THE EFFECT OF FINANCIAL LITERACY, FINANCIAL TECHNOLOGY, AND SOCIO DEMOGRAPHIC OF AGE ON ENTREPRENEUR INVESTMENT DECISION MAKING

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Abstract: The purpose of this research is to investigate the effect of financial literacy level, financial technology and age socio-demographic factors on the investment decision behavior of entrepreneurs. The research respondents were entrepreneurs in Semarang with a sample of 50 people. The sampling technique used in this study is non-probability sampling with a convenience sampling approach. The data were analyzed using the Path Analysis technique. The results of this study indicate that the level of financial literacy and age have a positive effect on the investment decisions of individual entrepreneurs, while financial technology has no significant effect on their decision-making behavior. The practical implication that can be given from the findings of this research is that this study can be used as a basic model for providing information and outreach regarding financial literacy, financial technology and investment decisions by financial institutions and entrepreneurs. Based on the results of statistical data, the financial literacy variable has the greatest influence in determining individual investment decision behavior compared to age socio demographic factors. This explains that a person's knowledge of managing his personal finances is a major factor in determining an investment decision.

Keywords: financial literacy, financial technology, age socio-demographic, investment decision

INTRODUCTION

Investment is a sacrifice made at present with the aim of obtaining greater benefits in the future (Haming dan Basalamah, 2010). According to Setiawan et al., (2016) investment culture consists of a collection of behaviors, perceptions and intentions of individuals and institutions to place their investments in various financial assets. An investor must have good financial literacy so that his financial decisions have a clear direction. According to Robb dan Woodyard (2011) adequate financial literacy will have a positive influence on investors' financial behavior. While the ultimate goal of investment is to achieve prosperity. (Lusardi dan Mitchell, 2007).

The development of financial technology today has made investment activities easier to do. This convenience makes online investment in great demand, especially by young investors. (Azzahra, 2020). New innovations emerged in digital finance such as the P2PL peer to peer landing model investment platform, and the investment platform on the stock exchange (Setiawan, dkk, 2019).

Based on the records of PT Kustodian Sentral Efek Indonesia, at the end of 2020 there was an increase in investment in shares of 54.52%. This increase is dominated by online investment registrars in fintech applications. As of December 29 2020, it was recorded that 70% of investors were under 30 years old and aged 30 to 40 years. Unfortunately, this increase has not been matched by an adequate increase in financial literacy to avoid investment risks.

Based on OJK records, the level of financial literacy in Indonesia is not comparable to the growth of digital inclusion. As of 2019, the level of public literacy for finance has only reached 38 percent, (OJK, 2019 link ojk) while the growth of financial inclusion has shot up by 76 percent. The level of public literacy for investment products or the capital market is also lower, namely only 5 percent. In addition, the general public does not understand the theory of the concepts of high risk and high return (Kurniadi dkk, 2022). There are many predictors that influence the behavior of this investment decision such as financial literacy, financial technology, and age

According to Xiao et al., (2006) apart from financial literacy, there are other factors that influence individual investment decision behavior, namely sociodemographic factors. Based on financial behavior seen from individual investment decision making by comparing social demographic conditions seen from employment status, age, or gender. According to Robb dan Woodyard, (2011) many financial programs are targeted at socio-demographic conditions.

The problem in this research is that financial technology makes it easier for entrepreneurs to make investment decisions. However, this convenience has not been matched by an adequate level of literacy. According to OJK, the level of financial literacy in Indonesia is still low. However, the level of financial literacy in Indonesia is inversely proportional to the growth of digital inclusion, namely 38% of the level of public financial literacy, while the growth of financial inclusion is 76%, in 2019. The level of public financial literacy for investment products is only 5%, indicating a low level of interest in someone choosing an allocation funds to investment products. The low level of financial literacy opens up opportunities for risk in investing (Rosanna, 2021). On the other hand, the age factor can also influence the behavior of entrepreneurs in making investment decisions. This is supported by research conducted by Jain & Mandot (2012) that age affects investment decisions. Hue Ton & Phuong Nguyen (2014) also found that age affects investment decisions where investors who have different ages will have different psychology. The important difference of this study from previous study is that the reseach sample consists of entrepreneurs in the city of Semarang, while many previous studies mainly used employee samples. The variable used as predictors of investment decision making behavioral are financial literacy, financial technology, and age.

