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The Mediating Role of Marketing Orientation in the Relationship between Digitalization, Financial Literacy, and Financial Sustainability: The Moderating Role of Government Support

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Abstract:
This study analyzes the effect of financial digitalization and financial literacy on the financial sustainability of MSMEs, with marketing orientation as a mediating variable and government support as a moderating variable. The study surveyed 162 MSMEs using purposive sampling, and the data were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM) in SmartPLS 4. The results show that financial digitalization has a significant positive effect on marketing orientation (β = 0.337; p = 0.001), while financial literacy does not significantly affect marketing orientation (β = 0.050; p = 0.583). Marketing orientation significantly influences financial sustainability (β = 0.350; p = 0.000) and significantly mediates the effect of financial digitalization on financial sustainability, but does not mediate the effect of financial literacy on financial sustainability. Government support does not significantly moderate either the effect of financial literacy or financial digitalization on marketing orientation. The model explains 32.2% of the variance in marketing orientation and 12.2% in financial sustainability. These findings underscore the importance of integrating digital financial capabilities with customer and competitor analysis to strengthen MSMEs' financial sustainability.

INTRODUCTION

Digital transactions in West Kalimantan increased in the second quarter of 2025, with QRIS usage up 76%, the number of merchants up 22%, and e-commerce transactions up 33.82% (Perwakilan Bank Indonesia Provinsi Kalimantan Barat, 2025). This trend indicates that MSMEs in Pontianak and Singkawang are operating in an increasingly digitized business environment, prompting them to enhance their strategic capabilities and adopt a proactive mindset to ensure business growth. The widespread availability of smartphones and growing internet access in these communities do not automatically translate into meaningful digital adoption. Amid intensifying market competition, this gap underscores the urgency for MSMEs to strengthen their market-oriented strategic capabilities to sustain business growth (Juita et al., 2026).

Although many MSMEs have adopted financial technology, many still struggle to maintain financial sustainability (Putra & Soma, 2025; Damanik et al., 2025; Rohaeni et al., 2026). In this landscape, financial sustainability is no longer just a goal but a survival

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necessity. However, many MSMEs, particularly those in semi-urban and rural areas, continue to face structural barriers, ranging from limited financial access to a lack of awareness regarding institutional support (Tarimo, 2024). Financial digitalization equips MSMEs with valuable resources, such as digital payment and financial applications (Kurniasari et al., 2025; Tandilino et al., 2025; Setiawan et al.,2026). Per the Resource-Based View (Barney, 1991), these resources yield sustainable value only when firms can strategically deploy them as a capability that financial literacy provides by enabling business actors to convert digital financial resources into sound cash-flow and investment decisions (Mahyuzar et al., 2026). Financial literacy provides the essential knowledge and skills for rational decision-making and long-term well-being (Lusardi & Mitchell, 2014; Maulana et al., 2022; Masdupi et al., 2024). Despite its importance, a significant gap remains between the availability of digital tools and MSMEs' capacity to translate these resources into sustainable financial performance.

Previous studies have explored the individual impacts of financial literacy, digitalization, and marketing orientation on business performance. For instance, research has shown that financial digitalization enables MSMEs to build competitive advantages through accurate market insights (Wu et al., 2024; Hussain et al, 2025), while financial literacy is directly linked to innovation and strategic resource allocation (Kulathunga et al., 2020). Furthermore, Kristiawati et al. (2024), who studied MSMEs in Indonesia, found that financial literacy contributes to MSME sustainability through mediating marketing orientation, confirming that strong financial literacy is a crucial asset for developing an effective marketing orientation in small business owners. Marketing orientation yields relevant results in business decision-making, making marketing knowledge essential for understanding a chosen business's orientation (Cuevas-Vargas et al., 2022). Studies by Frimpong et al. (2022) and Thathsarani & Jianguo (2022) suggest that access to digital financial services is associated with improved business efficiency and market reach among MSMEs. However, this construct reflects financial inclusion rather than financial digitalization as defined in this study. Furthermore, Novela et al. (2024) emphasize that digital literacy in small businesses involves integrating technology into production, distribution, and marketing processes, which in turn strengthens entrepreneurs' marketing orientation.

Furthermore, from an institutional theory perspective, government support provides complementary resources, such as market access programs, promotional platforms, digital training, and business mentoring that enable MSME owners to translate their financial knowledge and digital capabilities into concrete, market-oriented strategies. Without such institutional support, financial literacy and financial digitalization may not be fully leveraged because of limited access to market information and promotional channels (Alkahtani et al., 2020).

