

Emotional intelligence, sociodemographic, and investment decision: the moderating effect of financial literacy

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Abstract

This study aims to determine the impact of emotional intelligence, socio-demographic factors on investment decisions and financial literacy as well as the moderating variables of emotional intelligence and other factors. Socio-demographics on investment decisions. The research object is the Investor Saham Pemula Community (ISP), a sample of 106 investors. The analytical technique used in this study uses the help of the data processing application Smart PLS 3.0. Research results indicate that emotional intelligence has a positive and significant impact on investment decisions; Sociodemographic do not influence investment decisions; Emotional intelligence plays a positive and important role in investment decisions that are moderated by financial literacy; a positive and significant social demographic on investment decisions moderated by financial culture.

Keywords: *Emotional intelligence, sociodemographic, financial literacy, investment decisions*

Introduction

Investments decisions always take into account the risks and returns that apply to investments. Traditional (neoclassical) economists assume that investor behavior is basically able to make decisions based on very logical and transparent considerations (Sivaramakrishnan et al., 2017). In fact, humans often make mistakes due to misperceptions, excessive self-confidence and emotions (Dhiman & Raheja, 2018). In 1990, the science of behavioral finance developed as economists began to recognize the influence of human behavior on investment decision making (Alteza & Harsono, 2021).

Campbell & Shiller (1988) assumes that investors will act rationally by valuing stocks based on the company's fundamental value. Meanwhile, irrational investors will value stocks without conducting fundamental or technical analysis. Research Campbell & Shiller (1988) on investors' uncontrolled actions due to psychological factors, namely fear, greed and panic; Hirshleifer et al., (2003) found that overcast and cloudy weather led to the appearance of negative investors' mood so that the stock buying and selling indicators became more sluggish; Cao & Wei (2005) found that lower temperatures increase the

aggressive behavior of investors so that they are more willing to take risks in making investment decisions. Investors' irrational actions when making investment decisions in the capital market are influenced by investors' emotions.

The theory of behavioral finance, based on an applied psychology approach, seeks to understand how emotions and cognitive biases influence the behavior of investors when they invest (Pradhana, 2018). The relationship between cognitive and behavior is also explained by Salehi & Mohammadi (2017) whose contention implies that investors as human beings can be classified into: (a) intuitive types whose decision making are based on their instincts); (b) emotional types whose action are based upon their emotions; and (c) rational type who focus on the reasons behind things.

Emotional Intelligence is the ability to process emotional information, which specifically involves perception, blending, understanding, and processing emotions (Mayer et al., 2008). In short, emotional intelligence is the ability of humans to recognize and interpret their emotions, use them, and integrate them effectively for optimal reasoning and problem solving.

Research by Ahmad (2018) and Beadnell et al. (2017) showed that emotional intelligence (EI) has a significant relationship with investment decisions and is effective when making decisions related to long-term financial returns. The study by Tang et al. (2018) revealed that emotional intelligence is part of a person's general consciousness and that this part is related to decisions that lead to stock price fluctuations. Dhiman and Raheja (2018) suggested that there is a significant relationship between emotional intelligence, behavioral biases and investment decisions of investors. Investors who score high on emotional intelligence invest more in the stock market. Research by Sashikala & Chitramani (2017) suggests that emotional stability is a factor that affects the investment decision-making process.

Salehi & Mohammadi's (2017) different studies on emotional intelligence, thinking style, and investment decision making do not influence each other. This study is consistent with Muttath & Menachery's (2018) study, which confirms that there is no significant difference between high and low emotional intelligence in making investment decisions to own stocks.

The theory of reason action proposed by Ajzen & Fishbein (1977) related to the psychology of people's behavior because it is influenced by two factors, namely endogenous factors (self) and exogenous factors (environment). One of the exogenous factors that influence investment decisions is sociodemographic factors (Sartika & Humairo, 2021)

Praba's (2016) study found that investors in India said all six socio-demographic factors included in the study, age, gender and income, had a significant relationship with their decisions. intend to invest. Research conducted by Wubie et al. (2015) confirm that socio-demographic factors, including employment, do not influence investment decisions. Wahyuni & Pramono (2021) argue that age and education level are demographic factors that influence investment decisions. Meanwhile, gender, marital status and occupation do not affect investment decisions.

Planning investment decisions will be more mature and avoid losses while investing When an individual is planning to invest, that individual must have good financial knowledge so that his or her financial decisions are effective. clear

direction (Sartika & Humairo, 2021). Research conducted by Putri et al. (2019), Nutia & Agung (2021) and Fazal Hadi (2017) show that the higher a person's level of financial literacy, the better their investment decision-making behavior.

