

# **Financial Literacy and External Financing Implications toward Growth of SMEs in Central Java Indonesia**

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**Abstract:** The purpose of this paper is to examine the mediating role of financial literacy in external financing sources and growth of SMEs relationship in Jepara Furniture Entrepreneurs. The major aim is to establish the role of financial literacy in the relationship between external financing source and growth of SMEs.

The paper adopts and uses Smart-PLS to test the mediation effect of financial literacy in the relationship between external financing sources and growth of SMEs.

The results reveals that financial literacy is not a significant mediator in the relationship between external financing sources and growth of SMEs of Jepara Furniture Entrepreneurs. External financing sources did have a direct effect on growth of SMEs, and financial literacy is too. Thus, the finding suggests that with the absence of external financing sources and financial literacy able to enhance the level of growth of SMEs in Jepara Furniture Entrepreneurs.

Like other empirical studies, this study is not without its limitations. The sample size itself is relatively small and coverage is limited area and bisnis that is only in the furniture SMEs in Jepara of Central Java. The result can't to make generalisation.

**Keyword:** SMEs, State Budget, External Financing, Financial Literacy

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## **Introduction**

One of the characteristics of life in developing countries is that many people still have difficulties in meeting their primary needs so that they must work hard both in the formal and informal sectors to sustain their lives. The informal business sector that is widely involved and believed to be able to fulfill their expectations is micro, small, and medium enterprises (SMEs). The world recognizes the lack of access to capital has become the main issue to establish SMES (Boter, 2015). The availability of financial institutions formally, semi-formally and informally is needed to support external financing needs (Boter, 2015).

Less optimal access to external financing sources is a barrier to the establishment and growth of SMEs (Boter, 2015). Easy access to External Financings is very strategic in order to enlarge the business capital so that the business stability and sustainability is maintained in a highly competitive business environment, as well as to guarantee the corporate profitability and growth (G. C. B. Okello et al., 2017); (Alarussi & Alhaderi, 2018). It is expected that continuity and increased profitability will be achieved in order to increase the income and welfare.

Financial literacy is expected to intensify the effectiveness of external financing. Understanding and skills related to the operation and expenditure of funds in the business world, such as loan interest rate, inflation rate, time value of money, procedures for obtaining and repaying bank credit, are all very influential on the success of their businesses (G. C. B. Okello et al., 2017). How is their perception towards formal and informal financial institutions available? Which are preferred over others? How is their level of understanding of various components of financial literacy? Based on these data, an operational policy can be drawn up both related to formal, semi-formal and informal financial institutions that are appropriate and fit to them, and to improve their capabilities in the field of financial literacy. Adequate policies from both aspects are very important and strategic to sustain the acquisition of external financing needs, as a complement to internal funding sources that can be fulfilled, as well as more efficient and effective utilization and improvement of business performance as well as prosperity and family welfare can be realized.

## **1.2. Research Problems**

1. How is the influence of financial literacy on SMEs performance?
2. How is the influence of external financial access towards the performance of SMEs?
3. How is the moderating effect of external financial access towards the effect of financial literacy on the SMEs' performance?

## **1.3. Research Objectives**

1. Identifying and analyzing the influence of financial literacy towards the SMEs' performance.
2. Identifying and analyzing the influence of external financial access towards the MSMEs' performance
3. Identifying and analyzing the moderating influence of the external financial access towards the effect of financial literacy on the financial performance

#### **1.4. Research Benefits**

1. The results of the research can be used by the MSME owners to improve their performance
2. Adding more references related to the SMEs performance with the triggering variable of financial literacy and external financial access.

### **Literature review**

#### **1.1. Financial Literacy and SMEs' Growth**

One of the characteristics of the SMEs entrepreneurs is the limited internal funding sources they have so that they tend to look for external financing sources to run and develop their business activities. Which external financing sources are chosen and how they spent them will affect the company's performance. How much the capital costs to be borne, whether it is high or low, will be related to the selected external providers /funders. Whether the business profit gained is on target or not related to how to invest their External Financings. Both are strategic factors supporting the success of a company that are closely related to the abilities and skills of the entrepreneurs in managing the company's financial aspects.

Financial literacy (G. C. B. Okello et al., 2017) means the entrepreneurs' ability related to the management of financial aspects such as how to apply for credit, follow-up actions after liquid credit, interest rates, inflation rates, time value of money, the concept of interest rates, and business feasibility. Purnomo (Purnomo, 2019) stated that the financial literacy is an ability to understand how the money works in the world, and it has a significant positive effect on the company's performance.

**Hypothesis 1:** financial literacy significantly influences the SMEs' growth in Central Java

#### **1.2. Access to External Financing Sources and SMEs' Growth**

Performance is the level of goals achievement, and it is declared good if the goals are achieved and is the final point to be addressed from various business activities carried out by the SMEs' entrepreneurs. The aim of small and medium business organizations is the maximization of owners' wealth which is reflected in share prices (go-public companies) and profits (Alarussi & Alhaderi, 2018; Isshaq et al., 2009; Al-Khoury, 2015; Azmat, 2014; Ardestani et al., 2013). The level of profit can guarantee the growth and sustainability in a competitive business environment (Alarussi & Alhaderi, 2018).