Nevertheless, limited empirical research has simultaneously examined the mediating role of marketing orientation and the moderating role of government support in linking financial digitalization and financial literacy to financial sustainability. Current literature often presents contradictions regarding the effectiveness of government initiatives, where a persistent gap exists between policy design and field implementation (Istan, 2023).

This study addresses this knowledge gap by proposing an integrative model that positions marketing orientation as a critical bridge between internal capabilities and financial outcomes. This study's novelty lies in developing an integrative model based on the Resource-Based View (RBV). The model highlights financial literacy and digitalization

as knowledge resources and strategic capabilities, and market orientation as a mechanism for converting resources into value, with government support serving as an external factor that reinforces the process. In doing so, this study advances Resource-Based View (RBV) theory by showing how external institutional resources interact with internal dynamic capabilities. This study examines how financial literacy and financial digitalization translate into MSME financial sustainability through market responsiveness, and determines the extent to which government support strengthens this process. Additionally, the study seeks to develop a value-creation mechanism based on MSMEs' internal resources and define policymakers' role in ensuring business sustainability.

Based on the theoretical framework and prior empirical findings, the following hypotheses are proposed:

H1: Financial digitalization positively and significantly influences marketing orientation.
H2: Financial literacy positively and significantly influences marketing orientation.
H3: Marketing orientation positively and significantly influences financial sustainability.
H4: Marketing orientation mediates the influence of financial literacy on financial sustainability.
H5: Marketing orientation mediates the influence of financial digitalization on financial sustainability.
H6: Government support positively moderates the influence of financial literacy on marketing orientation.
H7: Government support positively moderates the influence of financial digitalization on marketing orientation.

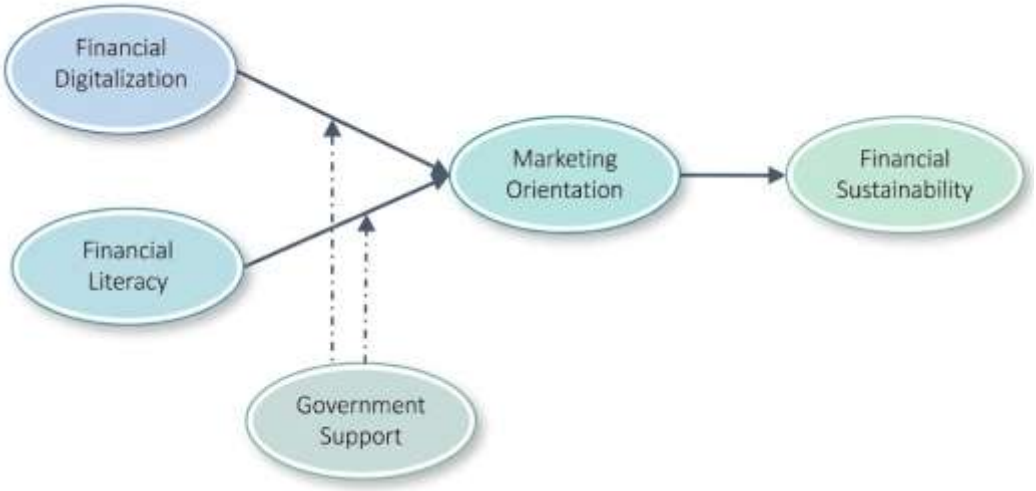


Figure 1. Research Design
Source: Primary Data Processed, 2026

RESEARCH METHODS

This study employed a quantitative approach with a survey method. The target population comprised active MSME entrepreneurs in Pontianak and Singkawang, West Kalimantan, with at least two years of business operations. The study used purposive sampling to ensure respondents had sufficient operational experience to meaningfully evaluate their financial literacy, digitalization practices, and marketing strategies. The sample size was 162 respondents. Data were collected through a structured questionnaire measuring five research variables: financial literacy, financial digitalization, marketing orientation, government support, and financial sustainability.

The variables in this study consist of independent variables, namely Financial Literacy (FL) (4 items) and Financial Digitalization (FG) (5 items); mediating variables, namely Marketing Orientation (MO) (4 items); moderating variables, namely Government Support (GS) (4 items); and dependent variables, namely Financial Sustainability (FS) (5 items). All questionnaire items were measured using a 7-point Likert scale, ranging from strongly disagree (1) to agree (7) strongly. The researchers developed the instrument based on a literature review and adapted it to the context of MSMEs.