Abdeldayem (2019) conducted a study titled Financial Knowledge and Other Factors Influencing Individual Investment Decisions: Evidence from a developing economy (Pakistan) to determine the level of financial literacy of investors and also to examine the relationship between financial literacy and its relationship with factors influence investment decisions. Research results show that the level of financial knowledge of investors is still below average. Furthermore, the study results indicate that financial literacy has a negative influence on the number of investment decisions by 10%.

Stemming from the above issues, the research content includes: (1) Does emotional intelligence, including self-awareness, emotion management, motivation, empathy, and social skills, influence investment decisions?; (2) Do socio-demographic factors such as age and gender influence investment decisions?; (3) Does financial knowledge moderate emotional intelligence including self-awareness, emotion management, motivation, empathy, and social skills on investment decisions?; (4) Does financial knowledge moderate socio-demographic factors such as age and gender that influence investment decisions.

Research Methods

The study population includes all investors who are members of the national seed equity investor community, totaling 12,091 members. The sampling technique used was simple random sampling. The number of research samples is 106 investors. This type of research is descriptive quantitative research. The data used in this study are primary data obtained from questionnaires distributed to respondents. Data were analyzed using the PLS 3.0 application. The study respondents were members of the Saham Pemula Investor Community (ISP) located in the East Java region. Sampling is done by distributing online questionnaires via Google Form with the condition that investors have invested in stocks for more than 12 months (1 year).

Table 1. Research variable indicator and scale

Variable	Indicator	Scale
Emotional Intelligence	1. Self-awareness	Likert (1-5)
	2. Handling emotion	
	3. Motivation	
	4. Empathy	
	5. Social skill	
Sociodemographic	1. Gender	Likert (1-5)
	2. Work Experience	
	3. Income	
	4. Cognitive knowledge	
Financial Literacy	1. Personal Finance Knowledge	Likert (1-5)
	2. Savings	
	3. Investment	
	4. Financial management	
Investment Decision	1. Investment Security	Likert (1-5)
	2. Investment Risk	
	3. Investment Income	

4. Time Value of Money
5. Liquidity Level

Source: (Daniel, 2003; Panjaitan & Listiadi, 2021; Monticone, 2010; Chen & Volpe, 2002)

Result and Discussions

The number of respondents obtained in the study was 106 investors. In this section, we will explain the characteristics of research respondents which include gender, age, and highest education degree.

Table 2. Investor Gender Profile

Gender	Numbers	Percentage	Total
Male	72	68%	106
Female	34	32%	

Based on the table above, it is known that the numbers of investors are 106 who are 72 male (68%) while female are 34 (32%). Based on the age of novice stock investors, it can be described as follows:

Table 3. Investor Age Profile

Age	Numbers	Percentage
21 – 25	28	26%
26 – 30	24	23%
>30	54	51%

Based on the age profile of investors, the age range from 21-25 years is 28 investors (26%), the age range 26-30 years is 24 investors (23%), and above 30 years to 50 years is 54 investors (51%). Meanwhile, based on the education status of investors, starts from high school are 9 people (8%); for S1 of 85 investors (80%); and postgraduate are 12 investors (12%). Based on the monthly income of investors, the data obtained from investors' income between 1-5 million are 30 investors (28%); income 6-10 million by 53 investors (50%) and income above 10 million by 23 investors (22%).

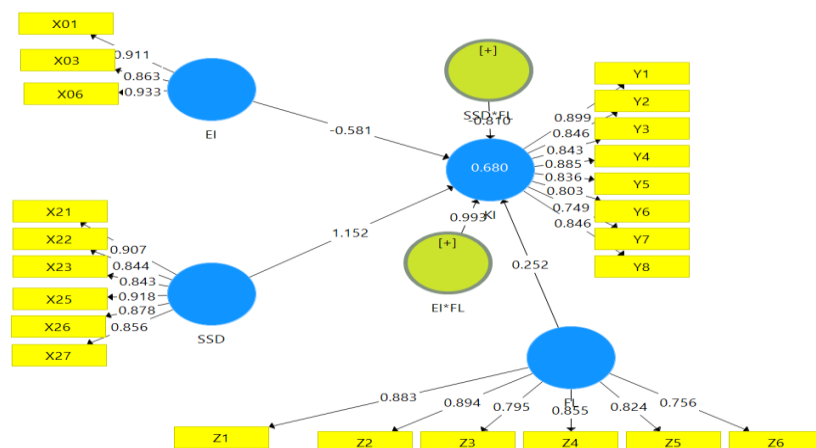


Figure 1. Measurement Model and Output of Data Analysis

Source: Test Result PLS

Based on the test results using smart PLS from the figure above, there is a loading value below 0.50, so a data drop is carried out to remove the indicator with a loading value below 0.50 in order to obtain a good model. After dropping the data, the Emotional Intelligence indicators that meet the requirements are X01, X03 and X06, while for socio-demographic variables, the data is dropped on the X24 indicator; while for financial literacy, drop data for indicators Z7-Z9; while the investment decision variables were not dropped because the loading value was more than 0.5

