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The Influence of Financial Literacy on MSME Business Performance

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Abstract

Micro, Small, and Medium Enterprises (MSMEs) play a vital role in Indonesia's economy through job creation, income generation, and regional development. However, challenges such as limited financial management skills and restricted access to financial services often hinder their performance. Financial literacy and financial inclusion are considered key factors in improving MSME business performance. This study employed a quantitative approach with a non-experimental design. Data were collected from 51 MSMEs assisted by the UPT PLUT South Sulawesi using purposive sampling. The criteria included business owners with at least two years of experience. Data collection techniques included questionnaires, observation, and literature review. Data were analyzed using multiple linear regression supported by validity, reliability, and classical assumption tests with SPSS. The findings indicate that financial literacy has a positive and significant effect on MSME business performance, with a regression coefficient of 0.678 and a significance value of 0.000. In contrast, financial inclusion shows a positive but insignificant effect, with a coefficient of 0.124 and a significance value of 0.299. These results suggest that internal capabilities, particularly financial knowledge and skills, play a more dominant role than access to financial services. Financial literacy significantly enhances MSME performance by improving financial management, decision-making, and business sustainability, while financial inclusion requires further optimization to produce a stronger impact.

Introduction

Micro, Small, and Medium Enterprises (MSMEs) play a strategic role in the Indonesian economy, particularly in creating jobs, increasing community income, and driving regional economic growth (Saputra & Darmawan, 2023; Salsabillah et al., 2023). MSMEs, or Micro, Small, and Medium Enterprises, are small-scale, independent, productive businesses run by individuals or business entities that have no business relationships with other companies. These businesses have their own will and authority to run their businesses, and the business owner has the freedom to make decisions without coercion or interference from stakeholders (Azhari et al., 2022; Cragg, 2026; Romashchenko, 2026; Wijethilake et al., 2026).

Awa (2023) said that, MSMEs are the center of innovation and creativity in meeting evolving market needs. Their flexibility and adaptability enable MSMEs to respond quickly to changing market trends. MSMEs also play a role in building a broader tax base for the government and supporting a sustainable economy by utilizing local resources. Thus, MSMEs function not only as small business units but also as the backbone of realizing inclusive and sustainable economic development, both locally and nationally (Becha et al., 2025; Riabokin et al., 2026; Saragih & Ovalti, 2026).

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The contribution of Micro, Small, and Medium Enterprises (MSMEs) to domestic product continues to increase significantly (Soegoto, 2022; Nursini, 2020). MSMEs are also able to absorb labor, thereby reducing poverty and unemployment. One of the challenges faced by MSMEs is marketing difficulties, limited innovation and technology, particularly limited bookkeeping and financial reporting (Juliyanty Sidik Tjan, 2021). Furthermore, Micro, Small, and Medium Enterprises (MSMEs) are also a major pillar of the Indonesian economy, contributing significantly to Gross Domestic Product (GDP), employment, and income equality (Kusumawati & Effendi, 2024).

In addition to their contribution to GDP, MSMEs also play a significant role in labor absorption, particularly among people with diverse education and skill levels, thereby reducing unemployment and poverty (Ayuni et al., 2026; Nursini et al., 2026; Mongkito et al., 2026). MSMEs play a vital role in national economic development, including increasing economic growth, creating jobs, and ensuring equitable distribution of development outcomes. However, increasing revenue, sales growth, and business sustainability remain major obstacles for MSMEs in developing their businesses (Khairina Rosyadah et al., 2021; Tarigan et al., 2026; Cahyaningati et al., 2026). Therefore, improving MSME business performance is a crucial and strategic issue in sustainable economic development. Through MSMEs, local communities have the opportunity to develop economic potential based on local resources, local wisdom, and individual creativity, ultimately strengthening regional economic resilience (Intakarn et al., 2026; Suindramedhi & Yang, 2026; Muhsyanur, 2026).

In the context of national and regional development, improving the performance of MSMEs is a key focus of economic policy (Putra & Nuryana, 2026; Ulfah, 2026; Latupono et al., 2026). Good MSME business performance, reflected in increased productivity, turnover, profits, and business sustainability, is expected to strengthen the national economic structure in an inclusive and sustainable manner (Krysovatyy et al., 2024; Samans, 2023; Rosyadah et al., 2022). However, the challenges faced by MSMEs are increasingly complex due to the dynamics of the business environment, the digitalization of the economy, and intensifying market competition. One fundamental problem still faced by MSMEs is limited financial management and access to formal financial services. Suboptimal MSME business performance is often not caused by weak product potential, but rather by poor financial decision-making skills and limited access to adequate capital (Adewumi & Cele, 2023; Kumar et al., 2023; Andriamahery & Qamruzzaman, 2022).

