JIATIS

Journal of International Accounting, Taxation and Information Systems

https://jiatis.com/index.php/journal

Online ISSN 3048-085X

# Financial Access and Financial Literacy on the Performance of MSMEs in Solok City

***Seflidiana Roza[1], Esi Sriyanti[2], Althaf Naufal Zahran[3*]***

***[1-3]Universitas Mahaputra Muhammad Yamin Solok, West Sumatra, Indonesia***

***Email: [1)] rseflidiana@gmail.com , [2)] sriyantiesi01@gmail.com , [3)] althafnaufal760@gmail.com***

ARTICLE INFO

*Article History*
Received : 24.06.2025
Revised : 12.07.2025
Accepted : 27.07.2025
Article Type: Research Article

*Coresponding author:
Althaf Naufal Zahran
althafnaufal760@gmail.com



ABSTRACT

This research aims to examine the influence of financial inclusion and financial literacy on the performance of Micro, Small, and Medium Enterprises (MSMEs), specifically 3 kg LPG gas depots located in Bukit Sundi and Kubung Districts, Solok Regency. MSMEs in this area still face various obstacles, particularly limited access to formal financial services and low understanding of business operators regarding financial management. The study employs a quantitative method utilizing multiple linear regression to analyze primary data obtained from surveys completed by 40 gas depot owners. Findings indicate that financial literacy positively impacts MSME performance, although financial inclusion does not have a significant partial effect. Nevertheless, when considered together, both variables significantly influence business performance. This finding confirms the importance of improving financial literacy for MSME operators rather than merely expanding access to financial services. This research recommends that future studies consider additional variables such as work incentives, human resource quality, and productivity to obtain a more comprehensive understanding of the factors that influence MSME performance.

Keywords: Financial Inclusion, Financial Literacy, MSME Performance

## 1. Introduction

The majority of the Indonesian population engage in economic activities known as Micro, Small, and Medium Enterprises (MSMEs), which are crucial for generating income (Tambunan, 2019). In Indonesia, MSMEs account for approximately 90% of all businesses, while only 10% consist of large enterprises (Gonzales et al., 2014). MSMEs play a crucial role in the Indonesian economy, accounting for over 60% of the GDP and employing approximately 97% of the country's labor force (Ministry of Cooperatives and SMEs of the Republic of Indonesia, 2023). However, despite their significant role, MSME performance in general still shows high vulnerability to market dynamics and economic fluctuations. One of the main causes widely identified in the literature is limited financial access and low financial literacy among business operators, both of which are important determinants in sustainable business management (Lusardi & Mitchell, 2014).

MSMEs are considered a vital pillar of the national economy, with independent characteristics and significant potential to promote welfare (Sinaga & Sitorus, 2023). These types of businesses are generally marginal in nature, utilizing relatively simple technology, operating with limited capital, having low access to credit, and mostly oriented toward local markets. The Department of Cooperatives and Micro, Small, and Medium Enterprises of the Solok Regency Government is also authorized to carry out development tasks, formulate policies, and prepare development plans in the field of cooperatives and MSMEs (Guntur et al., 2024).

Financial access refers to the ease with which individuals or business entities can use formal financial services, such as credit, savings, and insurance. Research by Allen et al. (2016) confirms that ease in accessing financial services can drive small business growth through increased investment and operational efficiency. However, the World Bank (2022) shows that only around 20–30% of MSMEs in Indonesia have access to credit from formal financial institutions, with the main barriers being collateral, business documents, and weak credit scores. In areas like Solok City, with semi-urban characteristics and an agricultural economic base, this condition is potentially more complex due to the limited number of formal financial institutions that effectively reach the micro sector.

Financial literacy is crucial for MSME operators as it assists them in comprehending financial management, making investment choices, and handling business risks and expenditures. Lusardi & Mitchell (2014) explain that individuals with high financial literacy tend to be better prepared in formulating business plans and avoiding unproductive credit traps. The Financial Services Authority (2022) noted that the financial literacy index of West Sumatra's population only reached 38.4%, still far from the national target of 50%. This indicates the weak capacity of business operators in optimizing their financial resources, both formal and informal.

