

The Effect of Social Media Agility on Sme Performance in Indonesia: The Moderating Role of Digital Literacy and Environmental Dynamism

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ABSTRACT

This study examines the effect of social media agility on the performance of small and medium-sized enterprises (SMEs) in Indonesia, with digital literacy and environmental dynamism serving as moderating variables. In an increasingly dynamic digital business environment, SMEs are required to respond quickly and flexibly to market changes, customer interactions, and competitive pressures through the effective use of social media. This research adopts a quantitative approach using a survey method, with data collected from SME owners and managers across various sectors in Indonesia. The data were analyzed using structural equation modeling to assess the direct and moderating relationships among variables. The findings indicate that social media agility has a significant positive effect on SME performance. Furthermore, digital literacy strengthens the relationship between social media agility and SME performance, suggesting that SMEs with higher levels of digital literacy are better able to leverage social media agility to enhance business outcomes. Environmental dynamism is also found to moderate this relationship, wherein higher levels of environmental uncertainty amplify the importance of social media agility in improving SME performance. These results highlight the critical role of social media agility as a strategic capability for SMEs, particularly when supported by adequate digital literacy and adaptability to dynamic environmental conditions. The study contributes to the literature on digital transformation and SME performance by providing empirical evidence from an emerging economy context.

Keywords: Social Media Agility; SME Performance; Digital Literacy; Environmental Dynamism; Indonesia.

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INTRODUCTION

Indonesia's rapid digital transformation has fundamentally changed the way small and medium enterprises (SMEs) conduct their business operations. With more than 139 million active social media users by 2024, platforms such as Instagram, WhatsApp, and TikTok have become integral to consumer behavior as well as business strategy (Hootsuite & We Are Social, 2024). This shift is most apparent in the business-to-consumer (B2C) sector, where online visibility and engagement are key factors in customer acquisition and retention. For SMEs, social media is no longer merely a promotional channel but a strategic instrument for real-time customer interaction, trend monitoring, and brand development (Sapthiarsyah & Junita, 2024; Purwanti et al., 2022; Nurfarida & Sudarmiati, 2021).

Small and medium-scale industries have proven to play an important role in the economy, both in developed and developing countries (Hongdiyanto, 2015). In Indonesia, SMEs are the backbone of the national economy, contributing more than 60% to the gross domestic product (GDP) and absorbing 97% of the workforce (Ministry of Cooperatives and SMEs & BPS, 2023). The food and beverage sector (mamin) has become one of the fastest-growing industries within the SME landscape, driven by its close links to lifestyle trends, youth entrepreneurship, and digital platforms. In provinces like East Java, thousands of mamin SMEs—ranging from traditional snack businesses to modern Cafe brands—are leveraging social media to reach consumers and promote their products (Diliana et al., 2024). Nevertheless, the widespread use of social media does not automatically translate to

effectiveness; many SMEs still lack the strategic agility needed to adapt to rapidly changing digital trends (Omowole et al., 2024).

While social media usage is widespread among SMEs, not all are equally capable of adjusting their content or marketing campaigns in line with real-time feedback. Many enterprises operate on rigid schedules or respond slowly to negative reviews, platform algorithm changes, or viral trends—often missing critical engagement windows. This underscores the growing importance of social media agility (SMA), which refers to a firm's ability to rapidly and flexibly adapt its digital activities in response to both internal and external cues (Chuang, 2020; Onamusi, 2021). Without agility, even a well-managed social media account may fall behind competitors who are quicker to pivot or innovate online.

The importance of SMA in influencing business performance has recently gained attention in global academic literature. A study by Onngam and Charoensukmongkol (2024) found that social media agility significantly enhances SME performance in Thailand, including improvements in customer satisfaction, market responsiveness, and revenue growth. Similar studies suggest that firms that adapt their digital strategies rapidly are better positioned to sustain visibility and profitability in volatile environments (Mikalef et al., 2020). These findings are especially relevant for Indonesian SMEs operating in dynamic industries such as F&B, where consumer preferences and content trends evolve quickly and unpredictably.