The researchers analyzed the data using Partial Least Squares Structural Equation Modeling (PLS-SEM) in SmartPLS 4. PLS-SEM was selected because the study focuses on explaining and predicting the endogenous constructs within a model involving mediation and moderation, while accommodating the characteristics of the available data. The measurement model (outer model) was evaluated using tests of convergent validity, discriminant validity, and reliability. Meanwhile, evaluation of the structural model (inner model) was carried out by examining the R-square value, path coefficient, effect size (f^2), and predictive relevance (Q^2), with the significance of each hypothesized path assessed through a bootstrapping procedure, using a t-statistic ≥ 1.96 and/or p-value ≤ 0.05 as the decision criterion. We tested the moderation effect using a product-term interaction between government support and financial literacy and financial digitalization.

RESULTS AND DISCUSSION

Results

Respondent's Demographic

The demographic characteristics of the respondents are presented to provide an overview of the individuals participating in this study. These characteristics include gender, age, educational background, business type, and years in business. Examining these demographic profiles helps explain respondents' backgrounds and provides context for the research findings. A total of 162 respondents from micro, small, and medium enterprises (MSMEs) participated in this study.

Table 1. Respondent's Demographic Charateristics

Charateristic	Amount	Charateristic	Amount
Gender:		Position MSME:	
Female	95	Pontianak City	89
Male	67	Singkawang City	73
Respondent's Age (Year):		Education:	
20 – 30	27	SMA	60
31 – 40	86	S1	99
41 – 50	49	S2	3
Type of Business:		Long time in business (Year):	
Trade	37	2 – 6	93
Services	36	7 – 11	47
Industry	89	12 – 16	12
		17 – 21	7
		> 21	3

Source: Primary Data Source, 2026

Table 1 indicates that the study involved 162 MSME respondents with diverse demographic and business backgrounds. By gender, female respondents made up the majority (95), compared with males (67). Most respondents were aged 31–40 years (86 respondents), indicating that the sample was predominantly composed of individuals in

their productive working age. Regarding educational attainment, most held a bachelor's degree (S1), with 99 respondents, followed by senior high school graduates (60 respondents) and master's degree holders (3 respondents). In terms of business type, the industrial sector represented the largest proportion (89 respondents), followed by trade (37 respondents) and services (36 respondents). Furthermore, most businesses had been operating for 2–6 years (93 respondents), followed by 7–11 years (47 respondents). Overall, these characteristics indicate that respondents were predominantly female MSME owners or representatives aged 31–40 years, with undergraduate educational backgrounds and businesses operating for 2–6 years. The diversity of these demographic and business characteristics provides a relevant foundation for understanding the respondents' profiles in relation to the research variables.

Validity and Reliability

Evaluation of Measurement Model (Outer Model)

Before interpreting the structural relationships among constructs, we first evaluated the measurement model to establish the research instrument's validity and reliability, ensuring that subsequent structural-model estimates were based on a sound and trustworthy measurement foundation. Testing included convergent validity, discriminant validity, and internal consistency. Table 2 presents are complete test results.

Table 2. Results of Convergent Validity and Reliability Tests

Variable	Cronbach's Alpha	CR (rho_a)	CR (rho_c)	AVE
Financial Digitalization	0,847	0,860	0,890	0,620
Financial Literacy	0,742	0,807	0,836	0,563
Marketing Orientation	0,726	0,743	0,828	0,548
Government Support	0,785	0,782	0,848	0,584
Financial Sustainability	0,792	0,816	0,844	0,521

Source: Data Processing Results (2026)

Table 3a. Discriminant Validity — Fornell-Larcker Criterion

Construct	Financial Digitalization	Government Support	Financial Sustainability	Financial Literacy	Marketing Orientation
Financial Digitalization	0.787				
Government Support	0.187	0.764			
Financial Sustainability	0.237	0.178	0.722		
Financial Literacy	0.434	0.102	0.435	0.751	
Marketing Orientation	0.502	0.220	0.350	0.259	0.740

Source: Data Processing Results (2026)

Table 3b. Discriminant Validity — HTMT Matrix

Construct	Financial Digitalization	Government Support	Financial Sustainability	Financial Literacy	Marketing Orientation	GS x FL
Government Support	0.216					
Financial Sustainability	0.239	0.238				
Financial Literacy	0.553	0.217	0.564			
Marketing Orientation	0.605	0.245	0.403	0.351		
GS x FL	0.180	0.160	0.155	0.328	0.289	
GS x FD	0.540	0.232	0.080	0.171	0.509	0.4

Source: Data Processing Results (2026)

The convergent validity test results indicate that all variables meet the established criteria. The Average Variance Extracted (AVE) values for all variables are above the threshold of 0.50, with the lowest value for Financial Sustainability at 0.521 and the highest for Financial Digitalization at 0.620. This indicates that the indicators used can adequately explain the measured latent constructs. All indicator loadings are also above 0.60, indicating that each item contributes strongly to the variable it represents.

