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(AIJBES)**www.aijbbs.com**THE INFLUENCE OF FINANCIAL LITERACY AND FINANCIAL
INCLUSION ON SMALL AND MEDIUM ENTREPRISES (SMEs)**Fauziah Buhari^{1*}, Rismawati Rismawati², Imam Pribadi³¹ Department of Management, Muhammadiyah University of Palopo, Palopo
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DOI: 10.35631/AIJBS.622007This work is licensed under [CC BY 4.0](https://creativecommons.org/licenses/by/4.0/)**Abstract:**

Small and medium-sized enterprises (SMEs) employ 97% of Indonesia's workers and account for more than 60% of the nation's GDP. The aim of this study is to examine the relationship among financial literacy, financial inclusion, and the performance of small and medium-sized businesses. Structured questionnaires were utilized to collect data from 380 SMEs utilizing a quantitative technique and a cross-sectional survey design. Financial inclusion and literacy were measured using five-point Likert scales. The statistical studies that were performed included descriptive analysis, reliability and validity tests, multiple regression, and Pearson correlation. The findings demonstrate that financial literacy and financial inclusion both positively impact SMEs' performance and complement one another. This study highlights the critical need for integrated policies and efforts that enhance financial literacy and inclusivity in order to promote the growth and sustainability of SMEs. It is distinctive in that it shows the beneficial relationship between these elements while promoting an all-encompassing approach to optimize the performance of SMEs in Indonesia.

Keywords:

Financial Inclusion, Financial Literacy, SMEs, Performance, GDP

Introduction

Global poverty and income inequality are increasingly impacting people of diverse ages, socioeconomic backgrounds, and regions, which could lead to social unrest and other issues (Crowley & Barlow, 2022). These challenges are particularly common in developing nations

throughout Eastern Europe, Asia, and Africa (Junaidi et al., 2023). For instance, in 2022, unemployment rates ranged from approximately 6–10% in Latin America, exceeded 15% in Africa, and stood at around 5–7% in ASEAN countries. Notably, several European nations, including France, Finland, Italy, Spain, Sweden, and Portugal, also confront these issues, with about 14% of their Generation Z population unemployed, as reported by the International Monetary Fund in 2023. In China and India, promoting small and medium-sized enterprises (SMEs) and entrepreneurship is viewed as a vital strategy for alleviating unemployment (Ramesh, 2020). In regions like the Gulf Cooperation Council (GCC) countries, where SMEs and entrepreneurship are predominantly led by older individuals, there is a pressing need to support the emergence of young entrepreneurs. For example, only 3.10% of Indonesia's population is involved in small business ownership or entrepreneurship, which is lower than in other ASEAN countries such as Malaysia, Thailand, and Singapore, where over 5% are entrepreneurs. Financial inclusion and literacy play crucial roles in determining the success of SMEs and the growth of entrepreneurial ventures.

The economic development of many countries, including Indonesia, significantly depends on small and medium-sized enterprises (SMEs). In Indonesia, SMEs are a crucial part of the business landscape and have demonstrated consistent growth each year. Data from Indonesia's Ministry of Cooperatives and Small and Medium Enterprises (Kemenkop UMKM) indicates a substantial increase in the number of SMEs between 2018 and 2023. Currently, this sector is essential to the Indonesian economy, comprising about 66 million business units, contributing 61.9% to the GDP, and providing jobs for approximately 97% of the workforce, which amounts to over 117 million people (Kemenko Perekonomian, 2023).

