

## Research Article

# Effect of Financial Literacy and Behaviour on Investment Decisions (Study on Southeast Sulawesi investors)

Sujono<sup>1</sup>, Nitri Mirosea<sup>2</sup>, Ibnu Hajar<sup>1</sup>

<sup>1</sup>Management Department Faculty of Economics and Business, Halu Oleo University Kampus Hijau Bumi Tridahrma Anduonohu, Kendari, South East Sulawesi

<sup>2</sup>Accounting Department Faculty of Economics and Business, Halu Oleo University Kampus Hijau Bumi Tridahrma Anduonohu, Kendari, South East Sulawesi

### Abstract.

This study aimed to examine the effect of financial literacy and financial behaviour on investment decisions. This study was conducted on 365 investors listed on the Indonesia Stock Exchange Representative of Southeast Sulawesi. This research concluded that financial literacy and financial behaviour have a significant effect on investment decisions. Investment knowledge is the indicator that reflects the highest financial literacy variable. Meanwhile, the financial behaviour indicator that reflects the most financial behaviour is ‘familiarity.

Corresponding Author: Sujono;  
 email: drsujono111@gmail.com

**Published** 17 February 2023

**Keywords:** financial literacy, financial behaviour and investment decisions

Publishing services provided by  
**Knowledge E**

© Sujono et al. This article is distributed under the terms of the [Creative Commons Attribution License](#), which permits unrestricted use and redistribution provided that the original author and source are credited.

Selection and Peer-review under the responsibility of the ICOSIAS 2021 Conference Committee.

## 1. Introduction

Financial investment is one way to increase welfare, it can be achieved with the right investment decisions. The accuracy of investment decisions is determined by knowledge, abilities, and skills in the field of financial literacy. Until now, financial literacy skills around the world are still limited<sup>16</sup>.

In addition to financial literacy, financial investment decisions are influenced by financial behaviour. Financial behaviour biases are widely studied to determine the factors that determine investment decisions. However, until now, studies on financial behaviour are still very limited, especially in developing countries<sup>11</sup>.

This research study seeks to provide evidence of the effect of financial literacy and financial behaviour on investment decisions specifically for individual investors. The next section of this paper will describe the literature review, methodology, results and research findings. This paper ends with a conclusion.

 **OPEN ACCESS**

## 2. Literature review

Financial literacy is related to knowledge, skills and ability to manage money for a better life 1,5,<sup>11</sup>. The important role of financial literacy has prompted many studies to be conducted in many countries<sup>17</sup>.

Financial literacy covers aspects of knowledge, abilities and skills regarding aspects of personal finance, savings and loans, insurance, and investment. Several studies conducted 1,2,4,5,8,10,12,15,21 found that financial literacy determines investment decisions. The higher a person's financial literacy, the opportunity to make more informed decisions. Based on these arguments, the research hypotheses proposed are:

H1	:	personal finance has a significant effect on investment decisions
H2	:	personal financial savings and loans have a significant effect on investment decisions
H3	:	Personal financial insurance has a significant effect on investment decisions
H4	:	personal financial investment has a significant effect on investment decisions

Traditional finance is based on the assumption that people, institutions and market participants are rational <sup>7</sup>. Behavioral finance holds the opposite view that investors tend to be irrational in making decisions <sup>25</sup>. Behavioural finance is a field that adopts psychology and finance in studying behaviour in various aspects of the market. <sup>7</sup>.

The factors that are often studied in behavioral finance are related to bias. Bias in financial behaviour include: Overconfidence, Disposition effect, Anchoring, Representativeness, Mental accounting, Familiarity, Availability, Hindsight bias, Emotional Bias, Herding <sup>7</sup>. These behavioural biases are believed to influence the behaviour of individual decisions, including investment decisions.

Many studies have been done 3,4,5,6,8,9,12,13,14,18,20,22,23,24<sup>26</sup> and found that these behavioural biases influence investment decisions. Based on this, the research hypotheses proposed are:

H5	:	Overconfidence has a significant effect on investment decisions
H6		Disposition effect has a significant effect on investment decisions
H7		Anchoring, has a significant effect on investment decisions
H8		Representativeness has a significant effect on investment decisions
H9		Mental accounting has a significant effect on investment decisions
H10		Familiarity has a significant effect on investment decisions
H11		Availability has a significant effect on investment decisions
H12		Hindsight bias has a significant effect on investment decisions
H13		Emotional bias has a significant effect on investment decisions
H14		herding has a significant effect on investment decisions