Literature Review and Hypotheses

Task Technology Fit

Task Technology Fit (TTF) was developed by Goodhue and Thompson (1995). TTF is the level at which technology helps individuals in carrying out their duties a high TTF level will increase good performance. On the other hand, if the adaptation to technology does not run smoothly, it will result in ineffective performance.

A study conducted by Wiyono (2008) on taxpayers who have tried or used e-filing in Indonesia shows that perceived convenience has a significant effect on perceived use of technology. According to Jogiyanto (2007) complexity is similar to perceived ease of use in the Technology Acceptance Model theory. Complexity is the opposite of perceived ease of use.

Individual Investment Decision Behavior (Behavioral Decision Theory)

Behavioral Decision Theory (BDT), provide a more descriptive and realistic model of human behavior. Olson, (2001) provides a behavioral financial perspective of the decision-making process as follows: 1) the preferences of financial decision makers tend to be open to change and are often formed during the decision-making process itself. 2) Financial decision makers do not have optimization. 3) Adaptive financial decision makers mean that the nature of decisions and the environment affect the type of process used. 4) Financial decision makers are neurologically inclined to incorporate emotional influences into the decision-making process.

Financial behavior itself comes from neoclassical economics which assumes perfect rationality governing individual economic decisions (Pompian, 2006). Meanwhile, in a more descriptive and realistic model, human behavior is not entirely rational. Humans have emotions, and they cannot fully plan when to use reason, when to use emotion, and when to use both together. Regulation of the use of ratios and emotions occurs naturally and is determined by various variables. These psychological factors influence the decisions and results to be achieved (Manurung, 2012). Investment analysis that uses the approach of psychology and finance is known as behavioral finance. Shefrin (2000) defining behavior finance is the study of how psychological phenomena affect financial and investment behavior.

Thinking and Conceptual Framework

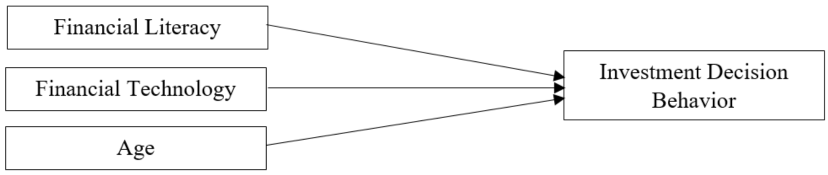

Figure 1 Thinking and Conceptual Framework

Hipotesis

Financial Literacy and Individual Investment Decision Behavior

A high level of one's financial literacy has been shown to have a significant impact on financial management and is more consistent when a variety of policies are used (Sarah, 2009) this can be explained through the way a person manages personal finances and financial management is the main factor contributing to one's financial satisfaction or financial dissatisfaction. Robb and Woodyard (2011) argue that financial literacy is a part of financial knowledge about how financial markets operate that should produce individuals who make decisions more effectively.

Hilgert (2003) said that someone who has financial knowledge is more likely to behave financially in ways that are financially responsible. This research shows that financial literacy and financial behavior have a positive effect. The more mentally skilled a person (a person's knowledge of high finance) the better the management and problem solving in making investment decisions. Based on this description, the hypothesis can be formulated as follows:

H1: Financial literacy has a positive effect on the investment decision behavior of individual entrepreneurs.

Financial Technology and the Behavior of Individual Investment Decisions

Financial technology is an advancement in financial technology that makes it easier for investors to make investments. OJK (2016) advantages and convenience of fintech, namely firstly providing community services that cannot be served by traditional finance in special areas. The two alternatives to non-service funding for the traditional financial industry, the public need alternative financing that is more democratic and transparent. In the theory of Task Technology Fit (TTF), technology helps individuals in carrying out their tasks. Financial technology significantly influences a person's use of digitalization-based financial services. The existence of financial technology will influence the public in using digital-based financial facilities (Pribadiono, 2016). Scheresberg (2013) People with a high level of financial literacy will increase their confidence in making personal or individual decisions.

H2: Financial technology has a positive and significant effect on individual investment decision behavior

Age and Individual Investment Decision Behavior

Age is a unit of measure in calculating the length of existence of a certain object or creature, age is a unit of time that measures the time of existence of an object or creature, both living and dead. Based on age, where the older a person is, the more mature he is in making investment decisions. This is supported by the results of research conducted by Jain & Mandot (2012) who found that demographic factors, especially income, have a positive and significant influence on investment

decisions and research conducted by Hue Ton & Phuong Nguyen (2014) who found that age influences investment decisions where investors aged 27 to 50 years tend to be more willing to take risks than investors aged over 50 years where they prefer safer investments. Then the hypothesis can be formulated in this study, namely:
H3: Age has a positive and significant effect on investment decisions.

