



DETERMINANTS OF FINANCIAL LITERACY OF MSME OWNER IN INDONESIA

Cristalia Briliana Saliem¹, Romauli Nainggolan²

^{1,2}Universitas Ciputra Surabaya

Email: ¹cbriiana@student.ciputra.ac.id, ²romauli.nainggolan@ciputra.ac.id

ABSTRACT

MSME economic activity in Indonesia is rising after a pandemic. The non-cash payment system is more in demand by consumers as well as manufacturers. The non cash payment system of QRIS is increasingly used in business transactions. Therefore, this study aims to analyze the determining factors of financial behavior of UMKM owners of QRIS users. A total of 204 respondents were owners of small micro-enterprises using QRIS from Kota Medan, Makassar and Bali. The defining variables used are the age, age of enterprise, education and religion of the enterprise owner. Data analysis techniques use double linear regression with SPSS tools. Research results show that age and education have an impact on the financial literacy of UMKM users QRIS. The interesting thing about this finding is that the age of generation X UMKM owners has the greatest impact on financial literature.

Keywords: Financial Literacy; QRIS; MSME

1. Introduction

The business world is currently dominated by *Small Medium Enterprises*. The Rockefeller Foundation evaluated the state of the global economy due to the COVID-19 pandemic, saying, "Even developed countries are overwhelmed by the worldwide pandemic, which has infected nearly 20 percent of the global population and killed 8 million people in just seven months, most of them young, healthy adults. The economies of many countries, including the United States, Australia, Europe, and even Indonesia have been shaken by the COVID-19 pandemic. This is due to the fact that international mobility, both of people and goods, has come to a halt, weakening industries such as tourism and breaking global supply chains. (Ana, 2021). Micro, small and medium enterprises (MSMEs) managed to survive and help the economy during Indonesia's financial crisis in 1998. However, at the present time, even small and medium-sized enterprises (MSMEs) are facing challenges.

Micro, small and medium enterprises (MSMEs) are required to immediately innovate and adapt, including by implementing digital business models. Currently, there are more than 5 billion people around the world who use the internet. Financial technology, or fintech, businesses are trying to maximize this potential by offering various financial products that make it easier for their customers to access various financial services Govtech in Singapore. QRIS offers a more efficient cashless payment method in Indonesia. (Listiwati et al., 2022). Providers of goods and services (merchants) do not need to have various types of QR codes from various publishers because they use one standard QR code. Recently, the use of QRIS has become a profitable trend for businesses and consumers, the use of QRIS payment methods by MSMEs can improve their business performance, especially in the midst of recovering from a pandemic storm like today, given its benefits in helping the non-cash transaction process more efficiently. The use of QRIS has been widely socialized from Sumatra to Papua.

Medan City and its surroundings are also implementing QRIS as a digital payment tool. (Sihaloho et al., 2020).. The implementation of using Qris in micro businesses is influenced by the financial literacy of business owners. In the city of Surabaya, financial literacy is a driving

factor in making investment decisions. (Ariani et al., 2016). Financial literacy has a positive and significant effect on the financial performance of MSMEs. (Febriyan Rachmawati, S. Sudarno, 2023). Not only in urban areas, but also to regions such as Jember where the use of QRIS is considered effective because it has a good level of financial literacy. (Hanina, 2021). In the city of Bali, digital payments as an alternative tool for non-cash payments such as MSMEs in Padangsambian Village, Bali. Communication strategies to business owners will help MSMEs in Padangsambian village to increase sales and become more competitive in the digital era where financial literacy is an important factor in their learning process. (Trihanura Pranurti & Basmantra, 2023).. In Makasar city, the choice of payment through digital transactions because it provides convenience and has an impact on the performance of MSMEs. (Fiernaningsih et al., 2022).. This is the impact of the financial literacy of business owners making it easier to use QRIS. Other factors such as education and regional culture have a tendency to have an impact on the financial literacy of micro business owners (Graña-Alvarez et al., 2022). (Graña-Alvarez et al., 2022).

Because the use of digital payments is in great demand by business owners with varying levels of financial literacy. So researchers will conduct a study of the determinants of financial literacy of MSME owners who use QRIS in four major cities in Indonesia. Where the factors studied are age, religion, region, length of business and education of Qris user MSME owners. The differentiator in this study is that the respondent is a business owner who uses Qris in financial transactions.

