

Mediation of Financial Literacy in Predicting Risk Tolerance on Muhammadiyah Organization Members in East Java

Nurullaili Mauliddah^{1*}, Muhammad Alhakim Danurwindo², Bahrul Ulum³, Octavia Ika Wibowo⁴, Galuh Nichayah Pravitasari⁵

^{1, 2, 3, 4, 5} Faculty of Economic and Business, Universitas Muhammadiyah Surabaya, Indonesia

E-mail : [*nurullailimauliddah@um-surabaya.ac.id](mailto:nurullailimauliddah@um-surabaya.ac.id)
 Corresponding Author

revision: 14/05/2023 *published:* 05/06/2023

Abstract. *This study aims to predict risk tolerance and determine the role of financial literacy in members of the Muhammadiyah Organization in East Java through the mediation of financial literacy. This study took a sample of 107 respondents by using SEM-PLS analysis. The study results show that financial attitude, financial behaviour and income cannot predict risk tolerance. However, the effect of these independent variables on risk tolerance can be strengthened through the mediation of financial literacy. Thus, this study implies that members of the Muhammadiyah organization in East Java have a good level of risk tolerance supported by a good knowledge of financial concepts based on the measuring instrument in this research variable.*

Keywords: *Financial Literacy, Risk Tolerance, Financial Attitude, Financial Behaviour, Income*

Introduction

In today's modern economy, managing finances must be done carefully. Financial management will enable individuals to allocate their funds and be more efficient. The results of the National Financial Literacy and Inclusion Survey for 2022 have increased by 11% compared to 2019. However, this increase is not significant, and the level of understanding of the Indonesian people about financial management is still at a medium level, as shown in Table 1.

Table 1. Results of the National Financial Literacy and Inclusion Survey

Criteria	SNLIK 2019	SNLIK 2022
Financial Literacy	38,03 %	49,68 %
Financial Inclusion	76,19 %	85,10 %

Source: OJK, 2023

Knowledge of financial management is essential because it will minimize failure in investment plans for each individual. Someone with a high level of financial literacy will be more confident in making financial decisions and more balanced monetary capabilities. (de Bassa Scheresberg, 2013). Conversely, someone with a low level of financial literacy will tend to limit their finances through debt or using a credit card as an easy-to-reach alternative. (Gunawan et al., 2021)(Hermansson & Jonsson, 2021)

Risk or financial risk tolerance is generally defined as the maximum amount of variability in returns that a person is willing to accept when making financial decisions (Hermansson & Jonsson, 2021) (Liu & Zhang, 2021). Since financial risk plays an essential role in almost every

economic decision, understanding individual tolerance for risk is a goal in understanding economic behavior (Liu & Zhang, 2021). The individual's ability to accept financial risk cannot be separated from the supporting factors. Someone considerate in making financial decisions already has a good understanding of financial management (Hermansson & Jonsson, 2021; Ulfatun et al., 2016).

Factors that can influence risk tolerance include financial literacy (Hermansson & Jonsson, 2021), financial attitude (Rai et al., 2019), income (Abbas et al., 2020), financial behavior (Gunawan et al., 2021). Improving financial literacy focuses on developing financial attitudes (Bhushan, 2014; Brikman & Davis, 2015). Through financial education received by people in the world of education, as well as information that can educate people about finance, they will be able to maintain financial behavior. Rai et al., (2019) explain that financial attitudes result from specific behaviors of decision-makers, which can be embedded through each individual's economic and non-economic beliefs. Financial attitude is one of the determining factors in one's financial knowledge (Pradiningtyas & Lukiastuti, 2019), which is supported by previous research that financial attitudes positively influence risk tolerance (Humaira & Sagoro, 2018; Sari & Kautsar, 2020). The better a person is in his financial attitude, the higher a person's consideration for taking risks in his financial decisions.

The manifestation of financial attitudes is manifested in financial behavior. Financial behavior as a financial decision that has been taken is based on thoughts and understanding of the concept of financial management (Ricciardi dalam Arianti, 2018). Individuals with a good literacy level will be wiser in managing their income. Income results from what a person earns after doing specific work and is valued at a certain level (Abadi et al., 2020; Barthel & Lei, 2021). One's income as a source of funds in sustaining each individual's life is an important thing that must be appropriately managed so that its benefits can be felt in the long term (Morgan & Long, 2020). The income of each different individual will shape different financial attitudes and risk-taking. So income is predicted to impact financial literacy and risk tolerance (Hermansson & Jonsson, 2021). Someone with good financial literacy will use these sources of funds more wisely and think about the future or the long term.

