

The Role of Financial Access, Digital Literacy, and Innovation in Enhancing the Competitiveness of MSMEs in South Kalimantan

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ABSTRACT

This study aims to analyze and empirically measure the impact of Financial Access, Digital Literacy, and Innovation on the Competitive Advantage of Micro, Small, and Medium Enterprises (MSMEs) in South Kalimantan Province. Amidst the regional economic dominance of the capital-intensive mining sector, strengthening MSME competitiveness serves as a foundational pillar for sustainable and inclusive economic growth. Employing a quantitative approach, this research utilized Multiple Linear Regression analysis via SPSS 25 software. Data were gathered through structured hybrid questionnaires distributed proportionally across various regencies and cities, with a total of 100 valid MSME respondents determined using the Slovin formula. The classical assumption tests including normality, multicollinearity, and heteroscedasticity tests confirmed that the regression model was stable and valid for parametric statistical analysis. The simultaneous F test results demonstrated that financial access, digital literacy, and innovation collectively exert a significant influence on MSME competitiveness. However, partial t test evaluation revealed distinct dynamics among the variables. Financial Access and Digital Literacy did not significantly affect MSME competitiveness individually, as local enterprises still face structural constraints in formal financing and optimized technology adoption. In contrast, Innovation emerged as the sole dominant and highly significant driver of competitive advantage. These findings suggest that regional policy interventions should heavily prioritize fostering product, process, and operational innovation to unlock optimal competitive capabilities among local MSMEs and support regional economic development.

Keywords: *Financial Access, Digital Literacy, Innovation, MSME Competitiveness, South Kalimantan.*

1. INTRODUCTION

Micro, Small, and Medium Enterprises (MSMEs) hold a crucial role and serve as the main backbone of Indonesia's economic structure due to their capacity to absorb labor, drive regional economic growth (Devi & Rusma Maulidasari, 2020), and reduce poverty rates (Ismail et al., 2023). This strategic contribution of MSMEs is closely tied to the inclusive economic development paradigm, which aims to broadly distribute welfare and narrow inequality gaps between social groups (Asyrof & Rizaldi, 2025). At the regional level, South Kalimantan Province has a strong urgency to strengthen this people-based economic sector. To date, the economic structure of South Kalimantan has been dominated by the mining sector, which recorded a contribution to the Gross Regional Domestic Product (GRDP) at Current Prices of 29.47%. However, this capital-intensive sector is only able to absorb 4.89% of the local workforce and has weak linkages with other domestic industrial sectors. Therefore, strengthening MSME competitiveness is positioned as the primary foundation for creating stability, more evenly distributed employment, and sustainable regional economic independence (Ardheta et al., 2026).

Although South Kalimantan Province has recorded a positive economic growth trend, averaging 4.62%, this growth is considered not yet fully inclusive due to persistently high poverty rates in most regencies/cities. On the other hand, the real

potential of the MSME sector in this region is massive, with data recording 507,230 micro enterprises, 2,201 small enterprises, and 335 medium enterprises spread across various areas (Koran Banjar Net, 2025). MSME activity even showed growth of 12% in the first quarter of 2025, with the culinary and local-culture-based handicraft sectors as the fastest-growing subsectors (DPMPSTP Kota Banjarbaru, 2025). According to the Regional Development Planning Agency of South Kalimantan, leading products such as local-culture-based handicrafts, culinary products, and local food spread across 13 regencies/cities represent the region's primary capital for achieving the inclusive growth target of 8%. However, this great potential has not yet been matched by optimal competitive advantage in the market, as most local MSME actors still face significant challenges in surviving and developing.