2. Literature Review

2.1 Financial Literacy

Financial literacy is a life skill that everyone needs to have in order to improve their standard of living and survive in today's complex conditions. (Putri et al., 2023). The Financial Services Authority translates financial literacy as skills and beliefs that influence a person's attitudes and behavior so as to improve the quality of decision making and financial management in an effort to achieve prosperity. The Financial Services Authority translates financial literacy as skills and beliefs that influence a person's attitudes and behavior so as to improve the quality of decision making and financial management in an effort to achieve prosperity. OJK has an important role in financial literacy by providing direction or education in the field of finance for the people of Indonesia so that they can manage their finances intelligently. (Aulia et al., 2022).. This applies to all groups that can be educated from an early age. Financial literacy is a general understanding of financial management and attitudes. Financial literacy can be interpreted as financial knowledge with the aim of achieving prosperity.

From the above definitions, it can be concluded that financial literacy is the skill or level of knowledge of a person or community about how they manage their finances effectively according to the regulations of economic conditions and needs. It is important for MSME owners to have financial literacy because it will have an impact on their business financial management behavior. (Nugroho & Anisa, 2018). Even financial literacy affects the sustainability of MSMEs through the use of digital marketing to help the marketing and promotion process of MSME products. (Jayanti & Karnowati, 2023).. Indicators of financial literacy include general knowledge of personal finance, financial knowledge related to savings and loans, advanced financial knowledge and insurance and its risks.

2.2 Demographics of MSME Owners

Research conducted by Dewi (2021) revealed that age and income have a significant effect on financial literacy, but the variables of education level, gender, and distance from domicile have no effect on the level of financial literacy of MSME players in Genteng District.

According to research Amaliyah & Hetika, (2023) the factors that influence the level of financial literacy among MSMEs in Tegal City are gender and the level of education of MSME owners in Tegal city. The same thing was also revealed by Baiq Fitri Arianti; & Khoirunnisa Azzahra, (2020) that the level of education and work experience partially has a positive and significant effect on financial literacy. In other studies, differences in the level of education of MSME actors cannot strengthen or weaken the influence of the level of financial literacy of QRIS users. (Febriyan Rachmawati, S. Sudarno, 2023).

Another factor that affects financial literacy is the length of time a person runs a business. Research conducted by (Ariani et al., 2016) concluded that the length of time in business has a positive impact on financial literacy. Someone with longer work experience has better financial knowledge than those with less work experience.

2.3 Hypothesis

The hypotheses in this study include

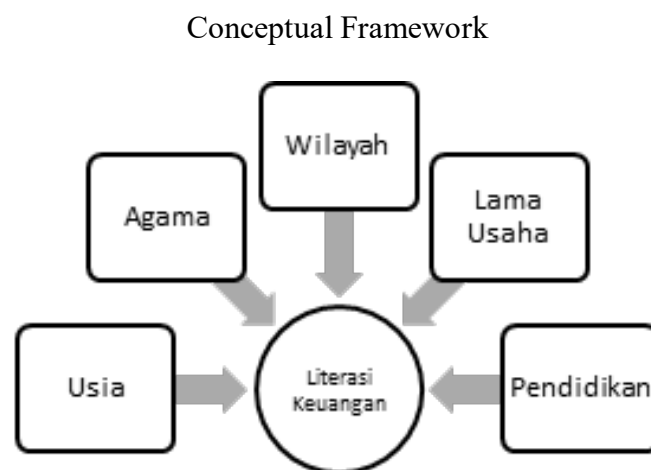
H1: Age affects the financial literacy of MSME owners

H2: Religion affects the financial literacy of MSME owners

H3: Region affects the financial literacy of MSME owners

H4: Length of business affects the financial literacy of MSME owners

H5: Education affects the financial literacy of MSME owners



3. Research Methods

This research is quantitative research. The data used is primary data. Research that examines the relationship of influence between the variables used. The independent variables are age, religion, region, length of business establishment and education of MSME owners. While the dependent variable is the financial literacy of MSME owners who use QRIS. The research population is all micro, small and medium business owners in Indonesia. The research object criteria are MSMEs that use QRIS in their business both selling goods and services.

