EFFORTS TO IMPROVE SMEs PERFORMANCE IN PURWOKERTO THROUGH FINANCIAL LITERACY, FINANCIAL INCLUSION AND DIGITIZATION

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Abstract
This study aims to examine the effect of financial literacy, financial inclusion, and digitization on the performance of SMEs. This study is quantitative and uses a survey method to collect data. An online questionnaire was distributed to respondents from SME managers in Purwokerto city. Data were analyzed using multiple regression analysis. The sample in this study was 118 respondents selected using a convenient sampling method. The results show that financial literacy, financial inclusion, and digitization positively affect SMEs’ performance. The results imply the importance of increasing financial literacy, financial inclusion, and digitization among SMEs in Purwokerto. The findings emphasize the crucial role of financial literacy, financial inclusion, and digitization in enhancing the performance and sustainability of SMEs in Purwokerto. These implications can lead to a supportive ecosystem that empowers SMEs, fosters economic growth, and creates regional employment opportunities.

Keywords: Financial literacy, financial inclusion, digitization, SMEs performance
JEL Classification: G23

INTRODUCTION
Small and Medium Enterprises (SMEs) play a significant role in the Indonesian economy, with the number of micro business actors estimated to be mostly engaged in the informal sector. This indicates symptoms of economic informalization. The formal sector must successfully absorb labor to shift to the informal sector. According to data from the Ministry of Cooperatives and SMEs, in 2022, the number of SMEs stands at 64.2 million, with a GDP contribution of 61.07% or a total value of 8,573.89 trillion rupiahs. SMEs contribute to the Indonesian economy by absorbing 97% of existing labor and collecting up to 60.4% of total investment. However, Indonesia’s enormous number of SMEs cannot be isolated from the existing challenges. Adawiyah (2013) argues that the factors that impede the growth of SMEs may come from internal and external, including having limited capital and limited access to various sources of funds (Anggraini &
Nasution, 2013; Irmawati, 2013; Yanti, 2019). Lack of managerial abilities exacerbates the situation. It brings difficulties for SMEs to meet the requirements for capital access (Rahmadani et al., 2020). Only 30% of the 56.54 million SMEs in Indonesia have access to financing (Bank Indonesia, 2015). According to the National Financial Literacy and Inclusion Survey findings from 2013 to 2022 by Financial Service Authority (OJK), the financial inclusion index is greater than the financial literacy index (OJK-RI, 2022).

Financial literacy and financial inclusion are intriguing topics to research since, according to the survey, there has been a rise in the percentage of people who are financially literate and financially included. Furthermore, the survey reveals a direct association between financial literacy and financial inclusion, as the better a person's financial literacy, the bigger the number of people who benefit from financial products and services (OJK-RI, 2022).

![Figure 1](image) Result of the 2022 National Financial Literacy and Financial Inclusion Survey

Understanding financial inclusion and literacy is critical for SMEs. This is because financial inclusion and literacy impact financial management, eventually impacting SMEs' performance and sustainability (Desiyanti, 2016). According to Resource Based Theory (RBT), SMEs perform better when holding tangible and intangible resources. (Barney, 1991). As a result, SMEs require deliberate initiatives to attain exceptional performance and a long-term business.

The ability of SMEs to meet predetermined targets is one of the performance indicators (Hasibuan et al., 2021). All types of businesses, particularly SMEs, must have targets to work well. The essential condition for achieving SME development is good performance in all aspects, such as financial, production, distribution, and marketing. Several studies have been conducted on the
factors that influence the performance of SMEs. (Astutie et al., 2016; Daniel et al., 2019; Wuryani & Septiani, 2020; Yanti, 2019).