Several previous studies have separately examined the influence of financial access (Rahadjeng, Pratikto, Mukhlis, & Restuningdiah, 2023; Senevirathne et al., 2024) and financial literacy (Buchdadi, 2020; Mabula, 2018; Purwidianti et al., 2022; Wiagustini et al., 2023) on MSME performance. However, research that integratively examines the interaction between financial access and financial literacy on MSME performance is still very limited, especially in regions with specific local contexts like Solok City. Most previous studies have focused on metropolitan areas and have not yet touched semi-peripheral regions that have different economic and social structures. The absence of locally-based research creates an important research gap that needs to be filled to ensure the relevance of MSME empowerment policies at the regional level.

The novelty of this research lies in the attempt to quantitatively examine the simultaneous influence of both variables in the context of MSMEs in Solok City, as well as provide empirical evidence that can be used as a basis for formulating data-based policy interventions. Thus, this research not only enriches academic literature on determinants of MSME performance, but also provides practical contributions for stakeholders in designing local economic empowerment strategies based on simultaneously improving literacy and financial inclusion.

## 2. Literature Review

### 2.1. MSME Performance

Micro, Small, and Medium Enterprise (MSME) performance is an important indicator in assessing the success and competitiveness of the small business sector in facing economic challenges and market changes. MSME performance is not only measured by profitability or revenue growth, but also includes operational aspects such as production efficiency, cost management capability, and resilience in facing crises or economic uncertainty.

In the context of developing economies like Indonesia, MSMEs play a strategic role in absorbing labor and promoting more equitable income distribution. However, challenges such as limited capital, unprofessional management, and low access to technology and information often hinder the achievement of optimal performance (Tambunan, 2019). Therefore, understanding the factors that influence MSME performance becomes crucial in formulating appropriate intervention strategies, whether by business operators, financial institutions, or the government.

### 2.2. Financial Inclusion

Financial inclusion refers to systematic efforts to provide broader access to formal financial products and services to all segments of society, including groups that have been untouched by conventional financial systems, such as low-income communities, MSME operators, and communities in remote areas. This concept not only includes bank account ownership, but also the active and productive use of services such as savings, credit, insurance, and digital payment systems.

According to Krishnan et al. (2012), the goal of financial inclusion is to offer individuals of all backgrounds access to affordable and appropriate financial services that are reliable and secure, regardless of their social class, financial situation, or where they live. Financial inclusion is crucial for promoting fair economic growth, as it allows individuals and small businesses to securely save funds, obtain credit for investment, and protect themselves against potential risks using insurance products. Additional studies indicate that expanding financial access can lead to a decrease in poverty levels and disparities in economic wealth, while also enhancing the resilience of the domestic financial infrastructure (Park & Mercado, 2015).

In the context of MSMEs, access to formal financial services enables business operators to obtain working capital, develop businesses, and expand market reach. However, structural barriers such as low financial literacy, lack of asset guarantees, and complicated administrative procedures remain significant obstacles in realizing comprehensive financial inclusion (Beck et al., 2008).

### 2.3. Financial Literacy

The ability of a person to comprehend, handle, and decide on financial matters in personal and professional settings is known as financial literacy. According to Zait & Bertea (2015), financial literacy involves having knowledge of fundamental financial principles like budgeting, saving, borrowing, investing, and managing risks. This skill is becoming more crucial due to the wide range of complex financial products and services offered in today's modern digital age.

Gitman et al. (2011) emphasize that financial literacy is not limited to knowledge, but also includes skills in applying financial information in making smart and responsible decisions. In the business world, particularly MSMEs, financial literacy has direct implications for cash flow management, long-term financial planning, and the ability to interact effectively with financial institutions (Panjaitan et al., 2024).

Empirical studies show that MSMEs with high financial literacy tend to have better performance, as they are able to manage finances systematically and minimize business failure risks (Lusardi & Mitchell, 2014; Rahadjeng et al., 2023). On the other hand, low financial literacy often leads to erroneous decision-making, such as using high-interest loans, dependence on informal debt, and lack of adequate financial planning.

### 2.4. The Influence of Financial Access on MSME Performance

Financial access is a fundamental element for MSME growth and sustainability because it directly plays a role in business operators' ability to obtain working capital, make investments, and face business risks. Various international and national studies consistently show that formal financial access significantly affects MSME performance. Rusliana et al. (2023), through World Bank Enterprise Survey panel data (2009–2015), revealed that MSMEs that do not face financial access constraints show higher sales growth and employment numbers, particularly at the medium-scale business level. Additionally, in their research on manufacturing firms in Makassar, they showed that financing access positively and significantly improves financial performance, unlike financial literacy which was found to be insignificant in that study.