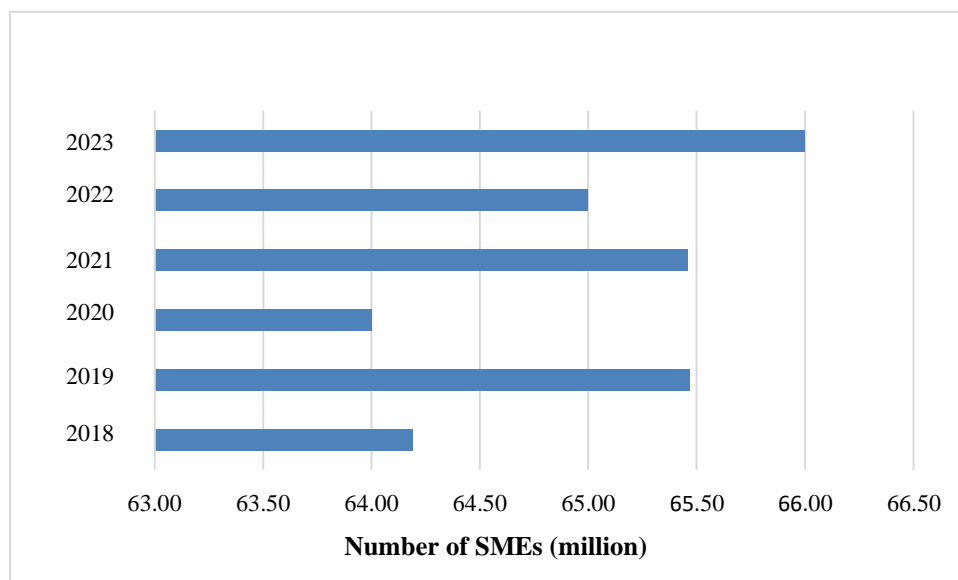


Figure 1. Number of SMEs in Indonesia 2018 - 2023

As illustrated in Figure 1, SMEs have experienced significant growth. They play a crucial role in driving Indonesia's economic development, contributing to the local economy and creating jobs. The government has implemented various support initiatives, including incentive assistance, People's Business Credit funding, and the digital transformation of SME marketing. However, SMEs frequently face challenges such as limited capital, restricted access to banking and markets, insufficient technical skills, a lack of management expertise, and inadequate

financial literacy and inclusion. To ensure long-term sustainability and minimize financial risks, it is essential for SMEs to develop financial literacy to manage their finances effectively. Good financial management is vital for these enterprises, as it helps organize their finances from the outset and promotes ongoing growth.

Studies indicate that financial literacy—which encompasses the knowledge, skills, and attitudes essential for managing finances—plays a crucial role in enhancing business success. Research suggests that SME owners with adequate financial literacy are better equipped for risk management, business planning, and making more informed financial decisions (Lusardi & Mitchell, 2014). Higher financial literacy allows SME actors to access relevant financial data and make decisions that contribute to their company's success (Huston, 2020; Junaidi, 2024). Beyond financial literacy, financial inclusion also plays a pivotal role in SMEs' success. Alrasyid and Sultan (2024) define financial inclusion as the provision of financial services to all, especially to those who lack access through conventional financial institutions. According to Demircuc-Kunt et al. (2017), increased financial inclusion significantly promotes economic growth and reduces poverty. By accessing financial services like loans, savings, and insurance, SMEs can better manage liquidity, secure funding, and safeguard against financial risks (Allen et al., 2022). Despite their recognized importance, challenges remain in utilizing these resources within the SME sector. Some SMEs still face obstacles in accessing relevant financial information and services that align with their needs due to inadequate infrastructure, low adoption of financial services in rural areas, and limited financial education (Beck, 2021). These barriers hinder SME growth as they often miss opportunities for expansion. Grohmann & Menkhoff (2021) note that SMEs with limited financial literacy tend to avoid formal financial services, which may limit their access to safer and more affordable funding options.

In order for SMES players to have access to suitable formal financing, like banks, it is necessary to raise their level of financial literacy. When SMES actors possess the necessary financial literacy, they may use their skills in financial areas, including taking calculated risks and choosing the best investments for their company (Syaliha et al., 2022). Raising SMES players' financial literacy is essential to giving them access to more beneficial formal financial services. SMES participants must also comprehend financial literacy in order to effectively manage their finances, guarantee long-term business sustainability, and mitigate the effects of financial risk. The aim of this study is to examine the relationship among financial inclusion, financial literacy, and the performance of SMEs in the micro and small sectors. Using a case study approach, this research will look at how these two factors impact the commercial performance of SMEs. The results of the research provide insight into how to encourage financial literacy and inclusion among SMEs and how this might improve business success.

Literature Review

Theory of Financial Literacy

Financial literacy is the ability to understand and apply various financial skills, including investing, budgeting, and personal finance management. A strong grasp of financial concepts enables both individuals and businesses to reduce risks and make well-informed financial decisions (Lusardi, 2019). Research indicates that higher financial literacy levels positively affect money management in both personal and professional contexts, promoting economic stability and business growth (Huston, 2020). Financial literacy is built on three foundational elements: financial behavior, financial attitudes, and financial knowledge. Understanding fundamental financial principles—such as compound interest, diversification, and investment

risks—is crucial. Financial behaviors encompass actions like managing debt, investing, and saving, which are relevant to both individuals and businesses. Conversely, financial attitudes reflect the beliefs and values that influence financial choices (Potrich et al., 2015). Additionally, Lusardi (2019) emphasizes that financial literacy encompasses the ability to manage and organize finances to achieve a broader range of life goals, extending beyond just knowledge of financial products and services.