MSME competitiveness is defined as the ability of small and medium-scale business entities to compete effectively with other businesses, both in domestic and international markets (Akhmad & Purnomo, 2021). The low competitiveness of MSMEs in South Kalimantan Province is driven by several structural issues, one of which is the lack of financial access. Many business actors face difficulties in obtaining formal capital financing, which ultimately leads to business development stagnation (Delfira et al., 2025), limitations in modernizing equipment, and barriers to expanding production scale (Ibrahim, 2025). This problem is compounded by the low utilization and mastery of digital literacy among MSME actors (Permadi et al., 2025). The lack of skills and technical understanding regarding online sales procedures makes it difficult for most MSMEs to effectively adopt digital technology (Isalman et al., 2022), causing them to lose significant opportunities offered by the digital economy ecosystem to compete in online markets. In addition to capital and technology constraints, limitations in innovation are also a major obstacle (P. L. Putri & Widadi, 2024). Concerns about financial risk and low digital literacy cause MSME actors to restrain their innovation activities (Huda et al., 2023), even though developing innovation—whether in the form of new products, production process improvements, or business creativity—is essential for increasing business competitiveness and sustaining the business.

Given these conditions, this research becomes very important for precisely understanding and measuring the extent to which these internal factors influence the competitiveness of business actors in the field. This research uses a quantitative approach with Multiple Linear Regression Analysis through SPSS software. This regression approach was chosen because it can evaluate cause-and-effect relationships linearly, making it possible to determine which variable among Financial Access (X1), Digital Literacy (X2), and Innovation (X3) provides the most significant contribution to increasing MSME Competitiveness (Y). By using the linear regression function, the results of this analysis can provide a strong empirical basis for local governments in formulating intervention program priorities, particularly to support the food sector as well as downstream processing and industrialization. The object of this research is focused on the influence of financial access, digital literacy, and innovation on competitiveness, with the subject being MSME actors distributed proportionally across the 13 Regencies/Cities of South Kalimantan Province, in order to obtain comprehensive and representative data for regional policy.

2. LITERATURE REVIEW

Financial access is defined as the availability, ease, and affordability of formal financial services for business actors to support their operational and investment activities (Bank, 2020). Financial access is needed to enhance the capability of MSMEs to innovate and adapt to changes in the business environment. Difficulty in accessing formal capital financing is one of the constraints faced by MSMEs (Risnawati, 2019). Based on the Resource-Based View (RBV) proposed by (Barney, 2015), financial capital is one of the crucial internal strategic resources for firms to create competitive advantage. The availability of adequate capital enables MSMEs to expand production scale, purchase modern machinery, improve raw material quality, and maintain cash flow stability against market uncertainty risks. Empirically, limited access to formal financial institutions is often a major barrier that halts MSME growth in developing countries. Research by (Beck & Demirgüç-Kunt, 2004) shows that financial constraints have a worse impact on the growth and competitiveness of small firms compared to large firms. In the domestic context, (Tambunan, 2022) explains that ease of financing procedures and affordable interest rates directly increase the adaptive capacity of MSMEs to market dynamics. When MSMEs obtain stable access to capital, they have the flexibility to execute aggressive business strategies, which in turn boosts the competitive advantage of their products in the market (Karlan & Zinman, 2011).

H1: Financial Access (X1) has a positive and significant partial effect on MSME Competitiveness (Y).

In the digital era, business actors also need digital literacy to wisely access economic information and make profitable decisions (Firmansyah & Dede, 2022) (Zahro, 2020). Digital literacy refers to the skills, knowledge, and mental readiness of business actors in adopting and optimizing digital technology to run business processes efficiently (Lucas Schafer et al.,

2023). In the digital economy era, the ability to manage digital information is a form of Dynamic Capabilities (Teece et al., 1997), in which firms must continuously update their internal capacity to align with rapidly changing external environments. MSME actors with a high level of digital literacy are able to utilize e-commerce platforms, social media, and digital payment systems (such as QRIS) to expand their market reach without geographical barriers. Research conducted by (Tarutė & Gatautis, 2014) confirms that investment and proficiency in the utilization of information and communication technology have a direct impact on improving cost efficiency, responsiveness to consumer needs, and MSME marketing performance. MSMEs that successfully digitalize experience revenue growth up to twice as fast compared to conventional businesses. Digital literacy helps business actors cut long distribution chains, reduce marketing operational costs, and build more intensive interactions with customers, thereby creating loyalty that strengthens business competitiveness (Widayanto & Nafis, 2025).

