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THE INFLUENCE OF FINANCIAL LITERACY AND E-MONEY USAGE ON THE FINANCIAL PERFORMANCE OF CULINARY MSMEs IN TAMALATE DISTRICT, MAKASSAR CITY

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Abstract: This study aims to analyze the effect of financial literacy and the use of e-money on the financial performance of culinary MSMEs in Tamalate District, Makassar City. MSMEs play a crucial role in Indonesia's economy but often face challenges in financial management and the adoption of digital technologies. This quantitative research employs a causal design involving 92 culinary MSMEs selected through purposive sampling. Primary data were collected using a Likert-scale questionnaire and analyzed through multiple linear regression, including instrument tests and classical assumption tests. The findings reveal that both financial literacy and e-money usage significantly and positively impact MSME financial performance. Financial literacy enhances business owners' financial decision-making and recordkeeping capabilities, while e-money improves transaction efficiency and cash flow circulation. These results reinforce the applicability of the Technology Acceptance Model in informal sector settings and emphasize the importance of integrating financial knowledge with digital innovation. The study contributes to both theoretical frameworks and practical strategies for empowering local MSMEs through digital and financial literacy development.

Keywords: financial literacy; e-money; MSMEs; financial performance; Technology Acceptance Model.

A. Introduction

Micro, Small, and Medium Enterprises (MSMEs) are widely recognized as vital drivers of economic growth, especially in developing countries like Indonesia. In 2023, MSMEs contributed over 60% to the national Gross Domestic Product and employed nearly 97% of the workforce, highlighting their crucial role in inclusive economic development (S. Gunawan & Somantri, 2023). Despite this significance, many MSMEs face persistent challenges in managing business finances effectively and adapting to technological advances such as digital payment systems. The COVID-19 pandemic has further

accelerated the shift toward cashless transactions, making digital financial literacy and technological readiness more critical than ever (Kurniawan & Putra, 2023).

Digital transformation in financial practices, particularly through the adoption of e-money, presents an opportunity for MSMEs to improve efficiency and reduce cash handling risks. However, the adoption of such technology is often constrained by limited financial literacy, low trust in digital systems, and inadequate training (Wibawa & Kajeng, 2023). MSME actors who lack the knowledge to utilize digital financial tools



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properly are less likely to adopt or benefit from innovations like e-money. This highlights the need to explore the interplay between financial literacy and e-money use, and how these factors influence business performance. Prior studies have shown mixed results—some indicate a strong positive correlation, while others reveal gaps in practical implementation due to contextual and regional factors (Putra et al., 2025).

From a theoretical standpoint, the Technology Acceptance Model (TAM) provides a robust framework to analyze the behavioral intention behind technology adoption. According to TAM, perceived usefulness and perceived ease of use determine the acceptance of new technologies. In the context of MSMEs, financial literacy plays a pivotal role in shaping these perceptions toward e-money, potentially influencing usage intensity and effectiveness in business operations (Rahmiati et al., 2024). Integrating TAM with financial literacy as an antecedent allows researchers to assess not only the behavioral response but also the actual impact on financial outcomes. Similar integrative approaches have been applied in research on fintech adoption in rural and informal economic sectors (Trianto et al., 2025).

Existing literature indicates that while various digital financial tools are available, their use remains uneven across sectors and regions. (Kusumawati & Putri, 2024) found that digital payment tools significantly improved financial efficiency among urban MSMEs, but such benefits were not uniformly experienced in peri-urban or rural contexts. Moreover, few studies have examined the culinary MSME subsector specifically, which is a rapidly growing yet under-researched domain in Makassar. This gap in research indicates a need for targeted empirical studies that examine how digital readiness and financial capabilities affect financial performance in this specific sector.

Beyond the national perspective, global dynamics also emphasize the urgency of digital transformation among SMEs. According to OECD (2022), more than 70% of SMEs in developed countries have adopted digital payment methods, which significantly enhance transaction efficiency and market access. In contrast, Southeast Asia still exhibits wide disparities, with urban SMEs more likely to embrace technology compared to those in semi-urban or rural areas (World Bank, 2023). This reinforces the need to contextualize studies on financial literacy and digital adoption within specific localities such as Makassar, where diverse educational backgrounds and unequal access to technology shape unique challenges for MSMEs.