A company will not survive or grow if it does not have adequate profit. There are long series that must be passed and various supporting factors are needed to achieve it, one of which is the availability of adequate sources and amounts of internal and External Financings. The less optimal access to external capital sources for the SMEs can hamper the establishment, growth and sustainability (Boter, 2015). The providers of external financing sources include informal, semi-formal and formal sectors (Boter, 2015). The quantity and quality of available funds will then be invested based on the core business activities which will ultimately result in sales and profits. Efficiency and effectiveness on how to obtain funds (funding decisions) and utilization (investment decisions) are the main determinants of successful profitability. The availability of external financing sources is a must, so that they can continue to play an important role in growth, innovation and employment opportunities (OECD, 2015).

**Hypothesis2:** the ability to access external financing sources significantly influences the SMEs' growth in Central Java

#### **1.3. Financial Literacy, Access to External Financing and SMEs' Growth**

When the funds are spent to run a business or to develop it, there are several influencing factors, from both micro and macro aspects. The macro influences include economic conditions, interest rates, currency exchange rates, and inflation certainly that cannot be controlled by the business actors but they still have an effect on the performance in terms of profit targets and their development. The micro aspects include skills possessed specifically related to financial literacy can help to be more effective and efficient in investment decisions so as to better guarantee the achievement of expected business performance (G. Okello et al., 2016; G. C. B. Okello et al., 2017).

**Hypothesis 3:** financial literacy significantly moderates the relationship between access to the external financing sources and the growth of SMEs in Central Java

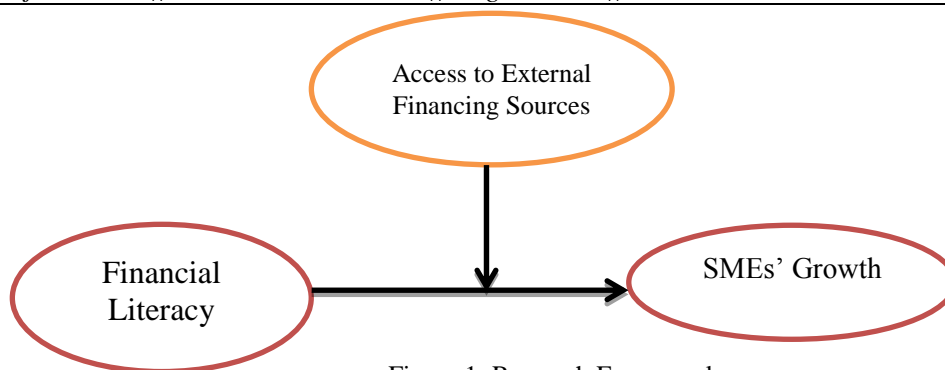


Figure 1: Research Framework

### Research Methods

#### 1.1. Type of the Research

This is an explanatory research, by identifying and analyzing the relationships among variables that are formed through the problem formulations and hypotheses, which are be evidenced from both analytical and statistical analyses.

#### 1.2. Population and Sample

The SMEs is an informal business sector that can be categorized as a small business if it has employees of between 1 and 50 people and belongs to the middle group if it has 50 and 500 employees. The population includes all furniture entrepreneurs in Tahunan sub-district, Jepara regency. The sample is taken using a purposive sampling method by looking at their willingness to be given a questionnaire, and it is successfully obtained a sample of 60 entrepreneurs

#### 1.3. Data Source and Type

The research is primary, collected through the questionnaire. The questionnaire to be distributed will cover mainly related to three (3) research variables, namely SMEs' Growth, Financial Literacy, and Access to External Financing Sources and their indicators, as shown in Table 1. Likert scale will be used mainly before the primary data are processed statistically.

#### 1.4. Operational Definitions of the Variables

This research focuses on the analysis sharpness and its benefits, thus each research variable must have an operational definition as well as clear indicators as performed in the following Table 1.

Table 1: Operational Definitions of the Variables

Research Variable	Operational Definition	Indicator	Scale
Access to the External financing Sources	the access to get funds that firms obtain from outside of the firm	<ul style="list-style-type: none"> <li>- Financial services offered by the bank have improved welfare</li> <li>- Types of loans offered by the bank are fit to the needs</li> <li>- the credit terms requested by the bank are appropriate</li> <li>- Fees charged by the bank for opening the initial account are appropriate</li> <li>- Bank financial services offered are safe (G. C. B. Okello et al., 2017)</li> </ul>	Interval
Financial Literacy	ability to obtain, understand and evaluate the relevant information necessary to make financial decisions and choices with an	<ul style="list-style-type: none"> <li>- Insuring the company</li> <li>- Being aware of the costs and benefits of using credit</li> <li>- Having a savings account</li> <li>- Analyzing inflation rates</li> <li>- Being able to analyze</li> </ul>	Interval

	awareness of the likely financial consequences	financial performance periodically - Being able to calculate the interest rate on credit payments - Understanding basic accounting knowledge (Salleh, 2015; Okello et al., 2017)	
SMEs' Growth	SMEs expansion and enhances their profitability, productivity and competitive advantage	- The number of employees is too small for today's business needs - Having an intention to recruit more employees - Annual sales increase every year - Company's assets is getting increased compared to the previous year (Okello et al., 2017)	Interval

### 1.5. Statistical Analysis

The answers to the research problems and hypotheses are found through the descriptive and statistical analysis using PLS software. Partial Least Square (PLS) is a powerful analysis method because it does not have to assume data normality.