H2: Digital Literacy (X2) has a positive and significant partial effect on MSME Competitiveness (Y).

Innovation is defined as an organization's ability to transform creative ideas into new products, processes, or marketing methods that provide added value for consumers. Digital marketing innovation, as a crucial strategy, involves promoting products and services through various digital platforms, including social media, websites, and mobile applications, with the aim of reaching a wider audience and increasing brand visibility (Harini et al., 2022) (Haryanto et al., 2022), including strengthening relationships with customers (S. T. O. Putri & Sulaeman, 2022). According to (Porter & Linde, 1995) in their theory of Competitive Advantage, a firm can win market competition through two main strategies: cost leadership or product differentiation. Innovation acts as the main driver of this differentiation strategy. MSMEs that consistently modify product variations, update packaging designs, or improve packaging methods will more easily attract market attention and avoid the trap of monotonous product commoditization.

The development of innovation has a significant influence in enhancing the competitiveness of food MSMEs (Sunaryo, 2020). The results show that innovation in woven craft art through a local wisdom-based approach can give products high added value in South Kalimantan (Rusmania et al., 2022). Innovation is an important part of sustaining business, particularly in the MSME sector (Suhariyanto, 2023). A touch of local wisdom-based innovation in craft products or processed regional food has proven capable of exponentially increasing sales value (Achmad & Wiratmadja, 2025). By creating uniqueness that is difficult for competitors to replicate, innovation capacity absolutely becomes the determining factor for the high or low level of MSME competitive advantage.

H3: Innovation (X3) has a positive and significant partial effect on MSME Competitiveness (Y).

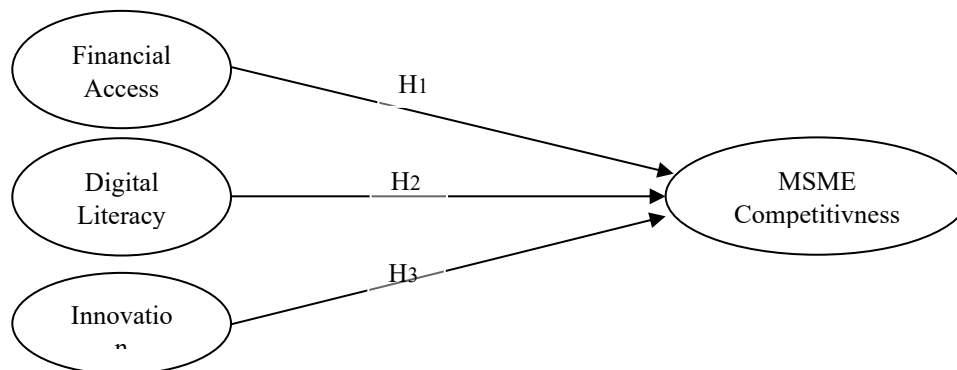


Figure 1. Conceptual Framework

3. RESEARCH METHODS

3.1. Research Design

This study employs a quantitative research design using multiple linear regression analysis to identify the factors influencing MSME competitiveness in South Kalimantan. Multiple regression was chosen because it allows for the evaluation of both the simultaneous and partial impacts of several independent variables on a single dependent variable. The

research model includes three independent variables—Financial Access, Digital Literacy, and Innovation—with MSME competitiveness as the dependent variable. In applying multiple regression analysis, classical assumption tests and tests of the relationships between variables were conducted.