Although academic interest in social media agility continues to grow, empirical research in the Indonesian context remains limited—particularly in regions such as East Java, which hosts a large number of SMEs yet remains underrepresented in scientific studies. Various digital transformation programs have so far focused more on technology adoption rather than strategic agility, creating a gap in understanding how Indonesian SMEs navigate real-time challenges on social media platforms (Purwanti et al., 2022; Sapthiarsyah & Junita, 2024). This gap is most evident in the mamin sector, which heavily depends on social feedback, viral content formats, and demand shifts influenced by public figures.

Another factor that may influence the relationship between social media agility and business performance is digital literacy. SMEs with higher levels of digital literacy—such as the ability to use analytics tools, create engaging content, and manage digital platforms effectively—are more likely to leverage social media agility for better outcomes. Conversely, SMEs with low digital literacy may struggle to respond quickly despite being active on social platforms (Novela et al., 2024; Widiyanti et al., 2024). Understanding how digital literacy moderates the impact of social media agility on performance is essential, particularly in fragmented and competitive sectors like F&B.

Additionally, the environmental conditions surrounding SMEs are becoming increasingly unpredictable. The F&B sector in Indonesia frequently experiences sudden shifts in demand, packaging trends, consumer behavior, and technological updates—all of which contribute to high environmental dynamism. This level of volatility may either strengthen or weaken the impact of social media agility, depending on a firm's preparedness to manage such conditions (Nurfarida & Sudarmiatin, 2021). However, the extent to which environmental dynamism moderates the effectiveness of SMA remains underexplored in the Indonesian context.

Given these practical challenges and empirical gaps, this study aims to explore the effect of social media agility on SME performance within the F&B sector in East Java, while

also analyzing the moderating roles of digital literacy and environmental dynamism. By adapting the model developed by Onngam and Charoensukmongkol (2024), this research provides localized insights that contribute both to academic discourse and to practical SME development in Indonesia's digital economy.

METHOD

Sample and Data Collection

This study focuses on small and medium enterprises (SMEs), particularly those operating in the food and beverage (F&B) sector in East Java, Indonesia. The F&B industry was selected because it represents one of the most dynamic and fast-growing SME sectors in the region and relies heavily on digital marketing and social media platforms such as Instagram, TikTok, and WhatsApp to reach customers and promote products (Purwanti et al., 2022; Sapthiarsyah & Junita, 2024). Despite the increasing adoption of social media, many SMEs in this sector still struggle to convert online engagement into tangible performance outcomes due to differences in digital literacy levels and the high degree of environmental dynamism (Omowole et al., 2024).

The population of this study consists of all food and beverage SMEs operating in East Java, Indonesia. Based on data from the Badan Pusat Statistik (2023), there are approximately 72,000 active F&B SMEs in the province. Because surveying the entire population is not feasible, a purposive sampling method was applied. This method ensures that each respondent meets the criteria relevant to this research, namely: (1) the respondent must be the owner or manager of an F&B SME in East Java, (2) the business must have been operating for at least one year, and (3) the business must actively use at least one social media platform (such as Instagram, WhatsApp, or TikTok) for marketing and customer engagement.

The sample size for this study was determined using Ronan Conroy's sample size guideline for Structural Equation Modeling (SEM) rather than Slovin's formula. Slovin's formula is considered less appropriate for multivariate techniques such as SEM because it often yields a minimum sample size insufficient to ensure model stability and statistical power. Conroy recommends that studies employing SEM use a minimum sample size ranging from 200 to 400 respondents, depending on model complexity and the number of latent constructs (Conroy, 2015; Hair et al., 2019).

This study examines a relatively complex model involving multiple latent variables, direct effects, and moderating effects. Therefore, a minimum sample size of 200 respondents was deemed appropriate to ensure reliable parameter estimation, adequate statistical power, and robustness of the PLS-SEM results. A sample size of 200 is also consistent with best-practice recommendations for PLS-SEM analysis in social science and business research (Hair et al., 2019; Kock & Hadaya, 2018).