Financial literacy is crucial because it may improve people's capacity to make prudent investments, save for the future, and be ready for retirement. Better general well-being and less financial stress are also linked to having strong financial knowledge. Making business decisions is significantly impacted by financial literacy as well. High financial literacy may help SME owners maximise working capital utilisation, manage cash flow more skillfully, and spot lucrative investment possibilities. For instance, Grohmann & Menkhoff's (2021) study shows that SMEs that have a solid grasp of financial principles are more likely to be able to get outside funding and increase their profitability. Financial knowledge is thus essential to attaining the sustainability and expansion of a corporation. In terms of public policy, many nations and international organizations now prioritize raising the general people's level of financial literacy. Training and workshops are examples of targeted financial education initiatives that are designed to improve people's financial literacy. These programs have been successful in raising financial literacy and advancing financial inclusion, according to indications (2019). In order to improve their financial well-being and make wiser financial choices in both personal and professional situations, these programs seek to provide people and SMEs with pertinent and useful information.

Financial Inclusion Theory

Financial inclusion is defined as the ability of all population segments, particularly those neglected by traditional financial institutions, to access and use financial services. Demirguc-Kunt et al. (2017) emphasize that financial inclusion is crucial for reducing poverty and enhancing economic welfare. The World Bank (2022) outlines financial inclusion as providing individuals with access to a variety of quality financial services and products, including loans, insurance, savings, and payment methods. Kaizah et al. (2022) highlight that this concept underscores the significance of universal access to financial services in encouraging broader economic participation. By gaining access to financial services, individuals and businesses are empowered to save, borrow, and invest, ultimately fostering economic stability and growth (Allen et al., 2022). Studies also suggest that financial inclusion can help reduce economic inequality by offering more opportunities to previously marginalized groups (Beck, 2021).

Markets also heavily depends on financial inclusion. Financial inclusion may lessen dependence on unofficial financing sources, which are often riskier and more costly, by increasing access to legitimate financial services. Higher financial inclusion levels are often associated with more stable and effective financial systems, according to research by Fouejieu et al. (2020). The broader financing source for profitable investments and improved risk diversification are the results of more involvement in the formal financial system. Furthermore, given the growth of financial technology, or fintech, financial inclusion may spur innovation in the financial industry (Soviatri & Rismawati, 2024). Fintech has created new avenues for improving financial inclusion by offering quicker, more affordable, and more accessible financial solutions. Peer-to-peer lending, technology-based investment platforms, and digital payment systems, for instance, have made it possible for more individuals and companies to get financial services that were previously unattainable (Laukkanen, 2023). Thus, financial

inclusion fosters equitable and sustainable economic development in addition to improving the well-being of people and enterprises.

SMEs Performance Theory

Revenue growth, profitability, productivity, and company sustainability are some of the indicators that are often used to assess the performance of small and medium-sized enterprises (SMEs). The success of SMEs is influenced by many factors, including managerial talent, financial management, capital availability, and innovation, according to business performance theory (Lee et al., 2021). Research indicates that financial literacy and financial inclusion are crucial elements that might help SMEs manage their financial resources more effectively, thereby enhancing their performance (Grohmann & Menkhoff, 2021). Financial management is one of the main foundations assisting SMEs in their success (Rismawati et al., 2024).

Effective financial management makes SMEs more stable and growth-oriented, according to this theory. Effective financial management includes understanding cash flow, controlling costs, and long-term financial planning. Research by Eniola & Entebang (2017) shows that effective financial management enables SMEs to maximize resource use, reduce operational costs, and increase profitability. In addition to financial management, access to capital is also an important factor influencing SMEs performance.

SMEs to invest in technology, expand production capacity, and develop new products or services. According to social capital theory, positive networks and relationships with financial institutions can help SMEs gain better access to funding sources (Nahapiet & Ghoshal, 1998). Research by Rahman et al. (2020) demonstrates that SMEs that have greater access to capital tend to be more innovative and capable of surviving in a competitive market. Innovation is also a crucial component of SMEs performance (Soviatri & Rismawati, 2024). Innovation not only includes the development of new products or services but also the implementation of more efficient business processes and adaptive business models. According to innovation theory, innovative SMEs tend to be more competitive and able to meet the ever-changing market demands (Piano, 2020). According to Ayyagari et al. (2021), innovative SMEs are more likely to grow and succeed in the global market. Innovation also enables SMEs to create added value and strengthen their position in the industry's value chain.

