Understanding the Role of Financial Capability and E-Payment in Enhancing MSME Financial Performance in Surabaya, Indonesia

Ella Sari[1], Ninnasi Muttaqiin[2*] Niken Savitri Primasari[3], Zujajatul 'Ilmi[4]

[1,2] Management, Universitas Nahdlatul Ulama Surabaya, Surabaya, Indonesia.

[3,4] Digital Business, Universitas Nahdlatul Ulama Surabaya, Surabaya, Indonesia.

*Email: m.ninnasi@unusa.ac.id

Abstract. This study aims to examine the influence of financial knowledge, financial literacy, financial attitude, and e-payment usage on the financial performance of Micro, Small, and Medium Enterprises (MSMEs) in one of the sub-districts in Surabaya, Indonesia. A quantitative descriptive approach was employed using primary data collected through structured questionnaires. The population consisted of 259 MSMEs, with a sample of 72 respondents selected using Slovin's formula and simple random sampling. Data collection methods included observation, interviews, and documentation. The hypothesis was tested using Structural Equation Modeling (SEM) with the Partial Least Squares (PLS) approach. The results indicate that financial knowledge and e-payment usage do not have a significant effect on MSME financial performance. In contrast, financial literacy and financial attitude have a significant positive effect. These findings suggest that while digital transaction tools are increasingly accessible, they may not directly enhance performance without a strong foundation in financial literacy and behavior. Therefore, improving MSME financial outcomes may require more focus on building financial capabilities and responsible financial attitudes, beyond just technological adoption.

Keywords: financial literacy, financial attitude, e-payment, financial performance, MSMEs

Introduction

A prosperous life is a universal aspiration, with individuals striving to meet their basic economic needs; clothing, food, and shelter through various means, including the establishment of Micro, Small, and Medium Enterprises (MSMEs). These enterprises have proven to be resilient, even in times of crisis, and play a crucial role in promoting economic welfare and reducing poverty, aligning with the United Nations' Sustainable Development Goals (SDG 1: No Poverty and SDG 8: Decent Work and Economic Growth).

1264

The strength of MSMEs was evident during the 1998 financial crisis in Indonesia, where, while many large corporations collapsed, MSMEs continued to grow in number (Masriansyah, 2020). Their role is vital to the national economy, serving as key drivers of employment, innovation, community empowerment, and local market development (Farisi et al., 2024). Hence, structured, sustainable development of MSMEs is essential to enhance productivity, competitiveness, and long-term prosperity.

To ensure the growth and sustainability of MSMEs, several internal factors require attention: (a) **financial knowledge**, the ability to understand and manage finances effectively; (b) **financial literacy**, referring to the awareness of financial instruments and how to use them optimally; (c) **financial attitude**, which reflects one's behavior in controlling spending and making wise financial decisions; (d) **the use of electronic payment systems (e-payment)**, which supports more efficient financial recording and transactions; and (e) **financial performance**, measured through revenue, profit, and sales growth.

Several studies emphasize the significance of these factors. Individuals with higher **financial knowledge** tend to have better financial performance and greater satisfaction, as they are more capable of managing resources, planning, and making informed decisions (Maghfiroh et al., 2022; Ningsih, 2022). Likewise, **financial literacy** has been shown to positively influence MSME performance by enabling business owners to understand financial products, manage credit, and invest more wisely (Rusdi & Saharuddin, 2022; Susanti et al., 2018; Bilal et al., 2021). **Financial attitude**, shaped by psychological and behavioral perspectives on money, affects budgeting habits, saving discipline, and decision-making under financial pressure (Nisa et al., 2020). Moreover, the rise of **e-payment systems**, including QRIS and digital wallets, offers MSMEs greater convenience, faster transactions, and improved financial tracking. These technologies support operational efficiency and customer satisfaction. However, adoption remains uneven due to challenges such as limited digital literacy, technical barriers, and reluctance among older or less tech-savvy business owners (Ramadhani, 2022; Biduri et al., 2021). Despite these challenges, e-payment systems continue to hold strong potential as a strategic tool for enhancing the financial growth of MSMEs in the digital economy. While issues such as limited digital infrastructure, aging business owners, and recurring technical difficulties still hinder widespread adoption, the benefits of speed, convenience, and improved transaction tracking cannot be overlooked. Therefore, fostering digital transformation through education, infrastructure support, and user-friendly platforms remains essential for driving better financial performance and long-term sustainability of MSMEs.