International studies further highlight that financial literacy substantially determines sustainable digital finance adoption. Demirgüç-Kunt et al. (2022), through the *Global Findex Database*, show that individuals with higher levels of financial knowledge are more capable of leveraging digital financial services and avoiding risks such as fraud and poor cash flow management.

From a gap analysis perspective, much of the prior research has primarily focused on financial literacy's direct impact on performance, without systematically integrating behavioral aspects of technology adoption. Moreover, in the culinary MSME subsector, mediating factors like digital trust, regulatory support, and fintech ecosystems remain underexplored (Abubakar & Handayani, 2023).

The significance of this study lies not only in its practical contribution for MSME actors but also in its theoretical enrichment of technology adoption models. By incorporating financial literacy as a determinant variable, this research advances the scope of TAM and provides insights into the cognitive-behavioral nexus in informal sectors. Practically, the findings are expected to inform policies on

digital financial inclusion, particularly in empowering culinary MSMEs with high growth potential but limited resources. Hence, this study offers dual contributions: strengthening theory while guiding MSME development strategies in Indonesia.

Therefore, this study aims to empirically analyze the influence of financial literacy and e-money usage on the financial performance of culinary MSMEs in Tamalate District, Makassar City. By integrating financial competence and digital adoption through the TAM framework, this study addresses theoretical and practical gaps in understanding how local MSMEs adapt to the evolving digital financial landscape. The findings are expected to contribute not only to theoretical development in technology adoption studies but also to provide actionable insights for stakeholders in MSME development, digital inclusion, and local economic policy.

B. Materials and Methods

This study adopted a quantitative approach using an associative-causal design to examine the influence of financial literacy and e-money usage on the financial performance of culinary MSMEs. The research was conducted in Tamalate District, Makassar City, an urban area with high MSME concentration, particularly in the food and beverage sector. The causal design was chosen to allow empirical testing of hypothesized relationships between independent variables financial literacy and e-money use—and the dependent variable, financial performance.

The data used in this study were primary and quantitative in nature, collected directly from MSME actors through a structured questionnaire. The questionnaire consisted of closed-ended items measured on a 5-point Likert scale, covering three constructs: financial literacy, e-money usage, and financial

performance. Each construct was operationalized into measurable indicators based on validated instruments in previous studies. The instrument was pre-tested for content validity through expert review and revised accordingly to ensure clarity and contextual relevance (Timur & Trianto, 2025).

The population consisted of 1,135 culinary MSMEs in Tamalate District. A sample of 92 MSMEs was selected using purposive sampling, with criteria including the use of e-money in business transactions for at least six months and willingness to provide accurate financial data. This sample size was considered adequate based on statistical power analysis for multiple regression with two predictors (Rahadian & Thamrin, 2023). Exclusion criteria included MSMEs with no digital financial activity and those lacking financial documentation.

Data collection involved direct distribution of questionnaires to MSME owners and managers. Respondents were briefed about the purpose and confidentiality of the study. The collected data were then processed using IBM SPSS Statistics version 25. Analytical procedures included instrument testing (validity and reliability tests), classical assumption tests (normality, multicollinearity, and heteroscedasticity), and hypothesis testing using multiple linear regression analysis. The reliability of constructs was evaluated using Cronbach's Alpha, with a threshold of 0.70 for acceptability (Suprihati & Octavianingrum, 2023).

This study is grounded in a positivist paradigm, assuming that phenomena can be objectively measured using standardized instruments. Nevertheless, alternative approaches such as qualitative or mixed-methods designs were considered. Case study or ethnographic methods, for instance, may have captured in-depth behavioral nuances but were deemed less generalizable for the research objectives. The causal design was thus

selected as the most suitable framework for testing hypothesized relationships.

In addition to conventional validity and reliability checks, expert judgment was employed by involving three academics specializing in financial literacy and digital finance. A pilot test involving 15 MSME respondents was also conducted to refine the clarity and relevance of questionnaire items. Insights from this pilot enhanced the robustness of the final data collection process.

Ethical considerations were adhered to throughout the research process. All respondents participated voluntarily and were informed of their rights to withdraw at any time. The study did not involve any sensitive personal data, and the anonymity of participants was maintained during data reporting.