Financial Literacy and Financial Inclusion in SMEs Performance

Financial literacy and financial inclusion work together to influence the success of SMEs. High levels of financial literacy have been shown to foster financial inclusion by encouraging the use of formal financial services (Huston, 2020). Likewise, effective financial inclusion can enhance financial literacy by offering financial education and information through accessible services (Demirguc-Kunt et al., 2017). Research indicates that SMEs with solid financial literacy and readily available financial services tend to perform better than those lacking these advantages (Lusardi, 2019). Financial literacy enables SME owners to make more informed financial choices, while financial inclusion supplies the tools and knowledge necessary to implement these choices effectively (Allen et al., 2022).

SMEs may utilize and comprehend a variety of financial products, including business finance, insurance, and investment goods, with the help of financial literacy (Salju et al., 2023). This information lowers risks and boosts operational efficiency for SMEs by assisting them in more strategic financial planning and management. For example, SMEs may utilize business finance to grow their operations without taking on undue financial risk if they understand how it

operates (Grohmann & Menkhoff, 2021). In order to provide SMEs the access and infrastructure they need to expand, financial inclusion is also essential. SMEs may better manage cash flow, get funding for growth, and get beyond any financial obstacles they may have by having access to professional financial services. For instance, Beck (2021) demonstrates that SMEs that have more access to banking and financial services often expand faster and are better equipped to weather challenging economic times. Therefore, the performance and sustainability of SMEs are greatly enhanced by financial inclusion and financial literacy. Furthermore, improving financial inclusion and financial knowledge may benefit the economy more broadly. Financial inclusion and financial literacy may help reduce poverty, increase income, and create jobs by improving the performance of SMEs. According to a research by Allen et al. (2022), nations with high financial inclusion rates often have more fair income distribution and quicker economic development. As a result, financial inclusion and financial literacy are essential for both the success of SMEs and general economic growth.

Research Methodology

SMEs in Indonesia participated in this research using an offline survey conducted between May 1 and June 30, 2023. Prior to the official exam, pre-test and pilot tests are used. In the lack of a comprehensive list of Indonesia's SMEs, this research also used a critical selection approach as part of the purposive sampling strategy. To ensure the survey's validity and avoid bias, a random concept was used, along with a number of anonymous controls and filters. The purpose of the filter questions was to ensure that respondents fulfilled the two prerequisites for taking part in the survey: they had to be employed by SMEs. Researchers may also find patterns and causal correlations between variables using this method (James et al., 2020)

The study employs a cross-sectional survey design, chosen due to the efficiency of survey research in collecting data from large samples within a relatively short timeframe. This design provides a snapshot of the current levels of financial literacy, financial inclusion, and SME performance by gathering data at a single point (Fink, 2019). The research focuses on SMEs operating in Indonesia's micro and small industry sectors. A purposive sampling method is applied, selecting SMEs that have been active for a minimum of two years based on specified criteria. Financial literacy is assessed using a 5-point Likert scale, covering components such as financial knowledge, behavior, and attitudes (Potrich et al., 2015). Financial inclusion, which includes access to and usage of financial services and products, is also measured on a 5-point Likert scale (Demirguc-Kunt & Klapper, 2012). To gauge SME performance, the 5-point Likert scale examines indicators such as revenue growth, profit, productivity, and business sustainability (Lee et al., 2021).

Techniques for statistical analysis will be used to the gathered data. Among the phases of analysis are: Research variables and respondent characteristics are described using descriptive analysis. Validity and Reliability Test, to guarantee that the tool is consistent and assesses the appropriate things (Hair et al., 2019). To examine the connection between SMEs' performance and financial inclusion and literacy, Pearson Correlation Analysis was used (Field & Adelman, 2020). Multiple Regression, to discover the effect of financial literacy and financial inclusion on the performance of SMEs (Tabachnick & Fidell, 2018). To make sure the data satisfies the criteria of multiple linear regression, a traditional assumption test will be carried out prior to doing a regression analysis. This test will include: To guarantee a normal data distribution, use the normality test (Ghasemi & Zahediasl, 2012). To make sure there isn't a strong correlation between independent variables ($VIF < 10$), use the multicollinearity test (O'Brien, 2020). Breusch & Pagan used the heteroscedasticity test to determine the variance of the constant

residual in (Andriani, 2017). Durbin & Watson used the autocorrelation test to make sure the residual data had no autocorrelation (Turner, 2019).