Conceptually, financial literacy is a key factor influencing MSMEs' ability to manage their finances effectively (Nurjannah et al., 2023; Dwyanti, 2024; Zahari et al., 2025). Financial literacy encompasses understanding financial record keeping, cash flow management, financial planning, and the ability to evaluate the risks and benefits of financial products (Nasimiyu, 2023; Shi et al., 2025; Molosiwa & Molosiwa, 2025). Based on Human Capital Theory, the financial skills and knowledge possessed by MSMEs constitute a form of human capital that can improve business management efficiency and performance. Research shows that financial literacy has a positive relationship with business performance, as financially literate MSMEs are able to manage cash flow and make better investment decisions (Rizky & Fitriyah 2024; Susanti & Zuliansyah, 2025; Widjayanti et al., 2025; Nirwana et al., 2025).

On the other hand, financial inclusion, which encompasses access to and use of formal financial products and services such as savings, credit, and microfinance, also plays a crucial role in supporting business growth (Chibueze et al., 2025; Mbodj & Laye, 2025; Memon et al., 2025). Financial Intermediation Theory explains that the financial system functions as an intermediary, helping channel funds from those with surplus funds to businesses in need of

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capital, thereby effectively stimulating economic activity. Previous research has found that financial inclusion positively impacts MSME performance, although literacy levels vary (Haikal et al., 2025).

Methods

The research approach used in this study is quantitative with a non-experimental research design. This study does not intervene or manipulate variables, but rather objectively observes, measures, and analyzes the relationships between variables based on data collected from respondents managed by MSMEs at the UPT PLUT South Sulawesi. This study employed a quantitative approach. A quantitative approach emphasizes numerical data (numbers) and statistical processing to test formulated hypotheses. According to Sugiyono (2019), quantitative research is a research method based on the philosophy of positivism used to study specific populations or samples. The sampling technique is random, and data collection uses research instruments with the aim of testing predetermined hypotheses. The quantitative approach was chosen because this study examines the relationships and influences of several independent variables on the dependent variable based on data from questionnaires completed by respondents. Furthermore, the data processing is carried out using statistical analysis techniques to obtain objective conclusions. This aligns with Creswell (2018), who explains that quantitative research focuses on the numerical measurement of variables and statistical analysis to determine patterns, relationships, and influences between variables. The selection of the Integrated Business Service Center (PLUT) of South Sulawesi as the research location was based on the strategic role of the South Sulawesi PLUT UPT in assisting MSMEs, the diverse characteristics of the assisted MSMEs, and the ongoing gap between assistance and the financial capacity of business actors. Therefore, the South Sulawesi PLUT UPT was chosen as the research location to analyze the influence of financial literacy and financial inclusion on MSME performance.

Data Collection Techniques

The sampling technique in this study was carried out systematically to obtain relevant data in accordance with the research objectives, using a purposive sampling method, namely the selection of respondents based on certain criteria, specifically MSMEs who have a minimum of two years of experience and understand the aspects of financial literacy and inclusion. The sample determination process was carried out through several stages, namely determining respondent criteria, obtaining a list of active MSMEs from the UPT PLUT South Sulawesi, dividing the sample proportionally based on business sectors such as trade, culinary, services, home industries, and crafts, and distributing questionnaires both directly and through online surveys. The selection of the purposive sampling technique was based on the research need to obtain truly relevant respondents, with a sample size of 51 MSMEs that were deemed to have met the criteria for statistical analysis, especially multiple linear regression. In addition, a proportional approach between business sectors aims to ensure that the research results can represent the conditions of MSMEs more broadly. The data collection techniques used included observation to obtain a real picture in the field, questionnaires as the main instrument to collect primary data from respondents, and literature studies to support and strengthen the research findings through various relevant scientific references.

Data Analysis Techniques

The data analysis technique in this study aims to process raw data into meaningful information to answer the research questions and test the hypotheses. The approach used was inferential statistics using multiple linear regression, as this method allows researchers to analyze the