Research by Rosavina et al. (2019) shows that financial access has a significant impact on financial performance and productivity of MSMEs in non-metropolitan areas in Indonesia. Furthermore, studies by Dela Cruz et al. (2023); Harvie (2019) state that MSMEs with access to formal credit tend to experience higher sales growth and profitability compared to MSMEs that only rely on internal capital. Considering the characteristics of MSMEs in Solok City that tend to face limited capital and formal financial networks, the first hypothesis is formulated as follows:

**$H_1$**: Better levels of financial access have a positive and significant influence on MSME performance in Solok City.

### 2.5. The Influence of Financial Literacy on MSME Performance

The mastery of financial concepts encompasses a person's capacity to comprehend and control a range of financial elements, such as handling earnings, expenditures, savings, investments, and grasping the potential risks involved (Lusardi & Mitchell, 2014). In the context of Micro, Small, and Medium Enterprise

(MSME) operators, financial literacy becomes a crucial factor in supporting strategic decision-making based on data and analysis, not merely intuition. This includes the ability to design budgets, conduct cash flow analysis, evaluate investment feasibility, and understand access to formal financial services.

A study by Rahadjeng et al. (2023) that examined MSMEs in the Greater Malang area shows that financial literacy has a positive and significant influence on business performance, even after being controlled by fintech and financial inclusion variables. This finding reinforces that basic financial capabilities remain an important foundation in supporting business growth, despite rapid development of digital financial infrastructure. In line with this, Amelia et al. (2020) state that adequate financial literacy can strengthen MSME sustainability, as business owners are able to respond to financial risks more adaptively and intelligently.

Wati et al. (2025) also confirm a positive relationship between financial literacy and MSME financial performance, reflected in increased operational efficiency, income stability, and profitability growth. Even outside the Indonesian context, a study in Malaysia by Yakob et al. (2021) shows that financial literacy contributes significantly to MSME performance statistically through linear regression testing, especially in investment decision-making and business debt management.

In the context of Solok City, which is dominated by micro business operators with limited access to formal financial education and digital financial services, low financial literacy has the potential to become a major obstacle in developing businesses sustainably. Therefore, it is assumed that improving financial literacy will have a direct impact on business performance improvement, both in terms of working capital management, expenditure efficiency, and resilience to market fluctuations. Based on this argument, the proposed hypothesis is:

**$H_2$**: Higher financial literacy positively and significantly influences MSME performance in Solok City.

## 3. Methodology

### 3.1. Research Type and Approach

This study is a quantitative research utilizing an associative methodology to examine the relationship between two separate factors: financial inclusion and financial literacy, and how they impact the performance of Micro, Small, and Medium Enterprises (MSMEs). This approach is used because the research focuses on causal relationships between variables that are tested through statistical analysis.

### 3.2. Research Location and Object

The research was conducted in Bukit Sundi and Kubung Districts, Solok Regency, West Sumatra. The research object is owners of 3 kg LPG gas depot businesses who are classified as MSME operators in both districts.

### 3.3. Population and Sample

The study focuses on all MSME operators in Bukit Sundi and Kubung Districts who manage gas depots weighing 3 kg. A selective sampling technique was used to choose participants, specifically targeting those who have been actively running their businesses for a minimum of one year. The research included 40 participants for analysis. These individuals were also utilized to examine the accuracy and consistency of the tools being tested.

### 3.4. Data Types and Sources

This study employs primary data collected directly from participants via questionnaire administration. The instrument was developed utilizing appropriate indicators to assess three principal variables: Financial Inclusion, Financial Literacy, and MSME Performance. All questionnaire items were evaluated using a five-point Likert scale, ranging from 1 (Strongly Disagree) to 5 (Strongly Agree).

### 3.5. Data Collection Technique

Data collection technique was conducted through distributing closed questionnaires to respondents. The researcher provided initial explanations regarding the research objectives and ensured that filling was done independently by business operators.

### 3.6. Data Analysis Technique

Quantitative data analysis in this study was carried out using the SPSS version 19 software. The first step is to conduct validity testing on the research instrument, which aims to determine the extent to which each statement item can measure the intended variable. The validity is examined through Pearson Product Moment correlation, where an item is considered valid if the computed r value exceeds the table r value at a 5% significance level. Following this, a reliability assessment is carried out to assess the internal consistency of the tool, determined by Cronbach's Alpha coefficient. A variable is considered reliable if the Cronbach's Alpha value is above 0.60, suggesting confidence in the instrument.