Reliability testing using Cronbach's Alpha and Composite Reliability (rho c) showed satisfactory results. All Cronbach's Alpha values were above 0.70, and Composite Reliability (rho c) values for all variables were above 0.82. Thus, this research instrument has high internal consistency and can be relied upon to measure the intended construct.

Discriminant validity was tested using two approaches: the Fornell-Larcker Criterion and the Heterotrait-Monotrait Ratio (HTMT). Based on the Fornell-Larcker Criterion, the square root of the AVE of each variable (Financial Digitalization: 0.787; Government Support: 0.764; Financial Sustainability: 0.722; Financial Literacy: 0.751; Marketing Orientation: 0.740) was greater than the correlation between the variables. The HTMT results showed that all values were well below the 0.90 threshold, with the highest value being between Marketing Orientation and Financial Digitalization at 0.605. Based on the Fornell–Larcker criterion and the HTMT ratios reported in Tables 3a & 3b, the square root of the AVE for each construct exceeded its correlations with other constructs, and all HTMT values remained below the 0.90 threshold, indicating that each construct achieved discriminant validity.

Structural Model Evaluation (Inner Model)

Structural model evaluation was conducted to measure the predictive power of the model and the significance of the relationships between variables. Marketing orientation had an R^2 of 0.322 (adjusted R^2 = 0.300), indicating that the predictors specified in the structural model jointly explained 32.2% of its variance. Meanwhile, the R-square value for Financial Sustainability was 0.122 (adjusted R-square = 0.117), indicating that marketing orientation explains 12.2% of the variance in MSME financial sustainability. The Q-square values for Marketing Orientation (0.163) and Financial Sustainability (0.013) were both above zero, indicating that the model has adequate predictive relevance.

Table 4. Predictive of Relevance (Q^2)

	Q^2predict	RMSE	MAE
Financial Sustainability	0.013	1.020	0.753
Marketing Orientation	0.163	0.940	0.744

Source: Data Processing Results (2026)

The predictive relevance assessment presented in Table 4 indicates that the model demonstrates different levels of predictive capability across the two endogenous constructs. Financial Sustainability has a Q^2predict value of 0.013, which is greater than zero, indicating predictive relevance, although its predictive capability is relatively weak. Meanwhile, Marketing Orientation has a higher Q^2predict value of 0.163, suggesting greater predictive relevance. Furthermore, the RMSE and MAE values provide additional information regarding prediction errors, with Marketing Orientation exhibiting lower

RMSE (0.940) and MAE (0.744) values than Financial Sustainability (RMSE = 1.020; MAE = 0.753). This indicates that the model generates more accurate predictions for Marketing Orientation than for Financial Sustainability. Overall, the findings suggest that the structural model has predictive relevance for both constructs, but its predictive performance is stronger for Marketing Orientation.

Table 5. Coefficient of Determination (R^2)

	R-square	R-square adjusted
Financial Sustainability	0.122	0.117
Marketing Orientation	0.322	0.300

Source: Data Processing Results (2026)

Table 5 presents the coefficient of determination (R^2) to assess how well the structural model explains variance in the endogenous constructs. The results show that Financial Sustainability has an R^2 of 0.122 and an adjusted R^2 of 0.117. This means that the predictor variables included in the model collectively explain 12.2% of the variance in Financial Sustainability. In comparison, the remaining 87.8% is attributable to other factors outside the proposed research model. The relatively low R^2 suggests that additional factors not incorporated into the model influence Financial Sustainability.

Meanwhile, Marketing Orientation has an R^2 of 0.322 and an adjusted R^2 of 0.300, indicating that the model explains 32.2% of its variance, or 30.0% after adjustment for the number of predictors and sample size. Factors beyond the scope of this study explain the remaining 67.8% of the variance. Based on the commonly applied PLS-SEM assessment criteria, the R^2 values of 0.122 for Financial Sustainability and 0.322 for Marketing Orientation indicate relatively weak explanatory power. Nevertheless, the model demonstrates a comparatively greater ability to explain Marketing Orientation than Financial Sustainability. The small differences between the R^2 and adjusted R^2 values (0.005 and 0.022, respectively) also suggest that the explanatory estimates remain relatively stable after accounting for model complexity. Overall, these findings indicate that the proposed structural model provides a limited but meaningful explanation of the endogenous constructs, particularly Marketing Orientation, while also highlighting the potential contribution of additional explanatory variables in understanding Financial Sustainability.