### 3. Method

#### 3.1. Population dan sample

The population of this study is all individual investors who are domiciled in South-east Sulawesi. The number of individual investors in Southeast Sulawesi in 2021 was recorded at 4,560 investors. Based on Yamane's formula<sup>27</sup> to calculate the sample size, 367 research samples were obtained. This number was obtained by setting the sample error rate of 5%.3.2

#### 3.2. Desain questioner

Data were collected using a questionnaire. The questionnaires were distributed via a google form sent via *WhatsApp* the Southeast Sulawesi investor group. The period for distributing the questionnaires was set at 30 days. The method of determining the sample used is simple random sampling. Based on the specified time period, the number of questionnaires that were successfully obtained were 365 questionnaires. Thus the sample rate reached 99.46%.

The research variables were measured using a five-point Likert scale which stated 1 (strongly disagree) to 5 (strongly agree). The questionnaire is divided into 4 parts. The first part is respondent identity, the second part is financial literacy, the third part is financial behaviour and the fourth part is investment decisions. The respondent's identity

statement includes gender, marital status, education completed, occupation, investment experience, age and monthly income. The financial literacy statement includes 25 items. The statement on behavioural finance includes 39 items. The Investment Decision Statement includes 13 items.

## 4. Analysis and finding

### 4.1. Respondent profile

Respondents were given a questionnaire to state their gender, marital status, education, occupation, experience, age and income. Table I presents the statistics on the characteristics of the respondents.

### 4.2. Reliability

The reliability of five categories of factors that influence investment decisions is tested with Cronbach's alpha. This test was conducted to measure internal consistency. The generally accepted rule is that the coefficient is greater than or equal to 0.7 as an indication of a reliable construct<sup>19</sup>. The results of the reliability test can be seen in Table 3.

### 4.3. The influence of financial literacy and financial behavior on investment satisfaction

The regression model is used to test the influence of the hypothesis on investors' investment decisions in Southeast Sulawesi. In this model, financial literacy includes knowledge of Personal Finance, Savings and Loans, Insurance, Investments. Meanwhile, financial behaviour includes Overconfidence, Disposition effect, Anchoring, Representativeness, Mental accounting, Familiarity, Availability, Hindsight bias, Emotional Bias, Herding. The results of the regression analysis can be seen in Table 2.

Based on Table 3. It is known that the Personal Finance indicator has a significant positive effect. Thus the first hypothesis is accepted. Financial behaviour variables which include Representativeness, Mental accounting, Familiarity, Availability, Hindsight bias, Emotional Bias, Herding have a significant effect. Thus  $H_0$  to  $H_{14}$  is accepted. Meanwhile, financial literacy variables which include Savings and Loans, Insurance, Investments have no effect on investment decisions. Thus  $H_2$ - $H_4$  is not accepted. Financial behaviour

TABLE 1: Responden characteristic.

No.	Characteristic		Jumlah	(%)
1.	Gender			
	1.	Male	238	65.21
	2.	Female	127	34.79
2.	Marital Status			
	1.	Married	152	41.64
	2.	No	213	58.36
3.	Education			
	1.	senior High School	0	0.00
	2.	Diploma	98	26.85
	3.	Bachelor	119	32.60
	4.	Master	146	40.00
	5.	Doctor	2	0.55
4.	Job			
	1.	Government employees	68	18.63
	2.	TNI/POLRI	69	18.90
	3.	Businessman	165	45.21
	4.	Retired	44	12.05
	5.	Farmer	19	5.21
5.	Investment experience			
	1.	<1	200	54.79
	2.	1-2	135	36.99
	3.	3-4	1	0.27
	4.	5-6	19	5.21
	5.	>6	10	2.74
6.	Age			
	1.	<=20	4	1.10
	2.	21 - 29	306	83.84
	3.	30 - 39	42	11.51
	4.	40 - 49	1	0.27
	5.	49 ke atas	12	3.29
7.	Income (Million)			
	1.	< 2	99	27.12
	2.	2 - 4	129	35.34
	3.	5 - 8	107	29.32
	4.	9 - 12	12	3.29
	5.	12 above	18	4.93

variables that have no effect on investment decisions are Overconfidence, Disposition effect, Anchoring. Thus the hypothesis H5-H8 is not accepted.

TABLE 2: Construct reliabilities.