The probability sampling data collection method uses *purposive sampling* where the sample determination is based on the objectives made by the researcher. The criteria for respondents in this study are MSME owners who have used QRIS in payment transactions. Therefore, the respondents of this study were represented by four cities ranging from Medan as many as 38 MSME owners, Surabaya as many as 53 MSME owners, Sulawesi 48 MSME owners and Bali as many as 44 MSME owners and Kalimantan there were 4 MSME owners. The financial literacy variable consists of five indicators which are translated into 19 statement items in a questionnaire distributed via g-form.

The data analysis technique uses multiple linear regression. The initial stage is to test validity and reliability. the second stage, classical assumption testing consisting of normality test, multicollinearity test, heteroscedasticity test and linearity test. The third stage, conducting hypothesis testing.

3.1 Validity and Reliability Test

The validity test according to is a technique of testing the accuracy of the item in measuring something. Items are in the form of statements or questions to respondents through a research questionnaire. Validity according to Priyatno (2014: 51) is a technique of testing the accuracy of items in measuring something. Items are in the form of statements or questions to respondents through a research questionnaire. An item is declared reliable if its value is ≥ 0.6 . Significance testing is carried out using the r table with a two-sided test using a significance level of 5% (0.05). If the value is positive and r count \geq r table then the item is valid. The item is invalid if r count $<$ r table.

3.2 Classical Assumption Test

The residual normality test is a test of the residual value of the regression whether it has a normal distribution of data distribution using the *one sample Kolmogorov-Smirnov* test method. The *one sample Kolmogorov-Smirnov* test method is an effort to determine whether the distribution of data is normal, poisson, uniform, or exponential. If the significance value is ≥ 0.05 , the residuals are declared normally distributed. The multicollinearity test is intended to test whether there is a close or perfect correlation between the independent variables. Multicollinearity occurs if the VIF value is more than 10 and the *tolerance is* less than 0.1. The linearity test is used to test whether there is a linear relationship between variables or not using the *Test for Linearity* at a significance level of 0.05. If two variables have a *Linearity* significance of less than 0.05 then the two variables have a linear relationship. The heteroscedasticity test is used to test the similarity of residual variances in observations in the regression model using the Spearman's rho correlation test method. This method states that heteroscedasticity problems do not occur if the significance value between the independent variable and the residual is greater than 0.05.

3.3 Hypothesis Test

The t test is a partial regression coefficient test in order to test the level of significance of the independent variable on the dependent. If the significance is below 0.05, then H0 is rejected and there is an influence of the independent variable on the dependent. The F test is a joint regression coefficient test in order to test the level of significance of several independent variables on the dependent. If the significance is below 0.05, then H0 is rejected and there is an influence of several independent variables on the dependent. The coefficient of determination is a calculation of the percentage contribution of the influence of the independent variable on the dependent related in the study, as well as other variables not discussed in the study.

3.4 Multiple Linear Regression Analysis

Multiple linear regression analysis is an analysis that aims to determine the effect or linear relationship of two or more independent variables on one dependent variable. The equation form in this study is:

$$Y = \alpha + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \beta_5X_5 + e$$

Description:

α = Constant

β = Regression coefficient
 X_1 = Age
 X_2 = religion
 X_3 = region
 X_4 = length of business
 X_5 = education
 Y = financial literacy
 e = Standard *error* or deviation

4. Research Findings and Discussion

4.1 Analysis Result

The results of this study show a description of respondents in terms of age, education, domicile and length of business. This description is shown in table 1 below.

