

Interaction of Financial Literacy and Technology in Improving MSME Performance: Social Capital Perspective

Rita Sarlawa¹, Muhammad Ali², Muhammad Yunus³, Mursalim Nohong⁴

¹Doctoral Program of the Faculty of Economics and Business, University of Hasanuddin, Makassar

¹Department of Economics, Universitas Palangka Raya

^{2,3,4}Faculty of Economics and Business, University of Hasanuddin, Makassar

Corresponding Author: Rita Sarlawa

DOI: <https://doi.org/10.52403/ijrr.20250316>

ABSTRACT

This study aims to analyze the effect of financial literacy and technological literacy on the performance of MSMEs with social capital as a moderating variable. This study uses a quantitative approach with a survey method to test the effect of financial literacy and technological literacy on the performance of MSMEs with social capital as a moderating variable. The sample in this study was 120 MSME actors in Palangkaraya City. Primary data were collected through questionnaires. The results of this study indicate that financial literacy and technological literacy have a positive and significant effect on MSME performance. MSME actors who have a good level of financial literacy are able to manage business finances more effectively, including in financial planning, cash management, and investment decision making. In addition, this study proves that social capital has a moderating role in the relationship between financial literacy and technological literacy on MSME performance. Social capital, which reflects social networks, trust, and norms in the business community, strengthens the influence of financial and technological literacy on MSME performance.

Keywords: Financial Literacy; Technological Literacy; MSME Performance; Social Capital; Moderation Regression

INTRODUCTION

Micro, Small, and Medium Enterprises (MSMEs) play an important role in the Indonesian economy, especially in creating jobs and driving economic growth. However, many MSMEs face various challenges that affect their performance, including limitations in financial literacy and technological literacy. Financial literacy refers to an individual's understanding and ability to manage financial aspects, such as planning, investment, and access to financing sources (Illarrahma, 2021). Low levels of financial literacy can cause difficulties in managing cash flow, accessing capital, and making strategic financial decisions (Nahapiet & Ghoshal, 2019). Conversely, good financial literacy can help business owners optimize the use of funds, improve operational efficiency, and drive business growth. Research shows that financial literacy has a significant effect on MSME performance (Pranisya et al., 2024; Mangawing et al., 2023).

In addition, technological literacy refers to an individual's ability to understand and utilize technology in their business

activities. In today's digital era, technology is a key factor in increasing the competitiveness of MSMEs. The use of information and communication technology can help MSMEs manage data, improve marketing through digital platforms, and accelerate business processes. Lack of technological literacy can cause MSMEs to lag behind in competition and make it difficult to adapt to market changes. Research shows that technological literacy affects MSME performance (Istan, 2023).

MSME performance is influenced by various factors, including financial literacy and technological literacy. MSMEs that have a good understanding of finance and technology tend to be more able to manage resources efficiently, expand markets, and increase productivity and profitability (Idawati & Pratama, 2020). However, the relationship between financial literacy, technological literacy, and MSME performance is not always direct, because there are other factors that can strengthen or weaken the relationship.

One factor that has the potential to moderate this relationship is social capital. Social capital refers to networks, trust, and norms that exist in the business community that can support the growth of MSMEs. Strong social capital can help MSMEs access information, gain support from the community, and expand business opportunities (Tahir, Riyadi, & Wijaya, 2021). With good social capital, MSMEs can more easily obtain the resources needed to develop their businesses. Research shows that social capital has a significant effect on MSME performance.

In the context of financial literacy, social capital can act as a factor that strengthens the relationship between financial literacy and MSME performance. For example, MSMEs that have extensive business networks can gain access to better sources of financing, get advice from other business actors, and increase trust from customers and business partners (Lubis & Irawati, 2022). Thus, social capital can help MSMEs optimize the benefits of their financial

literacy. Research shows that financial literacy and social capital together have a significant effect on MSME performance.

Likewise, in terms of technological literacy, social capital can moderate the relationship between technological literacy and MSME performance. MSMEs that have an active business community and support from fellow business actors can more easily adopt new technologies, receive training, and share experiences in overcoming technological challenges. This will encourage MSMEs to be more innovative and responsive to technological developments. Research shows that digital literacy affects MSME performance.

Although the role of financial literacy and technological literacy on MSME performance has been widely studied in various previous studies, there is still a gap in understanding how social capital plays a role in this relationship (Gunawan et al., 2023). Several studies have shown that social capital can be a key factor in supporting MSME development, but not many studies have specifically analyzed how social capital plays a role as a moderating variable in the relationship between financial literacy, technological literacy, and MSME performance. Research shows that financial literacy and social capital have a significant effect on financial inclusion.