Direct and Indirect Effect

The direct and indirect effects analysis examines the relationships among the research constructs, both directly and through the mediating role of Marketing Orientation. This analysis also considers the moderating role of Government Support in strengthening or weakening the relationships between the independent variables and Marketing Orientation. Through this assessment, the study aims to identify the direct influence of Financial Literacy and Financial Digitalization on Marketing Orientation, the subsequent influence of Marketing Orientation on Financial Sustainability, and the extent to which Government Support affects these relationships. Figure 2 illustrates the structural model and the corresponding hypothesis-testing results using the PLS-SEM approach.

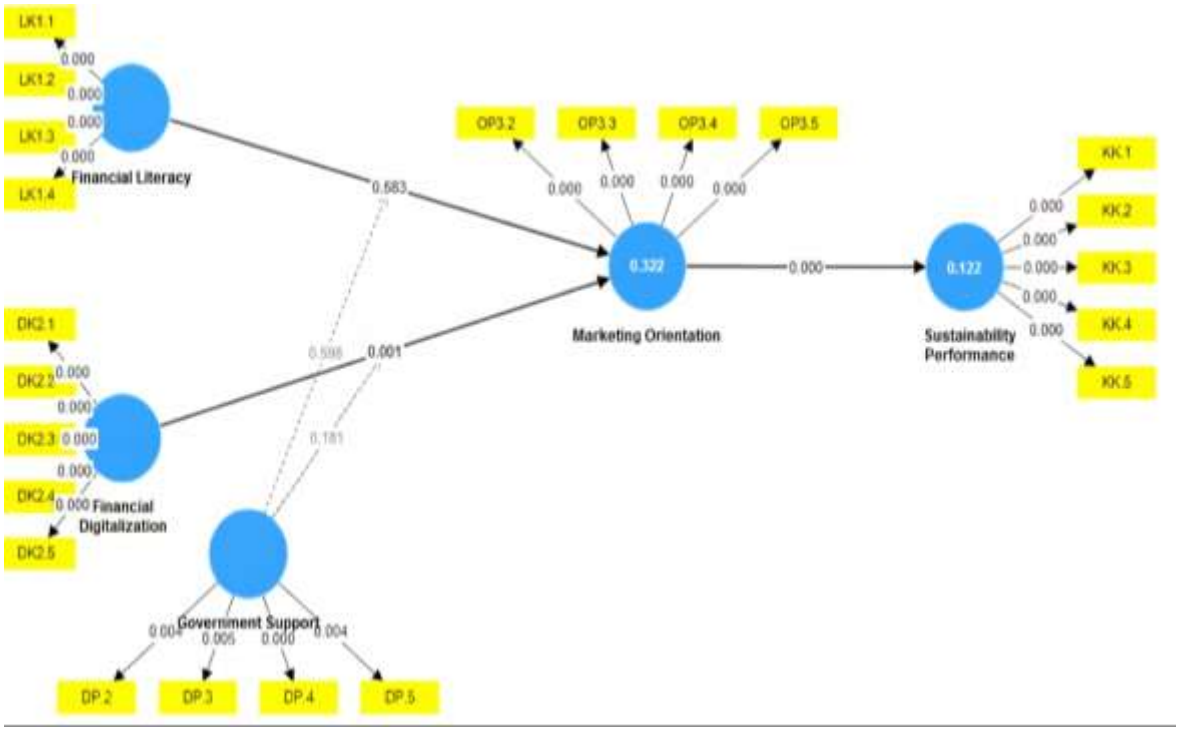


Figure 2. Path Diagram
Source: Primary Data Processed, 2026

The structural model presented in Figure 2 illustrates the relationships among Financial Literacy, Financial Digitalization, Government Support, Marketing Orientation, and Financial Sustainability. The results indicate that Financial Literacy does not have a statistically significant effect on Marketing Orientation, as reflected by a p-value of 0.583, which exceeds the 0.05 significance threshold. This finding suggests that financial literacy alone cannot explain variation in MSMEs' marketing orientation within the proposed model. In contrast, Financial Digitalization demonstrates a statistically significant relationship with Marketing Orientation, with a p-value of 0.001. This result highlights the importance of digital financial practices in supporting MSMEs' marketing orientation.