Results and Discussion

Respondent Overview

In this study, an overview of respondents was used in a survey based on gender and faculty. For more details about the general description of the respondents, please see the table below:

Table 1. Respondent Overview

Characteristics Responden	Sum	%
Gender		
Female	200	53
Male	180	47
Total	380	100
Sector		
Trade	180	47
Service	120	32
Production/Manufacturing	80	21
Total	380	100
Region		
Sulawesi	130	34
Sumatra	45	12
Jawa	120	32
Kalimantan	55	14
Papua	30	8
Total	380	100

Source: Primer Data Processed 2024

Validity and Reliability Test

The following are the results of testing using SPSS 27, with the validity and feasibility test of the research variables as follows:

Table 2. Validity and Reliability Test

Variabel	Item	R Square	Cronbach's Alpha	Keterangan
Financial Literacy	X1.1	0.868	0.774	Valid/ Reliable
	X1.2	0.448		
	X1.3	0.756		
	X1.4	0.868		
	X1.5	0.553		
Financial Inclusion	X2.1	0.604	0.763	Valid/ Reliable
	X2.2	0.675		
	X2.3	0.798		
	X2.4	0.660		
	X2.5	0.562		
Peningkatan Kinerja UMKM	Y1	0.769	0.741	Valid/ Reliable
	Y2	0.787		
	Y3	0.214		
	Y4	0.748		
	Y5	0.494		

Source: Primer Data Processed 2024

Data Analysis

Multiple Linear Regression Test

- a. In order to ascertain the impact of financial inclusion and financial literacy on enhancing the performance of SMEs, the researcher used a multiple linear regression test.
- b.

Table 3. Multiple Linear Regression Analysis Test Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients		t	Sig.
	B	Std. Error	Beta			
1 (Constant)	10.032	.941			10.656	.000
Financial Literacy	.200	.040	.236		4.996	.000
Financial Inclusion	.311	.041	.356		7.548	.000

a. Dependent Variable: Improving the Performance of SMEs

Source: Primer Data Processed 2024

The findings of the multiple regression of SMEs' financial literacy and inclusion level are explained in Table 3. According to table 2's multiple linear regression test computation findings, the financial literacy variable's regression coefficient has a positive value of 0.200, indicating that a 1% increase in financial literacy would result in a 0.200 improvement in SMEs' performance. Table 2's multiple linear regression test computation results indicate that the financial inclusion variable's regression coefficient has a positive value of 0.311, indicating that a 1% increase in financial inclusion would result in a 0.311 improvement in SMEs' performance.

Hypothesis Testing

Test T (partial)

The t-test was used to determine the influence of independent variables on dependent variables. The results of the T Test are as follows.

Table 4. Model 1 Test Results Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients		t	Sig.
	B	Std. Error	Beta			
1 (Constant)	10.032	.941			10.656	.000
Financial Literacy	.200	.040	.236		4.996	.000
Financial Inclusion	.311	.041	.356		7.548	.000

a. Dependent Variable: Improving the Performance of SMEs

Source: Primer Data processed 2024

Based on table 4 on the results of the T test, it can be concluded as follows:

- a) According to the results of the T test, the t-value for the financial literacy variable is 4.996, which is greater than 1.649, with a significance level of 0.000, which is less than

0.05. This suggests that financial literacy significantly influences and plays a crucial role in enhancing the performance of SMEs in Indonesia.

- b) Based on the T test findings, the financial inclusion variable has a t-value of 7.548, exceeding 1.649, and a significance level of 0.000, below 0.05. This demonstrates that financial inclusion has a significant impact on the performance of SMEs in Indonesia.

Test F (Simultaneous)

To determine if the independent variables taken together may have an impact on the dependent variable, the F test was used. The following are the outcomes of the Model 1 F Test.:

Table 5. Test Result F ANOVA^a

	Model	Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	517.661	2	258.831	56.888	.000 ^b
	Residual	1715.296	377	4.550		
	Total	2232.958	379			

a. Dependent Variable: Improving the Performance of SMEs

b. Predictors: (Constant), Financial literacy, Financial inclusion

Source: Primer Data processed 2024

Table 5 was used to calculate the F test findings, which had a 5% significance level. Table 4 shows that the F value is $56.888 > 0.101$ and the significance value is $0.000 < 0.05$, indicating that both financial inclusion and financial literacy factors concurrently improve the performance of SMEs in Indonesia.

Determination Test (R²)

The degree of the link between dependent and independent variables is shown using the Determination Test (R²). The following are the Determination Test (R²) results.