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influence of more than one independent variable on a single dependent variable, either simultaneously or partially. Prior to the main analysis, data quality testing was conducted, including validity and reliability tests. The validity test aimed to ensure that each item in the questionnaire accurately measured the research variable, with the criteria being a corrected item-total correlation greater than r-table and a significance level less than 0.05. Next, a reliability test was conducted to measure instrument consistency using Cronbach's Alpha. An alpha value above 0.60 indicates the research instrument is reliable. The next stage was the classical assumption test, which aimed to ensure that the regression model met the necessary statistical requirements. A normality test was conducted to determine whether the residual data were normally distributed, as demonstrated by the Kolmogorov–Smirnov test or a P–P plot. In addition, a multicollinearity test was conducted to ensure there was no high correlation between the independent variables, with a tolerance value greater than 0.10 and a Variance Inflation Factor (VIF) value less than 10. A heteroscedasticity test was also conducted to ensure there was no inequality of residual variances in the regression model, which was tested using the Glejser method with a significance value greater than 0.05. Meeting all these assumptions is crucial to ensure the regression analysis results are unbiased and can be interpreted accurately. Once all assumptions were met, the analysis continued with multiple linear regression to determine the causal relationship between the independent variables, namely financial literacy and financial inclusion, and the dependent variable, namely MSME business performance. The regression model is expressed as a mathematical equation that shows the influence of each independent variable on the dependent variable. Hypothesis testing was conducted using a simultaneous test (F test) to examine the joint influence of the independent variables, and a partial test (t test) to determine the influence of each variable individually. Additionally, the coefficient of determination (R^2) is used to measure the extent to which the independent variable explains the variation in the dependent variable. All analyses were conducted using SPSS software, ensuring more accurate and scientifically sound results.

Result and Discussion

The data description presented from this research aims to provide a general overview of the distribution of data obtained in the field. The data presented is raw data processed using descriptive statistical techniques. The data description presents a frequency distribution per indicator, along with the frequency percentage and score obtained. The assessment scale and percentage scores can be seen in the following table.

Table 1. Assessment Scale Categories

Interval	Category
81% - 100%	Very Good
61% - 80%	Good
41% - 60%	Fair
21% - 40%	Low
0% - 20%	Very Low

Source: (Ridwan, 2008)

Data Description for Variable Y (MSME Business Performance)

Based on the raw data for variable Y collected from a questionnaire from 51 respondents, with 10 questions from 5 indicators and 5 response options, the percentage scores for each indicator are as follows:

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Table 2. Data Description for Variable Y

No	Indicator	Total Responses	Max Score	Min Score	Mean	Std. Dev.	%
1	Sales Growth	408	10	2	8.00	1.96977	80.00
2	Profit/Revenue Increase	403	10	2	7.90196	1.91054	79.02
3	Business Asset Growth	401	10	4	7.86270	1.69728	78.63
4	Increase in Number of Customers	402	10	2	7.88235	2.04594	78.82
5	Business Sustainability	414	10	2	8.11765	1.89364	81.18
	Total	2028	50	12	39.76466	9.51717	397.65

Source: SPSS Utilized Data (2026)

The analysis results show an average overall score of 39.76466, with a total percentage of 397.65%, or an average of 79.53%. This score falls into the "very good" category based on the assessment scale used. This indicates that the overall business performance of the MSMEs studied has been optimal.

Partially, the Business Sustainability indicator had the highest percentage, at 81.18%, with an average score of 8.11765, indicating that MSMEs have a strong ability to maintain their business continuity. Meanwhile, the Sales Growth indicator scored 80%, followed by Profit/Revenue Increase at 79.02%, and Customer Growth at 78.82%.

The indicator with the lowest score was Business Asset Growth at 78.63%. However, this score is still in the "good" category, indicating no significant issues in this aspect overall. Thus, it can be concluded that all MSME business performance indicators are in the good to very good category, with a predominance in the very good category. However, the aspect of business asset growth still requires greater attention to support capacity building and future business development.

Data Description for Variable X1 (Financial Literacy)

Based on the raw data for variable X1 collected from a questionnaire distributed to 51 respondents, with 12 questions from four indicators and five response options, the percentage scores for each indicator are as follows:

Table 3. Data Description for Variable X1

No	Indicator	Total Responses	Max Score	Min Score	Mean	Std. Dev.	%
1	Basic Financial Knowledge	668	15	3	13.09804	2.72950	87.32
2	Business Financial Management	609	15	3	11.94118	2.96925	79.61
3	Understanding of Financial Products and Services	605	15	5	11.86275	2.81438	79.08
4	Financial Attitudes and Behavior	673	15	5	13.19608	2.59244	87.97

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	Total	2555	60	16	50.09805	11.10557	333.98

Source: Processed Data (2026)

The analysis results show a total score of 2555, with an overall average of 50.09805 and a standard deviation of 11.10557. Overall, the resulting percentage was 333.98%, or an average of 83.49%, which is in the very good category. This indicates that the financial literacy level of MSMEs is relatively high and has supported more effective business management.

Partially, the Financial Attitudes and Behavior indicator had the highest percentage, at 87.97%, with an average score of 13.19608. This indicates that MSMEs have demonstrated good financial behaviors, such as discipline in financial management, financial planning, and rational decision-making. Furthermore, the Basic Financial Knowledge indicator also showed a high score, at 87.32%, with an average score of 13.09804, reflecting a good understanding of basic financial concepts.