Table 4. Summary of Hypothesis Test

Variable	P-value	Decision
Emotional Intelligence → Investment Decision	0.035	Accepted
Sociodemographic → Investment Decision	0.088	Rejected
Moderation FL to EI for Investment decision	0.033	Accepted
Moderation FL to Sociodemographic for Investment decision	0.011	Accepted

The results show that emotional intelligence has a positive and significant impact on the investment decisions of new investors in the stock market community. This explains that an investor with good emotional intelligence, especially in terms of self-control indicators, will also have better investment decisions. The research results are consistent with Lee & Huang's (2018) study on Pakistan's capital market. Sashikala & Chitramani (2017) suggest that emotional stability is a factor that affects the investment decision-making process, and research by Dhiman & Raheja (2018) suggests that there is a significant relationship between emotional intelligence and emotional intelligence. investors' emotions, behavioral biases, and investment decisions. Investors who score high on emotional intelligence invest more in the stock market.

The results show that socio-demographic status does not affect the investment decisions of novice stock investors, which explains that socio-demographic factors include gender; year old; Income level and education level do not affect the investment decisions of novice stock investors. This study is consistent with the study conducted by Mathanika et al. (2017) titled Demographic Factors and Individual Investment Decision Making, which states that based on regression analysis, gender and education level were found to have no significant impact regarding investment decisions.

The results showed that financial literacy was able to be a moderating variable on investors' emotional intelligence in making investment decisions. An investor's emotional intelligence will be stronger when an investor's financial literacy is in a well literate condition, so the investment decisions taken by investors are also getting better. The results of the study are in accordance with the theory of planned behavior by Ajzen & Fishbein (1977). Nyoman et al., (2017) which states that financial literacy as part of the information factor affects people's behavior and also research Pradhana (2018) which states that high financial literacy will minimize investors behave irrationally in making investment decisions. The higher the level of financial literacy of investors, the better the emotional intelligence of investors in making investment decisions, so that the less irrational behavior taken in investment decisions(Ademola & Musa, 2019)

stated that with good emotional intelligence and financial literacy from investors, mistakes in investment decisions are getting better.

The results show that sociodemographic and investment decisions using financial literacy have a significant and positive effect, this shows that financial literacy is able to be a moderating variable where when financial literacy is owned by a person associated with sociodemographic consisting of age, gender, income and education level, investment decisions are taken by novice stock investors. also shows good investment decisions. The results of the study are in line with research Wubie et al., (2015) which states that the investment decisions of individuals with professional jobs are higher than individuals with non-professional jobs. Individuals with non-professional jobs have a high level of financial literacy so that irrational investment decisions can be avoided (Dinç & Aren, 2017). Sharif et al., (2020) states that financial literacy for women and men is different so that it has an influence on the way male and female make investment decisions. The high level of financial literacy at a younger age will have investment decisions with high risks and higher returns (Ademola & Musa, 2019). Other explanations focus on economic and social factors such as income, career, wealth, and level of financial knowledge stated that men are more willing to take risks in investing compared to women (Lee & Huang, 2018). Higher levels of education will be better able to absorb financial literacy well, to minimize irrational decisions in investment (Lotto, 2020).

The R-Square value for the Investment Decision variable is 0.668, which means that it is included in the very strong category. The R-square value of investment decisions is 0.668 or 66.8%. This indicates that the investment decision variables can be explained by emotional intelligence and sociodemographic variables and 66.8% financial literacy moderating variables while the remaining 33.2% can be explained by other variables not found in this study.