Furthermore, Marketing Orientation has a statistically significant effect on Financial Sustainability, as indicated by a p-value of 0.000 ($p < 0.001$). This finding suggests that stronger marketing orientation contributes to better financial sustainability among MSMEs. Regarding the moderating effect, Government Support does not significantly moderate the relationship between Financial Literacy and Marketing Orientation ($p = 0.598$), nor does it significantly moderate the relationship between Financial Digitalization and Marketing Orientation ($p = 0.181$). These results indicate that Government Support does not demonstrate a statistically significant moderating role in either relationship. In terms of the model's explanatory power, Marketing Orientation has an R^2 of 0.322, indicating that 32.2% of its variance is explained by the predictors in the model. Meanwhile, Financial Sustainability has an R^2 value of 0.122, suggesting that Marketing Orientation explains 12.2% of the variance in Financial Sustainability. Overall, the findings emphasize the important role of Financial Digitalization and Marketing Orientation in the proposed structural model, while the effects of Financial Literacy and the moderating contribution of Government Support are not statistically supported.

Table 6. Hypothesis Test Results (Path Coefficient)

Hypothesis Path	B	STDEV	T-Statistics	P-Value	Description
Financial Digitalization → Marketing Orientation	0,337	0,101	3,341	0,001	Significant
Financial Literacy → Marketing Orientation	0,050	0,092	0,549	0,583	Not Significant
Marketing Orientation → Financial Sustainability	0,350	0,095	3,694	0,000	Significant
Financial Digitalization → Marketing Orientation → Financial Sustainability	0,118	0,057	2,083	0,037	Significant
Financial Literacy → Marketing Orientation → Financial Sustainability	0,018	0,035	0,502	0,615	Not Significant
Government Support × Financial Digitalization → Marketing Orientation	-0,139	0,103	1,339	0,181	Not Significant
Government Support × Financial Literacy → Marketing Orientation	-0,046	0,088	0,528	0,598	Not Significant

Source: Data Processing Results (2026)

Table 7. Robust Test Results (Path Coefficient)

Description	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values
Financial Digitalization -> Marketing Orientation	0.36	0.376	0.1	3.605	0
Financial Literacy -> Marketing Orientation	0.219	0.217	0.1	2.193	0.028
Marketing Orientation -> Financial Sustainability	0.375	0.399	0.084	4.481	0
QE (Marketing Orientation) -> Financial Sustainability	0.016	0.025	0.067	0.236	0.813
QE (Financial Literacy) -> Marketing Orientation	0.084	0.069	0.064	1.324	0.186
QE (Financial Digitalization) -> Marketing Orientation	-0.066	-0.048	0.072	0.922	0.357

Source: Data Processing Results (2026)

Table 6 presents the direct, indirect, and moderating effects of the proposed model. The results demonstrate that Financial Digitalization has a positive and significant effect on Marketing Orientation (β = 0.337; p = 0.001), while Financial Literacy has no significant effect (β = 0.050; p = 0.583). Furthermore, Marketing Orientation positively influences Financial Sustainability (β = 0.350; p < 0.001). Regarding indirect effects, Marketing Orientation significantly mediates the relationship between Financial Digitalization and Financial Sustainability (β = 0.118; p = 0.037), but does not mediate the relationship between Financial Literacy and Financial Sustainability (β = 0.018; p = 0.615). Government Support also shows no significant moderating effect on either relationship. These findings highlight Financial Digitalization as an important determinant of Marketing Orientation, while Marketing Orientation serves as a significant mechanism through which digital financial practices contribute to MSME Financial Sustainability.

Table 7 presents the robustness test results, providing additional evidence of the relationships examined in the main model. Financial Digitalization (β = 0.360; p < 0.001) and Financial Literacy (β = 0.219; p = 0.028) both show positive, significant effects on Marketing Orientation. Marketing Orientation also maintains a positive and significant effect on Financial Sustainability (β = 0.375; p < 0.001). However, the estimated quadratic effects (QE) are statistically insignificant across all three relationships (p > 0.05), indicating insufficient evidence of nonlinear effects. Notably, Financial Literacy becomes significant

in the robustness model, in contrast to its insignificant result in the main model. This suggests that the relationship between Financial Literacy and Marketing Orientation is sensitive to model specification. Overall, the robustness results reinforce the importance of Financial Digitalization and Marketing Orientation, while indicating that the contribution of Financial Literacy requires further investigation.