Design Research

Quantitative research design uses primary data collected through questionnaires. The population consists of investors from entrepreneurs in Semarang City, Central Java. The sampling technique uses non-probability sampling with a convenience sampling approach where sampling is based on the fact that the respondent happens to appear. Sample data obtained by 50 entrepreneurs. The data analysis technique uses the data analysis method with the Partial Least Square approach (PLS).

Tabel 1 Variable Measurement

Variable	Dimensions	Indicator
Financial Literacy (X1)	Personal finance	Basic knowledge of personal finance *(basic personal finance)*
	Money management	Money management knowledge *(money management)*
	Credit and debt management	Credit and debt management knowledge *(credit and debt management)*
	Savings and investment	Knowledge of savings and investment *(saving and investment)*
	Financial Risk Management	Financial risk management knowledge *(risk financial management)*
Financial Technology (X2)	P2PL Platform Application	Use of Financial Applications in transactions
	Understanding the use of technology	Adaptation to the use of the application
	Investment Desire	Investment Desire with financial application
	Online Investment Knowledge	Interest in investing through fintech
	Social media influence	The role of Social Media in the use of fintech
Sociodemographic Factors (X3)	-	Age
Individual Investment Decision Behavior (Y)	Security and risk	Able to take into account security and risk (safety in an investment means minimal loss)
	Risk factor	Be able to predict risk factor components (risk factor components related to specific investments change from time to time)
	Investment income	Able to predict investment income (income in cash and is certain)
	Investment growth	Can understand investment growth (increase in value)
	Liquidity	Can analyze the level of liquidity (high or low)

Structural Model Testing (Inner Model)

The test results show that the Cronbach's alpha value for the variable FL 0.924, FT 0.911, FS 0.927 is greater than 0.70 indicating that the composite reliability test is fulfilled so that it is continued at the hypothesis testing stage.

Model Fit Test (Good of Fit)

Table 2 Output General Result

	Indeks	P Value
Average path coefficient (APC)	0.278	0.008
Average R-squared (ARS)	0.437	<0.001
Average adjusted R-squared (AARS)	0.400	<0.001
Average block VIF (AVIF)	2.068	

Source: Primary data processed year 2022

Based on the table above, the APC and ARS values <0.05 and AVIF values <5 indicate that the structural model (inner model) is acceptable.

Path Coefficient Test and Significance

Table 3 Output Path Coefficient and P-Value

	FL	FT	FS	KIP
FL				
FT				
FS				
KIP	0.208	0.054	0.573	

Source: Primary data processed year 2022

Table 4 P-Value

	FL	FT	FS	KIP
FL				
FT				
FS				
KIP	0.059	0.348	<0.001	

Source: Primary data processed year 2022

Based on the results of the Output Path Coefficient and P-value, the FL β value was 0.208, the FT β value was 0.054 and the FS β value was 0.573 indicating that each variable has a positive effect on KIP.

Determination Coefficient Test (R-square)

Table 5 Output Latent Variable Coefficients

	FL	FT	FS	KIP
R-squared				0.437

Source: Primary data processed year 2022

Table 6 Output R-square contributions

	FL	FT	FS	KIP
FL				
FT				
FS				
KIP	0.050	0.028	0.358	

Source: Primary data processed year 2022

Based on the table above, the R-square value of the entrepreneur's investment decision behavior variable (KIP) is 0.437 (44%). These results explain that the variables financial literacy, financial technology and age sociodemographic factors can influence the behavior of entrepreneurs' investment decisions (KIP) by 44%, while the remaining 56% is explained by other variables not examined in this study.

Uji Effect Size

Table 7 Output Standard Errors and Effect Size for Path Coefficients

	FL	FT	FS	KIP
FL				
FT				
FS				
KIP	0.050	0.028	0.358	

Source: Primary data processed year 2022

The table above shows the effect size value of the financial literacy variable of 0.050, which means that the influence of financial literacy on the investment decision behavior of entrepreneurs is relatively weak, the effect size value of the financial technology variable is 0.028, which means that the influence of financial technology on the behavior of businessmen's investment decisions is relatively weak, the effect size value of the factor variable age sociodemographic is 0.358, which means that the influence of age sociodemographic factors on entrepreneur investment decision behavior is relatively large.

