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Social Media and Fintech Utilization on SME Development: The Mediating Role of Business Performance in Pekanbaru, Riau

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Abstract. This study investigates how social media and financial technology (fintech) utilization contribute to business performance and small and medium sized enterprise (SME) development in Pekanbaru, Riau, Indonesia. The research adopts an explanatory quantitative design using a cross sectional survey of SME owners and managers who use social media and/or fintech in their business activities. Data from 96 respondents were analyzed using partial least squares structural equation modelling to examine the direct effects of social media and fintech utilization on business performance and SME development, as well as the mediating role of business performance. The findings reveal that both social media and fintech utilization have significant positive effects on business performance, while the direct effect of fintech utilization on SME development is relatively weaker. Business performance, in turn, has a significant positive impact on SME development and acts as a key mediator linking digital technology utilization to broader development outcomes. These results suggest that social media and fintech should be treated not merely as technological tools but as strategic resources that improve core business performance, which then enables sustainable SME growth. The study offers theoretical insight into the role of digital technologies in SME development and provides practical guidance for policymakers and SME support institutions seeking to design more targeted digital transformation programs in emerging regions.

Keywords: business systems; innovation; digital transformation; governance; analytics

1. Introduction

Micro, small, and medium enterprises (MSMEs) play a strategic role in job creation, income distribution, and driving the local economy in various regions of Indonesia, including Pekanbaru City, Riau (Mwemezi et al., 2022; Taghizadeh-Hesary et al., 2022). However, amid increasingly fierce market competition and increasingly digital consumer behavior, MSMEs are required to adopt digital technology in order to maintain and improve their business performance (Belas et al., 2022; Pratono, 2018). The development of social media as a means of promotion and two-way interaction with customers, as well as financial technology (fintech) as a digital-based payment and financing service, opens up new opportunities for MSMEs to optimize their business processes (Moturi et al., 2021; Mukherjee et al., 2023). This study focuses on analyzing how the use of social media and fintech affects business performance and MSME development in Pekanbaru, with business performance placed as a mediating variable (Arsawan, I.W.E., Koval, V., Suhartanto, D., Hariyanti, N.K.D., Polishchuk, N., Bondar, 2022). Thus, this study not only looks at the direct influence of digital technology on MSME development but also explores the role of business performance as an intermediary mechanism that explains this relationship (Zhang & Zhou, 2023).

Nationally, the government is targeting millions of MSMEs to connect to the digital ecosystem as part of its agenda to accelerate digital transformation and post-pandemic economic recovery (Maulana & Iskandar, 2023). The MSME empowerment report shows that most businesses that have utilized social media and other digital channels tend to experience improved marketing performance and broader market reach compared to those that still rely on conventional methods (Rustiarini et al., 2023). On the other hand, the development of fintech in Indonesia shows great potential in facilitating access to capital, accelerating transactions, and increasing financial inclusion for MSMEs that were previously difficult for formal financial institutions to reach (Sukiyono et al., 2023). Although various studies have proven that the use of social media and fintech in general has a positive effect on MSME performance, there is still limited research that simultaneously tests both forms of technology utilization and relates them to MSME development through business performance as a mediating variable, especially in local contexts such as Pekanbaru (Iqbal et al., 2023). Therefore, this study is important to fill the empirical gap and provide more specific contextual evidence.

The phenomenon in Pekanbaru shows that more and more MSME players are starting to use social media platforms, such as Instagram, TikTok, Facebook, and WhatsApp Business, to introduce products, interact with consumers, and build brand image. Some SMEs have also used digital payment services, such as QRIS and e-wallets, and even accessed fintech financing services to increase working capital or invest in business equipment (Renton & Richard, 2019). However, the adoption of this technology is still uneven. Many MSME players use social media only sporadically, without clear content planning, and have not integrated digital channels with their recording systems or sales performance analysis. On the other hand, many MSMEs are still hesitant to utilize fintech due to limited digital literacy, concerns about transaction security, or a lack of understanding of the long-term benefits of using technology-based financial services (Lim-U-Sanno et al., 2023). This situation means that the full potential of social media and fintech in driving the performance and development of MSMEs in Pekanbaru has not been fully realized.

