Cum %
Valid	No experience	119	59,5	59,5	59,5
	< 1 year	47	23,5	23,5	83,0

1 - 3 years	23	11,5	11,5	94,5
3 - 5 years	7	3,5	3,5	98,0
> 5 years	4	2,0	2,0	100,0
Total	200	100,0	100,0	

Source: Data Processed using SPSS (2021)

Referring to the above table, majority of the respondents are female (53%) whose age ranging between 10 and 24 years old. Most respondents are school/university students, mostly undertaking undergraduate program as this research focuses on Gen Z. Of all participants, 41,5% have investment experiences for either less than a year or more than five years. These data show how Gen Z members in Jakarta have been aware of the importance of investing since young age.

**Classical Assumption Test
Normality Test**

As can be seen in Table 9, Kolmogorov-Smirnov normality test has yielded a Sig. (2-tailed) of 0,291 > 0,05, an indicator of normal distribution of data.

Table 9. Results of Normality Test

Unstandardized Residual		
N		200
Normal Parameters ^{a,b}	Mean	0,00000000
	Std Deviation	2,625808081
Most Extreme Differences	Absolute	0,056
	Positive	0,056
	Negative	-0,048
Kolmogorov-Smirnov Z		1,065
Asymp, Sig. (2-tailed)		0,291

Source: Data Processed using SPSS (2021)

Multicollinearity Test

Table 10 displays a tolerance value that is greater than 0,10 (tolerance > 0,10) and a VIF that is less than 10 (VIF < 10). Both values simultaneously indicate absence of multicollinearity in financial literacy variable.

Table 10. Results of Multicollinearity Test

Model	Collinearity Statistics	
	Tolerance	VIF
Financial Literacy	1,0000	1,0000

Source: Data Processed using SPSS (2021)

Hypothesis Test

The following structural model was used for hypothesis testing by means of LISREL program:

$$KI = 0,65 * LK, \text{ Errorvar.} = 0,58, R^2 = 0,42$$

(0,16)	(0,25)
4,07	2,30

Referring to the above results, it can be seen that:

- a. The coefficient of LK (financial literacy) is 0,65 and its t-value is 4,07. As a result, with coefficient being positive and t-value being greater than the t-table (4,07 > 1,96), it is clear that financial literacy positively and significantly influences investment decisions. As respondents become more financially literate, their ability to make investment decisions gets better. In the end, this ability will enable them to select the right investment with high returns.
- b. An R-squared value of 0,42 is generated, implying that 58% of the variance of investment decisions is explained by the variance of financial literacy while the remaining (100% - 42% = 58%) is explained by other factors not involved in this research.

Discussion

Generation Z can absorb information effortlessly, with their lives inextricably tied to technology, which can help them understand that sound financial management could eventually lead to better future. Young people who demonstrate knowledge and understanding of financial literacy will most likely develop the right, accurate, effective, and efficient strategies for making investment decision despite the fact that many of them have no investment experience. Having financial literacy, these people will evaluate profits and risks incurred by their investment, select investment products carefully, consider the length of time before returns can be made, and find relevant information on the returns from various sources. In addition, Gen Z in Jakarta has better access to financial institutions that can help them find information relevant to their investment. Furthermore, with speedy internet access, financial news is more easily accessible to these people. It is such a privilege that they can get more investment opportunities.

4. Conclusion And Recommendation

Research findings indicate how, in 2021, financial literacy significantly influenced investment decisions of Gen Z in Jakarta. Therefore, it can be implied that Gen Z must learn more about returns of investment and take into account the length of investment returns as well as its risks. This reseach was conducted only in Jakarta and therefore it is recommended that future studies involve larger samples and broader scope, such as Indonesia, Southeast Asian countries, or other regions. Moreover, they can also investigate other variables such as financial effectiveness, income and other factors affecting investment decisions.

5. References

Abdeldayem, M. M. (2016). Is There a Relationship between Financial Literacy and Investment Decisions in the Kingdom of Bahrain? *Uct Journal of Management and Accounting Studies*, 4(2), 68–78.

Alaaraj, H., & Bakri, A. (2020). The Effect of Financial Literacy on Investment Decision