This study uses financial literacy to predict the risk tolerance of members of the Muhammadiyah organization in East Java. Islamic organizations in Indonesia have a considerable influence and are very important in the lives of individuals. One of Indonesia's top two most prominent Islamic organizations with a powerful influence is the Muhammadiyah organization (Lailiyah et al., 2022). East Java Province is one of the large Muhammadiyah membership bases in Indonesia. This study focuses on risk tolerance, or the ability of members of the Muhammadiyah organization to take risks from financial conditions through their financial literacy. Members of the Muhammadiyah mass organization known for their modern and contextual civilization are

considered individuals with knowledge of sound financial management and literacy and the many financial instruments used as investment instruments by considering various financial risks.

The risk tolerance variable differs from previous research (Lailiyah et al., 2022) and (Abbas et al., 2020) as the dependent variable. This study also adopted research (Hermansson & Jonsson, 2021) with financial literacy as the mediating variable. Based on the phenomena described above, this research will examine the influence of financial attitudes, income, financial literacy, and financial behavior on members of the Muhammadiyah Organization in East Java with the conceptual framework shown in Figure 1.

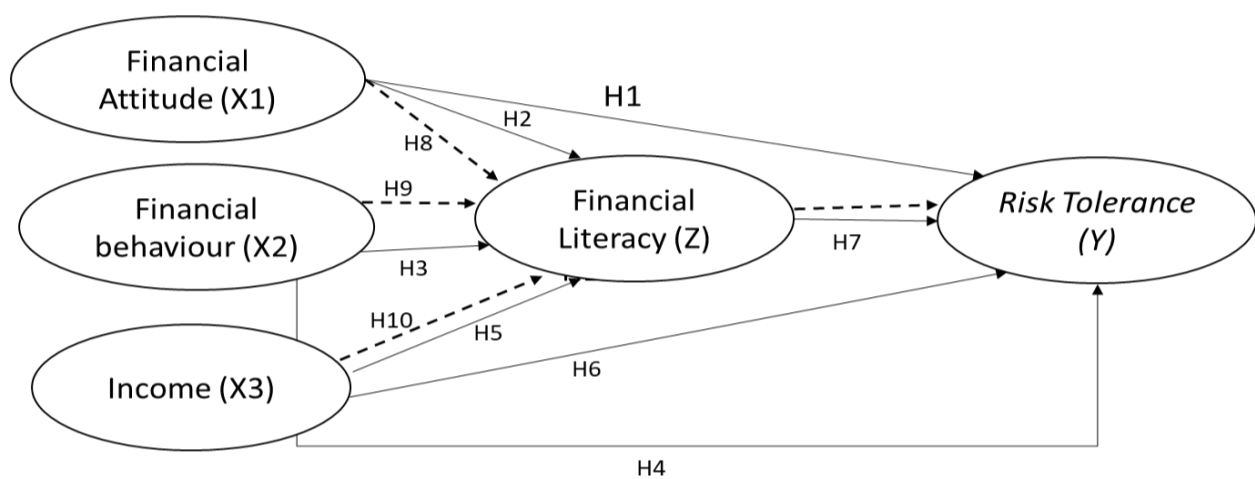


Figure 1. Conceptual Framework

Based on this conceptual framework, it can be concluded that the hypothesis that will be answered in this study is as follows: H1: Financial attitudes significantly influence the financial literacy of Muhammadiyah Organization Members in East Java. H2: Financial attitudes significantly influence the risk tolerance of Muhammadiyah Organization Members in East Java. H3: Financial behaviour significantly influence the financial literacy of Muhammadiyah Organization Members in East Java. H4: Financial behaviour significantly influence the risk tolerance of Muhammadiyah Organization Members in East Java. H5: Income significantly influence the financial literacy of Muhammadiyah Organization Members in East Java. H6: Income significantly influence the risk tolerance of Muhammadiyah Organization Members in East Java. H7: Financial literacy significantly influences the risk tolerance of members of the Muhammadiyah Organization in East Java. H8: Financial literacy can mediate the effect of financial attitudes on risk tolerance for members of the Muhammadiyah Organization in East Java. H9: Financial literacy can mediate the effect of financial behaviour on risk tolerance for members of the Muhammadiyah Organization in East Java. H10: Financial literacy can mediate the effect of income on risk tolerance for members of the Muhammadiyah Organization in East Java.