Conclusion

In conclusion, our research findings emphasize the crucial role of emotional intelligence in shaping investment decisions, as evidenced by its positive and significant impact. Investors with higher emotional intelligence exhibit a propensity for making more astute choices in the stock market. In contrast, sociodemographic factors such as gender, age, income, and education do not exert any discernible influence on investment decisions, underscoring the presence of strong financial literacy among investors. Furthermore, our study reveals a significant interaction between emotional intelligence and financial literacy, demonstrating that enhanced financial literacy augments the positive impact of emotional intelligence on investment decisions, particularly among novice stock investors. Similarly, the moderating effect of financial literacy on the relationship between sociodemographic factors and investment decisions highlights the salience of financial competence in facilitating sound investment choices. These findings collectively emphasize the significance of emotional intelligence and financial literacy as intertwined factors that contribute to informed investment decision-making, transcending the influence of sociodemographic characteristics.

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References

- Ademola, S. A., & Musa, A. S. (2019). Moderating Effect of Risk Perception on Financial Knowledge, Literacy and Investment Decision. In *American International Journal of Economics and Finance Research* (Vol. 1, Issue 1). www.acseusa.org/journal/index.php/aijefr
- Ahmad, M. (2018). Impact of Neurotransmitters, Emotional Intelligence and Personality on Investor's Behavior and Investment Decisions. *Pakistan Journal of Commerce and Social Sciences*, 12(1), 330–362.
- Ajzen, I., & Fishbein, M. (1977). Attitude-behavior relations: A theoretical analysis and review of empirical research. *Psychological Bulletin*, 84(5), 888–918. <https://doi.org/10.1037/0033-2909.84.5.888>
- Alteza, M., & Harsono, D. M. (2021). Keuangan Keperilakuan: Telaah Atas Evolusi Teori Dan Studi Empiris. *Jurnal Ilmu Manajemen*, 18(1), 1–19.
- Campbell, John Y., & Shiller, Robert J. (1988). stock prices, earning and expected dividend. *The Journal of Finance*.
- Cao, M., & Wei, J. (2005). Stock market returns: A note on temperature anomaly. *Journal of Banking and Finance*, 29(6), 1559–1573. <https://doi.org/10.1016/j.jbankfin.2004.06.028>
- Chen, H., & Volpe, R. (2002). Gender differences in personal financial literacy among College Students. *Financial Service Review*, 11, 289–307.
- Daniel, G. (2003). *Working With Emotional Intelligence*. PT Gramedia Pustaka Utama.
- Dhiman, B., & Raheja, S. (2018). Do Personality Traits and Emotional Intelligence of Investors Determine Their Risk Tolerance? *Management and Labour Studies*, 43(1–2), 88–99. <https://doi.org/10.1177/0258042X17745184>
- Dinç Aydemir, S., & Aren, S. (2017). Do the effects of individual factors on financial risk-taking behavior diversify with financial literacy? *Kybernetes*, 46(10), 1706–1734. <https://doi.org/10.1108/K-10-2016-0281>
- Hadi, F. (2017). Effect of Emotional Intelligence on Investment Decision Making With a Moderating Role of Financial Literacy. *China-USA Business Review*, 16(2). <https://doi.org/10.17265/1537-1514/2017.02.002>
- Hirshleifer, D., Shumway, T., Cooper, M., Coval, J., Gibson, B., Hulbert, M., Isen, A., Kahneman, D., Lim, S., Mellers, B., Murphy, M., Schwarz, N., Zheng, L., & Zweig, J. (2003). Good Day Sunshine: Stock Returns and the Weather. In *The Journal Of Finance: Vol. LVIII* (Issue 3).
- Lee, M., & Huang, L. (2018). Gender bias, social impact framing, and evaluation of entrepreneurial ventures. *Organization Science*, 29(1), 1–16. <https://doi.org/10.1287/orsc.2017.1172>
- Lotto, J. (2020). Understanding sociodemographic factors influencing households' financial literacy in Tanzania. *Cogent Economics and Finance*, 8(1). <https://doi.org/10.1080/23322039.2020.1792152>
- Mathanika, Tharsiga, & Yogendrarajah, R. (2017). Demographic Factors and Individual Investor's Decision Making. *European Journal of Business and Management* *Www.liste.Org ISSN*, 9(15). <https://ssrn.com/abstract=3165587>
- Mayer, J. D., Roberts, R. D., & Barsade, S. G. (2008). Human abilities: Emotional intelligence. *Annual Review of Psychology*, 59, 507–536. <https://doi.org/10.1146/annurev.psych.59.103006.093646>