Table 1

Characteristics	Category	Number of respondents
Age of MSME owner	<25 years	58 people
	25-34 years old	54 people
	35-45 years old	41 people
	>45 years	35 people
Last education	SD	4 people
	SMP	4 people
	SMA/SMK	89 people
	Diploma	8 people
	S1	76 people
	S2	6 people
Domicile	Medan Sumatra	42 people
	Kalimantan	4 people
	Java	58 people
	Sulawesi	55 people
	Bali	45 people
Business group	Agriculture, Fisheries, Livestock	1 person
	Processing Industry	17 people

Characteristics	Category	Number of respondents
	Trade, Hospitality, Restaurant	149 people
	Services	15 people
	Fashion	6 people
Length of business establishment	<1 year	15 people
	1-2 years	61 people
	3-4 years	32 people
	5-6 years	19 people
	>6 years	61 people

Source: SPSS, 2023

Table 1 shows that the age of most MSME owners is under 25 years old with the highest number of high school graduates, 89 people. Most respondents live in Java and its surroundings with 58 people. The largest number of business groups came from the trade sector, reaching 149 people. The length of business of most MSME owners is above 6 years, 61 people.

Table 2. Validity test

Financial Literacy Indicator	Pearson Correlation	Conclusion
X1_1	0.541	Valid
X1_2	0.438	Valid
X1_3	0.549	Valid
X1_4	0.544	Valid
X1_5	0.424	Valid
X1_6	0.524	Valid
X1_7	0.686	Valid
X1_8	0.600	Valid
X1_9	0.554	Valid
X1_10	0.714	Valid
X1_11	0.774	Valid
X1_12	0.676	Valid
X1_13	0.749	Valid
X1_14	0.625	Valid
X1_15	0.675	Valid

X1_16	0.500	Valid
X1_17	0.583	Valid
X1_18	0.615	Valid
X1_19	0.541	Valid

Source: SPSS, 2023

Based on table 2, it is found that the r-count value (*pearson correlation*) for each indicator on the financial literacy variable (X1) above the r-count value obtained in this study is greater than the r-table, so all indicators used in the financial literacy variable are valid.

Table 3. Reliability Test

Variable	Cronbach Alpha	Description
Financial Literacy Indicator	0.900	Reliable

Source: SPSS, 2023

Based on the reliability test conducted for the financial literacy variable, it is known that the resulting *Cronbach's Alpha* value is 0.90. Because this value is more than 0.7, this value falls into the acceptable category.

4.2 Classical Assumption Test

This section consists of 4 tests, namely normality test, heteroscedasticity test, multicollinearity test and linearity test.

Table 4. Normality Test

	Unstandardized Residual	Conclusion
Asymp. Sig. (2 tailed)	0.098	Normal

Source: SPSS, 2023

Based on table 4, the results of the normality test using the Kolmogorov Smirnov method show the significance results of the normality test of 0.098 where these results are greater than the 0.05 significance standard. So it can be concluded that the normality test in this study is normally distributed.

Table 5. Heteroscedasticity Test

Variables	Sig.(2-tailed)	Conclusion
Age	0.895	No symptoms of heteroscedasticity
Religion	0.460	No symptoms of heteroscedasticity
Region	0.584	No symptoms of heteroscedasticity
Length of business	0.611	No symptoms of heteroscedasticity

Education	0.025	No symptoms of heteroscedasticity
-----------	-------	-----------------------------------

Source: SPSS, 2023

Based on the findings of the tests carried out by researchers, it can be concluded that there is no heteroscedasticity in the regression model because the independent variables show results above the standard value of significance 0.05. It can be concluded that there are no symptoms of heteroscedasticity in this study.

Table 6. Multicollinearity Test

Variables	Collinearity Statistics		Conclusion
	Tolerance	VIF	
Age	0.886	1.129	No multicollinearity
Religion	0.854	1.172	No multicollinearity
Region	0.842	1.188	No multicollinearity
Length of business	0.926	1.080	No multicollinearity
Education	0.978	1.023	No multicollinearity

Source: SPSS, 2023

In table 6 above, it can be seen that in the regression model there is no multicollinearity between the independent variables, namely age, religion, region, length of business and education because they have tolerance values > 0.1 and VIF values < 10.

Table 7. Linearity Test

Independent variable	Bound variable	Sig.Linearity	Conclusion
Age	Financial Literacy	0.886	Linearly related
Religion		0.854	Linearly related
Region		0.842	Linearly related
Length of business		0.926	Linearly related
Education		0.978	Linearly related

Source: SPSS, 2023

The results of the Linearity Test in this study show the sig. value obtained by the age variable is 0.886, religion is 0.854, region is 0.842, length of business is 0.926 and education is 0.978, where the value is more than 0.05. So it can be concluded that there is a significant linear relationship between one variable and another.