Research Methods

This research is explanatory quantitative research using PLS-SEM analysis of data processing assisted through the Smart-PLS version 3.2.9 application to get the results of the influence and relationship between variables. The population in this study were members of the Muhammadiyah organization in East Java, with a total of 10,793 people. To determine the sample size using the Taro Yamane or Slovin formula (Riduwan, 2009) a sample of 107 respondents was obtained.

$$n = \frac{N}{N.d^2+1} \dots\dots\dots(1)$$

Information :

- n = Sample Size
- N = Population Size (10.793 people)
- d² = Precision (set at 10% with a confidence level of 90%)

$$n = \frac{N}{N.d^2+1} = \frac{10.793}{(10.793).0,1^2+1} = \frac{10.793}{101} = 106,8 = 107 \text{ Respondent}$$

Sampling using the purposive sampling method was used to collect online and offline data in 6 districts/cities in East Java, namely Surabaya City, Lamongan Regency, Lumajang Regency, Nganjuk Regency, Sidoarjo Regency, and Bojonegoro Regency. Measurements in this study used a Likert scale with 5 points from "agree" to "strongly disagree." The measuring instrument for the financial attitude variable is 4 question items with indicators of obsession, power, effort, inadequacy, retention, security, and financial behavior, as many as 4 question items with indicators of financial goals, the accuracy of costing, calculation of income, planning and spending budgeting.

The measuring instrument for these two variables is adopted from (Lailiyah et al., 2022; Hermansson & Jonsson, 2021), and the income variable is measured using a basis that adopts from (Morgan & Long, 2020) with indicators of income adequacy and sources of income, measuring tools for literacy Finance refers to research from (Lailiyah et al., 2022; Hermansson & Jonsson, 2021; Noviarini et al., 2021), while risk tolerance is measured based on research from (Hermansson & Jonsson, 2021) the indicators are readiness, increased risk, preference risk.

Result and Discussion

Result

Demographic Analysis

The demographic analysis results of 107 respondents show that the percentage of respondents is dominated by ages between 26-35 years of 45.28% which indicates that most of the respondents are of productive age and are actively working with various occupational groups. The largest occupational group is respondents as private employees of 42.45% in agencies or companies within the Amal Usaha Muhammadiyah (AUM) environment and other private institutions. Meanwhile, if viewed from the origin of AUM in East Java, the most significant number of respondents came from Surabaya City, as much as 27.36%, followed by Nganjuk Regency, as much as 25.47%. More complete demographic analysis results are presented in Table 2.

Table 2. Demographic Analysis

Information	Value	Percentage
Age		
16 - 25 year	22	20,75%
26 - 35 year	49	45,28%
36 - 45 year	19	17,92%
More than 45 year	17	16,04%
Profession		
Health Workers	2	1,89%
Instructor	36	33,02%
Private sector employee	45	42,45%
Enterpriser	15	14,15%
Others	9	8,49%
The Origin of Amal Usaha Muhammadiyah		
Lamongan	23	21,70%
Lumajang	18	16,98%
Nganjuk	28	25,47%
Sidoarjo	9	8,49%
Surabaya	29	27,36%

Source: researcher data, 2023

Evaluation Measurement (outer) models

Based on the results of the PLS analysis through the PLS algorithm for testing the validity of the reliability of the measuring instrument, the model determination coefficient and the path coefficient for the equation model are presented in Figure 2, which is the output of the PLS algorithm through the smartPLS application. Testing this outer model uses convergent validity by looking at the construct indicator score with a loading factor parameter > 0.7, but a value of 0.6 is

still accepted, according to (Hair et al., 2019). The figure shows that the outer loading value of each indicator is more than 0.6 so that it can fulfill the requirements of convergent validity.