DISCUSSION

H1 : Financial literacy has a positive effect on individual investment decision behavior

These results support the research results of Xiao et al., (2006) and Robb Cliff (2011) who found that someone with a good level of financial literacy tends to have better financial behavior than someone with a lower level of financial knowledge. According to Lusardi and Mitchell (2007) said that an adequate level of financial literacy will make a person carry out planning including anticipating planning for retirement by investing from a productive age. On the same concept, the results of research conducted by Aminatuzzahra (2014) using the Behavioral Decision Theory approach reveal that the more skilled and good a person's mentality is related to financial literacy, the better his financial behavior will be. Financial literacy is related to human mental skills in understanding and recognizing things around them by solving problems in making better investment decisions.

According to research (Ateş et al., 2016) and (Lubis et al., 2015) states that good financial literacy will create better financial decisions and one's investment decisions. According to (Alaaraj & Bakri, 2022) states that high financial literacy will be better in making investment decisions. According to research (Awais et al., 2016), Kumar et al., (2022), (Fadila et al., 2022), and (Akims & Jagongo, 2017), (Janor et al., 2016), (Restianti et al. al., 2022), (D.A.T, 2020), and (Fadilah et al., 2022) concluded that financial literacy has an effect on making the right investment decisions. Likewise with the research of Nugraha et al., (2022), Safryani et al (2020), Khairunizam & Isbanah, Y. (2019)., Putri & Hamidi (2019), Kumari (2020)., Kumala (2019), (Putri & Hamidi, 2019), (Aisa, 2021), and (Kurniadi et al., 2022), explain that the higher the level of financial literacy, the more it helps investors in making investment decisions.

According to research (Rizaldy et al., 2020), (Prasad et al., 2021) and (Walakumbura, 2021) financial literacy has an influence on investment decisions. In research (Landang et al., 2021) results that financial literacy has a positive and significant effect on investment decisions.

Research according to (Hassan Al-Tamimi & Anood Bin Kalli, 2009) shows that the level of financial literacy of investors is far from what is needed. The level of financial literacy was found to be influenced by income level, education level, and workplace activity. Research according to (Jonathan & Sumani, 2021) states that financial literacy has a positive effect on investment decisions. (Kusumahadi & Utami, 2022) the variable that influences investment decisions is financial literacy with a positive and significant relationship.

However, according to (Senda et al., 2020) states that financial literacy has no effect on investment decisions because the higher a person's level of financial literacy does not affect a person's decision to make an investment. According to research (Wardani & Lutfi, 2019) and (Pinem, 2021), and (Hamza & Arif, 2019) show that financial literacy has no effect on investment decisions. This is because good financial literacy in an investor does not make investors to invest in investments.

H2 : Financial technology has no effect on individual investment decision behavior

This research is in line with the results of Tukan's research (2020) which states that financial technology has no effect and is not significant on financial behavior. This is possible because many users of financial technology still do not understand how to use fintech. According to research (Wahyudi et al., 2020) explains that the understanding and utilization of financial technology has not run optimally due to the presence of technology which has both positive and negative impacts. Most research respondents still use manual financial transactions through banks.

However, the results of this study are in the opposite direction to research (Junianto et al., 2020), (Jonathan & Sumani, 2021) explaining that financial technology has a positive value on investment decisions. Research according to (Pinem, 2021) explains that financial technology has a significant effect on Investation decision.

H3 = Age has a positive and significant effect on investment decisions

This research proves that age sociodemographic influences a person in making investment decisions. This is in line with research according to (Hue Ton & Phuong Nguyen, 2014) and (Chavali & Mohanraj, 2016) in his research that investors at a young age are often more willing to take risks in investment decisions, while investors at an older age or retire prefer safe in taking the risk of investment decisions because they want to have an easy life without any pressure, therefore they decide to invest safely. According to research (Lutfi, 2011) states that investors with a younger age will be more productive than investors with an older age. Young investors build wealth for the future in their lives, therefore they take on higher risk assets and expect higher returns. But investors who are older or have retired, they will take low risk assets with stable returns, because they want to have a comfortable life.