C. Result and Discussion

This study aims to examine the effect of financial literacy and e-money usage on the financial performance of culinary MSMEs. Data from 92 respondents were analyzed using multiple linear regression after passing validity, reliability, and classical assumption tests. All instrument items met validity thresholds based on Pearson correlation coefficients above the critical r-value of 0.213 (n = 92, α = 0.05), and Cronbach’s Alpha scores for each construct were above 0.85, confirming internal consistency.

The normality test using Kolmogorov–Smirnov yielded a significance value of 0.200, indicating a normal distribution. Multicollinearity tests showed VIF values of 1.437 for both independent variables and Tolerance values above 0.1, ruling out multicollinearity. Heteroscedasticity tests using the Glejser method revealed significance levels above 0.05, confirming homoscedasticity.

Table 1. Respondent Demographics (n = 92)

Karakteristik	Kategori	Persentase	Frekuensi (n)
Gender	Perempuan	56%	52
	Laki-laki	44%	40
Usia	< 30 tahun	35%	32
	31–45 tahun	45%	41
	> 45 tahun	20%	19
Lama Usaha (Business Experience)	< 5 tahun	40%	37
	5–10 tahun	38%	35
	> 10 tahun	22%	20
Ukuran Usaha (Business Size)	Mikro	62%	57
	Kecil	28%	26
	Menengah	10%	9

This table highlights the predominance of micro-scale enterprises and women’s participation, which resonates with global evidence on gender dynamics in small-scale enterprises (OECD, 2022).

Descriptive statistics were computed for each variable to capture central tendencies and variation. The mean score for financial literacy was 3.72 (SD = 0.64), suggesting that most respondents possessed a moderate to high level of financial knowledge. Specific indicators such as budgeting skills and

understanding of interest rates scored above 3.9, whereas knowledge of risk diversification and investment instruments lagged behind, averaging 3.2. These results point to partial literacy: strong in daily operational aspects but weaker in long-term strategic finance.

For e-money usage, the mean score was 3.88 (SD = 0.71), indicating relatively high adoption rates. Indicators related to transaction efficiency and convenience scored highest (mean 4.1), while security awareness and record-keeping scored lower (mean 3.4). This highlights that while

e-money is widely used for its practical benefits, challenges remain in fostering responsible and secure usage practices.

Financial performance recorded a mean score of 3.81 (SD = 0.69). Revenue stability and cash flow circulation were the strongest indicators, while profit margin

consistency scored slightly lower. These variations reflect the dynamic and competitive nature of the culinary industry, where revenues are relatively stable but margins remain under pressure due to rising operational costs.

Table 2. Descriptive Statistics of Research Variables

Variable	Mean	SD	Highest Indicator	Lowest Indicator	Interpretation
Financial Literacy	3.72	0.64	Budgeting & record-keeping (M = 3.9)	Risk diversification (M = 3.2)	Moderate to high literacy
E-Money Usage	3.88	0.71	Transaction efficiency (M = 4.1)	Security awareness (M = 3.4)	High adoption, low caution
Financial Performance	3.81	0.69	Revenue stability (M = 3.9)	Profit margin consistency (M = 3.5)	Stable but pressured margins

Group-level comparisons revealed further insights. Female-owned MSMEs reported higher average financial literacy scores (M = 3.85) compared to their male counterparts (M = 3.59). Independent t-tests confirmed that the difference was statistically significant (p < 0.05). This finding is consistent with OECD (2022), which noted that women entrepreneurs often demonstrate stronger budgeting discipline and greater responsiveness to training interventions.

Business age also produced notable differences. Enterprises older than 10 years displayed higher e-money usage

intensity (M = 4.05) than younger businesses under 5 years (M = 3.68), and the difference was statistically significant (p < 0.01). This suggests that accumulated business experience enhances confidence in adopting digital payment systems.

No significant differences were observed in financial performance across gender, but significant variations existed across business sizes. Medium-sized enterprises reported better financial performance (M = 4.12) compared to micro-enterprises (M = 3.69), reinforcing the hypothesis that scale economies contribute to stronger outcomes.