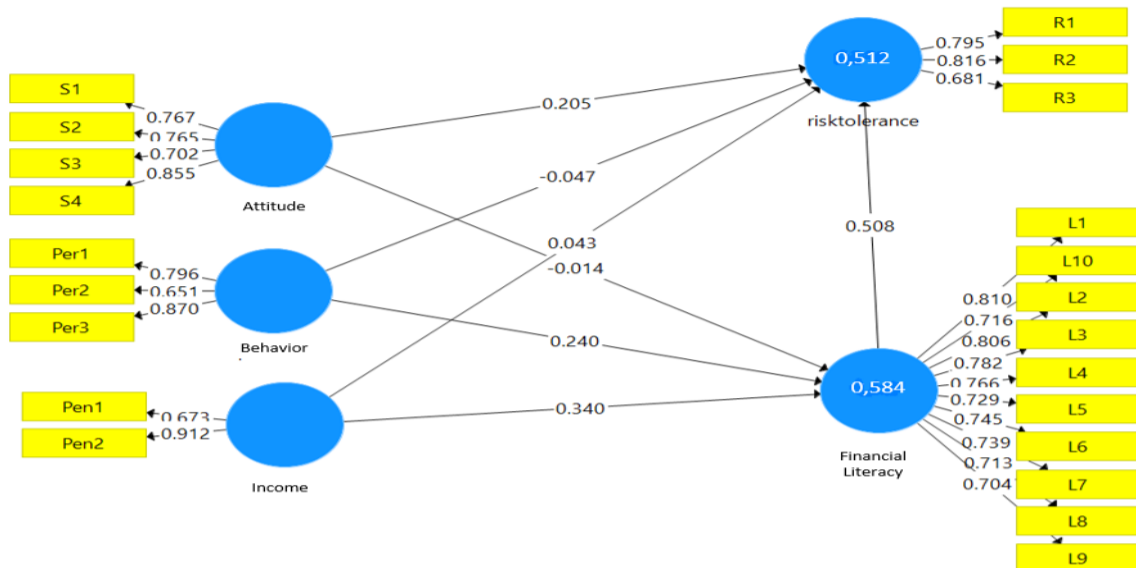


Figure 2. Outer Model Output

Discriminant Validity

The Discriminant Validity test uses a cross-loading value for each indicator with a value $> 0,7$. From the test results, it is known that the cross-loading value of each question is $> 0,7$, which means that the manifest variable in the study is appropriate in explaining along with the latent variable, also providing evidence that the whole item is itself.

In addition to observing the cross-loading value, discriminant validity can also be known using another method, namely by observing the Average Variance Extracted (AVE) value with parameters $> 0,5$. Reliability testing can be done by observing Cronbach alpha $> 0,7$ and Composite Reliability (CR) values $> 0,7$ which are shown in Table 3.

Table 3. Results Validity and Reliability

Variable	Cronbach Alpha	Average Variance Extracted (AVE)	Composite Reliability (CR)
Financial Literacy	0,915	0,565	0,928
Income	0,774	0,642	0,778
Financial Behaviour	0,793	0,604	0,818
Risk Tolerance	0,786	0,587	0,809
Financial attitude	0,787	0,600	0,856

Source: processed data with PLS, 2023

Inner Model

The inner model is done by looking at the value of the R-square data. In this study, the R-square value was obtained according to Table 4:

Table 4. Value of R-square

Variable	R-Square
Financial Literacy	0,584
Risk Tolerance	0,512

Source: processed data with PLS, 2023

Table 4 shows that the R-square value of financial literacy is 0,584, which indicates that financial attitude, financial behavior, and income influence 58,4% of the financial literacy of Muhammadiyah members in East Java. In comparison, the remaining 41,6% is influenced by other variables. For risk tolerance, an r-square value of 0,512 is obtained, which means that financial attitudes, financial behavior, income, and financial literacy influence 51,2% of the risk tolerance of Muhammadiyah members in East Java. In comparison, the remaining 48,8% is influenced by other variables outside the model.

Hypothesis testing

The overall results of hypothesis testing are presented in Table 5:

Table 5. Results of Hypothesis Testing Direct and Indirect Effects

Hypothesis	Variable	Original Sample	T-statistic	P-value	Infomation
H1	Financial attitude → Financial Literacy	-0,014	0,129	0,897	Rejected
H2	Financial attitude → risk tolerance	0,205	1.809	0,071	Rejected
H3	Financial behaviour → Financial Literacy	0,240	2.360	0,019	Accepted
H4	Financial behaviour → risk tolerance	-0,047	0,405	0,685	Rejected
H5	Income → Financial Literacy	0,340	3.864	0,000	Accepted
H6	Income → risk tolerance	0,043	0,469	0,639	Rejected
H7	Financial Literacy → risk tolerance	0,508	6.747	0,000	Accepted
H8	Financial attitude → Financial Literacy → Risk tolerance	-0,007	0,126	0,900	Rejected
H9	Financial behaviour → Financial Literacy → Risk tolerance	0,122	2,146	0,032	Accepted
H10	Income → Financial Literacy → Risk tolerance	0,173	3.473	0,001	Accepted

Source: processed data with PLS, 2023

In table 4 it can be seen that for H3, H5, H7, H9 and H10 the hypothesis can be accepted with a p-value < 0,05 while H1, H2, H4, H6 and H8 are rejected because the p-value is > 0,05.