Meanwhile, the Business Financial Management indicator achieved a percentage of 79.61% with an average score of 11.94118, indicating that MSMEs are quite capable of managing cash flow, financial record keeping, and allocating business funds. The Understanding of Financial Products and Services indicator had the lowest percentage, at 79.08% with an average score of 11.86275. Despite being the indicator with the lowest score, this achievement is still in the good category.

Therefore, it can be concluded that the overall financial literacy level of MSMEs is in the very good category. However, their understanding of financial products and services still needs improvement, particularly in recognizing various financial instruments that can be utilized to support business development.

Data Description for Variable X2 (Financial Inclusion)

Based on the raw data for variable X2 collected from a questionnaire from 51 respondents, with 9 questions from 4 indicators and 5 response options, the percentage scores for each indicator are as follows:

Table 4. Description of Data for Variable X2

No	Indicator	Total Responses	Max Score	Min Score	Mean	Std. Dev.	%
1	Access to Formal Financial Institutions	422	10	2	8.27450	1.97056	82.75
2	Use of Financial Products and Services	608	15	3	11.92100	2.93150	79.48
3	Ease and Quality of Financial Services	403	10	2	7.90196	2.10004	79.02
4	Suitability of Financial Products	395	10	2	7.74509	2.09612	77.45
	Total	1828	45	9	35.84255	9.09822	318.70

Source: Processed Data (2026)

The analysis results show a total score of 1,828, with an overall average of 35.84255 and a standard deviation of 9.09822. Overall, the resulting percentage was 318.7%, or an average of 79.68%, which is in the good category. This indicates that MSMEs have a relatively adequate

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level of financial inclusion in accessing and utilizing financial services, although there is still room for improvement.

Partially, the Access to Formal Financial Institutions indicator achieved the highest percentage, at 82.75%, with an average of 8.2745. This indicates that most MSMEs have easy access to formal financial institutions such as banks and financing institutions. Furthermore, the Use of Financial Products and Services indicator achieved a percentage of 79.48%, with an average of 11.921, indicating that MSMEs have utilized various financial products sufficiently, although not yet fully optimally.

The Ease and Quality of Financial Services indicator showed a percentage of 79.02% with an average of 7.90196, reflecting that financial services are considered fairly easy to access and of good quality. Meanwhile, the Financial Product Suitability indicator had the lowest percentage at 77.45% with an average of 7.74509. This indicates that the match between available financial products and the needs of MSMEs still needs to be improved.

Therefore, it can be concluded that the level of financial inclusion among MSMEs is in the good category, characterized by fairly broad access to financial institutions and relatively adequate utilization of financial services. However, optimization is still needed, especially in the aspect of product suitability and increasing utilization of financial services to better support the development and sustainability of MSME businesses.

Research Results

Before conducting multiple linear regression analysis, the research instrument used, a questionnaire, had to be tested for validity and reliability. This aimed to ensure that the data obtained was valid and reliable, thus ensuring the reliability of the research results.

Validity Test Results

Validity testing is used to measure the validity of a questionnaire. Validity testing can be measured using Person Correlation, which is conducted by conducting a bivariate correlation between each statement indicator score and the total construct, showing significant results, i.e., below 0.05 or 5% (Imam, 2018). If each statement indicator has a significance value below 0.05, it is considered valid. In the tryout test with 51 respondents, the study used the formula (df) = n-2, so 51 – 2 = 49, resulting in a value of 0.2759 as the r table. The test is as follows:

Table 5. Person Correlation Values for Variable Y

No	Statement	Pearson Correlation	r-table Value	Description
1	My business sales have increased over the past year.	1.000	0.2059	Valid
2	My business products/services are increasingly in demand by customers.	0.829	0.2059	Valid
3	My business revenue has increased compared to the previous period.	0.846	0.2059	Valid
4	My business is able to generate stable profits.	0.850	0.2059	Valid
5	My business assets (equipment, inventory, etc.) have increased.	0.569	0.2059	Valid
6	I have added business facilities or equipment.	0.670	0.2059	Valid

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7	The number of my business customers is increasing.	0.519	0.2059	Valid
8	I am able to retain existing customers.	0.711	0.2059	Valid
9	My business is able to survive in a competitive environment.	0.755	0.2059	Valid
10	I am optimistic that my business will continue to grow in the future.	0.781	0.2059	Valid

Source: Processed data (2026)

Based on Table 5, the test results for the MSME Business Performance variable indicate that the variable meets valid criteria for 10 statement items and has a calculated r-value greater than the table r-value, with a value of 0.2059. This indicates that the 10 statement items used in this study are capable of revealing what is measured in the questionnaire.