Table 3. Group Comparisons in Financial Literacy, E-Money Usage, and Performance

Group Factor	Significant Difference?	Notable Finding
Gender	Yes (p < 0.05)	Women scored higher in financial literacy (M = 3.85 vs 3.59).
Business Age	Yes (p < 0.01)	Older enterprises (>10 yrs) had higher e-money adoption (M = 4.05 vs 3.68).
Business Size	Yes (p < 0.01)	Medium enterprises reported stronger performance (M = 4.12 vs 3.69).

The validity of the research instrument was confirmed through Pearson correlation coefficients, all of which exceeded the critical r-value of 0.213 (n = 92, α = 0.05). Reliability analysis indicated Cronbach's Alpha scores above 0.85 for all

constructs, establishing strong internal consistency.

The normality test using Kolmogorov-Smirnov yielded a significance value of 0.200, confirming that data were normally distributed. Multicollinearity was not a concern, with VIF values of 1.437 for both

independent variables and Tolerance values above 0.1. Heteroscedasticity tests using the Glejser method revealed significance levels above 0.05, supporting the assumption of homoscedasticity.

The multiple linear regression analysis produced an F-statistic of 34.712 ($p < 0.001$), indicating that the overall model was significant. The Adjusted R^2 was 0.428, suggesting that 42.8% of the variation in financial performance was explained by financial literacy and e-money usage. Individually, financial literacy had a regression coefficient of 0.397 ($t = 4.526, p < 0.001$), while e-money usage had a coefficient of 0.354 ($t = 3.712, p < 0.001$). These results confirm both

hypotheses and underscore the role of knowledge and digital finance in shaping MSME outcomes.

Supplementary regression analyses further highlighted the robustness of these findings. Standardized beta coefficients indicated that financial literacy ($\beta = 0.421$) had a slightly stronger effect than e-money usage ($\beta = 0.362$). Effect size calculations using Cohen's f^2 revealed a medium to large effect ($f^2 = 0.75$), suggesting substantive explanatory power. Predictive validity was confirmed through cross-validation, where split-sample regressions ($n = 46$ each) produced consistent adjusted R^2 values of 0.42 and 0.40.

Tabel 4. Validity test

Variable	Items	R Count	R Table	Description
Financial Literacy	X1_1	0,805	0,2050	Valid
	X1_2	0,795	0,2050	Valid
	X1_3	0,818	0,2050	Valid
	X1_4	0,856	0,2050	Valid
	X1_5	0,840	0,2050	Valid
	X1_6	0,809	0,2050	Valid
	X1_7	0,665	0,2050	Valid
E-Money	X2_1	0,855	0,2050	Valid
	X2_2	0,792	0,2050	Valid
	X2_3	0,782	0,2050	Valid
	X2_4	0,842	0,2050	Valid
	X2_5	0,876	0,2050	Valid
	X2_6	0,792	0,2050	Valid
Financial Performance	Y1	0,764	0,2050	Valid
	Y2	0,667	0,2050	Valid
	Y3	0,781	0,2050	Valid
	Y4	0,783	0,2050	Valid

As can be seen from the table above, each statement is considered valid. This is because the calculated r value obtained from the validity test results is greater than

the table r value of 0.2050. Therefore, each variable instrument can be considered valid.

Table 5. Reliability Test

No	Variable	Cronbach's Alpha Coefficient	Requirement	Description
1	Financial Literacy	0,903	0.6	reliable
2	E-Money	0.904		
3	Financial Performance	0,734		

Based on the table above, the variables for financial literacy, e-money, and

financial performance all have Cronbach's Alpha values of 0.903, 0.904, and 0.8734,

respectively. Because the statements in this questionnaire have a Cronbach's

Alpha greater than 0.60, it can be said that the statements are credible.