Discussion

The Effect of Financial Attitudes on Financial Literacy

Financial Attitude has a positive but insignificant effect on financial literacy among members of the Muhammadiyah organization in East Java. Financial Attitude or financial Attitude in a person is a person's perception as a basis for understanding finance so that he can make positive financial behavioral decisions at this time to achieve prosperity in the future. Understanding good financial attitudes will make a person more considerate in deciding his financial policy through financial literacy knowledge. Based on research data, the financial literacy of members of the Muhammadiyah organization in East Java is in a suitable category, where knowledge of financial instruments and their benefits is high. However, due to limited income levels and high individual needs, saving is not a routine every month. Financial planning, such as the preparation of financial budgets, could have been more consistently carried out up to the recording of expenditures, so a review of consumption levels could not be done correctly. This condition indicates that financial literacy is already good but needs to align with the consistency of budgeting implementation up to financial evaluation. This research does not follow the results of research from (Rai et al., 2019) which states that a better financial attitude will increase one's financial literacy, but this research supports research from (Bhushan, 2014; Kartawinata & Mubaraq, 2018) which states that financial Attitude has no significant effect on financial literacy.

The Effect of Financial Attitudes on Risk Tolerance

Financial attitude does not significantly affect risk tolerance in members of the Muhammadiyah organization in East Java. The level of caution of Muhammadiyah members in making decisions on the risks that will be borne in investing in various financial instruments is not motivated by their financial attitudes. Respondents with an excellent financial attitude will have a high tolerance for risk (Lailiyah et al., 2022); however, the higher one's concern about being able to take financial risks, the greater the return on assets in the future. Thus, from financial attitudes and other factors such as income levels, an understanding of religiosity can trigger one's courage in making investment decisions with various levels of risk. This research is supported by (Abbas et al., 2020) who that financial attitude is not a significant factor in increasing one's tolerance for risky investment decisions. Still, it needs to be identified by good financial literacy and high religious background.

The Effect of Financial Behaviour on Financial Literacy

Financial behavior or financial behavior is a financial decision that has been taken based on thoughts and understanding of financial management (Ricciardi dalam Arianti, 2018). This study found that financial behavior significantly positively affects financial literacy among members of the Muhammadiyah organization in East Java. Someone who has been able to manage, in this case, planning, budgeting, checking, managing, controlling, realizing and storing sources of income, is interpreted as having good financial literacy. This ability becomes the background of financial knowledge, a manifestation of financial literacy. Someone with good financial behavior will have high financial literacy power. So that financial decision making will be carefully thought out with full consideration.

This research supports the investment theory (Manurung, 2012) and aligns with research from (Abbas et al., 2020; Gunawan et al., 2021; Rai et al., 2019) which states that one of the factors that can increase financial literacy is good financial behavior. Well-managed income will be a source of future prosperity. Being well-spent in comparing product prices before deciding to buy and paying bills promptly is a form of financial behavior. Then, deciding to invest in safe financial instruments is a manifestation of good financial literacy.

The Effect of Financial Behaviour on Risk Tolerance

Tolerance for financial risk is a topic that is currently being widely discussed because the exchange of information is straightforward, resulting in an increasing number of financial instruments in the form of online loans, crowdfunding, and other financial technology instruments that provide convenience in obtaining access to funding. This study found that financial behavior has a positive but not significant effect on risk tolerance in members of the Muhammadiyah organization in East Java. The financial behavior of Muhammadiyah members in East Java has good skills in managing their finances. Ease of access to information makes a person more courageous in making financial decisions, whether obtaining sources of loan funds or investment instruments through financial technology. Ease of access and high financial management capabilities reduce the tolerance for financial risk so that people are more willing to access sources of funds in the hope of a faster and higher return on investment. This research does not follow research from (Budiarto & Susanti, 2017; Hermansson & Jonsson, 2021) which states that financial behavior has a significant effect on tolerance for financial risk but supports the results of research from (Noviarini et al., 2021; Putu & Kartika, 2020) which states that financial behavior has an effect but not significant on tolerance for financial risk.