Table 6. Pearson Correlation Value for Variable X1

No	Statement	Pearson Correlation	r-table Value	Description
1	I understand the difference between personal and business finances.	1.000	0.2059	Valid
2	I understand the importance of financial record-keeping in business.	0.860	0.2059	Valid
3	I understand the concept of profit (income) and business costs.	0.800	0.2059	Valid
4	I regularly record my business finances.	0.679	0.2059	Valid
5	I am able to manage business cash flow effectively.	0.722	0.2059	Valid
6	I create financial plans for my business.	0.722	0.2059	Valid
7	I understand savings products used for business purposes.	0.710	0.2059	Valid
8	I understand the benefits and risks of business credit/loans.	0.576	0.2059	Valid
9	I am aware of digital financial services that support my business.	0.615	0.2059	Valid
10	I consider my financial capability before taking a loan.	0.526	0.2059	Valid
11	I use business funds according to business purposes.	0.689	0.2059	Valid
12	I try to save or allocate profits for business development.	0.779	0.2059	Valid

Source: Processed data (2026)

Based on Table 6, the test results for the Financial Literacy variable indicate that this variable has valid criteria for 12 statement items and has a calculated r-value greater than the table r-value of 0.2059. This indicates that all statement items used in this study are able to express what is measured in the questionnaire.

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Table 7. Pearson Correlation Value for Variable X2

No	Statement	Pearson Correlation	r-table Value	Description
1	I have an account at a formal financial institution (bank/official institution).	1.000	0.2059	Valid
2	I can easily access financial institutions for business purposes.	0.614	0.2059	Valid
3	I use bank savings for business transactions.	0.713	0.2059	Valid
4	I have used credit/financing from formal financial institutions.	0.656	0.2059	Valid
5	I use digital financial services in my business.	0.721	0.2059	Valid
6	The procedures of formal financial services are easy to understand.	0.523	0.2059	Valid
7	The financial services I use are suitable for my business needs.	0.484	0.2059	Valid
8	The financial products I use support business development.	0.665	0.2059	Valid
9	The costs and requirements of financial services are affordable for my business.	0.734	0.2059	Valid

Source: processed data (2026)

Based on Table 7, the test results for the financial inclusion variable indicate that this variable meets valid criteria for 9 statement items and has a calculated r-value greater than the r-table value of 0.2059. This indicates that all statement items used in this study are capable of expressing what is measured in the questionnaire.

Observations on the r-table obtained a value of 0.2059 for the sample (N) = 51. Referring to the validity test results, all instruments, starting with the Financial Literacy and Financial Inclusion variables, all statements produced calculated r-values greater than the r-table value of 0.2059. Furthermore, for MSME business performance (Y), all statements produced calculated r-values greater than the r-table value. Therefore, it can be concluded that all instruments used in this study are valid.

Reliability Test

Reliability testing is a tool for measuring a questionnaire as an indicator of a variable or construct (Imam, 2018). A questionnaire is said to be reliable if a person's answers to the statements are consistent over time. The method used to test the reliability of the questionnaire in this study was Cronbach's Alpha statistical reliability. The criteria for assessing the reliability test are (Imam, 2018): (1) If the alpha coefficient result is greater than the 60% significance level or 0.60, then the questionnaire is reliable; (2) If the alpha coefficient result is less than the 60% significance level or 0.60, then the questionnaire is not reliable.

Table 8. Reliability Test

Variable	Number of Items	Cronbach's Alpha	Cut-Off	Description
MSME Business Performance (Y)	10	0.965	0.6	Reliable
Financial Literacy (X1)	12	0.964	0.6	Reliable
Financial Inclusion (X2)	9	0.944	0.6	Reliable

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Source: Processed data (2026)

Test results show that the Cronbach's Alpha value for all variables is well above 0.60. This indicates that the research instrument is highly consistent.

Normality Test

Before processing the data using regression analysis, a data normality test was first performed. The data normality test is used to determine whether the sample size is representative and whether the research conclusions drawn from the sample size can be justified. This study involved two normality tests: (1) Normal Probability Plot Test. The test results are as follows:

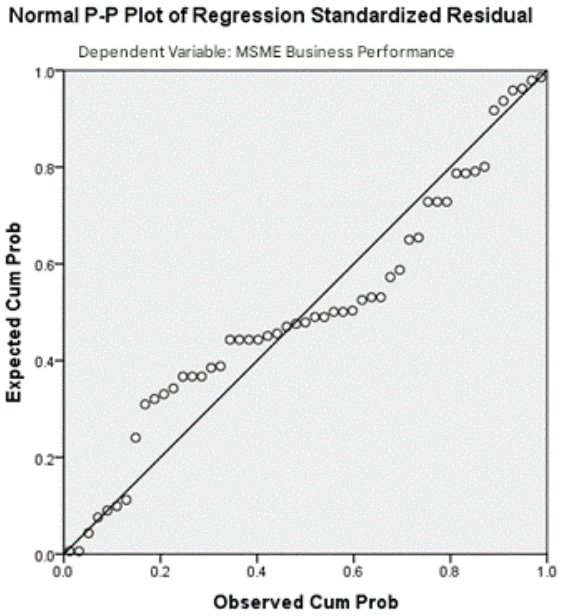

Figure 1. P-Plot from Normality Test

Source: SPSS Data Processing Output

Figure 1 shows that the relationship between Financial Literacy (X1) and Financial Inclusion (X2) on MSME Business Performance (Y) shows a normal distribution pattern, where the data spreads around the diagonal line. This also indicates that the regression model meets the assumption of normality. A one-sample Kolmogorov-Smirnov test was used. The significance level used was α = 0.05. Decision-making is based on the probability p value. If the probability p value is >-0.05, the assumption of normality is met, and if the probability p value is <0.05, the assumption of normality is not met.

Table 9. Normality Test Results (Kolmogorov-Smirnov)

Description	Unstandardized Residual
N	51
Kolmogorov-Smirnov Z (Test Statistic)	1.020
Asymp. Sig. (2-tailed)	0.249

Source: Data processed using SPSS (2026)

Based on Table 16, the significance value of Asymp. Sig. (2-tailed) is 0.249. Since 0.249 > 0.05, it can be concluded that the residual values are normally distributed. Therefore, the regression model meets the assumption of normality.

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Multicollinearity Test

Multicollinearity is used to test whether a regression model contains correlations between independent variables. A good regression model should have no correlation between independent variables. To detect multicollinearity in a regression model, we can examine the Tolerance and VIF (Variance Inflation Factor). Tolerance follows the results of the selected independent variables that are not explained by other independent variables. Therefore, a low Tolerance value equates to a VIF ≥ 10 (Imam, 2018).

Table 10. Multicollinearity Test Results

Variable	Tolerance	VIF	Description
Variable X1	0.328	3.047	No Multicollinearity
Variable X2	0.328	3.047	No Multicollinearity

Source: Data processed by SPSS (2026)

Table 10 shows that the data does not show any signs of multicollinearity between each independent variable, as seen in the tolerance and VIF. The data above shows that each independent variable has a tolerance value greater than 0.10 and a VIF value less than 10. These results indicate that all independent variables in this regression model do not experience multicollinearity.

Heteroscedasticity Test Results

The heteroscedasticity test aims to examine whether the residual variances of one observation differ in the regression model. The presence or absence of heteroscedasticity can be determined by the presence or absence of a specific pattern in the scatterplot graph. If a specific pattern is present, such as dots forming a regular pattern (wavy, widening, then narrowing), it indicates heteroscedasticity.

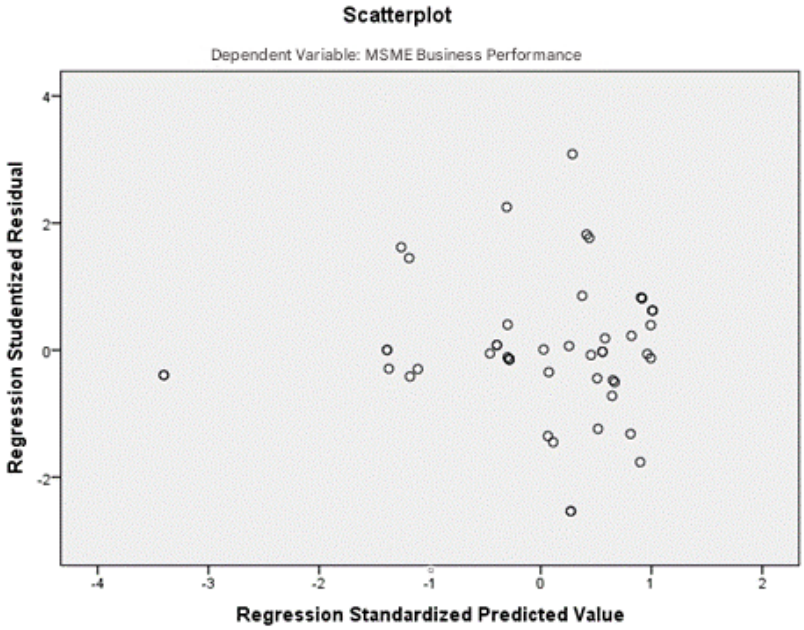

Figure 2. Scatterplot Heteroscedasticity Test Results

Source: SPSS Data Processing Output (2026)

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Figure 2 above shows that the scatterplot shows that the points are randomly distributed both above and below 0 (zero) on the Y-axis, and there is no clear pattern in the data distribution. This indicates that heteroscedasticity does not occur in the regression model. Therefore, this regression model meets the heteroscedasticity assumption test.