Financial literacy is a process of increasing knowledge, skills, and confidence to be financially prosperous and capable of managing financial affairs (Hung et al., 2009; Lusardi & Mitchell, 2008; Santoso et al., 2015). According to Lestari (2015), financial literacy can be measured using an index that measures the level of knowledge, trust, and skills in financial institutions. Previous studies have found that financial literacy positively affects SMEs’ performance (Yanti, 2019; Wijayaangka & Kasenda, 2019; Idawati & Pratama, 2020; Kusuma et al., 2021). However, some others demonstrate no effect of financial literacy on the performance of SMEs (Naufal & Purwanto, 2022; Hilmawati; Bahiu et al., 2021).

According to Yanti (2019), financial inclusion refers to access to various formal financial institutions, products, and services based on the community's needs and capacities to increase people's welfare. Financial inclusion is required for numerous reasons, including improving economic efficiency, supporting financial system stability, lowering shadow banking or irresponsible finance, promoting the financial market, creating a potential market for banks, and supporting necessary reforms (Bank Indonesia, 2014)—studies on the relationship between financial inclusion and performance shows mixed results. Several studies show a significant effect of financial inclusion on the performance of SMEs (Sanistasya et al., 2019; Yanti, 2019; Septiyani & Wuryani, 2020), while some others found no effect of financial inclusion on SMEs’ performance (Dermawan, 2019; Hilmawati & Kusumaningtias, 2021; Sari et al., 2022).

In the era of technology like nowadays, digitization of SMEs can be another factor that can boost their performance. According to Harahap (2021), the digitization of SMEs is a shift from traditional to digital systems to increase the effectiveness and efficiency of SMEs’ operational processes. SMEs are expected to be able to take advantage of numerous digital platforms, such as gojek, grab, shopee, Tokopedia, etc., as promotional tools.

Empirical evidence in this area still needs to be more conclusive. Several studies show that digitization can cause an expansion of product marketing media. Digital media can boost the likelihood of SMEs' products or services being seen and purchased, increasing financial performance. (Rahmawati, 2016; Tirtayasa et al., 2021; Mutiara, 2022; Adella & Rio et al., 2021; Siswanti, 2020). However, some other studies found that digitization does not affect the performance of SMEs (Suhargo et al., 2022; Subagio, 2020). Considering the phenomenon and the
gap in the previous studies, this study aims to provide additional evidence regarding the effect of financial literacy, financial inclusion, and digitization on SMEs’ performance.

Considering conflicting results and academic fraud, we consider the importance of investigating factors that may affect SMEs’ performance. Based on the resource-based theory, this study attempts explicitly to add additional evidence on the effect of financial literacy, financial inclusion, and digitization on SMEs’ performance. The results of this study will explain the influence of financial literacy, financial inclusion, and digitization on SMEs’ performance.

LITERATURE REVIEW

Resource Based Theory

Resource Based Theory (RBT) argues that a company is a collection of resources to meet company needs (Penrose, 2009). RBT assumes that more than changing organizational attributes are required to gain a competitive advantage. Firms must also improve their business orientation to achieve a sustainable competitive advantage (Utami, 2022). According to Porter (1989), having resources and capabilities in an organization is significant to earn profits. Companies can attain a competitive advantage by exploiting important assets and developing new capabilities through learning, obtaining new skills and intangible assets. This theory’s orientation is divided into market-based and resource-based views (Watt & Zimmerman, 1986, p. 348). Both views are geared toward competitiveness and resource utilization. This theory suggests a method for utilizing and managing firm resources, which involves control over various assets.

SMEs Performance

Ariwibawa (2016) urges that SME performance can be analyzed using an approach based on three assumptions: (1) Quantitative measurement of SME performance is often difficult to do, 2). Performance measurement generally looks at complex financial indicators which only partially show the actual conditions of the SME business. 3). Most existing performance measurements are only applicable to large companies. Hence, the non-financial approach is often used to measure SMEs’ performance. It is applied by gaining key persons’ perceptions regarding the level of SMEs’ performance, both financial and non-financial (Kaplan et al., 2005).