Discussion

The Influence of Financial Digitalization on Marketing Orientation

The test results show that financial digitalization has a positive and significant effect on marketing orientation, with a path coefficient value of β = 0.337, T-statistic = 3.341, and p-value = 0.001 ($p < 0.05$). Thus, H1 is accepted. This finding indicates that the higher the level of financial digitalization utilization by MSME entrepreneurs, the stronger the marketing orientation developed. The effect size ($f^2 = 0.101$) indicates a moderate effect, suggesting that financial digitalization is a meaningful organizational capability through which MSMEs can strengthen market-oriented decision-making and responsiveness.

This finding aligns with Burhanuddin et al. (2026), who stated that the digital financial ecosystem (including online payments and digital banking) is fundamentally reforming how MSMEs operate by creating efficiency, transparency, and evidence-based decision-making. When MSMEs master digital financial platforms, from electronic payments and marketplaces to digital banking services, they gain access to more comprehensive transaction data. Gu et al. (2024) found that inclusive digital finance significantly boosts MSME innovation activities. They can then use this data to identify consumer behavior patterns, expand market reach, and design more targeted marketing strategies. Financial digitalization is fundamentally more than just a transaction tool; it is also a strategic information resource that drives a more adaptive and responsive marketing orientation to changes in the business environment.

The Influence of Financial Literacy on Marketing Orientation

The second hypothesis test yielded a β value of 0.050, a T-statistic of 0.549, and a p-value of 0.583, far exceeding the significance threshold of 0.05. Thus, H2 was rejected, indicating that financial literacy did not significantly influence MSME marketing orientation.

This insignificance can be explained through several perspectives. While financial literacy is an important foundation for financial decision-making, translating financial understanding into concrete marketing strategies requires additional managerial capacity, which MSME entrepreneurs do not always possess. Furthermore, for MSMEs in the region, marketing orientation is more influenced by direct operational factors such as market access, distribution networks, and digital capabilities than by a thorough understanding of financial concepts. The findings are in line with Atkinson & Messy (2012) that financial literacy may require a longer internalization time before being realized in strategic decisions such as marketing orientation. This suggests that the insignificant effect may reflect a time lag and is not caused by a lack of financial knowledge among MSME entrepreneurs.

The Influence of Marketing Orientation on Financial Sustainability

Marketing orientation has a positive and significant effect on the financial sustainability of MSMEs, with a β value of 0.350, T-statistic = 3.694, and p-value = 0.000.

H3 is accepted. The effect size $f^2 = 0.139$ places this influence in the medium category, confirming that marketing orientation plays a substantive role in encouraging the financial sustainability of MSMEs.

These findings reinforce Ahimbisibwe et al. (2025) and Zaman et al. (2025) conceptualization that market-oriented organizations consistently deliver superior sustainability and performance by aligning product offerings with actual consumer needs. MSME entrepreneurs who actively monitor market trends, respond to changing consumer preferences, and identify competitive gaps can maintain stable revenues and optimize financial resource allocation. Wahyono & Hutahayan (2021) research specifically examined the influence of market orientation, learning orientation, and financial literacy on innovation and knowledge competency, finding that all three reinforce each other in shaping MSME strategic capacity. Marketing orientation also helps diversify revenue sources, reduce dependence on a single market segment, and increase resilience to economic shocks.

These findings suggest that marketing orientation functions as a transmission channel through which financial digitalization contributes to financial sustainability. Tariq et al. (2026) support this, finding a relationship between digital governance and financial sustainability. Given the significant component paths observed in both the digitalization–orientation and orientation–sustainability relationships, this pattern points to the practical relevance of strengthening marketing capabilities alongside digital financial adoption.

The Mediating Role of Marketing Orientation between Financial Digitalization and Financial Sustainability

The specific indirect effect of financial digitalization on financial sustainability through marketing orientation was tested directly via bootstrapping and found to be statistically significant ($\beta = 0.118$, SE = 0.057, $t = 2.083$, $p = 0.037$). This result confirms that marketing orientation mediates the effect of financial digitalization on financial sustainability, consistent with the significant component paths from financial digitalization to marketing orientation ($\beta = 0.337$, $p = 0.001$) and from marketing orientation to financial sustainability ($\beta = 0.350$, $p = 0.000$). This pattern is consistent with Octavina & Rita (2021), who found that payment gateway-based fintech and digital marketing significantly affect MSME financial performance. This suggests that optimal use of digital financial technology must be supported by stronger marketing capabilities to translate into long-term financial sustainability.