Multiple Linear Regression Analysis

Multiple linear regression analysis is used to determine the effect of several independent variables on a single dependent variable and to determine whether the relationship is positive or negative. This analysis also aims to determine the extent of changes in the dependent variable caused by changes in the independent variables in the research model. The following table shows the results of the regression coefficient data processing:

Table 11. Results of Multiple Linear Regression Analysis

Model	Unstandardized Coefficients (B)	t	Sig.
Constant	1.379	0.491	0.626
X1	0.678	7.113	0.000
X2	0.124	1.050	0.299

Source: Data processed by SPSS (2026)

Based on the table above, the multiple linear regression equation can be formulated as follows:

$Y = 1.379 + 0.678X1 + 0.124X2 + e$

This regression equation shows the relationship between the independent variables, namely X1 and X2, and variable Y. The regression coefficients obtained indicate the direction and magnitude of the influence of each independent variable on the dependent variable: (1) The dependent variable (Y) in this regression model is the variable influenced by the independent variables, namely X1 and X2. The constant value of 1.379 indicates that if variables X1 and X2 are considered constant or zero, the value of Y remains at 1.379. This means that there are other factors outside the research model that also contribute to Y; (2) Variable X1 has a regression coefficient of 0.678 with a significance value of 0.000 (<0.05) and a t-value of 7.113. This shows that X1 has a positive and significant effect on Y. Every 1 unit increase in X1 will increase Y by 0.678, assuming other variables are constant. Because the significance value is less than 0.05, it can be concluded that X1 has a strong and statistically significant effect on Y. Thus, the higher the value of X1, the more it will increase the value of Y; (3) Variable X2 has a regression coefficient of 0.124 with a significance value of 0.299 (> 0.05) and a t-value of 1.05. This shows that X2 has a positive but not significant effect on Y. Every 1 unit increase in X2 will increase Y by 0.124, but the effect is not statistically strong enough. Because the significance value is greater than 0.05, X2 does not have a significant effect on Y in this model. Thus, although the direction of the relationship between X2 and Y is positive, empirically its effect is not proven to be significant.

Hypothesis Testing

This hypothesis test is conducted to determine the statistical validity of a statement so that a conclusion can be drawn whether to accept or reject the statement. The hypothesis testing in this study used multiple regression analysis.

Simultaneous Significance Test Results (F-Test)

The F-test essentially indicates whether all independent variables in the model have a simultaneous influence on the dependent variable, leading to a decision to accept or reject the

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hypothesis. This is done by comparing the significance level (alpha) at 5% (0.05). If the F-probability value is greater than 0.05, the regression model cannot be used to predict the dependent variable. In other words, the independent variables simultaneously have no effect on the dependent variable. Conversely, if the F-probability value is less than 0.05, it can be concluded that the independent variables simultaneously influence the dependent variable (Imam, 2018). The following are the results of the F-test in this study:

Table 12. Simultaneous Test Results (F-Test)

Variable	F-value	Significance
Financial Literacy	97.385	0.000
Financial Inclusion	—	—

Source: Data processed by SPSS (2026).

The F-test results in Table 12 show a calculated F-value of 97.385, while the F-table value is used in the F-table statistics appendix. Calculating the F-table with the numerator dk = k (number of independent variables) and the denominator dk = (n-k-1) with a 5% margin of error (Sugiyono, 2019). From this formula, the numerator dk = 2 and the denominator dk = 51-2-1 = 48. Using a significance level of 0.05, the F-table value is 3.19.

t-test results (Partial Test)

The t-test aims to determine the partial relationship between the independent and dependent variables. This test aims to determine whether there is a significant influence of each independent variable, namely financial literacy and financial inclusion, on MSME business performance. The t-value is then compared with its confidence level (Imam, 2018).

In this study, a two-tailed significance test was used, a test that has two rejection zones for Ho, located on the right and left. In a two-tailed test, an equal sign (=) is typically used for the null hypothesis and a negative sign (≠) for the alternative hypothesis. The (=) and (≠) signs do not indicate two-way communication, so the test is conducted in two directions. The criteria for a partial test (t-test) can be seen as follows: (1) If the calculated t value > t table, then Ho is rejected and Ha is accepted, meaning the independent variable partially has a significant effect on the dependent variable; (2) If the calculated t value < t table, then Ho is accepted and Ha is rejected, meaning the independent variable partially does not have a significant effect on the dependent variable: (1) If the sig. value > 0.05, then Ho is accepted; (2) If the sig. value < 0.05, then Ho is rejected.