The Effect of Income on Financial Literacy

Community welfare is measured through income level. High income indicates improving one's welfare. However, high income cannot guarantee that the community can manage it properly so that it can become a source of welfare. Income is the funds an individual receives in a certain period (Lailiyah et al., 2022; Liu & Zhang, 2021). This study obtained the results of a positive and significant effect of income on financial literacy in members of the Muhammadiyah organization in East Java. An increase in income will also increase financial literacy. The higher the income, the greater the opportunities to reach desires and meet needs. So that opportunities for managing finances and investing will be wider.

Higher income encourages a person to dig up information about good financial management so that they are wiser in spending their wealth. Sources of income are not only used for current consumption but also to ensure welfare in the future through insurance instruments, investments in stocks and mutual funds, etc. This research follows research from (Lailiyah et al., 2022; Gani & Gitayuda, 2020; Morgan & Long, 2020) which states that the higher a person's income, the level of financial literacy will increase and vice versa.

The Effect of Income on Risk Tolerance

The results of this study found the effect of income on risk tolerance. There is a positive but insignificant effect of income on risk tolerance in members of the Muhammadiyah organization in East Java. This shows that a person's income level is not a benchmark in taking the risk of his financial policy. The higher the income, the greater their desire to buy what they want beyond what is needed. Someone like this understands the benefits of saving or investing for the future. On the other hand, someone with a high income is more willing to take the opportunity quickly if there is an investment opportunity without considering the risks that will occur in the future. This research is in line with the opinion of (Arianti, 2018; Liu & Zhang, 2021) which states that someone who dares to make financial decisions by reducing their tolerance for risk levels does not only look at their income, whether high or low.

The Effect of Financial Literacy on Risk Tolerance

Knowledge of financial management information development is necessary because technological developments trigger people to update their knowledge about finance consistently. Financial literacy describes public knowledge of sound financial management, maximum utilization of financial instruments, and allocation according to individual personal needs (Morgan & Long, 2020). This study found a significant positive effect of financial literacy on risk tolerance among members of the Muhammadiyah organization in East Java.

High knowledge of financial concepts will increase one's ability to accept financial risks. Every investor has a different tolerance level for accepting risk (Hermansson & Jonsson, 2021).

One of these differences is indicated by the factor of knowledge of financial concepts. So to reduce the failure rate in investing and reduce risk, planning for financial decisions must be appropriately calculated. When an investment decision is taken, the risk that will be accepted has been well considered by the investor. This research supports previous research, namely (Hermansson & Jonsson, 2021; Liu & Zhang, 2021; Putu & Kartika, 2020) which states that a high level of investor financial literacy will be able to increase tolerance for financial risk.

The Effect of Financial Attitudes on Risk Tolerance Mediated by Financial Literacy

Partially financial literacy cannot mediate the effect of financial attitudes on risk tolerance. This means that the effect of financial attitudes on risk tolerance will not be more potent if the person's financial literacy improves. Increasing risk tolerance is possible with the support of other factors besides financial literacy, such as religiosity and locus of control (Abbas et al., 2020; Lailiyah et al., 2022). Investors with a good level of financial literacy should be able to show a positive financial attitude and avoid risks that can reduce their investment returns.

The Effect of Financial Behaviour on Risk Tolerance Mediated by Financial Literacy

Financial literacy can partially mediate the effect of financial behavior on risk tolerance. In addition, the results of this study indicate that the positive effect of financial behavior on risk tolerance will be more substantial if the person's financial literacy improves. Good financial behavior illustrates that a person's financial literacy is improving so that he is more considerate in taking risks (Hermansson & Jonsson, 2021).

This shows that Muhammadiyah members in East Java with sound financial literacy will only make investment decisions if they consider risk tolerance reflected in their financial behavior in their activities. Members of Muhammadiyah mass organizations with modernist personal characteristics will quickly adapt to the rapid technological changes. A high level of education gives a person broader knowledge and relationships, making understanding impacts and risks in investment decisions more considered.

The Effect of Financial Behaviour on Risk Tolerance Mediated by Financial Literacy

Financial literacy can partially mediate the effect of income on risk tolerance, which indicates that the positive effect of income on risk tolerance will be more substantial if the person's financial literacy improves. Someone with good financial literacy will manage their income and not consume excessively. But use it for more valuable things through savings and investment.