Previous studies by Dali et al. (2023) confirm the significant effect of e-payment on financial performance, while Putri et al. (2022) emphasize the importance of financial literacy. However, limited research has comprehensively examined the combined influence of financial knowledge, financial literacy, financial attitude, and e-payment adoption on MSME performance, especially in localized urban areas.

Therefore, this study aims to analyze the effect of financial knowledge, financial literacy, financial attitude, and e-payment usage on the financial performance of MSMEs in one of Surabaya's sub-district. This research intends to contribute to a deeper understanding of the strategic internal

capabilities needed for MSMEs to thrive in the digital economy and to support inclusive, sustainable economic development.

Methods

This study adopts a quantitative descriptive approach to examine the influence of financial knowledge, financial literacy, financial attitude, and the use of e-payment systems on the financial performance of Micro, Small, and Medium Enterprises (MSMEs) in one of Surabaya's sub-district. The research is grounded in four theoretical frameworks: the Technology Acceptance Model (TAM), which explains user acceptance of digital tools; the Theory of Planned Behavior (TPB), which emphasizes behavioral intentions influenced by attitudes, subjective norms, and perceived behavioral control; the Behavioral Finance Theory, which recognizes the role of psychological factors in financial decision-making; and the Human Capital Theory, which highlights the importance of knowledge and skills in enhancing individual or organizational performance.

The population in this study consists of 259 MSMEs located in one of Surabaya's sub-district. Using Slovin's formula with a simple random sampling technique, a total sample of 72 MSMEs was selected. The type of data used is quantitative, derived from primary sources through a structured questionnaire distributed to MSME owners. The questionnaire was designed to measure five key variables: financial knowledge, financial literacy, financial attitude, e-payment usage, and financial performance, using Likert-scale items to enable objective and statistical analysis. Data collection methods included observation, interviews, and documentation to ensure triangulation and data validity. The variables were measured using indicators adapted from previous validated research instruments aligned with each theoretical construct.

The data were analyzed using the Partial Least Squares–Structural Equation Modeling (PLS-SEM) method. This analytical technique was chosen to assess the relationships among latent variables and test the research hypotheses. The PLS approach is suitable for this study due to the exploratory nature of the model and the relatively small sample size.

Result and Discussion

Measurement Model Evaluation

Based on the result that shown in Table 1, the convergent validity test, assessed through outer loadings, shows that all indicators have loading values above 0.7, indicating strong item reliability. Each indicator measuring financial knowledge, financial literacy, financial attitude, e-payment usage, and financial performance meets the minimum threshold for validity.

Table 1: Convergent Validity Test

Variable	Indicator	Loading Factor	Description
Financial Knowledge	X1.1	0,773	Valid
	X1.2	0,732	Valid
	X1.3	0,725	Valid
	X1.4	0,790	Valid
	X1.5	0,738	Valid
	X1.6	0,781	Valid
	X1.7	0,809	Valid
	X1.8	0,748	Valid
	X1.9	0,790	Valid
Financial Literacy	X2.1	0,836	Valid
	X2.2	0,717	Valid
	X2.3	0,844	Valid
	X2.4	0,783	Valid
	X2.5	0,816	Valid
	X2.6	0,796	Valid
Financial Attitude	X3.1	0,858	Valid
	X3.2	0,863	Valid
	X3.3	0,780	Valid
	X3.4	0,810	Valid
E-Payment Usage	X4.1	0,823	Valid
	X4.2	0,794	Valid
	X4.3	0,770	Valid
	X4.4	0,811	Valid
	X4.5	0,848	Valid
Financial Performance	Y1.1	0,888	Valid
	Y1.2	0,718	Valid
	Y1.3	0,835	Valid
	Y1.4	0,920	Valid
	Y1.5	0,814	Valid