Data were collected through an online questionnaire distributed via Google Forms and shared through WhatsApp business groups and SME communities in December 2025. The survey was administered in Bahasa Indonesia to ensure clarity and accuracy of responses. A total of 230 questionnaires were distributed to account for potential incomplete responses. After data screening and cleaning, 200 valid responses were retained for further analysis. This final sample size meets Ronan Conroy's recommended threshold for SEM and satisfies the

methodological requirements for PLS-SEM analysis. The conceptual model is presented in Figure 1.

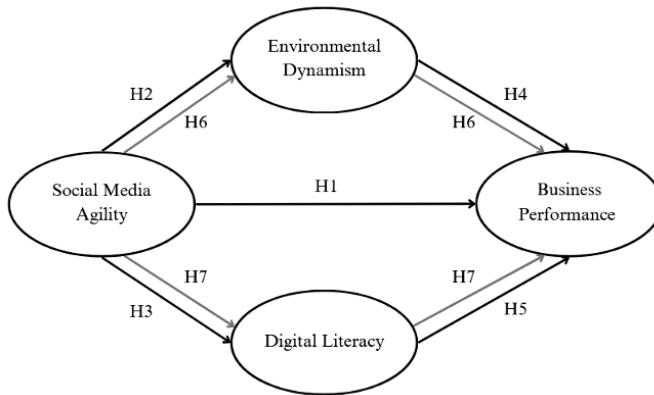


Figure 1. Conceptual model

Source: Author's own work

Measures

The analysis of all constructs employed multi-item Likert-type scales based on established and validated literature. Each item was rated on a five-point scale ranging from 1 = strongly disagree to 5 = strongly agree. Social Media Agility was measured as a second-order construct consisting of two indicator: internal and external SMA (Chuang, 2020). There are several indicator that determine digital literacy: knowledge or understanding on the type of social media, social media usage, readiness level of social media, e-money or digital payment usage, and knowledge on the content of social media (Widiyanti et al., 2024). Environmental Dynamism measured through indicators of volatility of industrial environment, volatility of industry technology, and volatility of customer demands (Liang et al., 2024). Business Performance captured through company growth is one of the important indicators of SME Performance. As developed in Western countries, there are five measures of company growth commonly used in previous studies: sales growth, employees, profits, assets, and own capital (Utami et al., 2023). The measures were adapted to reflect the SME context in East Java, with wording adjusted to ensure cultural and industry relevance.

Data Analysis

Data were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM) with SmartPLS software. PLS-SEM was chosen because it is suitable for complex models with multiple mediators, relatively small sample sizes, and data that may not meet the assumption of normality (Hair et al., 2019).

A two-step analytical procedure was employed. The first involved assessing the reliability and validity of model. The convergent validity was evaluated using Outer loading, Rho_A and AVE. Then the discriminant validity was tested through the HTMT, Cross Loading, Cronbach's Alpha and Composite Reliability.

The second step focused on evaluating the structural model to examine the hypothesized relationships using path coefficients, R² values. To test the significance of the hypothesized paths, a bootstrapping procedure with 5,000 resamples was applied.