3.2. Population, Sample, and Data Collection

The population in this study consists of all Micro, Small, and Medium Enterprise (MSME) actors actively operating in the 13 Regencies/Cities of South Kalimantan Province. The sampling technique used is non-probability sampling with a purposive sampling approach. The respondent criteria used in this study are: the MSME is active, the MSME has an owner or manager directly involved in business decision-making, and the MSME has been conducting sales activities on a regular basis. The recorded number of small and medium MSMEs in South Kalimantan is 2,536 units (2,201 small enterprises + 335 medium enterprises), and with a margin of error of 10%, the calculation is as follows:

$$n = \frac{2.536}{1 + 2.536(0,10)^2} = 96,20$$

The figure of 100 respondents was determined based on the calculation of the Slovin Formula with a margin of error of 10% of the total population of small and medium-scale MSMEs in South Kalimantan, resulting in a calculation of 96.20, which was rounded up to 100. This is reinforced by the theory of (Hair et al., 2021), which states that the ideal sample size for multiple linear regression ranges between 15 and 20 respondents per independent variable, so that a sample of 100 respondents is considered more than adequate to produce a stable regression model in SPSS 25. This study involves three types of variables measured using a 5-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree). Data collection was carried out through the distribution of structured questionnaires in a hybrid format, namely using an online questionnaire via Google Form as well as the distribution of printed questionnaires directly to MSME actors in the field.

3.3. Classical Assumption Tests

Classical assumption tests were conducted to determine whether the regression model is appropriate. The classical assumption tests in this study include the normality test, the multicollinearity test, the heteroscedasticity test, and the autocorrelation test, to ensure that the regression model meets the following requirements needed for statistical assumption testing:

a) Normality test. This test uses the Kolmogorov–Smirnov test to examine whether the existing residuals are normally distributed. If the p-value is greater than 0.05, the data is considered to be normally distributed.

b) Multicollinearity test. Multicollinearity is evaluated using the Variance Inflation Factor (VIF) and Tolerance values. A VIF value of less than 10 and a Tolerance value greater than 0.1 indicate that there is no multicollinearity among the independent variables. VIF is calculated as the inverse of Tolerance, where Tolerance represents the proportion of variance of a variable that is not explained by the other independent variables. A low Tolerance (and thus a high VIF) indicates that the variable is highly correlated with other variables, which indicates multicollinearity.

c) Heteroscedasticity test. The heteroscedasticity test uses the Glejser test. If the significance value (Sig.) is greater than 0.05, it can be concluded that there is no heteroscedasticity in the regression model.

3.4. Variables, Measurement, and Model Specification

This study uses multiple linear regression analysis to examine the factors that influence the performance of Micro, Small, and Medium Enterprises (MSMEs) during periods of crisis. The variables and their respective measurements, as well as the regression model specification, are described below. The operational definitions used in this study are presented as follows:

Table 1. Operational Definitions of Variables

Variable	Indicator	Source
Financial Access	Availability of Financial Services	(Kame Babilla, 2023)
	Ease of Financing Procedures	

	Ease of Payment Access	
	Affordability of Costs	
	Use of Financial Products	
	Suitability of Products with MSME Needs	
Digital Literacy	Digital Knowledge	(Ilyas et al., 2025)
	Digital Skills	
	Use of Technology for Marketing and Sales	
	Understanding of Digital Security (data and transactions)	
	Openness to New Technology	
	Readiness to Adopt Digital Technology	
Innovation	Innovation in the Form of New Product Development	(Carrasco-Carvajal et al., 2023); (Widayanto & Nafis, 2025)
	Innovation to Improve Product Quality	
	Innovation / Improvement of Production Processes	
	Marketing Innovation	
	Innovation in Organizational Management	
	Business Creativity	
MSME Competitiveness	Product Superiority (Differentiation)	(Andarini et al., 2023)
	Marketing Performance	
	Cost Efficiency	
	Resource Management	
	Speed of Response to Market Adjustments (consumer needs)	
	Business Sustainability (Ability to survive and develop)	

Source: Processed data, 2025

4. RESULTS AND DISCUSSIONS

4.1. Respondent Characteristics

Analysis of the respondent characteristics data shows that the distribution of operational areas of business actors is dominated by the City of Banjarmasin with a contribution of 31%, followed by Tanah Bumbu Regency (15%) and the City of Banjarbaru (12%), while the rest are spread across various other regencies in South Kalimantan. In terms of business sector, the Culinary as well as Food and Beverage industry is the most dominant sector with a percentage reaching 41%, followed by the Trading or Reseller sector at 24%, Services at 10%, and the Creative Industry or local MSMEs at 8%. In terms of operational duration, the majority of businesses are classified as active and developing, with a business age ranging between 4–5 years (26%) and 1–3 years (22%), although there is also a group of senior businesses that have survived for more than 10 years, accounting for 17%.