Table 2: *Average Variance Extracted* (AVE)

Variable	AVE
Financial Knowledge	0,586
Financial Literacy	0,640
Financial Attitude	0,687
E-Payment Usage	0,655
Financial Performance	0,702

The Average Variance Extracted (AVE) values that shown in table 2, for all latent constructs exceed the minimum threshold of 0.5, indicating that each construct captures more than 50% of the variance from its indicators, which is a key criterion for establishing convergent validity. Among the variables, financial performance demonstrates the strongest convergent validity with the highest AVE score of 0.702, suggesting a well-defined construct with highly representative indicators. This is followed by financial attitude (0.687), financial literacy (0.640), and e-payment usage (0.655), all of which also show satisfactory convergence. Financial knowledge, while having the lowest AVE at 0.586, still meets the required threshold, indicating that its indicators are adequately representative of the underlying construct. These results collectively confirm that the measurement model is reliable and that each construct is valid for further structural analysis.

Table 3: *Cronbach's Alpha*

Variable	Cronbach's Alpha
Financial Knowledge	0,912
Financial Literacy	0,887
Financial Attitude	0,847
E-Payment Usage	0,869
Financial Performance	0,891

In terms of internal consistency reliability that shown in table 3, all constructs exhibit strong reliability, as evidenced by Cronbach's Alpha values well above the commonly accepted threshold of 0.7. The values range from 0.847 (financial attitude) to 0.912 (financial knowledge), indicating that the items within each construct consistently measure the same underlying concept. Financial knowledge demonstrates the highest reliability, suggesting that its indicators are particularly cohesive and well-aligned. Similarly, financial performance (0.891), financial literacy (0.887), and e-payment usage (0.869) all show excellent internal consistency. These results confirm that the instrument used in this study is highly reliable, meaning that repeated measurements would yield consistent and stable outcomes across the sample. This strong reliability provides a solid foundation for further analysis within the structural model.

Table 4: *Composite Reliability*

Variable	Composite Reliability
Financial Knowledge	0,927
Financial Literacy	0,914
Financial Attitude	0,897
E-Payment Usage	0,905
Financial Performance	0,921

Based on the data on table 4, the composite reliability scores for all variables exceed the minimum threshold of 0.7, indicating a high level of internal consistency across the constructs. Financial knowledge recorded the highest score at 0.927, followed by financial performance (0.921), financial literacy (0.914), and e-payment usage (0.905). Financial attitude, while having the lowest score among them, still demonstrates strong reliability with a value of 0.897. These results confirm that the measurement constructs used in this study are highly reliable. This means that if the same measurements were repeated in a similar context, they would likely produce consistent and stable results, thus supporting the robustness of the structural equation modeling (SEM) analysis employed.

Table 5: R-Square Test

Variable	R-Square
Financial Performance	0,939

The R-Square (R^2) value for financial performance is 0.939, indicating that 93.9% of the variance in financial performance can be explained by the independent variables: financial knowledge, financial literacy, financial attitude, and e-payment usage. This reflects a high level of explanatory power in the model.

Table 6: *Direct Effect*

No.	Path	T Value	P Value	Conclusion
1	Financial Knowledge → Financial Performance	1,138	0,255	Rejected
2	Financial Literacy → Financial Performance	4,256	0,000	Accepted
3	Financial Attitude → Financial Performance	2,966	0,003	Accepted
4	E-Payment Usage → Financial Performance	1,152	0,249	Rejected

As shown in the results on table 6, the first relationship examined in this stud, between financial knowledge and financial performance yielded a t-value of 1.138 and a p-value of 0.255. Since the t-value is below the critical threshold of 1.96 and the p-value exceeds 0.05, it can be concluded that this

relationship is not statistically significant. Therefore, the first hypothesis is rejected, indicating that financial knowledge alone does not have a direct and measurable impact on MSME financial performance in this context.

In contrast, the second relationship between financial literacy and financial performance shows a t-value of 4.256 and a p-value of 0.000. These values strongly support the statistical significance of the relationship, as the t-value exceeds 1.96 and the p-value is well below 0.05. Hence, the second hypothesis is accepted, suggesting that financial literacy plays a crucial role in improving MSME financial outcomes.