- Mohamed Abdeldayem, M. (2019). Is There a Relationship between Financial literacy and Investment Decisions in the Kingdom of Bahrain? *Journal of Management and Accounting Studies*, 4(02), 68–78. <https://doi.org/10.24200/jmas.vol4iss02pp68-78>
- Monticone, C. (2010). How Much Does Wealth Matter in the Acquisition of Financial Literacy? In *Second Special Issue on Financial Literacy* (Vol. 44, Issue 2).
- Nutia, P., & agung, listiadi. (2021). Literasi Keuangan dan Pendapatan pada Keputusan Investasi dengan Perilaku Keuangan sebagai Variabel Moderasi. *Jurnal Ilmiah Akuntansi Dan Humanika*, 11(1).
- Nyoman, N., Seni, A., Made, N., & Ratnadi, D. (2017). Theory Of Planned Behavior Untuk Memprediksi Niat Berinvestasi. *Bisnis Universitas Udayana*, 6, 4043–4068.
- Pahlevan Sharif, S., Ahadzadeh, A. S., & Turner, J. J. (2020). Gender Differences in Financial Literacy and Financial Behaviour Among Young Adults: The Role of Parents and Information Seeking. *Journal of Family and Economic Issues*, 41(4), 672–690. <https://doi.org/10.1007/s10834-020-09674-z>
- panjaitan, nutia, & listiadi, agung. (2021). literasi keuangan dan pendapatan pada keputusan investasi dengan perilaku keuangan sebagai variabel moderasi. *Jurnal Ilmiah Akutansi Dan Humanika*, 11(1).
- Putri, W. W., Hamidi, M., Manajemen, D. M., Ekonomi, F., & Andalas, U. (2019). Investasi (Studi Kasus Pada Mahasiswa Magister Manajemen Fakultas Ekonomi Universitas Andalas Padang) Mahasiswa Magister Manajemen, Fakultas Ekonomi, Universitas Andalas 2). In *Jurnal Ilmiah Mahasiswa Ekonomi Manajemen* (Vol. 4, Issue 1).
- Rafinza Widiar Pradhana. (2018). Pengaruh Financial Literacy, Cognitive Bias, Dan Emotional Bias Terhadap Keputusan Investasi (Studi Pada Investor Galeri Investasi Universitas Negeri Surabaya. *Jurnal Ilmu Manajemen*, 6(3).
- Salehi, M., & Mohammadi, N. (2017). The relationship between emotional intelligence, thinking style, and the quality of investors' decisions using the log-linear method. *Qualitative Research in Financial Markets*, 9(4), 325–336. <https://doi.org/10.1108/QRFM-04-2017-0025>
- Sartika, F., & Humairo, N. (2021). Literasi Keuangan dan Faktor Sosiodemografi terhadap Keputusan Investasi melalui Bias Perilaku. *Jurnal Ilmiah Manajemen Dan Bisnis*, 22(2), 164–177. <https://doi.org/10.30596/jimb.v22i2.7766>
- Sashikala, & chitramani. (2017). A Review On Emotional Intelligence And Investment Behavior. *International Journal of Management (IJM)*, 8(3), 32–41. <http://www.iaeme.com/IJM/index.asp32http://www.iaeme.com/ijm/issues.asp?JType=IJM&VType=8&IType=3JournalImpactFactor>
- Sivaramakrishnan, S., Srivastava, M., & Rastogi, A. (2017). Attitudinal factors, financial literacy, and stock market participation. *International Journal of Bank Marketing*, 35(5), 818–841. <https://doi.org/10.1108/IJBM-01-2016-0012>
- Praba, M.R.S. (2016). Financial Risk Tolerance and the influence of Socio-demographic Characteristics of Retail Investors Introduction. In *ISBR Management Journal*.
- Tang, N., Chen, J., Zhang, K., & Tang, T. L. P. (2018). Monetary Wisdom: How Do Investors Use Love of Money to Frame Stock Volatility and Enhance Stock Happiness? *Journal of Happiness Studies*, 19(6), 1831–1862. <https://doi.org/10.1007/s10902-017-9890-x>
- Thomas Muttath, B., & Menachery, A. (2018). Impact Of Emotional Intelligence On Investment Decisions. *Journal of Management Research and Analysis (JMRA)*, 878, 255–260. <http://jmraonline.com>,
- Wahyuni, A. & Pramono, N. (2021). Pengaruh Faktor Demografi Dan Faktor Psikologi Investor Dalam Pengambilan Keputusan Investasi Di Era Ekonomi Digital. 4(1). <http://openjournal.unpam.ac.id/index.php/JABl>
- Wubie, A. W., Dibabe, T. M., & Wondmagegn, G. A. (2015). The Influence of Demographic Factors on Saving and Investment Decision of High School Teachers

in Ethiopia: A Case Study on Dangila Woreda. In *Research Journal of Finance and Accounting* www.iiste.org ISSN (Vol. 6, Issue 9). Online. www.iiste.org