In terms of business capacity scale, the respondent profile is dominated by a micro-enterprise structure. This is confirmed by the number of employees, where 82% of businesses employ only 1–4 people, while the small business category (5–19 people) accounts for only 15%. In line with this workforce scale, the monthly revenue capacity of these business actors is mostly at a level below Rp5,000,000 (43%) and in the range of Rp5,000,000 to Rp25,000,000 (42%). This limited economic scale also correlates with the capital structure used, where 79% of respondents still rely entirely on their own capital, while access to external financing such as bank loans (12%) or non-bank institutions and fintech (7%) remains relatively low. On the other hand, the level of digital technology adoption among business actors shows a fairly positive trend toward digitalization. As many as 49% of respondents have actively utilized social media as a marketing instrument, and 23% of them have even integrated digital systems for bookkeeping or payment operations. Nevertheless, the structural challenges faced by these business actors are still quite significant, particularly in terms of legality and legal formality. This is reflected in the high proportion of business actors who do not yet have any official business legality at all, reaching 48%, while the rest have either obtained a Business Identification Number (23%) or a combination of other forms of legality (25%).

4.2. Validity and Reliability Test

The data validity test is used to determine whether the questionnaire data used in this study are valid and reliable. In this test, the calculated r value is obtained and compared with the r table value. With a degree of freedom (df) of 98 and a significance level (α) of 0.05, the r table value is 0.196. Table 2 presents the results of the validity and reliability tests for the questionnaire data. A data item is considered valid if the calculated r value $>$ r table. The results show that all questionnaire items for each variable have an r value $>$ 0.196, indicating that the data is valid for use in this study. The data reliability test is used to determine whether the available data can be trusted and remains consistent or stable over time, such as respondents' answers to questionnaire statements. The reliability test results for the questionnaire data show that the Cronbach's Alpha value for each variable in this study is $>$ 0.60.

Table 2. Validity and Reliability Test Results

Variable	Statement	R	Result	CA	Result
Financial Access (X1)	The location of official financial institutions or their application networks is easy to find and access	0.809	Valid	0.889	Reliable
	The required documents and loan application process are easy	0.764	Valid		
	Ease of access to official non-cash payment facilities (such as QRIS or mobile banking)	0.852	Valid		
	The interest rates, administrative fees, or profit-sharing schemes set by official financial institutions are suitable for MSME business profits	0.765	Valid		
	Actively uses a bank account or official financing services	0.761	Valid		
	Official financial institutions provide options suited to the scale of MSMEs	0.862	Valid		
Digital Literacy (X2)	Use of social media or applications for business promotion	0.927	Valid	0.958	Reliable
	Skilled in operating digital technology to support business needs	0.881	Valid		

	Knows how to secure the business's digital accounts	0.940	Valid		
	Utilizes digital technology for marketing and sales	0.919	Valid		
	Interested and willing to try new technology or applications to advance the business	0.874	Valid		
	The business continues to change, and adjustment to technological developments is required	0.922	Valid		
Innovation (X3)	Regularly introduces updates to business products	0.903	Valid	0.962	Reliable
	Monitors and improves product quality to maintain standards	0.938	Valid		
	Listens to customer feedback and suggestions for improvement	0.925	Valid		
	Regularly updates sales strategies to attract customers and expand market reach	0.941	Valid		
	Implements new, more efficient ways of managing internal business operations	0.880	Valid		
	Quickly seeks alternative solutions when facing business problems	0.919	Valid		
MSME Competitiveness (Y)	The business has added value or appeal that is superior to competitors	0.858	Valid	0.959	Reliable
	The sales strategies implemented have produced satisfactory results	0.921	Valid		
	Able to manage and control business expenses well and efficiently	0.931	Valid		
	Manages business resources optimally	0.945	Valid		
	Quickly adapts to trends or changing customer preferences	0.919	Valid		
	Optimistic that the business will continue to run stably in the long term	0.901	Valid		