RESULTS AND DISCUSSION

Outer Model

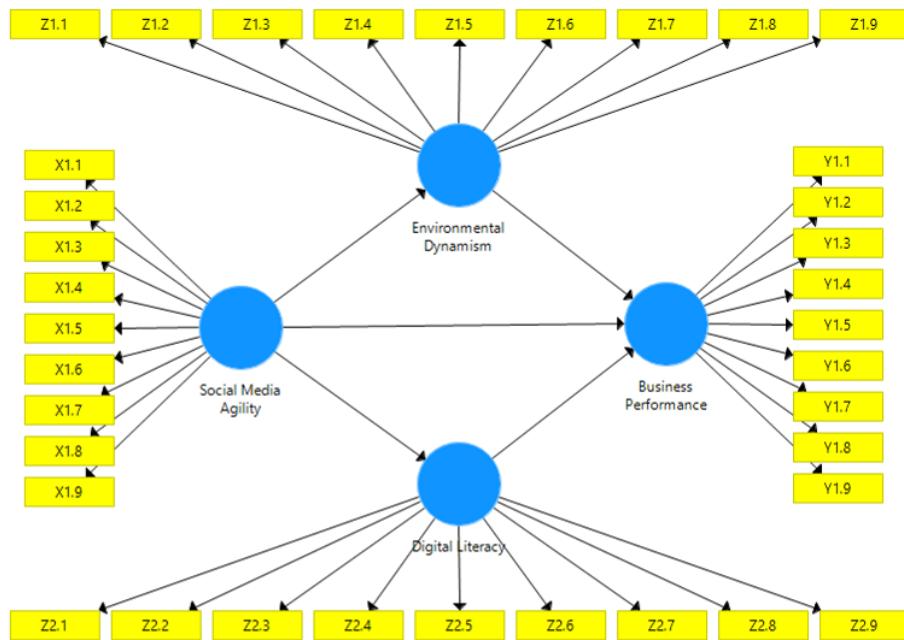


Figure 2. Full Model Testing

Source: SmartPLS Output

Convergent Validity

In the assessment of convergent validity within the SEM-PLS framework, each item must demonstrate a sufficient level of correlation with its corresponding latent construct. This is evaluated through the outer loading value, which reflects how strongly an indicator represents the underlying variable. An indicator is considered to have acceptable convergent validity when its outer loading exceeds 0.70, indicating that the indicator's variance is explained by the latent construct. Indicators that meet this threshold are therefore regarded as reliable measures of their respective constructs and can be retained for further analysis

Table 1. Outer Loading

	Business Performance	Digital Literacy	Environmental Dynamism	Social Media Agility
X1.1				0.831
X1.2				0.833
X1.3				0.798
X1.4				0.849
X1.5				0.844
X1.6				0.792
X1.7				0.829
X1.8				0.840
X1.9				0.810
Y1.1	0.828			

Business Performance	Digital Literacy	Environmental Dynamism	Social Agility	Media
Y1.2	0.834			
Y1.3	0.816			
Y1.4	0.787			
Y1.5	0.819			
Y1.6	0.820			
Y1.7	0.795			
Y1.8	0.793			
Y1.9	0.820			
Z1.1		0.792		
Z1.2		0.757		
Z1.3		0.828		
Z1.4		0.816		
Z1.5		0.803		
Z1.6		0.812		
Z1.7		0.798		
Z1.8		0.819		
Z1.9		0.820		
Z2.1	0.811			
Z2.2	0.772			
Z2.3	0.845			
Z2.4	0.823			
Z2.5	0.795			
Z2.6	0.829			
Z2.7	0.840			
Z2.8	0.862			
Z2.9	0.848			

Based on the results presented in Table 1, all questionnaire items are valid and appropriately represent their respective constructs. In addition to outer loading, the validity of variables is also assessed based on the Average Variance Extracted (AVE), which should be greater than 0.5, and the rho_A value, which should exceed 0.6. According to Table 2, the AVE and rho_A values for all variables meet these criteria, indicating that all latent variables are suitable for further analysis in the SEM-PLS model.

Table 2. Rho_A and AVE

	rho_A	AVE
X1	0.943	0.681
Z1	0.933	0.649
Z2	0.942	0.681
Y	0.936	0.660

Discriminant Validity

This step was assessed using the Heterotrait-Monotrait Ratio (HTMT), which is a widely recommended criterion for evaluating the distinctiveness of reflective constructs in SEM-PLS. The HTMT value reflects the ratio of correlations across constructs relative to correlations within the same construct. When the HTMT value is below 0.90, it indicates that the constructs are sufficiently distinct from one another and do not exhibit excessive overlap. Therefore, an HTMT value under the 0.90 threshold confirms that discriminant validity between the reflective variables has been achieved.

Table 3. HTMT

	Y	Z2	Z1	X
Y				
Z2	0.778			
Z1	0.743	0.465		
X	0.853	0.701	0.619	

Based on Table 3, the HTMT test results met the required criteria, as all values were below 0.90. In addition to HTMT, another method for assessing discriminant validity is by examining the cross-loading values using SmartPLS3. Each indicator's correlation with its own variable should be higher than its correlations with other variables. The cross-loading results are presented in Table 6, where the highest correlations for each variable are highlighted in bold, confirming that the indicators appropriately represent their respective constructs.