Variable		Indicator		Alpha Cronbach
Financial literacy	X1	Financial Personal	X1.1	0.695
		Saving and bond	X1.2	0.758
		Assurance	X1.3	0.737
		Investment	X1.4	0.723
Behavioural Finance	X2	Overconfidence	X2.1	0.731
		Disposition effect	X2.2	0.792
		Anchoring	X2.3	0.803
		Representativeness	X2.4	0.792
		Mental accounting	X2.5	0.765
		Familiarity	X2.6	0.823
		Availability	X2.7	0.813
		Hindsight bias	X2.8	0.758
		Emotional Bias	X2.9	0.765
		Herding	X2.10	0.730
Investment decision	Y1	Policy Formulation	Y1.1	0.801
		Macroeconomic Studies	Y1.2	0.825
		Decision implementation	Y1.3	0.766
		Evaluation & Monitoring	Y1.4	0.776

## 5. Conclusions And Summary of Findings

Based on the research findings, the conclusion of this study is that Representativeness, Mental accounting, Familiarity, Availability, Hindsight bias, Emotional Bias, Herding determines investment decisions. Meanwhile knowledge of Savings and Loans, Insurance and Investments does not determine investment decisions. The behavioural aspect variables that do not determine investment decisions are Overconfidence, Disposition effect and Anchoring.

Studies on aspects of individual knowledge and behaviour still use a survey approach. Although this approach is widely used, it is strongly influenced by conditions and time. Thus, the findings of this study are only limited to the conditions and time of the study.

The resulting model, although quite good, there are still some variables that are not significant. The increase in significance can be done by increasing the number of samples. Therefore, this study suggests using the same model with a larger sample.

TABLE 3: Regression Results.

Independent Variables		B	SE	Beta	t	Sig.
(Constant)		2.751	3.963		0.694	0.488
Financial Personal	X1.1	0.201	0.101	0.073	1.986	0.048
Saving and bond Assurance	X1.2	-0.008	0.077	-0.004	-0.110	0.913
	X1.3	-0.066	0.104	-0.026	-0.632	0.528
Investment	X1.4	0.178	0.107	0.066	1.666	0.097
Overconfidence	X2.1	0.141	0.112	0.048	1.254	0.211
Disposition effect	X2.2	-0.178	0.146	-0.053	-1.216	0.225
Anchoring	X2.3	0.186	0.097	0.088	1.913	0.057
<b>Representativeness</b>	X2.4	0.248	0.142	0.078	1.743	0.082
<b>Mental accounting</b>	X2.5	0.723	0.158	0.205	4.566	0.000
<b>Familiarity</b>	X2.6	0.483	0.145	0.156	3.328	0.001
<b>Availability</b>	X2.7	0.651	0.157	0.204	4.147	0.000
<b>Hindsight bias</b>	X2.8	0.422	0.158	0.119	2.674	0.008
<b>Emotional Bias</b>	X2.9	0.239	0.083	0.131	2.873	0.004
<b>Herding</b>	X2.10	0.178	0.114	0.072	1.566	0.118
R	.761					
R Square	0.578383					
F	34.29545					
Prob.	.0000					

Several variables in this study determine investment decisions, to obtain generalizations, it is necessary to re-examine the variables at different times.

## References

- [1] Abdeldayem MM. Is There a Relationship between Financial literacy and Investment Decisions in the Kingdom of Bahrain? *Uct Journal of Management and Accounting Studies*. 2016;2016(02):68–78.
- [2] Akims A, Jagongo A. Financial Literacy and Its Impact on Investment Decisions in Nigeria: a Theoretical Perspective 1. *International Journal of Scientific Research and Innovative Technology*. 2017;4(11):2313–3759.
- [3] Amisi S. The Effect of Financial Literacy on Investment Decision Making by Pension Fund Managers in Kenya. 2012;(July):1–74.
- [4] Anwar M, Khan SZ, Rehman AU. Financial Literacy, Behavioral Biases and Investor's Portfolio Diversification: Empirical Study of an Emerging Stock Market. *Journal of Finance & Economics Research*. 2017;2(2):145–64.