Source: Processed data, 2026

Table 3. Normality Test with Kolmogorov-Smirnov.**One-Sample Kolmogorov-Smirnov Test**

			Unstandardized Residual
N			100
Normal Parameters ^{a,b}	Mean		.0000000
	Std. Deviation		2.16093452
Most Extreme Differences	Absolute		.109
	Positive		.053
	Negative		-.109
Test Statistic			.109
Asymp. Sig. (2-tailed)			.005 ^c
Monte Carlo Sig. (2-tailed)	Sig.		.173 ^d
	99% Confidence Interval	Lower Bound	.163
		Upper Bound	.183

a. Test distribution is Normal.

b. Calculated from data.

c. Lilliefors Significance Correction.

d. Based on 10000 sampled tables with starting seed 2000000.

The Monte Carlo Sig. (2-tailed) value shows a figure of 0.173. Because this Monte Carlo significance value is far greater than the 0.05 threshold ($0.173 > 0.05$), it can be concluded that the regression model satisfies the classical assumption of normality, which means that the residual values in this study are normally distributed and valid for use in subsequent parametric statistical analysis.

Table 4. Multicollinearity Test Results.

Model		Collinearity Statistics	
		Tolerance	VIF
	(Constant)		
	Financial Access	0.307	3.256
	Digital Literacy	0.144	6.921
	Innovation	0.147	6.813

a. *Dependent Variable: MSME Competitiveness*

All independent variables in this study are declared free from symptoms of multicollinearity, as they satisfy the required thresholds. All variables have a Tolerance value above 0.10 and a VIF value far below 10, so it can be concluded that there is no high correlation or disruption in the relationships among the independent variables, meaning this regression model is valid and reliable for testing its influence on the dependent variable, MSME Competitiveness.

Table 5. Heteroscedasticity Test Results.

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.880	0.530		3.544	0.001
	Financial Access	-0.062	0.039	-0.289	-1.587	0.116

	Digital Literacy	0.036	0.052	0.180	0.680	0.498
	Innovation	0.016	0.052	0.080	0.303	0.762

a. Dependent Variable: Abs_RES

The heteroscedasticity test is used to examine whether the data used to construct the regression model has a constant variance in its residuals. In this study, the test was conducted by analyzing the data distribution using the Glejser test. A good regression model is indicated by a significance value greater than 0.05.

The coefficient of determination, commonly referred to as the Adjusted R-Squared (Adj. R²), is a simple and frequently used measure to assess the quality of the regression line equation. This coefficient is used to determine the correlation and relationships between variables in the regression model, as well as to evaluate the accuracy of regression predictions based on sample data. The coefficient of determination value for this study is presented below.

Table 6. The Value of the Multiple Determination Coefficient

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.928a	.861	.856	2.194

a. Predictors: (Constant), Innovation, Financial Access, Digital Literacy b. Dependent Variable: MSME Competitiveness

Table 6 presents the calculation results of the multiple coefficient of determination in this study. As shown in Table 6, the coefficient of determination is based on the Adjusted R² value. The Adjusted R² in this study is 0.861, indicating that the independent variables (financial access, digital literacy, and innovation) explain 86.1% of the variance in the dependent variable (MSME competitiveness).