If the gap in social media and fintech utilization among MSMEs in Pekanbaru is left unaddressed, there is a risk that most businesses will fall behind their more digitally-ready competitors, both from other cities in Indonesia and from large-scale e-commerce platforms (Wang et al., 2020). Limited ability to utilize digital channels can lead to stagnant sales performance, inefficient operating costs, and hindered opportunities for market expansion outside the Riau region. In the long term, these conditions not only hamper business development at the individual MSME level, but can also slow regional economic growth and reduce the competitiveness of Pekanbaru as a center of trade and services. In addition, low utilization of fintech has the potential to perpetuate classic MSME problems such as limited access to financing, poor financial management, and low financial inclusion of small business actors. Without strong empirical evidence as a basis for policy, MSME digitalization assistance and facilitation programs are feared to be less targeted (Ma et al., 2023).

One of the necessary approaches is to strengthen understanding of how the effective use of social media and fintech can improve business performance as a prerequisite for sustainable MSME development. Empirical evidence of this relationship can form the basis for the development of more targeted training, mentoring, and incentive programs, such as training in social media content strategy, customer interaction management, financial literacy, and the safe use of fintech services. Local governments, financial institutions, and SME associations need measurable information on the dimensions of social media and fintech utilization that contribute most to performance improvement, so that interventions are designed not only to encourage technology adoption, but also productive utilization. Thus, the expected solution is not only to increase the rate of digital technology adoption, but also to strengthen business performance and business development capacity.

To address these needs, this study uses a quantitative approach with a survey method targeting MSME owners or managers in Pekanbaru City who have at least minimal experience in using social media and/or fintech services for their business activities. The research instrument was designed in the form of a structured questionnaire that measures the level of social media utilization, the level of fintech utilization, perceptions of business performance, and MSME development indicators, such as market expansion, increased turnover, additional employment, and product innovation. The collected data will be analyzed using multivariate analysis techniques, such as Structural Equation Modeling (SEM) or Partial Least Squares (PLS), to test the direct and indirect relationships between variables, including the mediating role of business performance in influencing MSME development. This approach allows for comprehensive testing of conceptual models, while also providing a statistical overview of the strength and significance of each construct's influence within the research framework.

This study targets two main forms of contribution, namely theoretical and practical contributions. Theoretically, the results of this study are expected to enrich the literature on the use of digital technology in MSMEs by integrating the use of social media and fintech into a single model that explains MSME development through business performance as a mediating variable, particularly in the context of medium-sized cities in Indonesia such as Pekanbaru. In practical terms, the research findings are expected to provide more precise recommendations for policymakers, financial institutions, and MSME support institutions in designing digitalization strategies and programs that are tailored to the characteristics and needs of MSMEs in Riau. For SME actors themselves, the results of this study are expected to serve as a reference in making decisions related to investing time and resources in social media activities and the use of fintech services, so that their digitalization efforts truly contribute to improving their performance and business development.

2. Theoretical Background

2.1. Social Media Utilization and SME Performance

Social media utilization in SMEs is generally defined as the extent to which businesses use platforms such as Facebook, Instagram, TikTok, or WhatsApp Business to communicate with customers, promote products, and collect market feedback (Apidana & Rusvinasari, 2024). From the Resource-Based View, effective social media use can be seen as an intangible resource and marketing capability that enhances visibility, customer engagement, and information acquisition, which in turn contributes to improved sales and overall business performance (Belas et al., 2023). Empirical studies on Indonesian MSMEs show that social media usage tends to have a positive and significant effect on firm performance, although results are not always consistent across contexts, suggesting that complementary capabilities (e.g., innovation or content management) are important to fully leverage these platforms (Virglerová et al., 2020).