According to research (Senda et al., 2020) states that the demographic factor of age influences someone in making investment decisions because one's income and investment experience can influence someone to make investment decisions. This means that the older one is, the higher one's income becomes and the more experience investors have in investing, the greater the return on investment. According to research (Lan et al., 2018) stated in his research that the demographic factor of age has a significant effect on an investor's investment decisions. This has a direct effect on the amount of experience in investing and the income of an investor.

The results of this study are in the opposite direction from research (Chavali & Mohanraj, 2016), (Geetha & Ramesh, 2012) and (Patel & Vasudev, 2017) which state that age does not affect a person in making investment decisions. According to research (Violeta & Linawati, 2019) states that the age factor does not affect a person's investment decisions because the amount of investment is not affected by a person's age.

CONCLUSION

The conclusion from the research results shows that financial literacy has a positive effect on individual investment decision behavior. Meanwhile, financial technology has no effect on individual investment decision behavior. Age has a positive and significant effect on investment decisions.

Limitation

Most of the entrepreneur respondents do not have adequate understanding of financial technology.

Suggestions for Next Researchers

It would be better if the research respondents were entrepreneurs who had fully implemented financial technology.

REFERENCES

Aisa, N. N. (2021). Do Financial Literacy and Technology Affect Intention to Invest in the Capital Market in the Early Pandemic Period? *Journal of Accounting and Investment*, *23*(1), 49–65. https://doi.org/10.18196/jai.v23i1.12517

Akims, A., & Jagongo, A. (2017). Financial Literacy and Its Impact on Investment Decisions in Nigeria: A Theoretical Perspective. International Journal of Scientific Research and Innovative Technology, 4(11), 18–24.

Alaaraj, H., & Bakri, A. (2022). The Effect of Financial Literacy on Investment Decision Making in Southern Lebanon. *International Journal of Research Publications*, *103*(1), 37–43. https://doi.org/10.47119/ijrp1001031620223420

Arianti, B. F. (2018). The Influence of Financial Literacy, Financial Behavior, and Income on Investment Decision. Economics and Accounting Journal, 1(1), 1–10.

Ateş, S., Coşkun, A., Şahin, M. A., & Demircan, M. L. (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.

Awais, M., Fahad Laber, M., Rasheed, N., & Khursheed, A. (2016). International Journal of Economics and Financial Issues 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. http:www.econjournals.com

Chavali, K., & Mohanraj, M. P. (2016). Impact of Demographic Variables and Risk Tolerance on Investment Decisions: An Empirical Analysis. International Journal of Economics and Financial Issues, 6(1), 169–175.

Chen, H. & Volpe, R. P. 1998. "An analysis of personal financial literacy among college students", Financial services review, 7(2): 107-128.

Chen, H., & Volpe, R. P. 2002. Gender differences in personal financial literacy among college students. Financial Services Review, 11, 289-307.

D.A.T, K. (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.137.2020.42.110.126

GEETHA, N., & RAMESH, M. (2012). A STUDY ON RELEVANCE OF DEMOGRAPHIC FACTORS IN INVESTMENT DECISIONS. Perspectives of Innovations, Economics & Business, 10(1), 14–27.

Ghozali, Imam. 2011. Aplikasi Analisis Multivariate dengan Program IMB SPSS 20. Semarang: Badan Penerbit Universitas Diponegoro.

Hamza, N., & Arif, I. (2019). Impact of Financial Literacy on Investment Decisions: The Mediating Effect of Big-Five Personality Traits Model | Market Forces. Market Forces Research Journal , 14(1), 43–60. https://kiet.edu.pk/marketforces/index.php/marketforces/article/view/386

Haming, Murdifin.,& Basamalah Salim. 2010. Studi Kelayakan Investasi Proyek dan Bisnis. Jakarta: Bumi Aksara.

Hassan Al-Tamimi, H. A., & Anood Bin Kalli, A. (2009). Financial literacy and investment decisions of UAE investors. Journal of Risk Finance, 10(5), 500–516. https://doi.org/10.1108/15265940911001402

Hayhoe, C. R., Leach, L. J., Turner, P. R., Bruin, M. J., & Lawrence, F. C. (2000). Differences in spending habits and credit use of college students. Journal of Consumer Affairs, 34(1), 113-133.

Hilgert, M. A., Hogarth, J. M., & Beverly, S. G. 2003. Household financial management: The connection between knowledge and behavior. Household Saving: Does Financial Education Work? Social Security Bulletin, 72(2), 309-322.