Table 6. Determination Test (R²) Results Model 1 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.481 ^a	.232	.228	2.133

a. Predictors: (Constant), Financial Literacy, Financial Inclusion, SMEs Performance Improvement

Source: Primer Data processed 2024

According to the determination test results, the R Square was 0.232, or 23.2%. This indicates that financial inclusion and financial literacy improve the performance of SMEs by 23.2%, with other factors not included in this study influencing the remaining 76.7%.

Discussion

The first hypothesis—that financial literacy improves the performance of SMEs—is supported by this research. SMEs who possess sufficient financial literacy are better equipped to plan their enterprises, handle their money, and make more informed choices. Owners of SMEs may control cash flow, spot investment possibilities, and lower financial risks by having a solid understanding of financial management. This is important as small enterprises often have limited resources. Additionally, SMEs with high financial literacy are better equipped to comprehend and make use of a range of financial services and products, including investments, insurance, and business loans. With this information, SMEs can better manage risks and get

the funding they need to grow. Accurate financial statements, which are crucial instruments for assessing company performance and long-term strategic planning, are also made easier with the help of financial literacy. These results are also supported by earlier studies. Good financial literacy is linked to better financial management and enhanced corporate success, according to Lusardi et al. (2020). Improved financial literacy may boost competitiveness and business resilience in Indonesian SMEs, particularly in the face of constantly shifting economic circumstances. Programs to increase financial literacy should thus be given top attention in initiatives to boost SMEs.

The findings also lend credence to the second hypothesis, which holds that the performance of SMEs is favorably impacted by financial inclusion. Improved access to formal financial services makes it possible for SMEs to get the funding they need for growth and innovation. Access to secure and effective payment methods, which are essential for day-to-day activities, is another benefit of financial inclusion. SMEs may save transaction costs and improve operational efficiency with this access. Financial inclusion also gives SMEs access to risk protection and insurance services, which are essential for the long-term viability of their companies. SMEs may better manage risks and concentrate on company growth when they have insurance cover. SMEs may more readily embrace financial technology (fintech) advancements, which can boost productivity and competitiveness, when they have access to financial services. According to Allen et al. (2022), financial inclusion has a major influence on both economic development and the reduction of poverty. Improved financial inclusion in the context of SMEs may provide chances for more sustainable and inclusive development. Thus, initiatives to improve financial inclusion have to be a key component of Indonesian SMEs' growth plans.

The study reveals that both financial literacy and financial inclusion play a crucial role in enhancing SMEs' performance. The synergy of solid financial knowledge and adequate access to financial services forms a strong foundation for SMEs' growth and success. Financial literacy equips SME owners to make informed and careful decisions, while financial inclusion provides the necessary resources and tools to implement these choices. In essence, financial literacy and financial inclusion work hand in hand. For instance, with robust financial literacy, SMEs are better positioned to understand and utilize complex financial services, such as business financing and investments. Conversely, effective financial inclusion ensures broader access to these financial services, which may enhance financial literacy via frequent usage and real-world experience. The significance of a comprehensive strategy for enhancing SMEs' performance is shown by this research. Programs and policies that concentrate on only one area, such as financial inclusion or financial literacy, may not be enough to maximize the performance of SMEs. In order to improve financial literacy and increase financial inclusion at the same time, several efforts must work in concert. This will establish an environment that promotes Indonesian SMEs' expansion and sustainability.

Conclusion

The research illustrates that financial literacy positively influences SMEs' performance. SMEs with advanced financial literacy skills are better equipped to plan strategically, handle finances effectively, and make informed decisions. This leads to enhanced cash flow management, minimized risks, and the ability to identify and capitalize on investment opportunities. These findings underline the importance of prioritizing financial literacy programs in initiatives for SME growth. Additionally, the study reveals that financial inclusion significantly boosts SME performance. Access to formal financial services enables SMEs to use efficient payment

systems, obtain risk management tools such as insurance, and secure financing for growth and innovation. This access results in greater business sustainability, reduced transaction costs, and improved operational efficiency. These insights highlight the importance of integrating financial inclusion strategies into SME development programs. A key contribution of the study is its evidence that financial inclusion and financial literacy together strengthen SMEs' performance. The combination of financial knowledge and access to financial services provides a strong foundation for SME resilience and growth. Through this dual approach, SME owners can make well-informed decisions and utilize necessary resources effectively. The research emphasizes the need for comprehensive policies and initiatives that address financial inclusion and financial literacy to create a supportive environment for SMEs.

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