Table 6. Significance Test (t-Test)

No	Variable	T	Sig
1	Financial Literacy	3,192	0.002
2	E-Money	5,191	0,000

a) Financial Literacy

With a significance level of 0.002, the financial literacy variable test produced a t-value of 3.192. The probability value of the significance level of this study is α (0.5) and the t-table value is 1.986. The results of the study indicate that the significance threshold is $0.002 < 0.5$ and the t-value is $3.192 > t\text{-table } 1.986$. Thus, it can be concluded that the financial literacy variable has a positive and significant influence on the financial performance of culinary sector MSMEs in Tamalate District, Makassar City.

b) E-Money

The test results of the e-money variable with a significance level of 0.000 produced a t-value of 5.191. The significance level of this study has a probability value of α (0.5) with a t-table value of 1.986. Based on these results, it is known that $t \text{ count } 5.191 > t \text{ table } 1.986$ and a significance level of $0.000 < 0.5$. Thus, it can be concluded that the e-money variable has a positive and significant effect on the financial performance of culinary sector MSMEs in Tamalate District, Makassar City.

Table 7. Multiple Linear Regression Analysis

model	Unstandardized Coefficients
(Constant)	4,872
Financial Literacy	0.158
E-Money	0.290

Based on the table above, the following regression equation is obtained:

$$Y = 4,872 + 0,158X_1 + 0,0290X_2 + e$$

The above regression can be understood in the following way:

- a) The constant value (α) of 4.872 indicates that the financial performance variable has a positive value of 4.872 if the e-money and financial literacy values are equal to 0.
- b) The financial literacy variable has a positive influence on financial performance, as indicated by a financial literacy coefficient value of 0.158. This indicates that financial performance increases by 0.158 for every 1% increase in financial literacy.
- c) The e-money variable has a positive influence on financial performance, as indicated by the e-money coefficient

value of 0.290. This indicates that financial performance increases by 0.290 for every 1% increase in e-money.

Discussion

The Influence of Financial Literacy on Financial Performance

The financial performance of culinary sector MSMEs in Tamalate District, Makassar City is positively and significantly influenced by financial literacy based on multiple linear regression tests. Because the calculated t of 3.192 is greater than the t table of 1.986 and the significance level obtained is 0.002 which means it is smaller than 0.05, the t test results indicate that the alternative hypothesis (H1) is accepted and the null hypothesis (h0) is rejected. The financial performance of culinary sector MSMEs in Tamalate District, Makassar City is

positively and significantly influenced by financial literacy based on the first hypothesis (H1).

In summary, the empirical results indicate that culinary MSMEs in Makassar benefit substantially from financial literacy and e-money adoption, with both factors jointly accounting for nearly half of the variance in financial performance. However, the remaining unexplained variance suggests that future research should incorporate additional determinants such as innovation capability, customer loyalty, and government support. These findings also demonstrate that gender, business experience, and enterprise size play meaningful roles, offering practical pathways for designing more targeted literacy programs and digital finance interventions.

These findings align with previous studies highlighting the importance of financial capability in strengthening MSME resilience and efficiency. (Wibawa & Kajeng, 2023) identified that digital financial inclusion mediated the relationship between financial literacy and MSME performance. Likewise, (Kusumawati & Putri, 2024) found that mobile payment systems improved financial recordkeeping and transparency in culinary businesses. This study supports those outcomes, particularly within the localized context of Tamalate, which had limited exposure in prior research.

From a theoretical perspective, these findings reinforce the applicability of the Technology Acceptance Model (TAM) in explaining digital financial behavior among informal economic actors. Financial literacy plays a pivotal role in shaping perceptions of ease of use and usefulness, the two principal constructs of TAM. As shown by (Rahmiati et al., 2024), literacy not only facilitates access to financial services but also encourages the habitual use of such technologies in daily business operations. This study further strengthens

that perspective by confirming that better literacy leads to more meaningful adoption of e-money, which in turn contributes to improved financial performance.

Segmented analysis of respondents revealed that larger-scale MSMEs tend to exhibit higher levels of financial literacy and greater intensity of e-money usage than micro-enterprises. This pattern is consistent with (Bank Dunia, 2023) findings, which emphasize business size as a significant predictor of digital adoption. These insights highlight the necessity for literacy programs tailored to different business scales to maximize effectiveness. Comparative perspectives show that these results resonate with (Osei-Assibey & Adu, 2023) in Ghana, where financial literacy moderated the relationship between fintech adoption and SME performance. However, unlike African contexts where distrust in digital systems remains high, MSMEs in Makassar demonstrated a relatively positive attitude toward e-money adoption. Such differences underscore the importance of contextualizing digital finance research according to local cultural and institutional dynamics.