2.2. Fintech Utilization and SME Performance

Financial technology (fintech) utilization refers to the adoption of digital financial services such as mobile payments, e-wallets, QR based transactions, online lending, and crowdfunding platforms that aim to make financial processes more accessible, efficient, and customer oriented for SMEs (Mwemezi et al., 2022). Theoretically, fintech adoption can enhance financial performance by improving transaction speed, reducing costs, widening access to credit, and offering better data for financial decision-making, which aligns with RBV and dynamic capabilities perspectives that emphasize technology enabled process improvements as sources of competitive advantage (Lontchi et al., 2023). Empirical evidence indicates that fintech adoption is positively associated with SMEs' revenue growth, cost efficiency, and customer retention, thereby strengthening overall business performance and helping overcome long-standing constraints related to financial inclusion (Putri et al., 2023).

2.3. Business Performance as a Mediator

Business performance in SME research typically captures both financial and non-financial indicators, including sales growth, profitability, market share, customer satisfaction, and operational efficiency (El Tarabishy et al., 2022). Prior studies in digital transformation and SME strategy show that technology-related practices (such as digital leadership, social media use, or fintech adoption) seldom impact development outcomes directly; instead, they operate through capability building and performance improvements as mediating mechanisms, consistent with dynamic capabilities theory (Pratono, 2018). In this study, business performance is conceptualized as a mediating variable that translates the benefits of social media and fintech utilization into broader SME development outcomes, suggesting that digital tools must first improve core business results before they can significantly drive long-term growth (Shahzad, 2012).

2.4. SME Development

SME development is a broader construct than short-term performance and typically includes dimensions such as business growth, market expansion, employment generation, product or process innovation, and long-term competitiveness (Beynon et al., 2020). The development of SMEs is influenced by both internal factors (resources, capabilities, strategies) and external factors (market conditions, policy support, and technological infrastructure), where digitalization is increasingly recognized as a key enabler that can amplify existing strengths and open new growth trajectories (Kaassis & Badri, 2018). Within this framework, social media and fintech are treated as digital enablers whose effects on SME development are expected to occur directly as well as indirectly through enhanced business performance, thereby reinforcing the importance of managing technology adoption in a way that tangibly improves operational and financial outcomes (Kulathunga et al., 2020).

3. Methodology

This research method uses a quantitative approach with an explanatory survey design to examine the relationship between social media usage, financial technology (fintech) usage, business performance, and MSME development in Pekanbaru City, Riau. The research population consists of MSMEs in Pekanbaru that have experience using social media and/or fintech services in their business activities. Since the exact data on the number of SME population is not available, the sample size was determined using the Lemeshow formula for unknown populations with a 95% confidence level and a 10% margin of error, resulting in a minimum requirement of approximately 96 respondents who were then purposively selected from SME owners or managers who met the criteria (Paul et al., 2013).

Data was collected through structured questionnaires distributed online and offline, containing statements regarding social media usage, fintech usage, business performance, and MSME development, measured using a five-point Likert scale. The collected data was checked for completeness, filtered for missing values and outliers, then analyzed descriptively to describe the respondent profile and trends for each variable. Next, model testing was conducted using Structural Equation Modeling–Partial Least Squares (SEM-PLS), beginning with reliability and construct validity testing, followed by structural model testing to assess the direct and indirect effects of social media and fintech usage on MSME development through business performance as a mediating variable.

4. Results

Before testing the structural relationships between variables, this study first evaluated the quality of the measurement model to ensure that each latent construct was measured reliably and validly. The evaluation was conducted by looking at the outer loading values, Variance Inflation Factor (VIF), Cronbach's alpha (CA), composite reliability (CR), and Average Variance Extracted (AVE) for each indicator and construct. The following table summarizes the results of the measurement model testing for the constructs of social media utilization, fintech utilization, business performance, and MSME development.