In Palangkaraya City, Central Kalimantan, Indonesia, there are still many MSMEs that do not have a good understanding of finance and technology. This can be an obstacle to the growth of MSMEs, especially in the increasingly competitive digital era. Therefore, it is important to examine how financial literacy and technological literacy can improve MSME performance, as well as how social capital can strengthen this relationship. This study aims to analyze the effect of financial literacy and technological literacy on MSME performance with social capital as a moderating variable. By understanding this relationship, it is hoped that this study can contribute to the development of more effective strategies for

MSMEs in increasing their competitiveness and business sustainability. The results of this study are expected to provide insight for the government, financial institutions, and the business community in designing more holistic MSME development programs. By improving financial and technological literacy and strengthening social capital, it is hoped that MSMEs can develop further and contribute more to the national economy.

MATERIALS & METHODS

This study uses a quantitative approach with a survey method to test the effect of financial literacy and technological literacy on the performance of MSMEs with social capital as a moderating variable. This approach was chosen because it allows the analysis of the relationship between the variables studied objectively based on numerical data. The population in this study were MSME actors in Palangkaraya City and had businesses that had been operating for at least two years. The sampling technique was carried out using the purposive sampling method, where respondents were selected based on certain criteria, such as business scale, length of operation, and use of technology in business activities. The sample in this study was 120 MSME actors in Palangkaraya City. Primary data were collected by distributing questionnaires containing statements related to the level of financial literacy, technological literacy, social capital, and MSME performance, which were measured using a five-point Likert scale.

To analyze the relationship between variables, this study uses the Moderated Regression Analysis (MRA) method, which is a multiple regression technique with

moderating variables. Before the regression analysis is carried out, validity and reliability tests are applied to ensure the quality of the research instrument. The validity test uses Exploratory Factor Analysis (EFA) with a factor loading value above 0.50 as the acceptance limit. Meanwhile, reliability is tested using Cronbach's Alpha, with a value above 0.70 as an indicator of good reliability. Classical assumption tests such as normality, multicollinearity, and heteroscedasticity tests are also carried out to ensure that the regression model meets statistical assumptions. Data analysis was carried out using SmartPLS statistical software to test the research hypothesis. This research model is formulated in the form of a regression equation as follows:

$$\text{Model 1: } Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + e$$

Model 2 :

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 M + \beta_4 (X_1 \times M) + \beta_5 (X_2 \times M) + e$$

Where:

Y = MSME Performance

X1 = Financial Literacy

X2 = Technology Literacy

M = Social Capital

β_0 = Constant

$\beta_1, \beta_2, \beta_3, \beta_4, \beta_5$ = Regression coefficients

e = Error term.

RESULT

Based on the results of the model analysis, the following results were obtained:

Table 1. Analysis Results Moderated Regression Analysis (MRA)

Independent Variables	Model 1 (No Moderation)	Model 2 (With Moderation)	t-Statistic	Sig. (p-Value)
Constant (β_0)	1,235	0.985	4,521	0,000 **
Financial Literacy (X1)	0.312	0.275	3,891	0.001 **
Technology Literacy (X2)	0.428	0.387	4,102	0,000 **
Social Capital (M)	-	0.293	3,876	0.002 **
X1×M Interaction	-	0.157	2,911	0.004 **
X2×M Interaction	-	0.201	3,112	0.002 **

R-Square (R2)	0.587	0.689	-	-
Adjusted R2	0.574	0.675	-	-
F-Statistic	26,489	34,876	-	0,000 **

Source: Processed Data, 2024.

Model 1 (Without Moderation) shows that financial literacy (X1) and technological literacy (X2) have a positive and significant effect on MSME performance (YYY), with an R2 value of 0.587, which means that 58.7% of the variation in MSME performance can be explained by financial and technological literacy.

Model 2 (With Moderation) shows an increase in R2 to 0.689, which means that social capital (M) as a moderating variable increases the strength of the relationship between variables. The interaction coefficient between financial literacy and social capital (X1×M) and between technological literacy and social capital (X2×M) is significant ($p < 0.05$), indicating that social capital strengthens the relationship between financial and technological literacy on MSME performance.

DISCUSSION

The results of this study confirm that financial literacy has a positive and significant influence on MSME performance. This finding is in line with previous studies showing that the ability of business actors to manage finances contributes to business stability and growth (Lusardi & Mitchell, 2019). MSME actors who have a good understanding of financial management can make more rational business decisions, avoid unnecessary financial risks, and optimize the use of their financial resources. Thus, increasing financial literacy is an important aspect in efforts to improve MSME performance (Joko et al., 2022).