For the third relationship, which assesses the effect of financial attitude on financial performance, the analysis reveals a t-value of 2.966 and a p-value of 0.003. These results also indicate a significant influence, as both values meet the criteria for hypothesis acceptance. Accordingly, the third hypothesis is accepted, highlighting that a positive and disciplined financial attitude contributes meaningfully to business financial performance.

Lastly, the fourth relationship between e-payment usage and financial performance shows a t-value of 1.152 and a p-value of 0.249, both of which fall outside the accepted range for statistical significance. As a result, the fourth hypothesis is rejected, implying that the adoption of e-payment systems, despite their growing popularity, does not have a direct and significant impact on the financial performance of MSMEs in the studied area. This may be due to low adoption rates, technical limitations, or insufficient digital infrastructure among MSMEs.

Discussion

The findings of this study highlight the varying degrees of influence that internal financial capabilities and technological adoption have on the financial performance of MSMEs. Among the four variables tested, financial literacy and financial attitude emerged as significant contributors to better financial outcomes, underscoring the importance of both cognitive understanding and behavioral discipline in managing business finances effectively.

The strong influence of financial literacy suggests that when MSME owners are equipped with the ability to interpret financial information, assess risks, and make informed economic decisions, their businesses are more likely to achieve better financial health. This also reflects a growing awareness that literacy extends beyond basic financial knowledge, it includes the confidence to act on that knowledge in daily operations, such as budgeting, pricing, and evaluating investment opportunities.

Similarly, financial attitude plays a crucial role. A proactive and responsible mindset toward money, such as planning ahead, controlling impulsive spending, and setting clear financial goals supports strategic decision-making. This finding emphasizes that even in the absence of sophisticated tools, a disciplined financial attitude can substantially enhance performance and business sustainability.

On the other hand, the lack of significant impact from financial knowledge indicates that mere awareness or theoretical understanding of financial concepts may not be sufficient. Without practical application or reinforcement through experience, knowledge may remain abstract and disconnected from day-to-day business decisions. This underscores the need for more hands-on financial training that bridges the gap between knowing and doing.

Likewise, while e-payment usage is often promoted as a driver of financial efficiency and modernization, its limited impact on financial performance in this study suggests that adoption alone is not enough. Low usage rates, technical difficulties, and trust issues especially among micro and traditional businesses can undermine the potential benefits of digital payment systems. This indicates that for digital tools to create meaningful value, they must be supported by user readiness, digital literacy, and infrastructure that ensures ease and reliability.

In summary, this study demonstrates that behavioral and applied financial competencies are more impactful than theoretical knowledge or technology adoption alone. Efforts to enhance MSME performance should therefore prioritize practical financial literacy development and behavior-focused financial education, while also addressing barriers to technology adoption in a way that aligns with the everyday realities of small business operators.

References

Abidin, I.M. (2024). Pengaruh penggunaan digital payment terhadap kinerja pelaku UMKM di Kota Parepare. Institut Agama Islam Negeri Parepare.

Adha, R.N., Qomariah, N., & Hafidzi, A.H. (2019). Pengaruh Motivasi Kerja, Lingkungan Kerja, Budaya Kerja Terhadap Kinerja Karyawan Dinas Sosial Kabupaten Jember. Jurnal Penelitian IPTEKS, 4(1).

Adriani, & Yuniar, V.A.P. (2023). Pengaruh Penggunaan Digital Payment Terhadap Kinerja Keuangan Pada UMKM di Kota Makassar. Jurnal Ilmiah Akuntansi Ekonomi Bisnis, Manajemen Akuntansi, 6(2).

Afif, F.S., Merdeka, G., & Sudapet, I.N. (2024). Pengaruh Motivasi Kerja, Beban Kerja dan Lingkungan Kerja Terhadap Kinerja Karyawan Food dan Beverage Restoran di Jawa Timur. Jurnal Kompetensi Ilmu Sosial, 2(2).