Table 1 Convergent Reliability and Validity Analysis

Construct	Item	Loading	VIF	CA	CR	AVE
Social Media Utilization	SMU1	0.814	1.710	0.767	0.851	0.589
	SMU2	0.708	1.421			
	SMU3	0.803	1.711			
	SMU4	0.740	1.402			
Financial Technology (Fintech) Utilization	FU1	0.797	1.937	0.818	0.881	0.650
	FU2	0.855	2.163			
	FU3	0.853	2.202			
	FU4	0.710	1.336			
Business Performance	BP1	0.729	1.241	0.702	0.834	0.628
	BP2	0.822	1.525			
	BP3	0.823	1.480			
SME Development	SD1	0.755	1.789	0.772	0.854	0.594
	SD2	0.797	1.910			
	SD3	0.736	1.491			
	SD4	0.795	1.601			

The results in Table 1 show that all indicators have outer loading values above 0.70 and VIF values below the recommended limit, so it can be concluded that these indicators are reliable and free from multicollinearity issues that interfere with model estimation. In addition, Cronbach's alpha and composite reliability values for each construct are above 0.70, while AVE values exceed 0.50, confirming that the measurement model meets the criteria for internal reliability and convergent validity. Thus, all constructs in this study are considered feasible and can be used for further analysis in the structural model testing stage.

In addition to convergent validity, this study also tested discriminant validity to ensure that each latent construct was truly distinct from one another and did not measure the same concept. One of the approaches used is the Fornell–Larcker criteria, which compares the square root of the Average Variance Extracted (AVE) value of each construct with the correlation between latent constructs. Discriminant validity is considered to be fulfilled if the square root of the AVE on the diagonal is greater than the correlation between constructs in the same row and column. The following table presents the Fornell–Larcker matrix for the constructs of social media utilization, fintech utilization, business performance, and MSME development.

Table 2 Fornell-Lacker Criteria Results

Construct	Business Performance	Financial Technology (Fintech) Utilization	SME Development	Social Media Utilization
Business Performance	0.792			
Financial Technology (Fintech) Utilization	0.709	0.806		
SME Development	0.746	0.653	0.771	
Social Media Utilization	0.653	0.561	0.704	0.768

The results in Table 2 show that the diagonal values (AVE square roots) for each construct Business Performance (0.792), Financial Technology Utilization (0.806), SME

Development (0.771), and Social Media Utilization (0.768) are higher than the correlations of these constructs with other constructs in the same row and column. For example, the square root of AVE for SME Development (0.771) is greater than its correlation with Business Performance (0.746), Financial Technology Utilization (0.653), and Social Media Utilization (0.704), and the same pattern is seen in other constructs. This condition indicates that each construct in the model has adequate discriminant validity according to the Fornell–Larcker criteria, so it can be concluded that the four constructs of social media utilization, fintech utilization, business performance, and SME development represent different concepts and are feasible to be included in further structural model testing.

After the measurement model was declared to meet the criteria of reliability and validity, the next step was to evaluate the structural model to test the causal relationships between latent constructs in the study. The evaluation was conducted by looking at the path coefficient values (original sample), bootstrap mean (sample mean), standard deviation, and t-values of each hypothesized relationship between social media usage, fintech usage, business performance, and MSME development. The following table summarizes the results of the main path coefficient estimates in the structural model.

Table 3 Estimated Results of Structural Model Path Coefficients

Construct	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)
Business Performance -> SME Development	0.390	0.388	0.097	4.020
Financial Technology (Fintech) Utilization -> Business Performance	0.499	0.499	0.071	7.067
Financial Technology (Fintech) Utilization -> SME Development	0.182	0.184	0.103	1.771
Social Media Utilization -> Business Performance	0.373	0.373	0.082	4.530

In general, the results in Table X show that some relationships between constructs have positive path coefficients with t-values that exceed the conventional significance threshold, while others have not reached the same level of significance. These findings indicate that business performance plays an important role in bridging the influence of digital technology utilization on MSME development, while the direct effect of fintech utilization on MSME development appears to be relatively weaker than its influence on business performance.