Once the instrument is confirmed to be valid and dependable, traditional assumption checks are carried out to verify that the data is suitable for multiple linear regression analysis. The traditional assumption tests involve a normality test (for assessing data distribution), a multicollinearity test (for examining connections between independent variables), and a heteroscedasticity test (to confirm stability in residual variance). If these three criteria are satisfied, the regression analysis can proceed.

Additionally, to assess the combined and partial impact of financial inclusion and financial literacy on MSME performance, a multiple linear regression analysis is conducted. The model utilized for the regression equation is as follows:

$$\mathbf{Y=a+b1X1+b2X2+e}$$

Where :

Y : MSME performance

$X_1$ : financial inclusion

$X_2$ : financial literacy

A : constant

$b_1$ and $b_2$ : regression coefficients

e : error term

There are two different methods used for hypothesis testing, known as the t-test (partial) and the F-test (simultaneous). The t-test is utilized to evaluate the impact of individual independent variables on the dependent variable, whereas the F-test is used to assess the combined impact of both independent variables. When making decisions during hypothesis testing, significance values (< 0.05) are considered along with comparing the calculated t/F values to the table t/F values. Additionally, testing for the coefficient of determination ($R^2$) is done to understand the percentage of variance in the dependent variable that can be explained by the independent variables.

## 4. Results and Discussion

### 4.1. Results

#### 4.1.1. Instrument Test

1) Validity Test

The SPSS 19 statistical software was utilized to determine the validity of the test in this research. The participants in the validity assessment were MSME stakeholders, totaling 40 individuals. A minimum of 40 respondents is required for conducting a pre-test on a questionnaire.

**Table 1. Results of Financial Inclusion Validity Test**

| Statement | R value | R table | Description |
|---|---|---|---|
| X2.1 | 0,853 | 0,3120 | Valid |
| X2.2 | 0,838 | 0,3120 | Valid |
| X2.3 | 0,641 | 0,3120 | Valid |
| X2.4 | 0,492 | 0,3120 | Valid |
| X2.5 | 0,542 | 0,3120 | Valid |

The information provided in the table 1 demonstrates that the Financial Inclusion factor meets the criteria for validity across all question items. By comparing the r-value to the r-table value of 0.3120, it can be inferred that each individual item within the financial inclusion category is deemed valid and dependable for the purposes of this research.

2) Realibility test

**Table 2. Results of Financial Inclusion Reliability Test**

| Statement | R value | R table | Description |
|---|---|---|---|
| X1.1 | 0,526 | 0,3120 | Valid |
| X1.2 | 0,505 | 0,3120 | Valid |
| X1.3 | 0,429 | 0,3120 | Valid |
| X1.4 | 0,387 | 0,3120 | Valid |
| X1.5 | 0,697 | 0,3120 | Valid |

The table 2 above shows that the Financial Literacy variable meets the validity criteria for all question items. It can be inferred from the fact that the r-value exceeds the r-table value of 0.3120 that all the items pertaining to financial literacy in this study are deemed both valid and reliable.

#### 4.1.2. Classical Assumption Test

1) Multiple Linear Regression Analysis

Multiple Linear Regression is a form of linear regression that involves multiple predictors or independent variables. It explores the relationship among several variables in numerical data. The formula for multiple regression can be expressed as follows:

$$Y = a + b_1X_1 + b_2X_2 + e$$

A research project utilized the SPSS version 19 program to perform a series of linear regression analyses. The results of these analyses are detailed in the following section.

**Table 3. Multiple Linear Regression Analysis Result**

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | 16,568 | 4,024 | | 4,118 | ,000 |
| | X1 | -,222 | ,145 | -,224 | -1,529 | ,135 |
| | X2 | ,379 | ,131 | ,422 | 2,886 | ,006 |

According to the information in the table provided, the linear equation is represented in the following manner:

$$Y = a + b_1X_1 + b_2X_2 + e$$

$$Y = 16.568 - 0.222X_1 + 0.379X_2 + e$$

Where:

Y : MSME Performance

a : Constant

$b_1$, $b_2$ : Coefficients of variables $X_1$ and $X_2$

$X_1$ : Financial Inclusion

$X_2$ : Financial Literacy

e : Error term

The interpretation of the analysis can be derived from the multiple linear regression equation provided:

a. The intercept term of 16.568 represents the baseline MSME performance level for 3 kg gas stations in Bukit Sundi and Kubung Districts, Solok Regency, when both Financial Inclusion ($X_1$) and Financial Literacy ($X_2$) variables are held at zero or maintain their current state.
b. Financial Inclusion ($X_1$) demonstrates an inverse relationship with MSME performance, as evidenced by its negative coefficient of -0.222. This suggests that each unit increase in Financial Inclusion corresponds to a 0.222-unit decline in performance among 3 kg gas stations in the study area, assuming all other factors remain unchanged.
c. Conversely, Financial Literacy ($X_2$) exhibits a direct positive association with business performance, reflected in its coefficient of 0.379. This indicates that for every one-unit enhancement in Financial Literacy, MSME performance experiences a corresponding improvement of 0.379 units, holding other variables constant.

### 4.1.3. Hypothesis Test

1) Partial Test( T-Test)

The t-test is utilised for assessing the partial relationship of individual regression coefficients with their independent variables to ascertain the impact of each independent variable on the dependent one. Through the regression analysis, the outcomes obtained are as outlined below:

**Table 4. T-test Results**

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | 16,568 | 4,024 | | 4,118 | ,000 |
| | X1 | -,222 | ,145 | -,224 | -1,529 | ,135 |
| | X2 | ,379 | ,131 | ,422 | 2,886 | ,006 |

According to the findings displayed in the table, the impact of the independent factors on the dependent factor can be explained in the following manner:

a. The statistical evaluation of Financial Inclusion's ($X_1$) effect on MSME Performance (Y) was conducted through t-test analysis, which assesses whether the t-value exceeds the critical threshold. The decision criterion requires either the calculated t-value to surpass the table value or the p-value to fall below the 0.05 significance threshold for hypothesis acceptance. The analysis revealed a calculated t-statistic of -1.529 with an associated p-value of 0.135 for the Financial Inclusion variable. Given that the absolute t-value falls short of the t-table ($|-1.529| < 1.687$) and the p-value exceeds the significance threshold ($0.135 > 0.05$), hypothesis $H_1$ is not supported. Consequently, the findings indicate that Financial Inclusion exerts no statistically meaningful influence on MSME performance among 3 kg gas stations operating in Bukit Sundi and Kubung Districts, Solok Regency.
b. Statistical examination of Financial Literacy's ($X_2$) relationship with MSME Performance (Y) employed t-test methodology to establish significance. The analytical framework requires the t-value to exceed the t-table value, alternatively achieving a significance level below the $\alpha = 0.05$ threshold for hypothesis validation. Results demonstrate that Financial Literacy generated a t-statistic of 2.886 alongside a significance value of 0.006. Since the computed statistic surpasses the critical benchmark ($2.886 > 1.687$) while simultaneously achieving statistical significance ($0.006 < 0.05$), hypothesis $H_2$ receives empirical support. These findings establish that Financial Literacy exerts a statistically significant and meaningful impact on MSME performance within the 3 kg gas station sector across Bukit Sundi and Kubung Districts in Solok Regency.

2) Simultaneous Significance Test (F-Test)

The F-test is employed to evaluate whether the combined independent variables have an effect on the dependent variable as a whole. This test is conducted to establish this. The results of the simultaneous regression analysis using the F-test are showcased. Examination for Coefficient of Determination ($R^2$ Test) The coefficient of determination ($R^2$) is utilized to measure the extent to which the model explains the variability of the dependent variable. The value of the coefficient of determination ranges from zero to one.

**Table 5. F-test Results**

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | 22,975 | 2 | 11,487 | 5,000 | ,012a |
| | Residual | 85,000 | 37 | 2,297 | | |
| | Total | 107,975 | 39 | | | |

According to the data provided in the table, the F-value is 5.000 at a significance level of 0.012, while the F-table is 3.252. The results of the analysis of variance indicate that the F-value of 5.000 is higher than the F-table of 3.252 with a significance level of 0.012, which is below 0.05. This suggests that both Financial Inclusion (X1) and Financial Literacy (X2) have a significant collective influence on MSME performance (Y). As a result, one can conclude that the third hypothesis (H3) is supported.