Hue Ton, H. T., & Phuong Nguyen, T. M. (2014). The Impact of Demographical Factors on Investment Decision: A Study of Vietnam Stock Market. International Journal of Economics and Finance, 6(11), 83–89. https://doi.org/10.5539/ijef.v6n11p83

Hutahaean, M. 2011, October 9. Have you heard about psychology? Retrieved from http://meltri-elia.blogspot.com/2011/10/konsep-konsumsi-konsumen-konsumtif.html

Ibrahim, M.E., Alqaydi F.R. 2013. Financial Literacy, Personal Financial Attitude, and Forms of Personal Debt among Residents of the UAE. International Jpurnal of Economics and Finance, Vol. 5, No. 7; 2013

Janor, H., Yakob, R., Hashim, N. A., Aniza, C., & Wel, C. (2016). Financial literacy and investment decision in Malaysia and UK - Comparitive Study. Malaysian Journal of Society and Space, 12(2), 106–118

Jogiyanto. (2007). Sistem Informasi Keperilakuan. Yogyakarta: Andi

John, G. E., Park, J.-Y., & Joo, S.-H. 2009. Explaining Financial Management Behavior for Koreans Living in the United States. The Journal of Consumer Affairs , 80.

Jonathan, R., & Sumani, S. (2021). Millennial Investment Decision Analysis. Business and Entrepreneurial Review, 21(2), 279–296. https://doi.org/10.25105/ber.v21i2.10409

Junianto, Y., Kohardinata, C., & Silaswara, D. (2020). Financial Literacy Effect and Fintech in Investment Decision Making. Primanomics : Jurnal Ekonomi & Bisnis, 18(3), 2614–6789. https://doi.org/10.31253/pe.v19i1.515

Kapoor, J.R., L. R. Dlabay, dan R. J. Hughes, 2001. Personal Finance. Edisi Keenam, McGraw Hill Book, Co., Singapore.

Kumar, P., Pillai, R., Kumar, N., & Tabash, M. I. (2022). The Interplay of Skills , Digital Financial Literacy, Capability, and Autonomy in Financial Decision Making and Well-Being. Borsa Istanbul Review, 30(40), 30. https://doi.org/10.1016/j.bir.2022.09.012

Kusumahadi, T. A., & Utami, N. (2022). Teknologi Finansial, Literasi Keuangan, dan Keputusan Investasi Produk Reksa Dana di Indonesia. Jurnal Manajemen Maranatha, 21(2), 177–186. https://doi.org/10.28932/jmm.v21i2.4631

Kurniadi, A. C., Sutrisno, T. F., & Kenang, I. H. (2022). The Influence of Financial Literacy and Financial Behavior on Investment Decision for Young Investor in Badung District, Bali. MATRIK: Jurnal Manajemen, Strategi Bisnis Dan Kewirausahaan, 16(2), 323–332.

Lan, Q., Xiong, Q., He, L., & Ma, C. (2018). Individual Investment Decision Behaviors Based on Demographic Characteristics: Case from China. PLoS ONE, 13(8), 1–16. https://doi.org/10.1371/journal.pone.0201916

Landang, R. D., Widnyana, I. W., & Sukadana, I. W. (2021). Pengaruh Literasi Keuangan, Perilaku Keuangan dan Pendapatan Terhadap Keputusan Berinvestasi Mahasiswa Fakultas Ekonomi Universitas Mahasaraswati Denpasar. Jurnal EMAS, 2(2), 51–70.

Loix, E., Pepermans, R., & Hove, L. V. 2005. Who's afraid of the cashless society? : Belgia survey evidence. Preliminary Journal.

Lubis, H., Dileep Kumar, M., Ikbar, P., & Muneer, S. (2015). Role of psychological factors in individuals investment decisions. International Journal of Economics and Financial Issues, 5, 397–405.

Lusardi, A., & Mitchell, O. S. 2007. Baby Boomer retirement security: The roles of planning, financial literacy, and housing wealth. Journal of Monetary Economics, 54, 205-224

Lusardi, A., Mitchell, O. & Curto, V. 2008. Financial Literacy among theYoung. Working Paper of Michigan Retirement Research Center, University of Michigan.

Lusardi, A. & Tufano, P. 2009. Debt literacy, financial experiences, and overindebtedness. NBER Working Paper No. 14808.