Table 7. ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2851.666	3	950.555	197.392	.000b
	Residual	462.294	96	4.816		
	Total	3313.960	99			

a. Dependent Variable: MSME Competitiveness

b. Predictors: (Constant), Innovation, Financial Access, Digital Literacy

The F test in this study was conducted to determine whether the independent variables collectively have a significant effect on the dependent variable. To determine the significance of the influence among the variables, the calculated F value is compared with the F table value. The critical F value is obtained using a significance level (α) of 0.05, with degrees of freedom for the regression (df_1) = 3 and degrees of freedom for the residual (df_2) = 96, resulting in an F table value of 2.70. Because the calculated F value (197.392) is greater than the F table value (2.70), it can be concluded that the independent variables have a significant simultaneous effect on the dependent variable, namely MSME competitiveness. This conclusion is consistent with the criterion stating that a significant effect exists if the calculated F value exceeds the F table value. In addition, the significance value obtained ($p = 0.000$) is smaller than the significance threshold of 0.05, further reinforcing that the independent variables collectively have a significant effect on the dependent variable.

Table 8. Results of the t-test.

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		

1	(Constant)	2.441	.942		2.591	.011
	Financial Access	.038	.070	.038	.547	.585
	Digital Literacy	.150	.093	.162	1.614	.110
	Innovation	.687	.092	.746	7.494	.000

a. Dependent Variable: MSME Competitiveness

The t-test was conducted to determine whether the independent variables have a significant partial effect on the dependent variable in the regression equation model. The results of the t-test in this study are presented in Table 8. The t-test results are based on the t table value and its significance value. The calculated t value is compared with the t table value, and the significance value is compared with the standard significance level. If the calculated t value is greater than the t table value and the significance value is less than 0.05, this indicates that the independent variable has a significant partial effect on the dependent variable. The t table value is determined based on the number of variables ($n = 4$), the number of respondents ($k = 100$), and the degrees of freedom ($n - k - 1 = 100 - 4 - 1 = 95$) with a confidence level of $\alpha = 0.05$, resulting in a t table value of 1.984. Based on the comparison between the calculated t value and the t table value, the following results were obtained:

Effect of Financial Access on Competitiveness (H1): The Financial Access variable has a calculated t value of $0.547 < 1.984$ with a significance value of $0.585 > 0.05$. These statistical results indicate that Financial Access does not have a significant partial effect on MSME Competitiveness, so H1 is rejected. This phenomenon can be linked to the respondent profile, in which 79% still rely entirely on their own capital and operate on a micro-business scale. For micro-business actors in this region, the availability of formal financing has not yet become a key differentiator that directly increases their competitive advantage in the market if it is not accompanied by an increase in production capacity.

Effect of Digital Literacy on Competitiveness (H2): Statistical analysis shows a calculated t value of $1.614 < 1.984$ with a significance value of $0.110 > 0.05$. This result indicates that Digital Literacy does not have a significant partial effect on MSME Competitiveness, so H2 is rejected. Although the adoption of social media is relatively high (49%), its use is largely still limited to conventional communication tools and has not yet been transformed into an optimal dynamic capability for cutting distribution chains or reducing operational costs. Business actors still require more integrative technical assistance for the mastery of digital technology to have a tangible impact on market cost efficiency.

Effect of Innovation on Competitiveness (H3): The Innovation variable produces a calculated t value of 7.494, which is significantly greater than the t table value ($7.494 > 1.984$), accompanied by a significance value of $0.000 < 0.05$. Therefore, Innovation has a positive and significant partial effect on MSME Competitiveness, so H3 is accepted. This result reinforces Porter's theoretical foundation regarding differentiation strategy. MSMEs in South Kalimantan that regularly update product variations, improve packaging quality, achieve production process efficiency, and engage in local wisdom-based marketing creativity have proven able to create unique added value that is difficult for competitors to replicate. This innovation capacity is the single strongest and most effective determinant in boosting the competitive advantage of MSMEs in both local and national markets.

Based on the t-test analysis above, only one independent variable was proven to significantly affect MSME competitiveness, namely Innovation. This result reinforces the notion that MSMEs that regularly innovate can compete in the MSME market.