- [5] Arianti BF. The influence of financial knowledge, control and income on individual financial behavior. *European Research Studies Journal*. 2017;20(3):635–48.
- [6] Arshad I, Ibrahim Y. Uncertainty Avoidance, Risk Avoidance and Perceived Risk: a Cultural Perspective of Individual Investors. *Hasanuddin Economics and Business Review*. 2019;3(1):21.
- [7] Baker HK, Kumar S, Goyal N, Gaur V. How financial literacy and demographic variables relate to behavioral biases. *Manag Finance*. 2019;45(1):124–46.
- [8] Boda JRM. a Structural Equation Modeling Study on Factors Affecting a Structural Equation Modeling Study on Factors Affecting Investment Decisions of. *Journal of Resources Development and Management*. 2018
- [9] Gill S, Kashif Khurshid M, Mahmood S, Ali A. Factors Effecting Investment Decision Making Behavior: The Mediating Role of Information Searches. *Eur Online J Nat Soc Sci*. 2018;7(4):758–67.
- [10] Hamza N, Arif I. Impact of Financial Literacy on Investment Decisions : The Mediating Effect of Big-Five Personality Traits Model. *Market Forces College of Management Sciences*. 2019;14(1):43–60.
- [11] Hassan Al-Tamimi HA, Anood Bin Kalli A. Financial literacy and investment decisions of UAE investors. *J Risk Finance*. 2009;10(5):500–16.
- [12] Hayat A, Anwar M. Impact of Behavioral Biases on Investment Decision Making with Moderating Role of Financial Literacy. *Jinnah Business Review*. 2018;6(2):34–41.
- [13] Janardhanan AK. A. P. S. Determinants of Investor's Behaviour An Analytical Review. *SSRN Electronic Journal*. 2015 <https://doi.org/10.2139/ssrn.2665301>.
- [14] Kotecha K. *The Affect Heuristic and Investment Behavior : A Qualitative Study of the 2008 Financial Crisis Dissertation Manuscript Submitted to Northcentral University Graduate Faculty of the School of Business in Partial Fulfillment of the Requirements for the Degr.* 2016
- [15] Lusardi A. (2008). *Nber Working Paper Series Financial Literacy: an Essential Tool for Informed Consumer Choice?* <http://www.nber.org/papers/w14084>
- [16] Lusardi A, Mitchell OS. Financial Literacy around the World: Introduction and Overview. *Journal of Pension Economics and Finance, December 2010*. 2011
- [17] Lusardi Annamaria MO. Baby Boomer Retirement Security: The Roles Of Planning, Financial Literacy, And Housing Wealth. 2012;5:13–5.
- [18] Mittal SK. Behavior biases and investment decision: theoretical and research framework. *Qualitative Research in Financial Markets*; 2019. <https://doi.org/10.1108/QRFM-09-2017-0085>.



- [19] Nunnally JC, Bernstein IH. Psychometric Theory Third Edition. McGraw-Hill Inc. 1994;1: 752.
- [20] Qureshi. Factors Affecting Investment Decision Making of. *Journal of Family and Consumer Sciences*. 2012;19(10), 280–291.
- [21] Rooij M. (2007). Financial Literacy and Stock Market Participation Maarten. *Yatyatat, you12y* (235), 245. <http://digilib.unila.ac.id/4949/15/BABII.pdf>
- [22] Shafi M. Determinants Influencing Individual Investor Behavior in Stock Market: A Cross Country Research Survey. Nigerian Chapter of Arabian Journal of Business and Management Review. 2014;2(1):60–71.
- [23] Sharma RK, Sharma R. (2014). Study of Factors Influencing Investment Decision of Households in Oman. *Conference: 2nd International Conference on 'Technological and Management Advances in the New Age Economy: An Industry Perspective,' 2014;March:92–101*. [https://www.researchgate.net/publication/263581933\\_Study\\_of\\_Factors\\_Influencing\\_Investment\\_Decision\\_of\\_Households\\_in](https://www.researchgate.net/publication/263581933_Study_of_Factors_Influencing_Investment_Decision_of_Households_in)
- [24] Sukamulja S, Meilita AY, Senoputri D. Regret Aversion Bias, Mental Accounting, Overconfidence, and Risk Perception in Investment Decision Making on Generation Y Workers in Yogyakarta. *International Journal of Economics and Management Studies*. 2019;6(7):102–10.
- [25] Tourani-Rad A, Kirkby S. Investigation of investors' overconfidence, familiarity and socialization. *Account Finance*. 2005;45(2):283–300.
- [26] Waruingi Kimani Victor. A Survey of Behavioral Factors Influencing Individual Investors Choices of Securities at The Nairobi Securities Exchange. University of Nairobi; 2011.
- [27] Yamane T. *Statistics An Introductory Analysis*. Harper and Row; 1967.