Technological literacy has also been shown to have a significant impact on MSME performance. Current technological advances provide various opportunities for MSMEs to improve operational efficiency, expand market access, and develop more effective digital marketing strategies (Tahir,

Riyadi, & Wijaya, 2021; Idawati & Pratama, 2020). MSMEs that are able to adopt digital technology, such as digital-based financial management systems, marketing through social media, and e-commerce, have a greater opportunity to increase their competitiveness. Therefore, increasing technological literacy is an urgent need for MSMEs to be able to adapt to increasingly complex market dynamics (Ramdhani & Anandya, 2022).

This study also found that social capital plays a moderating role in the relationship between financial and technological literacy on MSME performance. Social capital, which reflects the level of trust, norms, and social networks in the business environment, helps MSMEs access wider resources and information (Illarrahma, 2021). With strong social capital, MSMEs can more easily share experiences, get recommendations from business partners, and establish strategic partnerships that can increase their business productivity.

The interaction between social capital and financial literacy shows that social capital strengthens the influence of financial literacy on MSME performance. Entrepreneurs who have extensive social networks have easier access to funding sources, financial training, and various business information that can improve their financial skills (Nahapiet & Ghoshal, 2019; Kasenda & Wijayanka, 2019; Maulani et al, 2024). Thus, financial literacy supported by high social capital can have a greater impact on improving MSME performance compared to financial literacy alone.

The results of the study show that social capital strengthens the influence of technological literacy on MSME performance. Business actors who have connections with the business community and professional networks are more likely to get information about the latest technology trends and training that is relevant to their

business needs (Granovetter, 2018). In addition, strong social networks also help MSMEs adopt new technologies more quickly through sharing experiences and support from their business community.

From a managerial perspective, these findings provide important implications for developing strategies to improve MSME competitiveness. The government and related institutions need to develop educational programs that not only focus on improving financial and technological literacy but also strengthening social capital among MSME actors (Hererra et al., 2023). Programs such as community-based financial and technological training can be an effective solution to improve MSME performance holistically.

The results of this study also show that MSMEs that have low levels of financial and technological literacy but have strong social capital can still survive and grow. This is due to the support from their social networks in the form of business guidance, access to resources, and collaboration opportunities. However, without adequate financial and technological literacy, the growth potential of MSMEs remains limited (Pranisya et al., 2024; Mangawing et al., 2023). Therefore, social capital must be utilized as a supporting factor, not as a substitute for financial and technological literacy.

This study also highlights the importance of the role of the business ecosystem in supporting the sustainability of MSMEs. The government, academics, and industry players need to work together to create a conducive environment for the development of MSMEs through policies that encourage increased financial literacy, technology adoption, and strengthening business social networks (Istan, 2023). Partnerships between MSMEs and financial institutions and technology companies can also be a strategic step in increasing access to resources needed for their business growth (Gunawan et al., 2023; Lubis & Irawati, 2022).

This study has several limitations that need to be considered. One of the main limitations is the use of a survey method that relies on perceptual data from respondents, so that the results of the study can be influenced by subjective bias. In addition, this study only focuses on one particular region, so the generalization of the results to other regions still needs to be tested further. Future studies are advised to use longitudinal methods to see the long-term impact of financial literacy, technological literacy, and social capital on MSME performance.

This study provides theoretical and practical contributions in understanding the factors that influence MSME performance. By improving financial and technological literacy and strengthening social capital, MSMEs can be more adaptive in facing business challenges and taking advantage of existing opportunities. Therefore, strategies to improve MSME performance need to consider synergies between financial, technological, and social aspects in order to create more sustainable and competitive business growth in the digital era.

CONCLUSION

The results of this study indicate that financial literacy and technological literacy have a positive and significant effect on MSME performance. MSME actors who have a good level of financial literacy are able to manage business finances more effectively, including in financial planning, cash management, and investment decision making. Technological literacy contributes to increased operational efficiency and access to a wider market through the use of digital technology. Thus, increasing financial and technological literacy is a crucial factor in supporting the sustainability and competitiveness of MSMEs in the digital era.

In addition, this study proves that social capital has a moderating role in the relationship between financial literacy and technological literacy on MSME performance. Social capital, which reflects

social networks, trust, and norms in the business community, strengthens the influence of financial and technological literacy on MSME performance. MSME actors who have high social capital tend to have easier access to information, resources, and support from their business environment, which ultimately increases the effectiveness of implementing financial and technological literacy in business operations.