3) The Coefficient of Determination ($R^2$)

The R-squared test is utilised to ascertain the extent to which the variables of Financial Inclusion and Literacy impact the variable of MSME Performance, with the R value representing the level of correlation between the variables. The outcomes of the determination coefficient are outlined below:

**Table 6. Coefficient of Determination Test Results**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|---|---|---|---|---|
| 1 | ,461a | ,213 | ,170 | 1,516 |

R Square, also called the coefficient of determination, shows how much of the variation in the outcome variable can be attributed to the predictors. It is often presented as a percentage, illustrating the degree to which the predictors influence the outcome. This metric evaluates how the predictors impact the outcome variable. The data presented in the table indicates an R square value of 0.213, equivalent to 21.3%. This suggests that Financial Inclusion (X1) and Financial Literacy (X2) have a significant connection with MSME Performance (Y) by 21.3%. The remaining 78.7% (0.787) could be influenced by other factors not analysed in this study, such as Government Policies, Access to Capital, Managerial Skills, External Factors, Technology and Innovation, Business Networks, and Collaboration.

### 4.2. Discussion

#### 4.2.1. The Influence of Financial Access on MSME Performance

The preliminary findings indicate that financial access does not play a major role in influencing the performance of MSMEs in the Bukit Sundi and Kubung Districts. This is evident from the t-value of -1.529, which falls below the t-table value of 1.687, with a significance level of 0.135 (> 0.05). Therefore, despite having access to formal financial services, business owners have not seen a direct impact on their business performance.

The results align with research conducted by Rosavina et al. (2019) which suggests that obstacles such as bureaucratic restrictions, absence of collateral, and skepticism towards banks can impede small business owners from gaining financial services. Additionally, the characteristics of semi-urban areas like Solok also have limited banking infrastructure that can hinder the even distribution of formal financial services (Allen et al., 2016). Thus, it can be concluded that the availability of financial access is not automatically proportional to improved business performance, especially if MSME operators do not yet have adequate capacity and financial literacy to utilize such access productively.

This finding has several important implications. Theoretically, this result shows that the availability of formal financial access alone is not sufficient to drive business performance improvement, especially in the context of semi-urban areas that have limited infrastructure and digital literacy. This indicates the need for a more contextual approach in viewing the relationship between financial access and MSME performance, including considering other supporting factors such as business mentoring, quality of financial services, and the ability of business operators to utilize available facilities. Practically, this finding serves as a warning for financial institutions and policymakers not to focus solely on expanding access, but also on improving the utilization of financial services that are targeted and appropriate to the characteristics of micro business operators.

#### 4.2.2. The Influence of Financial Literacy on MSME Performance

Financial literacy has been demonstrated to greatly impact the performance of MSMEs, unlike financial access. The results of the t-test reveal that the value of t-value is 2.886, exceeding the t-table of 1.687 with a significance level of 0.006 (less than 0.05), thereby supporting the hypothesis. This indicates that an increase in financial literacy is linked to an improvement in the performance of MSMEs.

Business operators with good financial literacy are able to prepare budgets, manage cash flow, understand business risks, and make more rational financial decisions. This finding is in line with studies by Lusardi & Mitchell (2014) and Rahadjeng et al. (2023), which state that financial literacy plays an important role in improving operational efficiency and MSME profitability. Even in the context of digitalization, financial literacy becomes the main provision in utilizing rapidly developing financial technology (Wati et al., 2025). Thus, financial literacy becomes an important determinant factor that can improve the resilience and sustainability of MSME businesses, particularly in micro sectors such as 3 kg LPG gas depots.

From a theoretical perspective, this result strengthens previous literature stating that business operators' understanding and ability to manage finances intelligently becomes an important foundation in maintaining business sustainability. This indicates that financial literacy not only serves as a supporting variable, but as one of the main determinants in improving operational efficiency and competitiveness of small businesses. Meanwhile, practically, this finding suggests the need for more serious policy interventions to improve the financial literacy capacity of MSME operators. Applicable training programs, finance-based business mentoring, and provision of easily accessible information can be effective strategies to help business operators make wiser and more strategic decisions.

#### 4.2.3. The Simultaneous Influence of Financial Access and Literacy on MSME Performance

Although financial access is not significant partially, simultaneously together with financial literacy, both variables show significant influence on MSME performance. The F-test results produce an F-value of 5.000 > F-table 3.252 with a significance of 0.012 (< 0.05), which means that the combination of financial access and financial literacy can explain variations in business performance collectively. With an R Square value of 0.213, it is known that 21.3% of MSME performance variation can be explained by both independent variables. The remainder (78.7%) is likely influenced by other factors such as business management, business networks, technology, policy support, and local market conditions. This finding is in line with studies by Senevirathne et al. (2024) which emphasize that the effectiveness of financial access is greatly influenced by the level of financial literacy of business operators. Without adequate understanding, financial access will not be optimized and can even become a business burden, for example through the use of non-productive consumptive credit.