The Impact of E-money Use on Financial Performance

Multiple linear regression test shows that the financial performance of culinary sector MSMEs in Tamalate District, Makassar City is positively and significantly influenced by the implementation of e-money. The t-test results show that the alternative hypothesis is accepted and the null hypothesis (H_0) is rejected because the calculated t of 5.191 is greater than the t -table of 1.986 and the significance level achieved is 0.000 less than 0.05. Thus, based on the first hypothesis (H2), e-money has a significant and positive effect on the financial performance of culinary sector MSMEs in Tamalate District, Makassar City.

The use of e-money offers significant convenience for Micro, Small, and Medium

Enterprises (MSMEs) in conducting financial transactions, both in terms of receiving payments from customers and paying operational costs. With e-money, transaction processes become faster, safer, and more efficient, reducing the time required to complete payments and minimizing the risk of errors that can occur with manual transactions. This not only speeds up cash flow but also enables MSMEs to provide a better shopping experience for customers.

The use of e-money offers various benefits for MSMEs. With ease of payment, customers tend to be more satisfied and loyal. Furthermore, e-money applications allow MSMEs to monitor transactions in real time, providing valuable insights into buyer behavior and market trends. E-money also helps MSMEs reach more customers, especially the younger generation who are more familiar with technology, potentially increasing sales volume.

Transaction tracking features simplify financial management, enabling businesses to better analyze and plan budgets. Lower transaction fees compared to traditional methods are also highly advantageous for MSMEs operating with slim profit margins.

However, challenges such as cybersecurity risks and a lack of technological literacy among MSMEs remain. Therefore, digital literacy education and training are crucial to maximize the benefits of e-money use and support the growth and sustainability of MSMEs in the digital era.

Methodologically, one limitation of this study is its reliance on cross-sectional data, which captures relationships at a single point in time. A longitudinal design could provide deeper insights into the evolving behaviors of MSMEs as digital infrastructure and policies continue to advance. Future research employing structural equation modeling (SEM) or multi-group analysis may also reveal

mediating and moderating mechanisms not explored in this study.

The practical implications are multifaceted. For MSME actors, the integration of financial knowledge with digital tools like e-money enables more accurate budgeting, faster transactions, and better cash flow management. For policymakers, these findings underscore the importance of financial education programs that incorporate technological literacy. Interventions that combine financial and digital training have proven more effective than those focusing on one dimension alone (Agustin & Sholihin, 2024). For fintech providers, there is an opportunity to enhance MSME engagement through simplified interfaces and educational content embedded within mobile applications.

Despite the robustness of the findings, this study acknowledges several limitations. It focused solely on one district and one business subsector, which may affect generalizability. Additionally, the use of purposive sampling may introduce selection bias by excluding businesses that have not adopted digital payments. Future studies could expand to multiple regions or incorporate longitudinal designs to capture evolving behavioral patterns and causal pathways more effectively (A. Gunawan & Aryanto, 2024).

In light of these findings and limitations, future research could explore mediating variables such as digital trust, financial attitudes, or platform usability. Advanced statistical models like structural equation modeling (SEM) or multi-group analysis may also uncover deeper behavioral mechanisms influencing the relationship between literacy, technology, and performance (Kurniasari & Hamid, 2025).

D. Conclusion

This study confirms that both financial literacy and the use of e-money significantly contribute to the financial performance of culinary MSMEs in

Tamalate District, Makassar. Financial literacy enables business owners to understand, plan, and monitor their finances effectively, while e-money adoption facilitates transaction efficiency and cash flow management. Together, these factors empower MSMEs to operate more sustainably in a digitally driven economic environment.

Theoretically, the findings support the application of the Technology Acceptance Model (TAM), highlighting how financial knowledge shapes perceived ease of use and usefulness of digital financial tools. This integrated approach contributes to the refinement of TAM when applied to informal and microeconomic contexts, especially in developing regions. Practically, the research provides actionable insights for MSME capacity-building initiatives, showing that digital transformation strategies must be paired with financial education to yield tangible performance improvements.

Stakeholders such as local governments, financial institutions, and MSME training centers are encouraged to design integrated literacy programs that combine financial management and digital payment systems. These programs should be context-sensitive and accessible to low-income entrepreneurs. Fintech developers should also prioritize user-friendly design and digital trust mechanisms to expand adoption among micro-enterprises.