This study confirms that financial literacy and technological literacy are important factors in improving MSME performance, while social capital acts as a catalyst that strengthens the relationship. The implications of this finding are the importance of financial and technological literacy education programs for MSME actors, as well as strengthening social networks and collaboration between business actors. The government and related institutions are expected to design policies that encourage synergy between increasing financial and technological capacity with strengthening social capital to support more sustainable and highly competitive MSME growth.

Declaration by Authors

Acknowledgement: None

Source of Funding: None

Conflict of Interest: No conflicts of interest declared.

REFERENCES

1. Granovetter, M. (2018). Economic action and social structure: The problem of embeddedness. *American Journal of Sociology*, 91(3), 481-510. <https://doi.org/10.1086/228311>
2. Gunawan, A., Jufrizen, J., & Pulungan, DR (2023). Improving MSME performance through financial literacy, financial technology, and financial inclusion. *International Journal of Applied Economics, Finance and Accounting*, 15(1), 39-52.
3. Herrera, J.J.D., Warokka, A., & Aqmar, A.Z. (2023). Financial literacy and MSME Performance: Mediation and moderation analysis. *Journal of Sustainable Economics*, 1(2), 65-76.
4. Idawati, IAA, & Pratama, IGS (2020). The influence of financial literacy on the performance and sustainability of MSMEs in Denpasar City. *Warmadewa Management and Business Journal (WMBJ)*, 2(1), 1-9.
5. Ilarrahmah, MD (2021). The Influence of the Ability to Prepare Financial Reports, Financial Literacy and Use of Information Technology on MSME Performance. *JPEK (Journal of Economic Education and Entrepreneurship)*, 5(1), 51-64.
6. Istan, M. (2023). The Role of Government, Financial Literacy and Inclusion on MSME Financial Performance. *Owner: Research and Accounting Journal*, 7(2), 1514-1525.
7. Joko, JS, Anisma, Y., & Sofyan, A. (2022). The Effect of Financial Literacy, Financial Inclusion, and Innovation on MSME Performance: Current, 3(1), 1-10.
8. Kasenda, BS, & Wijayanka, C. (2019). The influence of financial literacy on MSME performance. *Almana: Journal of Management and Business*, 3(1), 153-160.
9. Lubis, KS, & Irawati, L. (2022). The Effect of Financial Literacy and Capital Management on MSME Performance. *ASEAN International Journal of Business*, 1(1), 77-85.
10. Lusardi, A., & Mitchell, O. S. (2019). The economic importance of financial literacy: Theory and Evidence. *Journal of Economic Literature*, 52(1), 5-44. <https://doi.org/10.1257/jel.52.1.5>
11. Mangawing, LA, Sulianto, T., Sari, AP, Jafri, LAU, & Ramadhan, W. (2023, November). The influence of digital financial literacy on MSME performance in Balikpapan city. In *Proceedings of The International Seminar on Business, Economics, Social Science and Technology (ISBEST) (Vol. 3, No. 1)*.
12. Maulani, Fattahillah, and Ria Mennita. "The Influence of Financial Literacy and Technological Literacy on the Performance of MSMEs in Malang City with Cultural and Social Capital as moderating variables." *MARGIN ECO* 8.1 (2024): 111-125.
13. Nahapiet, J., & Ghoshal, S. (2019). Social capital, intellectual capital, and the organizational advantage. *Academy of Management Review*, 23(2), 242-266.
14. Pranisyah, R., Sari, PP, & Maulida, A. (2024). The Effect of Financial Literacy,

- Technology Financial Literacy and Financial Inclusion on MSME Performance. *Journal of Economics and Business*, 25(2), 244-255.
15. Ramdhani, ML, & Anandya, A. (2022). The influence of financial literacy and e-commerce implementation on MSME performance. *Journal of Accounting Research*, 115-122.
16. Tahir, M., Riyadi, S., & Wijaya, S. (2021). Digital literacy and financial performance of SMEs: Evidence from emerging markets. *Journal of Business Research*, 130, 561-573. <https://doi.org/10.1016/j.jbusres.2021.08.021>.
- How to cite this article: Rita Sarlawa, Muhammad Ali, Muhammad Yunus, Mursalim Nohong. Interaction of financial literacy and technology in improving MSME performance: social capital perspective. *International Journal of Research and Review*. 2025; 12(3): 112-118. DOI: <https://doi.org/10.52403/ijrr.20250316>