Table 4. Cross Loading

	Business Performance	Digital Literacy	Environmental Dynamism	Social Media Agility
X1.1	0.714	0.609	0.521	0.831
X1.2	0.670	0.556	0.479	0.833
X1.3	0.621	0.488	0.451	0.798
X1.4	0.675	0.579	0.465	0.849
X1.5	0.712	0.574	0.524	0.844
X1.6	0.602	0.460	0.466	0.792
X1.7	0.653	0.527	0.459	0.829
X1.8	0.647	0.528	0.470	0.840
X1.9	0.657	0.585	0.484	0.810
Y1.1	0.828	0.615	0.606	0.650
Y1.2	0.834	0.650	0.541	0.718
Y1.3	0.816	0.579	0.597	0.663
Y1.4	0.787	0.599	0.525	0.642
Y1.5	0.819	0.571	0.607	0.647
Y1.6	0.820	0.629	0.555	0.662
Y1.7	0.795	0.550	0.506	0.610
Y1.8	0.793	0.606	0.564	0.616
Y1.9	0.820	0.549	0.578	0.660
Z1.1	0.530	0.359	0.792	0.446

	Business Performance	Digital Literacy	Environmental Dynamism	Social Media Agility
Z1.2	0.518	0.373	0.757	0.452
Z1.3	0.592	0.345	0.828	0.500
Z1.4	0.596	0.359	0.816	0.486
Z1.5	0.540	0.324	0.803	0.441
Z1.6	0.563	0.352	0.812	0.482
Z1.7	0.570	0.311	0.798	0.454
Z1.8	0.562	0.381	0.819	0.531
Z1.9	0.561	0.366	0.820	0.421
Z2.1	0.598	0.811	0.381	0.536
Z2.2	0.584	0.772	0.332	0.515
Z2.3	0.559	0.845	0.296	0.494
Z2.4	0.561	0.823	0.301	0.548
Z2.5	0.600	0.795	0.379	0.597
Z2.6	0.622	0.829	0.356	0.563
Z2.7	0.641	0.840	0.375	0.542
Z2.8	0.630	0.862	0.417	0.591
Z2.9	0.632	0.848	0.397	0.530

Reliability Test

Using Cronbach's Alpha, a variable is considered reliable if the value exceeds 0.6 and the Composite Reliability value is greater than 0.7. The results presented in Table 5 indicate that all variables meet these reliability standards, demonstrating that the measurement instruments used in this study are consistent and stable, and thus suitable for further SEM-PLS analysis.

Table 5. Reliability Test Result

	Cronbach's Alpha	Composite Reliability
X1	0.941	0.951
Z1	0.932	0.943
Z2	0.941	0.951
Y1	0.936	0.946

Inner Model

1. R Square

The coefficient of determination (R^2) indicates the degree to which exogenous variables account for the variance in endogenous variables. According to the established criteria, an $R^2 \geq 0.75$ indicates a strong effect, values between 0.50 and 0.75 indicate a moderate effect, and values below 0.50 indicate a weak effect. Based on Table 7, variables X1 (Social Media Agility) explain about 33% of the variance in Z1 (Environmental Dynamism), X1 (Social Media Agility) explain about 43% of the variance in Z2 (Digital Literacy), while X1, Z1, and Z2 collectively explain 78% of the variance in Y (Business Performance). While social media agility alone cannot strongly explain environmental dynamism or digital literacy, when combined, social media agility, digital literacy, and

environmental dynamism produce a very strong prediction of business performance. This suggests that business performance improvements come not just from social media agility directly, but through its interaction with a dynamic environment and digital capabilities.

Table 6. Coefficient of Determination

	R Square	R Square Adjusted
Business Performance	0.783	0.779
Digital Literacy	0.440	0.437
Environmental Dynamism	0.339	0.336

2. Hypothesis Testing

Next, hypothesis testing was conducted with a significance level (α) of 0.05 or 5%. A variable is considered to have a significant effect and H_0 is rejected if the t-statistic > 1.96 . In addition, the researcher also used the P value as a decision criterion, where a P value < 0.05 indicates a significant relationship between variables.