The following are the results of the t-test in this study:

Table 13. Partial Test Results (t-Test)

Variable	t-value	Significance
Financial Literacy	7.113	0.000
Financial Inclusion	1.050	0.299

Source: Processed Data (2026)

The t-test results in Table 20 show a calculated t-value of 7.113 for Financial Literacy and 1.050 for Financial Inclusion. The t-table statistics appendix was used to determine the t-value, using α = 5% with (df) n-1 or 51-1 = 50. The t-value is 2.00856.

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The calculated t-value of 7.113 is greater than the t-value of 2.00856, and the significance value is 0.000, which is less than 0.05. Therefore, H_0 is rejected and Ha is accepted. This means that financial literacy has a positive and significant effect on MSME business performance. This indicates that the higher the level of financial literacy of MSMEs, the better their business performance. Financial literacy helps businesses manage their finances effectively, make investment and financing decisions, and reduce financial risk. This result is in line with the opinion of Imam (2018) who stated that variables with a significance value <0.05 show a statistically significant influence.

Based on research on MSMEs assisted by the South Sulawesi PLUT Technical Implementation Unit (UPT PLUT), financial literacy has been shown to play a crucial role in improving MSME business performance. This indicates that the higher a business owner's understanding of financial concepts, the better their ability to manage their business effectively and sustainably.

Empirically, conditions in the field indicate that many MSMEs still lack optimal financial record-keeping, cash flow management, and financial planning skills. This is reflected in the persistent practice of mixing personal and business finances and weak financial reporting, which impacts the quality of business decision-making.

Based on the partial test (t-test), the financial literacy variable has a calculated t-value of 7.113 with a significance level of 0.000 (<0.05). This indicates that financial literacy has a positive and significant impact on MSME business performance at the UPT PLUT South Sulawesi.

The regression coefficient of 0.678 indicates that every increase in financial literacy will improve MSME business performance. This means that the better an MSME's understanding of financial management, the better their business performance. These findings reinforce the empirical phenomenon in research that some MSMEs still experience challenges in financial record-keeping, cash flow management, and separating personal and business finances. This condition directly impacts the quality of business decision-making.

Theoretically, these results align with Human Capital Theory, which states that knowledge and skills (including financial literacy) are essential assets for increasing business productivity. These findings are supported by several recent studies: research by Rosida et al. (2025), which states that financial literacy has been shown to improve MSME performance through business management efficiency, and research by Amina et al. (2025), which also improves access to formal financial services. Therefore, financial literacy is a key internal factor determining the success of MSMEs, particularly in business financial management, business planning, and strategic decision-making.

Conclusion

Financial literacy has been shown to be a significant determinant in improving MSME business performance, resulting in financial literacy having a positive and significant impact on MSME business performance at the UPT PLUT South Sulawesi. Financial literacy, which encompasses knowledge, skills, and behavior in financial management, contributes to increased business efficiency, rational financial decision-making, and better cash flow management. These results align with recent research showing that financial literacy has a positive impact on MSME performance, particularly in terms of profitability and business sustainability. Therefore, financial literacy can be positioned as human capital that strengthens the internal capabilities of business actors in managing their businesses.

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Suggestion

MSMEs need to continuously improve their financial literacy through training, education, and independent learning, particularly in financial record-keeping, financial planning, and cash flow management. Furthermore, business owners are expected to optimize the use of formal financial services as a strategy to increase business scale and competitiveness. The UPT PLUT needs to strengthen the effectiveness of its mentoring program with a more practical and practice-based approach, such as training in preparing simple financial reports and simulating financing applications. Furthermore, program monitoring and evaluation are needed to measure the real impact on improving MSME performance. Regional governments, along with regulators, need to simultaneously improve policies that promote financial literacy and inclusion through mass education programs, digitalization of financial services, and simplification of financing access procedures. These policies are crucial for narrowing the gap between financial access and the ability of MSMEs to utilize it. Financial institutions are expected to develop more inclusive financial products tailored to the characteristics of MSMEs, especially those that are not yet bankable. Furthermore, financial education is needed that is integrated with financing services so that MSMEs not only gain access to capital but also the ability to manage it optimally. Further research is recommended to develop the research model by adding other variables such as financial digitalization, financial technology (fintech), or financial behavioral factors that also influence MSME performance. Furthermore, the use of more comprehensive analytical methods such as SEM or a longitudinal approach can provide a more in-depth picture of causal relationships.

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