Financial Literacy

Financial literacy is the intuition, ability, information, attitude, and behaviors required to make financial decisions to attain financial well-being for individuals or organizations (OECD, 2016). The Financial Services Authority defines financial literacy as a qualitative improvement in
making decisions and managing funds to achieve prosperity by applying knowledge, skills, and beliefs to individual attitudes and behavior. Furthermore, the Association of Chartered Certified Accountants defines financial literacy as an insight into financial concepts, understanding of communication regarding financial concepts, financial management skills of individuals or companies, and skill and accuracy in making financial decisions (Aribawa, 2016).

**Financial Inclusion**

Financial Inclusion is a thorough study that removes many barriers to public use of financial institution services (Yanti, 2019). The National Strategy for Financial Inclusion (SNKI) of Bank Indonesia defines financial inclusion as the right of every individual to access and obtain maximum services from financial institutions in an informative and timely manner at an affordable cost.

**SMEs Digitization**

According to Wijoyo et al. (2020), digitizing SMEs utilizes market intelligence data to impact SMEs’ growth in the technology sector through product development. Digitizing SMEs includes product or service promotion through digital media (Rohmah, 2019). Taking all definitions together, the digitization of SMEs is related to a digital business model that utilizes technology, such as using market intelligence data for product development, selling online, and promoting products or services in digital media.

**Hypotheses Development**

**Financial Literacy and SMEs Performance**

The resource-based theory assumes that tangible and intangible resources owned by a company are utilized to increase performance. Financial literacy is one of the intangible resources that SME actors must have. Financial literacy affects people’s perspective on their financial condition and influences the decision-making process and how company funds are managed. Effective financial management is critical for SME managers since it affects company performance and the ability to secure loans from banks or other financial institutions.

Previous studies have proven the positive influence of financial literacy on the performance of SMEs (see Ariwibawa, 2016; Rahayu, 2017; Sanistasya et al., 2019; Fajri et al., 2021; Ilarrahmah & Susanti, 2021). This study predicts financial literacy of SME managers can increase company performance. Thus, the first hypothesis of this study is as follows:

**H1: The higher the financial literacy, the better the SMEs’ performance**
Financial Inclusion and SMEs Performance

Financial inclusion refers to a condition in which every member of society can access various financial services, such as payments, loans, and savings, based on their particular needs. Through financial inclusion, SMEs are supposed to have easier access to finance to help them grow their businesses. Based on RBT, having an intangible resource such as financial inclusion is important to improve SMEs’ performance. For instance, when SMEs can access loans from the bank, they can improve their business by acquiring important assets, such as machinery and tools, which can inspire SMEs to perform better.

Several studies, including research by Sanistasya et al. (2019), Yanti (2019), Septiyani & Wuryani (2020), Fajri & Indriasih (2021), and Hertadiani & Lestari (2021) provide evidence of the favorable impact of financial inclusion on the performance of SMEs. This study predicts that the financial inclusion of SMEs will increase their performance. Thus, the second hypothesis is formulated below:

H2: The higher the financial inclusion, the better the SMEs’ performance

Digitization on SMEs Performance

SMEs can also reach more and more smartphone users, so they are expected to improve their performance. Several studies have found that the digitization of SMEs positively affects SMEs’ performance. With the rapid growth of technology, competition has become increasingly tight. To win the competition, SMEs put significant effort into digitizing their operations. It aspires to keep up with increasingly advanced technological breakthroughs. The digitization of SMEs helps enterprises to expand their marketing coverage to rural areas of the country. Using technology, SMEs can reach an increasing smartphone users to promote their products and services, allowing them to boost their performance.