Table 7. Bootstrapping SmartPLS 3 Direct Effect

Hypothesis	Variable	T statistics	Conclusion (T > 1.96)	P values	Conclusion (P < 0.05)
H1	X1 -> Y	34.145	Positive Influence	0.000	Significant
H2	X1 -> Z1	12.371	Positive Influence	0.000	Significant
H3	X1 -> Z2	17.185	Positive Influence	0.000	Significant
H4	Z1 -> Y	7.474	Positive Influence	0.000	Significant
H5	Z2 -> Y	7.401	Positive Influence	0.000	Significant

According to the SmartPLS 3 bootstrapping analysis, social media agility demonstrated a significant influence on business performance, thereby supporting H1. Similarly, social media agility significantly affected environmental dynamism, as indicated by result from table 7 confirming H2. Moreover, social media agility also exhibit a significant direct relationship with digital literacy confirming H3. Environmental dynamism also showed a significant influence on business performance supporting H4. Lastly, digital literacy significantly influenced business performance thus confirming H5.

Table 8. Bootstrapping SmartPLS 3 Indirect Effect

Hypothesis	Variable	T statistics	Conclusion (T > 1.96)	P values	Conclusion (P < 0.05)
H6	X1 -> Z1 -> Y	6.273	Positive Influence	0.000	Significant
H7	X1 -> Z2 -> Y	6.746	Positive Influence	0.000	Significant

Based on the results of the indirect effect (mediated effect) analysis, it was found that SMA (X1) has a significant indirect effect on business performance (Y) through environmental dynamism (Z1); therefore, H6 is accepted. This demonstrates that environmental dynamism serves as a mediator linking SMA to business performance. Furthermore, the analysis also shows that social media agility (X1) has a positive and significant indirect effect on business performance (Y) through digital literacy (Z2). Thus, H7 is accepted, confirming that digital literacy plays a significant mediating role in the relationship between social media agility and business performance.

The results of the first hypothesis indicate that SMA significantly improves SME performance in Indonesia. From the Resource-Based View (RBV), social media agility represents a strategic organizational capability that enables SMEs to recombine digital resources, knowledge, and routines to create value and enhance performance. Recent RBV-based studies emphasize that digital and marketing-related capabilities function as critical intangible resources that improve firm outcomes, particularly for SMEs with limited physical assets (Khin & Ho, 2019). From the Market-Based View (MBV), social media agility allows firms to respond rapidly to external market forces such as customer preferences, competitive actions, and digital trends, thereby improving market positioning and performance. This finding aligns with recent studies that found social media agility enhances organizational responsiveness and business performance in emerging economies (Wahyuni, 2023; Syahra, 2025; Onngam & Charoensukmongkol, 2024).

The second hypothesis shows that SMEs with higher social media agility are better able to perceive and respond to environmental dynamism. Within the MBV framework, environmental dynamism reflects unstable market conditions driven by rapid technological change, shifting customer expectations, and competitive intensity. RBV complements this explanation by emphasizing that the ability to interpret and act upon environmental signals depends on internally developed capabilities rather than external conditions alone. Thus, social media agility strengthens SMEs' market-sensing capability, consistent with the findings of Wahyuni (2023), Onngam and Charoensukmongkol (2024), and Babatunde (2021).

The third hypothesis confirms that social media agility positively influences digital literacy among SME owners and employees. From an RBV perspective, digital literacy constitutes a form of human capital resource that enhances internal capability development. Continuous interaction with social media platforms encourages learning by doing, enabling SMEs to develop competencies in analytics, content creation, and digital marketing tools. Recent studies demonstrate that engagement with digital platforms significantly enhances employees' digital skills and organizational digital capability (Hamijaya et al., 2024). RBV further explains that these digitally embedded skills accumulate over time and become tacit knowledge, strengthening long-term competitiveness and organizational learning capacity (Barney et al., 2021). From an MBV perspective, competitive digital environments further pressure SMEs to develop these competencies to remain relevant. Social media agility thus positively influences digital literacy (Mikalef et al., 2020; Wamba et al., 2020; Maisuroh et al., 2024).