4.3 Hypothesis Test

Table 8. Results of the t-test

Variables	Unstandardized Coefficients		t	Sig.
	B	Std. Error		
Constant	67.143	4.664	14.395	0.000
Age	-193	0.079	-2.446	0.015
Religion	1.281	0.780	1.641	0.102
Region	0.214	0.863	0.256	0.798
Length of business	-0.299	0.642	-0.466	0.641
Education	2.544	0.777	3.274	0.001

Source: SPSS, 2023

Based on table 8 above, the t test results are obtained as be

1. Age Variable

The significance value (sig) of the age variable is 0.015 then (sig) <0.05, meaning that partially age has an effect on the level of financial literacy of MSMEs.

2. Education Variables

The significance value (sig) of the education variable is 0.001 then (sig) <0.05, meaning that education partially affects the level of financial literacy of MSMEs.

3. Variables of Religion, Region and Length of Business

The significance value (sig) of the variables of religion, region and length of business is 0.102, 0.798, 0.641 then (sig) <0.05, meaning that partially religion, region and length of business have no effect on the level of financial literacy of MSMEs.

It can be concluded that H1 and H5 are accepted and H2, H3, H4 are rejected because the sig value is <0.05.

Table 9. F Test Results

Model	Sum of Squares	DF	F	Sig.
Regression	3934.354	5	5.159	0.000
Residuals	30200.293	198		
Total	34134.647	203		

Source: SPSS, 2023

The test results show that the Sig value is 0.003 <0.05. So it can be concluded that simultaneously age, religion, region, length of business and education affect the level of financial literacy of MSMEs.

4.3 Discussion

The relationship between education and financial literacy of MSME owners. The results of this study reveal that there is an influence between age and the financial literacy of MSME owners. This is in line with research (Thomas & Subhashree, 2020) where the level of education of students majoring in engineering has an impact on individual financial literacy. Similar research (Kumar et al., 2023) revealed that the level of education has an impact on a person's financial literacy so that it also has an impact on economic decisions in business. Factors that influence the level of financial literacy among MSMEs in Tegal City are gender and the level of education of MSME owners. The same thing was also revealed by Baiq Fitri Arianti; & Khoirunnisa Azzahra, (2020) that the level of education and work experience partially has a positive and significant effect on financial literacy.

The relationship between age and financial literacy of MSME owners. The results of this study reveal that there is an influence between age and the financial literacy of MSME owners. This is in line with research (Sures Kumar, 2017) which reveals an indirect relationship between age and financial expertise in managing a business. Therefore, it is very important from an early age to provide financial knowledge to school children and students.

5. Conclusion

Based on the results of this study revealed that

- a. Age affects the level of financial literacy of MSME owners
- b. A person's education affects the level of financial literacy of MSME owners.

An interesting thing that needs to be studied more deeply is the age of MSME owners who use QRIS. Classification in age needs to be specified again in order to see which generation is the more dominant contributor to the impact of financial literacy.

References

- Amaliyah, F., & Hetika. (2023). Analysis of Financial Literacy Level on Financial Management of Umkm in Tegal City. *Journal of Information, Taxation, Accounting, and Public Finance*, 18(2), 181-200.
- Ana, S. (2021). QRIS and the New Era of Payment Transactions 4.0. *Frontiers in Neuroscience*, 14(1), 1-13.
- Ariani, S., Rahmah, P. A. A., Putri, Y. R., Rohmah, M., Budiningrum, A., & Lutfi, L. (2016). The influence of financial literacy, locus of control, and ethnicity on investment decision making. *Journal of Business & Banking*, 5(2), 257. <https://doi.org/10.14414/jbb.v5i2.706>
- Aulia, P., Asisa, W., Dalianti, N., & Handa, Y. R. (2022). The Effect of Understanding Financial Literacy and the Ease of Digital Payment on the Performance of MSMEs in Makassar City. *Dinamika Journal*, 3(1), 23-50. <https://doi.org/10.18326/dinamika.v3i1.23-50>
- Baiq Fitri Arianti;, & Khoirunnisa Azzahra. (2020). Factors Affecting Financial Literacy: Case Study of MSMEs in South Tangerang City. *Journal of Management and Finance*, 9(2), 156-171. <https://doi.org/10.33059/jmk.v9i2.2635>
- Febriyan Rachmawati, S. Sudarno, M. S. (2023). *FINANCIAL LITERACY, INCOME, AND FINANCIAL MANAGEMENT MANAGEMENT ON UMKM FINANCIAL PERFORMANCE. 01*, 1-23.
- Fiernaningsih, Anna, W., Herijanto, Pudji, N., Musyaffi, Michael, A., Gurendrawati, Etty, Afriadi, Bambang, Oli, Colega, M., Widawati, Y., Oktavia, R., Citradika, D. P., Atahau, A. D. R., Satrio, D., Hasan, N. A., Rahim, M. A., ... Saputri, N. A. (2022). The effect of The Theory of Interpersonal Behavior on Adopttion of Non cash transaction Among SMEs in Pekalongan Indonesia. *Management and Marketing*, 10(1), 1-6. <https://doi.org/10.2478/mmcks-2022-0029>