Based on the simultaneous test results, it shows that although individually financial access does not have much impact, in combination with financial literacy, its contribution to performance improvement becomes evident. This leads to the understanding that financial literacy can serve as an enabler in utilizing available financial access. Theoretically, this finding can enrich discourse regarding interactive relationships between financial variables in influencing business performance. Meanwhile, from a practical perspective, this result emphasizes the importance of an integrated approach in MSME empowerment, namely not only expanding access, but also ensuring that business operators have adequate capabilities to utilize such access optimally. MSME support programs should be designed comprehensively, covering aspects of financial education and facilitation of access to financial services that complement each other.

## 5. Conclusion

According to the findings from a research on the influence of financial inclusion and financial literacy on the productivity of small and medium enterprises (SMEs) at 3 kg gas stations in Bukit Sundi and Kubung Districts, Solok Regency, a number of inferences can be made. Initially, it was observed that financial inclusion (X1) did not have a significant impact on SME performance (Y), as demonstrated by a t-value of -1.529, which falls below the t-table of 1.687, and a significance level of 0.135, exceeding the 0.05 threshold. On the other hand, financial literacy (X2) was found to play a role in SME performance, with a t-value of 2.886 exceeding the t-table of 1.687, and a significance level of 0.006, below 0.05. Moreover, the research shows that the combined influence of financial inclusion and financial literacy on SME performance is evident, as indicated by a F-value of 5.000 exceeding the F-table of 3.252, with a significance level of 0.012, suggesting a shared impact on performance outcomes.

Based on these findings, the author offers several suggestions. For researchers, the study serves as a point of comparison between theoretical understanding and practical application based on observed data and facts. For the owners of 3 kg gas stations in Bukit Sundi and Kubung Districts, efforts should be made to improve MSME performance to achieve desired objectives. For other institutions, the findings may serve as a useful reference to enhance knowledge and information. Finally, future researchers are encouraged to explore additional variables beyond those studied here, such as incentives, work quality, and work productivity, to produce more diverse and comprehensive results.

## 6. References

Allen, F., Demirguc-Kunt, A., Klapper, L., & Peria, M. S. M. (2016). The foundations of financial inclusion: Understanding ownership and use of formal accounts. *Journal of Financial Intermediation*, *27*, 1–30.

Amelia, Y., Nauli, P., & Desriani, N. (2020). The impact of financial literacy on the performance and sustainability of SMEs in Indonesia. In *The Future Opportunities and Challenges of Business in Digital Era 4.0* (pp. 299–302). Routledge.

Beck, T., Demirgüç-Kunt, A., & Maksimovic, V. (2008). Financing patterns around the world: Are small firms different?☆. *Journal of Financial Economics*, *89*(3), 467–487. https://doi.org/10.1016/j.jfineco.2007.10.005

Buchdadi, A. D. (2020). The Influence Of Financial Literacy On Smes Performance Through Access To Finance And Financial Risk Attitude As Mediation Variables. *Academy of Accounting and Financial Studies Journal*, *24*(5), 1–16.

Dela Cruz, N. A., Villanueva, A. C. B., Tolin, L. A., Disse, S., Lensink, R., & White, H. (2023). PROTOCOL: Effects of interventions to improve access to financial services for micro-, small-and medium-sized enterprises in low-and middle-income countries: An evidence and gap map. *Campbell Systematic Reviews*, *19*(3), e1341.

Gitman, L. J., Joehnk, M. D., & Billingsley, R. S. (2011). *Personal financial planning*.

Gonzales, E., Hommes, M., & Mirmulstein, M. L. (2014). MSME country indicators 2014. *Towards a Better Understanding of Micro, Small, and Medium Enterprises. Analysis Note, Washington, DC, Corporación Financiera Internacional (CFI), Diciembre*.

Guntur, M., Khumairah, F., Niswaty, R., & Arhas, S. H. (2024). Strategic planning for development of micro enterprises at the Department of Trade, Industry, Cooperatives, and Small and Medium Enterprises, Soppeng Regency. *KnE Social Sciences*, 1189–1202.