The Mediating Role of Marketing Orientation between Financial Literacy and Financial Sustainability

We tested the specific indirect effect of financial literacy on financial sustainability through marketing orientation using bootstrapping and found it non-significant ($\beta = 0.018$, SE = 0.035, $t = 0.502$, $p = 0.615$). This result confirms that marketing orientation did not mediate the relationship between financial literacy and financial sustainability, consistent with the non-significant direct effect of financial literacy on marketing orientation ($\beta = 0.050$, $p = 0.583$). This finding diverges from Sakti et al. (2025), who reported that financial literacy influences marketing intensity among Indonesian MSMEs, with marketing intensity acting as a partial mediator between financial literacy and MSME productivity, and from Kristiawati et al. (2024), who found that financial literacy contributes to MSME sustainability through the mediation of marketing orientation. This

divergence suggests that the pathway through which financial literacy translates into market-oriented behavior may be more context-dependent than previously assumed, warranting further investigation into moderating conditions, such as business scale, sector, or digital readiness that could explain why this mechanism held in prior studies but not within the present sample.

The Moderating Role of Government Support on the influence between Financial Digitalization and Marketing Orientation

Testing the moderating effect of government support on the relationship between financial digitalization and marketing orientation yielded β = -0.139, T-statistic = 1.339, and p-value = 0.181; H5 was likewise rejected. As with H4, this negative but non-significant coefficient does not provide evidence that government support weakens the translation of financial digitalization into marketing orientation. A more plausible explanation lies in the uneven distribution and accessibility of government support programs. As Saputra (2025) notes, inconsistent access to digitalization-related assistance across regions may make the government support construct insufficiently homogeneous across respondents to produce a consistent, statistically detectable moderating effect.

The Moderating Role of Government Support on the influence between Financial Literacy and Marketing Orientation

Testing the moderating effect of government support on the relationship between financial literacy and marketing orientation yielded β = -0.046, T-statistic = 0.528, and p-value = 0.598; H4 was therefore rejected. This non-significant result indicates that government support did not reliably strengthen or weaken the effect of financial literacy on marketing orientation within this sample. Although the interaction coefficient was negative, it should not be read as evidence that government-support recipients have lower marketing orientation, since it did not reach statistical significance. One plausible explanation is that MSME entrepreneurs who rely heavily on government assistance may reduce their independent initiative in developing marketing strategies grounded in their own financial knowledge; however, this subsidy-dependence mechanism remains speculative and would require dedicated empirical testing rather than inference from a non-significant interaction term. This finding is consistent with Hossain et al. (2023), who found that government support did not moderate the relationship between finance, financial literacy, and small-firm growth, a result they attributed to the weak and uneven distribution of government support programs.

CONCLUSION

This study concludes that Financial Digitalization positively and significantly affects Marketing Orientation, which in turn enhances MSMEs' Financial Sustainability. Marketing Orientation significantly mediates the relationship between Financial Digitalization and Financial Sustainability, indicating that digital financial capabilities generate greater business value when translated into market-oriented strategies. In contrast, Financial Literacy does not significantly influence Marketing Orientation or indirectly contribute to Financial Sustainability through this mechanism. Government Support also shows no significant moderating effect on either relationship. Theoretically, these findings reinforce Marketing Orientation's role as a mediating mechanism linking digital financial capabilities with MSME sustainability. Practically, MSME owners should

integrate digital financial adoption with adaptive marketing strategies, while policymakers should strengthen digital capacity-building through financial technology training, mentoring, and market development initiatives. Nevertheless, this study is limited by its cross-sectional design, self-reported questionnaire data, and relatively small sample of 162 MSME respondents, which may constrain causal interpretation and generalizability. Future research should employ longitudinal designs, larger and more representative samples, and objective financial indicators. Further investigation should also distinguish between dimensions of Government Support, such as financial assistance, regulatory facilitation, training, and institutional mentoring, while considering additional organizational and external factors that may influence MSME Financial Sustainability.

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CONFLICTS OF INTEREST

The authors declare that they have no known financial or non-financial conflicts of interest that could have influenced the research, analysis, or publication of this article.

USE OF ARTIFICIAL INTELLIGENCE (AI)-ASSISTED TECHNOLOGY

During the preparation of this manuscript, the authors used ChatGPT (OpenAI) and Grammarly to assist with language refinement, grammatical correction, and improvement of academic writing clarity. AI-assisted technology also supported the refinement and presentation of research interpretations based on the data and findings provided by the authors. The authors critically reviewed, verified, and revised all AI-assisted outputs. The authors take full responsibility for the accuracy, originality, integrity, and final content of this manuscript.

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