5. Discussion

H1: Social Media Utilization → Business Performance, the test results show that social media utilization has a positive and significant effect on the business performance of SME in Pekanbaru, as indicated by the positive path coefficient and t-value above the significance threshold. These findings indicate that the more intensively and strategically SME use social media for example, for promotion, customer interaction, and relationship maintenance the better their sales performance, market reach, and customer satisfaction (Apidana & Rusvinasari, 2024). These results are in line with previous studies that found that social media utilization contributes significantly to improving the performance of small businesses by increasing visibility and engagement with consumers ((DJSN), 2024).

H2: Fintech Utilization → Business Performance, the second hypothesis test shows that fintech utilization has a positive and significant effect on MSME business performance, with a fairly large path coefficient and high t-value. This underscores that the use of digital payment services, e-wallets, QRIS, and fintech-based financing facilities can improve transaction efficiency, expand payment convenience for customers, and open up more flexible access to capital, which is ultimately reflected in better financial and operational performance. These findings are consistent with the literature that affirms the role of fintech as an enabler of improved MSME performance through financial process improvements and strengthened financial inclusion (Rosnah, 2022).

H3: Fintech Utilization → SME Development, for the third hypothesis, the analysis results show that the direct effect of fintech utilization on SME development tends to be weaker and is on the verge of statistical significance. This means that although fintech usage shows a positive coefficient towards business growth indicators such as market expansion, workforce addition, and product innovation its impact is not as strong as its effect on short-term business performance (Graafland, 2018). This condition indicates that the benefits of fintech for business development will be optimal when supported by adequate managerial capabilities and business strategies, so that improvements in financial processes can truly be converted into long-term SME growth and development.

H4: Business Performance → SME Development, the fourth hypothesis received strong support, whereby business performance had a positive and significant effect on SME development. These results indicate that increased sales, profitability, market share, and operational efficiency are important prerequisites for SMEs to develop, for example through expansion of marketing networks, increased production capacity, and investment in innovation (Yang et al., 2020). Thus, business performance serves as a mechanism that bridges the utilization of digital technology with broader SME development outcomes, and reinforces the relevance of the dynamic capabilities perspective, which places performance as an intermediate result of the process of utilizing resources and technology before culminating in long-term business development.

6. Conclusion

This study shows that the utilization of social media and financial technology (fintech) plays an important role in improving the business performance of SMEs in Pekanbaru, Riau, which subsequently encourages broader SME development outcomes. Social media and fintech both have a significant positive effect on business performance, confirming that digital tools help SMEs reach wider markets, facilitate transactions, and manage finances more efficiently. However, the direct effect of fintech utilization on SME development appears relatively weaker, indicating that digital financial services tend to first strengthen financial and operational performance before translating into long-term growth in terms of market expansion, employment, and innovation.

Business performance is found to have a significant positive influence on SME development and serves as a key mechanism through which digital technology utilization generates development benefits. This highlights that digitalization efforts among SMEs will be more impactful when accompanied by managerial capabilities and business strategies that are able to convert improved performance into sustainable growth. Overall, the findings underscore that social media and fintech adoption should not be seen merely as technological upgrades, but as strategic levers that, when managed properly, can strengthen SME competitiveness and support local economic development in regions such as Pekanbaru, Riau.

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Author Contributions (CRediT)

Conceptualization, methodology, and research design, Author 1; data collection and curation, Author 1 and Author 2; formal analysis and visualization, Author 2; writing original draft preparation, Author 1; writing review and editing, Author 2 and Author 3; supervision and project administration, Author 3. All authors have read and approved the final manuscript.

Conflicts of Interest

The authors declare no conflict of interest.

Data Availability

The data supporting the findings of this study are available from the corresponding author upon reasonable request. The dataset is not publicly shared due to confidentiality agreements with participating SMEs in Pekanbaru, Riau, but anonymized data may be provided for non-commercial academic use subject to prior approval and compliance with ethical guidelines.

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