Harvie, C. (2019). Micro-, small-and medium-sized enterprises (MSMEs): challenges, opportunities and sustainability in East Asia. *Trade Logistics in Landlocked and Resource Cursed Asian Countries*, 155–174.

Krishnan, J., Mondal, S., & SEM, I. (2012). Financial inclusion. *Emerging Strategies For Sustainable Growth & Competence*, 716.

Lusardi, A., & Mitchell, O. S. (2014). The economic importance of financial literacy: Theory and evidence. *American Economic Journal: Journal of Economic Literature*, *52*(1), 5–44.

Mabula, J. B. (2018). Financial literacy of SME managers' on access to finance and performance: The mediating role of financial service utilization. *International Journal of Advanced Computer Science and Applications*, *9*(9), 32–41. https://doi.org/10.14569/ijacsa.2018.090905

Panjaitan, F., Setowati, S. M., & Mahulete, Y. C. (2024). Peer To Peer Lending : Generation Z Attraction Factors and Future Implications. *TRANSEKONOMIKA: AKUNTANSI, BISNIS DAN KEUANGAN*, *4*(4), 422–437. https://doi.org/10.55047/transekonomika.v4i4.678

Park, C.-Y., & Mercado, R. J. (2015). Financial Inclusion, Poverty, and Income Inequality in Developing Asia. *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.2558936

Purwidianti, W., Tubastuvi, N., Darmawan, A., & Rahmawati, I. Y. (2022). Does Financial Behavior Mediate The Relationship Between Financial Literacy and Financial Experience Towards Financial Performance of Small Businesses? *International Conference on Sustainable Innovation Track Accounting and Management Sciences (ICOSIAMS 2021)*, 235–241.

Rahadjeng, E. R., Pratikto, H., Mukhlis, I., & Restuningdiah, N. (2023). Analysis of financial technology, financial literacy, financial attitudes, on mediated business performance financial inclusion and self-efficiency in small medium industry (SMI) in Malang city, Indonesia. *International Journal of Professional Business Review: Int. J. Prof. Bus. Rev.*, *8*(8), 45.

Rahadjeng, E. R., Pratikto, H., Mukhlis, I., Restuningdiah, N., & Mala, I. K. (2023). The impact of financial literacy, financial technology, and financial inclusion on SME business performance in Malang Raya, Indonesia. *Journal of Social Economics Research*, *10*(4), 146–160.

Rosavina, M., Rahadi, R. A., Kitri, M. L., Nuraeni, S., & Mayangsari, L. (2019). P2P lending adoption by SMEs in Indonesia. *Qualitative Research in Financial Markets*, *11*(2), 260–279.

Rusliana, N., Alisjahbana, A. S., Budiono, B., & Purnagunawan, R. M. (2023). Performance of small and medium enterprises in Indonesia impacted by financial accessibility. *Jurnal Ekonomi Pembangunan: Kajian Masalah Ekonomi Dan Pembangunan*, 293–307.

Senevirathne, W. A. R., Azeez, A. A., & Ediriwickrama, T. C. (2024). *The synergistic effects of financial literacy and inclusion on firm performance: a systematic literature review*.

Sinaga, A. A. P., & Sitorus, S. A. (2023). The role of micro, small and medium enterprises (MSMEs) towards community welfare in Medan City. *Economics, Management and Sustainability*, *8*(2), 44–52.

Tambunan, T. (2019). Recent evidence of the development of micro, small and medium enterprises in Indonesia. *Journal of Global Entrepreneurship Research*, *9*(1). https://doi.org/10.1186/s40497-018-0140-4

Wati, K. L., Sianturi, M., & Liswatin, L. (2025). The Impact of Financial Literacy on SMEs Performance: The Role of Access to Financial Resources as a Mediator. *RIGGS: Journal of Artificial Intelligence and Digital Business*, *4*(2), 5969–5979.

Wiagustini, N. L. P., Ramantha, I. W., & Putra, I. (2023). Financial Literacy and Financial Behavior Encouraging Business Sustainability by Mediation of Financial Performance. *Quality-Access to Success*, *24*(192).

Yakob, S., Yakob, R., BAM, H.-S., & Rusli, R. Z. A. (2021). Financial literacy and financial performance of small and medium-sized enterprises. *The South East Asian Journal of Management*, *15*(1), 5.

Zait, A., & Bertea, P. E. (2015). Financial literacy–Conceptual definition and proposed approach for a measurement instrument. *The Journal Of Accounting and Management*, *4*(3).