This proves that financial literacy is an essential factor in making investment decisions with various levels of risk (Hermansson & Jonsson, 2021; Noviarini et al., 2021). Even if someone's income is low, if they have good financial literacy, they will be wise in managing their finances

for the future. Members of Muhammadiyah organizations with varying income levels and other income sources besides the basic salary received and individual contextual characteristics. High contextual attitude and personal with well literate so that with any level of income will have a high level of caution in making financial decisions.

Conclusion

Based on the results of this study, some hypotheses cannot be supported in this study, namely the influence of financial attitudes on financial literacy and risk tolerance, financial behavior on risk tolerance, and income on risk tolerance. In addition, it is known that financial literacy cannot mediate the effect of financial attitudes on risk tolerance. However, the hypotheses that can be proven to be accepted in this study are the influence of financial behavior on financial literacy, income on financial literacy, and financial literacy on risk tolerance. This research proves that financial literacy can strengthen the influence of financial behavior and income on risk tolerance.

The study's results explain that members of the Muhammadiyah organization in East Java have a good level of risk tolerance supported by knowledge of sound financial concepts based on measuring instruments in this research variable. This research has limitations. This research uses objects on Muhammadiyah members in East Java only. Continuing further research on Muhammadiyah members in Indonesia would be nice. Observations are made at a specific time, so a long observation time is needed to observe developments in a time series. Future studies can consider using other variables, namely locus of control, self-efficacy, and religiosity.

Acknowledgment

Thank you and highest appreciation to the Research and Development Council of the Muhammadiyah Central Executive for the opportunity and funds provided so that this research could be carried out, as well as LPPM UMSurabaya and Regional Leadership Muhammadiyah East Java for providing this research opportunity so that it can run smoothly.

References

- Abadi, M. D., Lailiyah, E. H., & Kartikasari, E. D. (2020). Analisis SWOT Fintech Syariah Dalam Menciptakan Keuangan Inklusif di Indonesia (Studi Kasus 3 Bank Syariah di Lamongan). *Jesya (Jurnal Ekonomi & Ekonomi Syariah)*, 4(1), 178–188. <https://doi.org/10.36778/jesya.v4i1.298>
- Abbas, D., Ali, M., Nohong, M., & Sobarsyah, M. (2020). Predicting the Financial Behavior of the Religious Organization Board in Indonesia. *Journal of Asian Finance, Economics and Business*, 7(12), 1159–1166. <https://doi.org/10.13106/JAFEB.2020.VOL7.NO12.1159>
- Arianti, B. F. (2018). 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>

- Barthel, A. C., & Lei, S. (2021). Investment in financial literacy and financial advice-seeking: Substitutes or complements? *Quarterly Review of Economics and Finance*, 81, 385–396.
<https://doi.org/10.1016/j.qref.2021.06.020>
- Bhushan, P. (2014). An Empirical Analysis Of Inter Linkages Between Financial Attitudes, Financial Behaviour And Financial Knowledge Of Salaried Individuals. *Indian Journal of Commerce & Management Studies*, 1(3), 80–82. www.scholarshub.net
- Brikman, A., & Davis, J. (2015). 10 Minutes With Anita Brikman. *Marketing Health Services*, 35(1), 28–31. <https://www.scopus.com/inward/record.uri?eid=2-s2.0-84942608607&partnerID=40&md5=4e35a89ebd8eaece56fe1803a6fd4835>
- Budiarto, A., & Susanti, S. (2017). *Pengaruh Financial Literacy, Overconfidence, Regret Aversion Bias, Dan Risk Tolerance Terhadap Keputusan Investasi (Studi pada investor PT. Sucorinvest Central Gani Galeri Investasi BEI Universitas Negeri Surabaya)* Angga Budiarto. 05, 1–9.
- de Bassa Scheresberg, C. (2013). Financial Literacy and Financial Behavior among Young Adults: Evidence and Implications. *Numeracy*. <https://doi.org/10.5038/1936-4660.6.2.5>
- Gani, E., & Gitayuda, M. B. S. (2020). The Income of Salt Farmers in Madura: an Explanation of Profit-Sharing System. *Media Trend*, 15(2), 263–274.
<https://doi.org/10.21107/mediatrend.v15i2.6177>
- Gunawan, V., Dewi, V. I., Iskandarsyah, T., & Hasyim, I. (2021). Women’s Financial Literacy: Perceived Financial Knowledge and Its Impact on Money Management. *Economics and Finance in Indonesia*, 67(1), 63. <https://doi.org/10.47291/efi.v67i1.720>
- Hermansson, C., & Jonsson, S. (2021). The impact of financial literacy and financial interest on risk tolerance. *Journal of Behavioral and Experimental Finance*, 29, 100450.
<https://doi.org/10.1016/j.jbef.2020.100450>
- Humaira, I., & Sagoro, E. M. (2018). Pengaruh Pengetahuan Keuangan, Sikap Keuangan, Dan Kepribadian Terhadap Perilaku Manajemen Keuangan Pada Pelaku Umkm Sentra Kerajinan Batik Kabupaten Bantul. *Nominal, Barometer Riset Akuntansi Dan Manajemen*.
<https://doi.org/10.21831/nominal.v7i1.19363>
- Lailiyah, E. H., Dewi, A., Shidiq, Y., & Lestari, D. (2022). Prediksi Financial Behaviour Dengan Literasi Keuangan Sebagai Variabel Moderasi Pada Organisasi Keagamaan Muhammadiyah di Indonesia. *Journal of Accounting Science*, 6(1). <https://doi.org/10.21070/jas.v6i1.1597>
- Leguina, A. (2015). A primer on partial least squares structural equation modeling (PLS-SEM). In *International Journal of Research & Method in Education* (Vol. 38, Issue 2).
<https://doi.org/10.1080/1743727x.2015.1005806>
- Liu, L., & Zhang, H. (2021). Financial literacy, self-efficacy and risky credit behavior among college students: Evidence from online consumer credit. *Journal of Behavioral and Experimental Finance*, 32, 100569. <https://doi.org/10.1016/j.jbef.2021.100569>
- Manurung, A. H. (2012). Teori Perilaku Keuangan (Behaviour Finance). *Economis Of Management*, 41(4), 1–13. [http://finansialbisnis.com/Data2/Riset/Teori Perilaku](http://finansialbisnis.com/Data2/Riset/Teori%20Perilaku)