Ajzen, I. (1985). From intentions to actions: A theory of planned behavior. In Action Control: From Cognition to Behavior (pp. 11–39). Springer-Verlag.

Andini, R., & Amboningtyas, D. (2020). Analisis Faktor-Faktor yang Mempengaruhi Minat Mahasiswa Akuntansi Berkarir Sebagai Akuntan Publik: Studi Kasus Pada Mahasiswa Akuntansi Universitas. Pandanaran. Jurnal Sains Sosio Humaniora, 4(1).

Anugraini, M., Khusnah, H., & Muttaqiin, N. (2025). Efek Mediasi Penggunaan Financial Technology Pada Pengaruh Literasi Keuangan Terhadap Kinerja Keuangan UMKM Kabupaten Gresik. *Accounting and Management Journal*, *8*(2), 1–15. https://doi.org/10.33086/amj.v8i2.6632

Aryani, Y. (2020). Sistem Informasi Penjualan Barang Dengan Metode Regresi Linear Berganda Dalam Prediksi Pendapatan Perusahaan. Jurnal Riset Sistem Informasi Dan Teknologi Informasi (JURSISTEKNI), 2(2).

Bontis, N., Keow, W. C. C., & Richardson, S. (2000). Intellectual capital and business performance in Malaysian industries. *Journal of Intellectual Capital*, *1*(1), 85–100.

Dali, N., Aswati, W.O., & Fiskal. (2023). Pengaruh Persepsi Kegunaan dan Kemudahan Penggunaan E-money Terhadap Kinerja Keuangan Pada UMKM: Pendekatan Model TAM. Jurnal Akuntansi dan Keuangan, 8(2).

Diptyana, P., Rokhmania, N., & Herlina, E. (2022). Financial literacy, Digital Literacy and financing preferences role to Micro and Small enterprises' performance. International Journal of Enterpreneurship and Business Development, 5(02), 346-358.

Fayolle, A., & Gailly, B. (2015). The impact of entrepreneurship education on entrepreneurial attitudes and intention: Hysteresis and persistence. Journal of small business management, 53(1), 75-93.

Hair, J., Hollingsworth, C. L., Randolph, A. B., & Chong, A. Y. L. (2017). An updated and expanded assessment of PLS-SEM in information systems research. Industrial management & data systems, 117(3), 442-458.

Hasan, M., Jannah, M., Supatminingsih, T., Ahmad, M. I. S., Sangkala, M., Najib, M., & Elpisah. (2024). Understanding the role of financial literacy, entrepreneurial literacy, and digital economic literacy on entrepreneurial creativity and MSMEs success: a knowledge-based view perspective. Cogent Business & Management, 11(1), 2433708.

Irawati Kwuta, M. S., Khuzaini, K., & Triyonowati, T. (2023). The influence of financial literacy on MSME performance is mediated by financial behavior and financial inclusion (Study in Kewapante District-Sikka Regency). J Econ Finan Manag Stud, 6, 12, 12-30.

Lusardi, A., & Mitchell, O. S. (2014). The economic importance of financial literacy: Theory and evidence. American Economic Journal: Journal of Economic Literature, 52(1), 5-44.

Muttaqiin, N. (2024). Keuangan Pribadi: Sebuah Pengantar. Penerbit KBM.

Obaidullah, M., & Khan, T. (2008). Islamic microfinance development: Challenges and initiatives. Islamic Research & Training institute Policy Dialogue Paper 12(2), 37-51.

Putri, R. D., & Muttaqiin, N. (2024). The Effect of Financial Literacy and Digital Payments on Financial Performance of MSMEs in Surabaya. AMJ (Altius Management Journal), 3(1).

Rizki, A., & Hendarman, A. F. (2024). Empowering financial and digital literacy to build resilience of MSMEs: Proposed implementation in Bandung City. International Journal of Current Science Research and Review, 7(10), 32-41

Thaler, R. H. (1999). Mental Accounting Matters. Journal of Behavioral Decision Making.

Venkatesh, V., & Davis, F. D. (2022). Thirty Years of TAM: Progress, Challenges, and Opportunities for Future Research. Journal of the Association for Information Systems, 23(1), 20–45.