Lusardi, A., Mitchell, O. S., & Curto, V. 2010. Financial literacy among the young. The Journal of Consumer Affairs, 44(2), 358-380. http://dx.doi.org/10.1111/j.1745-6606.2010.01173.x

Lusardi, A. & Mitchell, O. (2011). Financial Literacy around the World: An Overview. Journal of Pension Economics and Finance: University of Pennyslavania. (online)(https://doi.org/10.1017/S1474747211000448) pp 497-509

Lutfi, L. (2011). the Relationship Between Demographic Factors and Investment Decision in Surabaya. Journal of Economics, Business, and Accountancy | Ventura, 13(3). https://doi.org/10.14414/jebav.v13i3.13

Mahayani, L. P. (2020). Pengaruh Literasi Keuangan, Locus Of Control, dan Budaya Konsumerisme terhadap Perilaku Keuangan. JIMAT, 11.

Mandell, L. (2004). Personal Financial Survey of High School Seniors. Washington, DC: The Jumpstart Coalition for Personal Financial Literacy

Manurung, Adler Haymas. 2012. Teori Investasi: Konsep dan Empiris. PT. Adler Manurung Press.

Marianne A. Hilgert. 2003. Household Financial Management: The Connection between Knowledge and Behavior. Federal Reserve Bulletin

Masassya, E. G. 2006. Arsitektur Keuangan Pekerja Profesi. Kompas, Edisi 7 Agustus

Nababan, Darman. 2012. Analisis Personal Financial Literacy dan Financial Behavior Mahasiswa Strata I Fakultas Ekonomi Universitas Sumatera Utara. Universitas Sumatera Utara, Medan. (online), (https://jurnal.usu.ac.id/index.php/jmim/article/view/651) Vol. 1, No.1.

Nidar, S. R., & Bestari, S. 2012. Personal literacy among university students (case study at Padjajaran University students, Bandung, Indonesia. World Journal of Social Sciences, 2(4), 162–171

Nofsinger, John R. (2001); Investment Madness: How Psychology Affects Your Investing and What to Do About It; Prentice Hall.

Nugraha, R. K., Eksanti, A. P., & Haloho, Y. O. (2022). The Influence Of Financial Literacy And Financial Behavior On Investment Decision. Jurnal Ilmiah Manajemen Dan Bisnis, 8(1), 68. https://doi.org/10.22441/jimb.v8i1.13535

OJK. (2020). Survei DailySocial dan Populix: Investasi Reksa Dana Terpopuler di Indonesia. Daily social.ID.

Olson, J. M., & Hafer, C. L. (2001). Tolerance of personal deprivation. In J. T. Jost & B. Major (Eds.), The psychology of legitimacy: Emerging perspectives on ideology, justice, and intergroup relations (pp. 157-175). Cambridge, UK: Cambridge University Press.

Olson, J. M., Hafer, C. L., & Taylor, L. (2001). I'm mad as hell, and I'm not going to take it any more: Reports of negative emotions as a self-presentation tactic. Journal of Applied Social Psychology, 31, 981-999.

Olson, J. M., Vernon, P. A., Harris, J. A., & Jang, K. (2001). The heritability of attitudes: A study of twins. Journal of Personality and Social Psychology, 80, 845-860.

Patel, B., & Vasudev, M. (2017). Impact of Demographic Factors on Investment Decision: an empirical study from South Gujarat Region. International Journal of Latest Engineering and Management Research, 02(12), 31–38. www.ijlemr.com

PISA.2012. Program for International Student Assessment 2012Financial Literacy AssesmentFreamwork. Amerika : International Network on Financial Education OECD Remund, D. L. 2010. Financial literacy explicated: The case for a clear definition in an increasingly complex economy. The Journal of Consumer Affairs, 44(2), 276-295. http://dx.doi.org/10.1111/j.1745-6606.2010.01169.

Pompian, 2006.. Behavioral Finance and WealthManagement. (New Jersey, Canada: John Wiley & Sons, Inc., Hoboken)

Prasad, S., Kiran, R., & Sharma, R. K. (2021). Behavioural , Socio-economic Factors , Financial Literacy and Investment Decisions : Are Men More Rational and Women More Emotional ? https://doi.org/10.1177/0019466220987023

Remund, D. L. 2010. Financial literacy explicated: The case for a clear definition in an increasingly complex economy. The Journal of Consumer Affairs, 44(2), 276-295. http://dx.doi.org/10.1111/j.1745-6606.2010.01169.