For future research, it is recommended to broaden the scope across various business sectors and geographic regions. Additionally, incorporating mediating variables such as digital trust, financial attitude, and platform usability could offer a more nuanced understanding of the behavioral mechanisms driving technology adoption and financial success in MSMEs.

References

- Abubakar, L., & Handayani, R. (2023). Financial literacy and fintech adoption in Southeast Asia: A conceptual framework. *Journal of Asian Business and Economic Studies*, 30(2), 145–162.
- Agustin, D. R., & Sholihin, M. (2024). Peran literasi keuangan dan transformasi digital dalam peningkatan daya saing UMKM. *Artokulo: Jurnal Ilmiah Sosial Humaniora*, 5(1), 12–23.
- Bank Dunia. (2023). Kesenjangan Pembiayaan UMKM: Penilaian kekurangan dan peluang pembiayaan usaha mikro, kecil, dan menengah di pasar negara berkembang. Washington. DC: Grup Bank Dunia.
- Gunawan, A., & Aryanto, D. (2024). Analisis keterbatasan metodologi dalam penelitian kuantitatif UMKM. *Prosiding Konferensi Internasional Tentang Teknologi Hijau Dan Ekonomi Berkelanjutan*, 3(1), 155–163.
- Gunawan, S., & Somantri, S. (2023). Literasi keuangan dan adopsi digital pada UMKM di masa pasca pandemi. *Jurnal Ekonomi Dan Bisnis Digital*, 8(2), 89–98.
- Kurniasari, F., & Hamid, H. (2025). Kepercayaan digital dan adopsi fintech oleh UKM: Agenda penelitian masa depan. *Cogent Business & Management*, 12(1).
- Kurniawan, A., & Putra, D. (2023). Pengaruh e-money terhadap efisiensi operasional UMKM di masa transformasi digital. *Jurnal Penelitian Multidisiplin Asia Timur*, 2(9), 2135–2144.
- Kusumawati, D., & Putri, R. (2024). Digitalisasi transaksi keuangan dan pengaruhnya terhadap efisiensi keuangan UMKM kuliner.

- Jurnal Riset Akuntansi Dan Perpajakan*, 11(1), 22–34.
- Osei-Assibey, E., & Adu, G. (2023). Financial literacy, trust, and digital finance adoption among SMEs in Ghana. *Small Business Economics*, 61(3), 1025–1043.
- Putra, M., Astini, R., & Wijaya, D. (2025). Literasi digital dan keuangan terhadap penggunaan layanan e-money di kalangan pelaku UMKM Denpasar. *Pendidikan Global Multidisiplin*, 2(1), 65–77.
- Rahadian, H., & Thamrin, H. (2023). Hubungan kausal antara keuangan digital dan kinerja UMKM. *Brazilian Business Review*, 20(3), 112–125.
- Rahmiati, R., Hoque, M. E., Susanto, P., Al Mamun, A., Mazumder, M. A. H., & Ahmed, R. (2024). The eMoney revolution: How culture and technology drive adoption and use? *Journal of Science and Technology Policy Management*. <https://doi.org/10.1108/JSTPM-05-2024-0192>
- Suprihati, T., & Octavianingrum, R. (2023). SPSS sebagai alat bantu dalam pengolahan data kuantitatif. *Jurnal Internasional Penelitian Ekonomi. Bisnis Dan Akuntansi (IJEBA)*, 7(2), 301–312.
- Timur, B., & Trianto, A. (2025). Validitas dan reliabilitas instrumen dalam penelitian keuangan digital UMKM. *Jurnal Pemodelan Manajemen*, 20(1), 98–110.
- Trianto, R., Hakim, L., & Arifah, N. (2025). Penerimaan teknologi dalam keuangan mikro pedesaan: Peran moderasi literasi. *Jurnal Manajemen Kebijakan Sains Dan Teknologi*, 15(2), 129–143.
- Wibawa, A., & Kajeng, D. (2023). Peran inklusi keuangan sebagai mediasi literasi keuangan dan kinerja UMKM. *Ekoneurasia*, 9(3), 205–215.