Numerous studies have indicated that the digitization of SMEs improves their performance (among others are Putra et al., 2019; Adella & Rio, 2021; Huda & Munandar, 2021; Tirtayasa et al., 2021; and Mutiara, 2022). In line with previous research, this study argues that digitalizing SMEs’ operations will boost their performance since digitization may offer benefits, such as efficiency in SMEs’ operations. Taking all together, the third hypothesis is stated as follows:

H3: The higher the level of digitization, the better the SMEs’ Performance
RESEARCH METHODS

This study aimed to investigate the impact of financial literacy, financial inclusion, and digitization on the performance of SMEs in the Purwokerto region. The sample consisted of 118 SME managers who were selected conveniently, and primary data was collected through online questionnaires. The researchers used multiple regression analysis in SPSS 25 to analyze the data. Before testing the hypotheses, they conducted a data quality test and assessed the assumptions of classical regression analysis. Multiple regression analysis helps identify the linear relationship between the dependent variable (SME performance) and the independent variables (financial literacy, financial inclusion, and digitization) by examining how changes in the independent variables affect the value of the dependent variable.

The researchers aimed to obtain accurate, unbiased, and consistent estimates in the regression equation. This allowed them to conclude the influence of financial literacy, financial inclusion, and digitization on SME performance in the Purwokerto region. (Suliyanto, 2011). The multiple linear regression equation model in this study is as follows:

\[ PFM = a + b_1LITX_1 + b_2\text{INC} + b_3\text{DIGX}_3 + e \]

Information:
PFM : SMEs Performances
\( a \) : Constant
\( b_1 \) : Financial literacy regression coefficient
\( b_2 \) : Financial inclusion regression coefficient
\( b_3 \) : SMEs digitization regression coefficient
LIT : Financial literacy
RESULTS AND DISCUSSION

Research result

Descriptive statistics for each variable are presented in Table 1. The average value for each variable is bigger than their standard deviation. This means that it shows a small variation in the data.

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Dev</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial Literacy</td>
<td>118</td>
<td>30</td>
<td>50</td>
<td>40.2137</td>
<td>3.73665</td>
</tr>
<tr>
<td>Financial Inclusion</td>
<td>118</td>
<td>27</td>
<td>50</td>
<td>40.5593</td>
<td>4.51691</td>
</tr>
<tr>
<td>Digitization of SMEs</td>
<td>118</td>
<td>26</td>
<td>54</td>
<td>42.8983</td>
<td>5.26947</td>
</tr>
<tr>
<td>SMEs Performance</td>
<td>118</td>
<td>28</td>
<td>48</td>
<td>38.9153</td>
<td>4.16451</td>
</tr>
</tbody>
</table>

A Kolmogorov-Smirnov (K-S) test was used to test the normality of the data. A significance value of more than 0.05 indicates a normal distribution of the data residual. Normality test results in Table 3 show a significant value of 0.162 which is more than 0.05. This result indicates that the residual values of the data are normally distributed.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Kolmogorov-Smirnov</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unstandardized Residual</td>
<td>0.074</td>
</tr>
<tr>
<td></td>
<td>0.162</td>
</tr>
</tbody>
</table>

Table 3 shows the results of the multicollinearity test. The variables' tolerance and VIF values for financial literacy, financial inclusion, and digitization indicate no multicollinearity.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Tolerance</th>
<th>VIF</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial Literacy (X1)</td>
<td>0.869</td>
<td>1.151</td>
<td>No Multicollinearity</td>
</tr>
<tr>
<td>Financial Inclusion (X2)</td>
<td>0.779</td>
<td>1.286</td>
<td>No Multicollinearity</td>
</tr>
<tr>
<td>SMEs Digitization (X3)</td>
<td>0.768</td>
<td>1.302</td>
<td>No Multicollinearity</td>
</tr>
</tbody>
</table>

The heteroscedasticity test results are shown in Table 4. The financial literacy variable has a significant value of 0.237, the financial inclusion variable has a significant value of 0.115, and the SMEs digitization variable has a significant value of 0.391. This signifies that none of the variables
in this study exhibit heteroscedasticity. Moreover, the regression model does not violate the heteroscedasticity assumptions.