Rizaldy, M., Baihaqqy, I., & Sari, M. (2020). The Effect of Financial Literacy on the Investment Decision. Budapest International Research and Critics Institute-Journal (BIRCI-Journal), 3(4), 3073–3083.

Robb, C. and Deanna L. S., 2009 Effect Of Personal Financial Knowledge On College Student's Credit Card Behavior, Jurnal Of Financial And Planing, Vol.20.

Robb, C. A. and James, R. N. 2009. Associations between individual characteristics and financial knowledge among college students. Journal of Personal Finance, 8, 170-184.

Robb, C. A., & Woodyard, A. S. (2011). finanacial knowledge and best practice behaviour. Journal of financial Counseling and planning Volume 22 Issue 1 .

Robb, Cliff A;. (2011). Financial Knowledge and credit card behaviour of college students. Springer science and business media .

Sarah, N. 2009. Financial Knowledge, Locus Of Control, Cultural Values And Financial Behaviour Among New Vision. A Dessertation Submitted In Partial Fulilment Of The Requirements For The Award Of The Degree Of Master Of Makerere University Kampala. , 54.

Sekaran, Uma. 2003.Methods for Business – A Skill-Building Approach. 4th EdResearch John Wiley & Sons, Inc, New York

Senda, D. A., Rahayu, C. W. E., & Rahmawati, C. H. T. (2020). The Effect of Financial Literacy Level and Demographic Factors on Investment Decision. Media Ekonomi Dan Manajemen, 35(1), 100–111.

Septiani, N. & Rita, M. R. 2013. Melek finansial dan spending habits bedasarkan jenis kelamin : Studi empiris pada mahasiswa/I di FEB UKSW.

Shefrin, Hersh (2000); Beyond Greed and Fear: Understanding Behavioral Finance and Psychology of Investing; Harvard Business School Press

Sholihin, Mahfud, dan Ratmono Dwi .2013. "Analisis SEM-PLS dengan WarpPLS 3.0 untuk hubungan Nonlinier dalam penelitian Sosial dan Bisnis." Penerbit Andi. Yogyakarta

Sudjana. 2001. Metoda Statistika. Bandung: Tarsito

Sugiyono. 2013. Metode Penelitian Pendidikan Pendekatan Kuantitatif, Kualitatif. Bandung: Alfabeta

Suharsimi Arikunto. 2006. Metode Penelitian Suatu Pendekatan Praktek. Jakarta:Rineka Cipta

Tandelilin, Edudardus. 2010. Portofolio dan Investas, Teori dan Aplikasi. Edisi Pertama. Yogyakarta, Penerbit Kanisius.

Violeta, J., & Linawati, N. (2019). Pengaruh Anger Traits, Anxiexty Traits, dan Faktor Demografi Terhadap Keputusan Investasi. Jurnal Manajemen Pemasaran, 13(2), 89–96. https://doi.org/10.9744/pemasaran.13.2.89

Volpe, R. B., Chen, H., & Liu, S. 2006. An analysis of the importance of personal finance topics and the level of knowledge possessed by working adults. Financial Services Review, 15(1), 81-99.

Wahyudi, Tukan, B. A. P., & Pinem, D. (2020). Analysis of the Effect of Financial Literation, Financial Technology, Income, and Locus of Control on Lecturer Financial Behavior. AFEBI Management and Business Review, 5(01), 37–46. https://doi.org/10.47312/ambr.v5i01.293

Walakumbura, S. H. M. L. (2021). The Effect of Financial Literacy on Personal Investment Decisions amongst Medical Practitioners in Sri Lanka. 6(4), 123–126.

Warsono, 2010, "Prinsip-prinsip dan Praktik Keuangan Pribadi", Journal of Science. Volume 13 Nomor 2 Juli - Desember 2010, Hal. 15-28.

Xiao, J. J., Sorhaindo, B., & Garman, E. T. 2006. Financial behaviour of consumer in credit counseling. International Journal of Consumer Studies , 108-121

Yolanda, Y., & Tasman, A. (2020). Pengaruh Financial Literacy dan Risk Perception terhadap Keputusan Investasi Generasi Millennial Kota Padang. Jurnal Ecogen, 3(1), 144. https://doi.org/10.24036/jmpe.v3i1.8533

Yulianto, A. (2023). The Effect of Financial Literacy and Income on Investment Decisions (Case study on employees of PT . Scientific Indotek). INDIKATOR Jurnal Manajemen & Bisnis, 7(1), 98–107.