- Making in Southern Lebanon. *International Business and Accounting Research Journal*, 4(1), 37–47. <https://doi.org/10.15294/ibarj.v4i1.118>
- Anitha, J., & Aruna, M. (2016). Enablers of Employee Engagement of Gen Y at the Workplace with Reference to Automobile Sector. *Amity Journal of Training and Development*, 1(1), 93–108.
- Arianti, B. F. (2018). The Influence of Financial Literacy, Financial Behavior and Income on Investment Decision. *EAJ (Economics and Accounting Journal)*, 1(1), 1–10. <https://doi.org/http://dx.doi.org/10.32493/eaj.v1i1.y2018.p1-10>
- Ariwibawa, D. (2016). Pengaruh Literasi Terhadap Kinerja Dan Keberlangsungan UMKM di Jawa Tengah. *Siasat*, 20(1), 1–13. <https://doi.org/https://doi.org/10.20885/jsb.vol20.iss1.art1>
- Awais, M., Fahad Laber, M., Rasheed, N., & Khursheed, A. (2016). Impact of Financial Literacy and Investment Experience on Risk Tolerance and Investment Decisions: Empirical Evidence from Pakistan. *International Journal of Economics and Financial Issues*, 6(1), 73–79.
- Badan Koordinasi Penanaman Modal. (2020). *Realisasi Investasi Triwulan III Tahun 2020 Meningkat*. <https://www.bkpm.go.id/id/publikasi/siaran-pers/readmore/2408601/65201>
- Badan Pusat Statistik. (2020). *Realisasi Investasi Penanaman Modal Dalam Negeri*. <https://www.bps.go.id/indicator/13/793/1/realisasi-investasi-penanaman-modal-dalam-negeri-menurut-provinsi-investasi-.html>
- Baihaqqy, M. R. I., Disman, D., Nugraha, N., Sari, M., & Ikhsan, S. (2020). The Effect of Financial Literacy on the Investment Decision. *Budapest International Research and Critics Institute (BIRCI-Journal): Humanities and Social Sciences*, 3(4), 3073–3083.
- Bursa Efek Indonesia. (2019). *Data Jumlah Investor Berdasarkan Usia*. <https://www.idx.co.id/berita/press-release-detail/?emitenCode=1421>
- Copur, Z., & Gutter, M. S. (2019). Economic, Sociological, and Psychological Factors of the Saving Behavior: Turkey Case. *Journal of Family and Economic Issues*, 40(2), 3–32. <https://doi.org/10.1007/s10834-018-09606-y>
- Coşkun, A., Şahin, M. A., & Ateş, S. (2016). Impact of Financial Literacy on the Behavioral Biases of Individual Stock Investors: Evidence from Borsa Istanbul. *Business and Economics Research Journal*, 7(3), 1–19. <https://doi.org/10.20409/berj.2016321805>
- Hakim, M. S., Baihaqi, I., & Kunaifi, A. (2017). Value Chain Development as Alternative Method for Mapping Waste Management. *Journal of Innovation in Business and Economics*, 1(1), 11–18. <https://doi.org/10.22219/jibe.vol1.no01.11-18>
- Halim, A. (2019). Analisis Investasi dan Aplikasinya: Dalam Aset Keuangan dan Aset Riil. In *Salemba Empat*.
- Kumari, D. A. T. (2020). The Impact of Financial Literacy on Investment Decisions: With Special Reference to Undergraduates in Western Province, Sri Lanka. *Asian Journal of Contemporary Education*, 4(2), 110–126. <https://doi.org/10.18488/journal.137.2020.4.2.110.126>
- Kustodian Sentral Efek Indonesia. (2020). *Kepemilikan Efek*. https://www.ksei.co.id/archive_download/holding_composition
- Luntungan, I., Hubeis, A. V. S., Sunarti, E., & Maulana, A. (2014). Strategi Pengelolaan Generasi Y di Industri Perbankan (Management Strategies of Generation Y in Banking Industry). *Jurnal Manajemen Teknologi*, 13(2), 219–240.
- Lusardi, A., Mitchell, O. S., & Curto, V. (2010). Financial literacy among the Young. *Journal of Consumer Affairs*, 44(2), 358–380. <https://doi.org/https://doi.org/10.1111/j.1745-6606.2010.01173.x>
- Margaretha, F., & Pambudhi, R. A. (2015). Tingkat Literasi Keuangan pada Mahasiswa S-1 Fakultas Ekonomi. *Jurnal Manajemen Dan Kewirausahaan*, 17(1), 76–85. <https://doi.org/https://doi.org/10.9744/jmk.17.1.76-85>
- Mendari, A. S., & Kewal, S. S. (2013). Tingkat Literasi Keuangan di Kalangan Mahasiswa STIE MUSI. *Jurnal Economia*, 9(2), 130–140. <https://doi.org/https://doi.org/10.21831/economia.v9i2.1804>
- Okello Candiya Bongomin, G., Ntayi, J. M., Munene, J. C., & Nkote Nabeta, I. (2016). Social capital: mediator of financial literacy and financial inclusion in rural Uganda. *Review of International Business and Strategy*, 26(2), 291–312. <https://doi.org/10.1108/RIBS-06-2014-0072>
- Otoritas Jasa Keuangan. (2020). *Survei Nasional Literasi dan Inklusi Keuangan 2019*. <https://www.ojk.go.id/id/berita-dan-kegiatan/publikasi/Pages/Survei-Nasional-Literasi-dan-Inklusi-Kuangan-2019.aspx>
- Putri, W. 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), 210–224.

- 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), 100–111. <https://doi.org/10.24856/mem.v35i1.1246>
- Setyawati, I., & Suroso, S. (2016). Sharia Financial Literacy and Effect on Social Economic Factors (Survey on Lecturer in Indonesia). *International Journal of Scientific & Technology Research*, 5(2), 92–102.
- Sobaya, S., Hidayanto, M. F., & Safitri, J. (2016). Pengaruh Literasi Keuangan dan Lingkungan Sosial terhadap Perencanaan Keuangan Pegawai di Universitas Islam Indonesia Yogyakarta. *Madania*, 20(1), 115–128.
- Widyawati, I. (2012). Faktor-faktor yang Mempengaruhi Literasi Finansial Mahasiswa Fakultas Ekonomi dan Bisnis Universitas Brawijaya. *Assets: Jurnal Akuntansi Dan Pendidikan*, 1(1), 89–99. <https://doi.org/http://doi.org/10.25273/jap.v1i1.527>