5. CONCLUSION

Based on the results of the data analysis and discussion, it can be concluded that, simultaneously, Financial Access, Digital Literacy, and Innovation have a positive and significant effect on improving MSME Competitiveness in South Kalimantan Province, with a very strong explanatory power for the variance in competitiveness, reaching 86.1%. However, partial testing shows a different picture, in which the Financial Access variable is proven to have no significant effect on MSME competitiveness, because the majority of business actors are still micro-scale and rely entirely on their own capital, so that the availability of formal financing has not yet become a real stimulus for competitive advantage.

The finding regarding financial access in this study contradicts the Resource-Based View (RBV) theory of (Barney et al., 2001) as well as the classic study by (Beck & Demirgüç-Kunt, 2004) in the Journal of Financial Economics, which states

that formal financial constraints have a negative impact on the growth and competitiveness of small firms in developing countries. This study is also inconsistent with the research of (Tambunan, 2022), which states that ease of access to capital directly increases the adaptive capacity and competitiveness of MSME products in the domestic market. However, this non-significant result is supported by the argument of (Hamdani et al., 2025), which indicates that for micro-scale business actors, mere availability of formal financial access will not impact business performance. Most MSME actors, particularly in developing regions, fall into the micro-scale category with governance structures that are not yet mature. When they obtain financial access (such as bank loans or capital assistance), the funds tend to be used as short-term working capital to cover daily operational costs or purchase raw materials to sustain the business. The capital is not allocated for long-term strategic investments capable of creating competitiveness, such as modernizing production machinery, product certification, or market expansion. As a result, the capital injection only keeps the business surviving but does not enhance its competitive advantage in the market.

The finding that digital literacy has no significant effect in the context of South Kalimantan is supported by (Widyanto et al., 2025), who argue that digital adoption that only touches a basic level—such as using social media for chatting—without mastery of an integrative digital strategy, an optimal payment system, or data security assurance, has not been able to provide the real contribution needed to win intense market competition. In some areas, the main consumer base of local MSMEs is still dominated by communities that prefer traditional shopping interactions (face-to-face, physically inspecting goods, and bargaining). If the target market remains conventional, then a high level of digital technology mastery by business actors will not have a significant effect on sales volume or product competitive advantage within that local market environment. This result contradicts the study by (Tarutė & Gatautis, 2014), which generally confirms that proficiency in the use of information technology has a direct impact on cost efficiency and MSME revenue growth, up to twice as fast.

In contrast, the Innovation variable emerged as the single most dominant determinant, with a positive and highly significant effect on MSME competitiveness, empirically proving that business creativity, product diversification, production process improvement, and a touch of local wisdom are the main keys for business actors in South Kalimantan to create solid product differentiation, win market competition, and maintain long-term business sustainability. This is consistent with the research of (Ratulian et al., 2024). Therefore, in order to achieve the target of inclusive regional economic growth, local governments are advised to formulate intervention program priorities that focus on facilitating the incubation of product innovation and downstream industrialization for local MSME actors.

Based on the research findings showing that innovation is the single most dominant factor in driving competitive advantage, the South Kalimantan Provincial Government, together with the Office of Cooperatives and MSMEs, is advised to reorient its policy direction by shifting stimulus capital assistance programs or basic digital training toward the establishment of business incubation centers based on product and operational process innovation, focused on the culinary and local handicraft subsectors, including facilitating the processing of official business legality, which remains a structural barrier for micro-business actors. For MSME actors, capital and technology limitations should be addressed by consistently exploring product differentiation strategies that leverage local wisdom in order to create high added value in the eyes of consumers. Given the limitations of the multiple linear regression model in this study, which has not been able to demonstrate the partial effects of financial access and digital literacy, future researchers are advised to expand the conceptual framework by integrating external variables such as the role of government support or regional infrastructure readiness as moderating or intervening variables. In addition, the data analysis methodology in future research should be enhanced using a Structural Equation Modeling (SEM) approach through SmartPLS software to evaluate more complex path relationships and obtain a more comprehensive and precise understanding of the MSME competitiveness behavior model within the regional economic ecosystem.

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