The fourth hypothesis demonstrates that environmental dynamism significantly influences SME performance. According to the MBV, firms operating in highly dynamic environments can achieve superior performance when they successfully align their strategies

with external market conditions such as technological change and competitive rivalry (Nguyen et al., 2023). Recent MBV literature emphasizes that environmental turbulence intensifies competition, making adaptability and responsiveness key drivers of survival and performance rather than efficiency alone (Porter, 2007). However, RBV explains why environmental dynamism does not benefit all firms equally—only SMEs with strong internal adaptive capabilities can transform environmental uncertainty into performance gains. This finding supports recent evidence that adaptive firms outperform competitors in volatile environments (Ruba et al., 2023).

The fifth hypothesis shows that digital literacy has a significant positive effect on SME performance. From an RBV standpoint, digital literacy constitutes a valuable and productive intangible resource that improves operational efficiency, decision-making quality, and innovation capability. SMEs with higher digital literacy are better able to leverage digital technologies to enhance productivity and customer engagement. Empirical studies in recent years confirm that digital skills significantly improve SME competitiveness and performance outcomes (Eller et al., 2020; Hamijaya et al., 2024). RBV-based digital transformation research further suggests that digital literacy enables SMEs to integrate new technologies more effectively, reducing uncertainty and enhancing strategic flexibility (Vial, 2021). MBV similarly suggests that digitally literate SMEs respond more effectively to market demands and competitive pressures (Agit et al., 2023; Bidasari et al., 2023; Huda et al., 2023).

The sixth hypothesis reveals that environmental dynamism partially mediates the relationship between social media agility and SME performance. This indicates that social media agility enhances performance both directly and indirectly through improved environmental sensing. From an MBV perspective, social media agility strengthens SMEs' ability to interpret market volatility and competitive changes, thereby improving performance (Nguyen et al., 2023). However, the persistence of a direct effect supports the RBV, suggesting that social media agility also improves internal processes such as communication efficiency and customer responsiveness, independent of environmental interpretation. This pattern aligns with recent dynamic capability research emphasizing multiple pathways between organizational capabilities and performance (Mikalef et al., 2020; Maulana, 2021).

Finally, the seventh hypothesis shows that digital literacy partially mediates the relationship between social media agility and SME performance. From an RBV perspective, social media agility facilitates the accumulation of digital knowledge and skills, which then enhance firm performance. However, because the direct effect remains significant, social media agility also influences performance through mechanisms beyond skill development, such as immediate market engagement and faster customer interaction. MBV supports this explanation by highlighting that digital literacy strengthens competitive positioning but does not fully account for performance improvements. This finding aligns with the results of Hamijaya et al. (2024), Mikalef et al. (2020), and Agit et al. (2023).

CONCLUSION

To conclude, the findings of this study confirm several key hypotheses, demonstrating that social media agility exerts a direct and significant effect on both digital literacy and environmental dynamism among SMEs in Indonesia. Additionally, SMA also shows a direct positive influence on business performance. The results further indicate that both digital

literacy and environmental dynamism significantly enhance business performance, highlighting their importance as strategic capabilities in today's dynamic digital environment. Moreover, the mediation analysis reveals that social media agility indirectly affects business performance through digital literacy and environmental dynamism, confirming their mediating roles and emphasizing that agility alone is not sufficient unless accompanied by strong internal digital capabilities and the ability to adapt to environmental changes.\

This study acknowledges several limitations. First, the sample was limited to SMEs within specific regions in Indonesia, which may restrict the generalizability of the findings. Additionally, the model focused primarily on mediating effects; thus, future research could integrate moderating variables such as technological readiness, market turbulence, or entrepreneurial orientation to explore how different contextual factors shape the relationship between social media agility and SME performance. Expanding the sample scope or employing longitudinal methods would also provide deeper insights into how these digital capabilities evolve over time.

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