- Graña-Alvarez, R., Lopez-Valeiras, E., Gonzalez-Loureiro, M., & Coronado, F. (2022). Financial literacy in SMEs: A systematic literature review and a framework for further inquiry. *Journal of Small Business Management*, April 2023. <https://doi.org/10.1080/00472778.2022.2051176>
- Hanina, A. (2021). *Effectiveness of QRIS Use in Potato Life Sales Transactions at Roxy Jember*. 6.
- Jayanti, E., & Karnowati, N. B. (2023). Umkm Digitalization and Financial Literacy for Umkm Sustainability in Cilacap Regency. *Widya Wiwaha College of Economics Business Review*, 31(1), 51-64. <https://doi.org/10.32477/jkb.v31i1.504>
- Kumar, P., Pillai, R., Kumar, N., & Tabash, M. I. (2023). The interplay of skills, digital financial literacy, capability, and autonomy in financial decision making and well-being. *Borsa Istanbul Review*, 23(1), 169-183. <https://doi.org/10.1016/j.bir.2022.09.012>
- Listiawati, R., Vidyasari, R., & Novitasari, N. (2022). QRIS Efficiency in Improving Digital Payment Transaction Services for Culinary Micro-Small and Medium Enterprises in Depok City. *Operations Research: International Conference Series*, 3(2), 67-73. <https://doi.org/10.47194/orics.v3i2.133>
- Nugroho, L., & Anisa, N. (2018). The Effect of Parent Bank Management, Asset Quality, and Efficiency on the Stability of Islamic Banks in Indonesia (2013-2017 Period). *Inovbiz: Journal of Business Innovation*, 6(2), 114. <https://doi.org/10.35314/inovbiz.v6i2.833>
- Putri, T. A., Hidayaty, D. E., & Rosmawati, E. (2023). The Effect of Financial Literacy on Financial Management in MSME Actors. *Fair Value: Scientific Journal of Accounting and Finance*, 5(9), 3495-3502. <http://journal.ikopin.ac.id/index.php/fairvalue/article/view/3021/2722>
- Sihaloho, J. E., Ramadani, A., & Rahmayanti, S. (2020). Implementation of the Quick Response Payment System Indonesia Standard University of North Sumatra (1)(2)(3). *Business Management*, 17(2), 287-297. <http://journal.undiknas.ac.id/index.php/magister-manajemen/>
- Sures Kumar, et al. (2017). The Influence of Literacy Towards Financial Behavior and Its Implication on Financial Decision: A Survey of President University Student in Cikarang-Bekasi. *FIRM: Journal of Management Studies*, 2(1), 14-23.
- Thomas, B., & Subhashree, P. (2020). Factors that influence the financial literacy among engineering students. *Procedia Computer Science*, 172(2019), 480-487. <https://doi.org/10.1016/j.procs.2020.05.161>
- Trihanura Pranurti, C., & Basmantra, I. N. (2023). Digital Wallet as an Alternative Tool for Non-Cash Payment at Umkm in Padangsambian Village. *Kaibon Abhinaya: Journal of Community Service*, 5(1), 27-33. <https://doi.org/10.30656/ka.v5i1.4448>