- Morgan, P. J., & Long, T. Q. (2020). Financial literacy, financial inclusion, and savings behavior in Laos. *Journal of Asian Economics*, 68, 101197. <https://doi.org/10.1016/j.asieco.2020.101197>
- Noviarini, J., Coleman, A., Roberts, H., & Whiting, R. H. (2021). Financial literacy, debt, risk tolerance and retirement preparedness: Evidence from New Zealand. *Pacific Basin Finance Journal*, 68(August 2020), 101598. <https://doi.org/10.1016/j.pacfin.2021.101598>
- Pradiningtyas, T. E., & Lukiastuti, F. (2019). Pengaruh Pengetahuan Keuangan dan Sikap Keuangan terhadap Locus of Control dan Perilaku Pengelolaan Keuangan Mahasiswa Ekonomi. *Jurnal Minds: Manajemen Ide Dan Inspirasi*. <https://doi.org/10.24252/minds.v6i1.9274>
- Putu, N., & Kartika, P. (2020). *Pengaruh Financial Literacy, Risk Tolerance Dan Overconfidence Terhadap Pengambilan Keputusan Investasi Pada Usia Produktif Di Kota Bandung*. 4(2), 236–250.
- Rai, K., Dua, S., & Yadav, M. (2019). Association of Financial Attitude, Financial Behaviour and Financial Knowledge Towards Financial Literacy: A Structural Equation Modeling Approach. *FIIB Business Review*, 8(1), 51–60. <https://doi.org/10.1177/2319714519826651>
- Riduwan. (2009). Metode & teknik menyusun proposal penelitian. In *Bandung: Alfabeta*.
- Rustandi Kartawinata, B., & Ikhwan Mubaraq, M. (2018). Pengaruh Kompetensi Keuangan Terhadap Literasi Keuangan Bagi Wanita Di Makassar. *OIKOS Jurnal Kajian Pendidikan Ekonomi Dan Ilmu Ekonomi*, II, 87–100. <https://doi.org/10.23969/oikos.v2i1.1029>
- Sari, A. N., & Kautsar, A. (2020). Analisis Pengaruh Literasi Keuangan, Financial Technology, dan Demografi terhadap Inklusi Keuangan pada Masyarakat di Kota Surabaya. *Jurnal Ilmu Manajemen*, 8(4), 1233. <https://doi.org/10.26740/jim.v8n4.p1233-1246>
- Ulfatun, T., Udhma, Um. S., & Dewi, R. S. (2016). Analisis Tingkat Literasi Keuangan Mahasiswa Fakultas Ekonomi Universitas Negeri Yogyakarta Tahun Angkatan 2012-2014. *Pelita*, XI(2), 1–13.