**Table 4. Heteroscedasticity Test**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Sig</th>
<th>Result</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial Literacy (X1)</td>
<td>0.237</td>
<td>&gt;alpha</td>
<td>No Heteroscedasticity</td>
</tr>
<tr>
<td>Financial Inclusion (X2)</td>
<td>0.115</td>
<td>&gt;alpha</td>
<td>No Heteroscedasticity</td>
</tr>
<tr>
<td>SMEs Digitization (X3)</td>
<td>0.391</td>
<td>&gt;alpha</td>
<td>No Heteroscedasticity</td>
</tr>
</tbody>
</table>

Table 5 shows the results of the F test. Based on this table, the significance value is less than 0.05, indicating that the regression model is fit and can be further analyzed using multiple regression analysis.

**Table 5. F Test**

<table>
<thead>
<tr>
<th>Model</th>
<th>DF</th>
<th>F</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>3</td>
<td>20.341</td>
<td>.000</td>
</tr>
<tr>
<td>Residual</td>
<td>114</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>117</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The coefficient of determination indicates the explanatory power of independent variables. The adjusted $R^2$ score, based on Table 6, shows a value of 0.332. This means that the variations in financial literacy, financial inclusion, and digitization of SMEs explain 33.2% of the variations in the SMEs’ performance. Meanwhile, the remaining 66.8% is explained by factors not included in the current study’s model.

**Table 6. Determination Coefficient**

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. The error in The Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.590a</td>
<td>.349</td>
<td>.332</td>
<td>4.16648</td>
</tr>
</tbody>
</table>

$t$-test was employed to test the influence of the independent variables on the dependent variable. An independent variable is considered to influence the dependent variable if it has a p-value less than 0.05. The results of the test are presented in Table 7.
Table 7. Hypotheses Testing Results

<table>
<thead>
<tr>
<th>Variable</th>
<th>Sig</th>
<th>Alpha</th>
<th>t</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial Literacy (LIT)</td>
<td>.000</td>
<td>≤ 0.05</td>
<td>3.996</td>
<td>H1 is supported</td>
</tr>
<tr>
<td>Financial Inclusion (INC)</td>
<td>.030</td>
<td>≤ 0.05</td>
<td>2.202</td>
<td>H2 is supported</td>
</tr>
<tr>
<td>SMEs Digitization (DIG)</td>
<td>.002</td>
<td>≤ 0.05</td>
<td>3.112</td>
<td>H3 is supported</td>
</tr>
</tbody>
</table>

Based on Table 7, financial literacy shows a t value of 3.996 and a significance value of 0.000 (less than alpha of 0.05), supporting hypothesis 1. It proves that the higher the financial literacy of the managers, the higher the performance of SMEs. The results of the second hypothesis test show that financial inclusion has a t-value of 2.202 and a significance value of 0.030, less than alpha (0.05). This result provides support to hypothesis 2. This provides evidence that financial inclusion tends to increase the performance of SMEs. SMEs digitization demonstrates a t value of 3.122 and a significant value of 0.002 (less than alpha of 0.05), which indicates support for hypothesis 3. This shows that digitization positively affects SMEs’ performance.

Discussion

This research attempts to examine the impact of financial literacy, financial inclusion, and digitization on the performance of SMEs in Purwokerto. A total of 118 SMEs manager were involved as respondents. Based on the data, SMEs in Purwokerto, on average, show a relatively high level of financial literacy, financial inclusion and digitization.

This study provides evidence that the higher the financial literacy of SME managers, the higher the SMEs’ performance. This result is by Ariwibawa (2016), Rahayu (2017), Sanistasya et al. (2019), Fajri et al. (2021), and Ilarrahmah & Susanti (2021). Furthermore, this study also proves that financial inclusion tends to increase the performance of SMEs. This is in line with Sanistasya et al. (2019), Yanti (2019), Septiyani & Wuryani (2020), Fajri & Indriasih (2021), and Hertadiani & Lestari (2021). Finally, the third hypothesis test results show that digitization positively influences SMEs’ performance. This aligns with research conducted by Putra et al., 2019; Adella & Rio, 2021; Huda & Munandar, 2021; Tirtayasa et al., 2021; and Pearl, 2022.

These results support the argument of Resource Based Theory (RBT) which argues that a company’s internal factors, such as resources and capabilities, can create a competitive advantage and eventually will make a profit. In addition to utilizing company assets, companies can create competitive advantages by building potential capabilities through learning, acquiring skills or other intangible assets. In the context of this study, an increase in financial literacy, financial
inclusion, and digitization will create competitive advantages and, in turn, boost SMEs’ performance.

CONCLUSION

Based on the results of this study, we conclude that financial literacy, financial inclusion, and digitization can increase SMEs’ performance. These three factors of SMEs’ performances explain 34.9% of the variation in SMEs’ performance. At the same time, the remaining 65.1% of the variation is explained by other factors not included in this research model. This conclusion implies the importance of improving financial literacy, inclusion, and digitization to boost SMEs’ performance. SMEs need to pay more attention to these three factors to boost their performance. Education and training for the managers will be significant in improving their financial literacy and inclusion. Furthermore, SMEs also need to start adopting particular technology based on the need for SMEs to increase digitization.

The implications of the findings that financial literacy, financial inclusion, and digitization have a positive effect on the performance of SMEs in Purwokerto are as follows:

1. Importance of Financial Literacy: The results highlight the significance of enhancing financial literacy among SME owners and managers in Purwokerto. Improving their understanding of financial concepts, such as budgeting, cash flow management, and financial planning, can help them make informed decisions, optimize their resources, and improve their overall performance.

2. Promoting Financial Inclusion: The findings suggest that greater financial inclusion can contribute to the success of SMEs in Purwokerto. Expanding access to formal financial services, such as banking facilities, credit, and insurance, can empower SMEs by providing them with the necessary resources to invest, expand, and manage risks. Encouraging financial institutions to design products and services specifically tailored to the needs of SMEs could support their growth and development.

3. Embracing Digitization: The positive impact of digitization on SME performance implies the need for Purwokerto SMEs to adopt digital technologies and tools. Integrating digital platforms, online payment systems, e-commerce solutions, and digital marketing strategies can enhance operational efficiency, broaden customer reach, and improve competitiveness. Investing in digital skills development and supporting SMEs to navigate the digital landscape can facilitate their adaptation to changing market dynamics.
4. Policy Implications: Local, regional, and national policymakers should consider these findings while formulating policies and initiatives to support SMEs in Purwokerto. The government could focus on designing and implementing programs that promote financial literacy, such as workshops, training sessions, and educational campaigns targeting SME owners and managers. Additionally, efforts should be made to improve financial inclusion by working with financial institutions to expand their services and reach SMEs. Policymakers should also prioritize the development of digital infrastructure, provide incentives for SMEs to adopt digital technologies, and facilitate access to digital resources and training programs.

5. Collaborative Efforts: The implications suggest the importance of collaboration among various stakeholders, including government agencies, financial institutions, industry associations, and educational institutions. By working together, these stakeholders can develop comprehensive strategies and programs that address the specific needs and challenges SMEs face in Purwokerto. Collaborative efforts can ensure the effective implementation of financial literacy programs, improve access to financial services, and facilitate SMEs’ adoption of digital solutions.

Limitation And Future Research

This study has limitations. One limitation is related to the sample. The sample of this study consists of SME managers in the Purwokerto region. This allows future researchers to do the same research that covers samples from other places. Managers in other places may behave differently due to cultural and environmental diversity. Furthermore, further research can improve this research by including more variables, such as experience, educational background, and business size. Involving more variables can provide a better understanding of factors influencing SMEs’ performance.

REFERENCE