#### 1.5.1. PLS Regression Model Equation

Based on the research hypothesis and model, the regression model equation is written as follows:

$$Y = b_1X_1 + b_2X_2 + b_3X_1X_2$$

Where:

Y = SMEs' growth

X1= financial literacy

X2= access to the external financing sources

X1X2= moderating variable

b1,b2,b3= regression coefisien

#### 1.5.2. PLS Analysis

The PLS analysis includes two components, outer and inner models. Outer model is used for the data quality analysis which includes data validity and reliability. The data validity is done by analyzing the probability, if less than 0.05 is said valid and if more than 0.05 is not valid. Reliability is done by analysing value of Composite Reliability and Average Variance Extracted (AVE), if the value more than 0.7 and 0.5 then is said reliable. The inner model includes the acceptance and rejection of the hypotheses. The criterion is determined by comparing t-table and t-count values. H1 is accepted if the t-count is higher than the t-table, and if it is not, then H1 is rejected and Ho is accepted.

## Results and Discussion

### 4.1. Characteristics of Respondents' Demography

In short, the demographic characteristics of the respondents are presented in Table 4.1. Based on this table, the furniture business actors in Tahunan sub-district of Jepara are dominated by the male. Of the 60 respondents, only 2 or 3% are female. The furniture entrepreneurs are mostly still at the productive ages, even though most of their education level is only up to high school.

The most common business venture (54%) is furniture, although some are involved in carving, furniture and finishing services. Most of them have employed their own employees, even though only between 0 and 5. Zero employees means the owner acts also as the employee, meaning that the business is still very small because it has not been able yet to employ anyone. Of the 60 entrepreneurs as the research objects, only 5 people or 8% have ever had attended business training held by the Jepara government, while the rest had not yet participated in any workshops.

**Table 4**  
**Characteristics of Respondent's Demography**

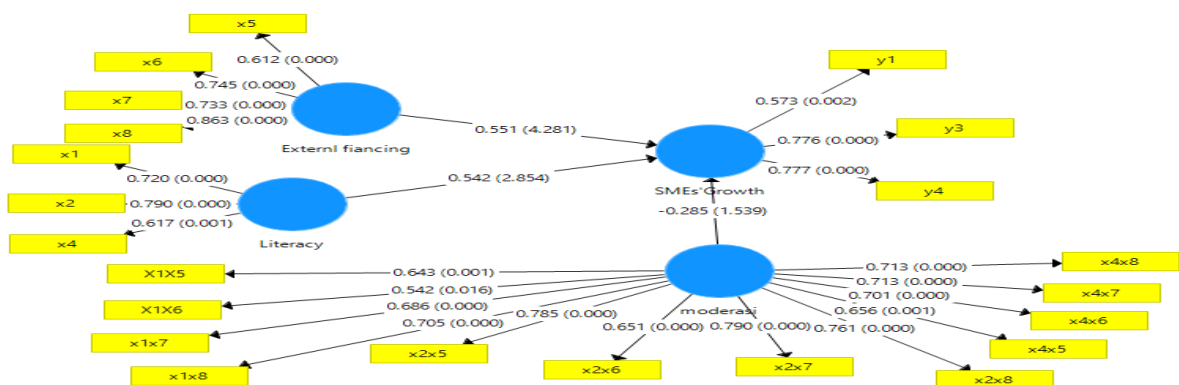
Criteria	Frequency	Percentage	Cumulative %
<b>Gender</b>			
Male	58	97	97
Female	2	3	100
Total	60	100	
<b>Age</b>			
20 - 29	10	17	17
30 - 39	17	28	45
40 - 49	23	38	83
50 - 59	7	12	95
>60	3	5	100
Total	60	100	
<b>Educational Level</b>			
College level	2	3	3
Senior High School	27	45	48
Junior High School	13	22	70
Elementary School	17	28	98
Uneducated	1	2	100
Total	60	100	
<b>Business Sectors</b>			
Furnishing	54	90	90
Furniture	1	2	92
Carving	4	6	98
Finishing Service	1	2	100
Total	60	100	
<b>Number of Employees</b>			
0-2	25	42	42
3-5	24	42	84
6-8	9	15	99
>9	1	1	100
Total	60	100	
<b>Business Training</b>			
Yes	5	8	8
No	55	92	100
Total	60	100	

Source: Processed data

## 4.2. PLS Analysis

### 4.2.1. Regression Model

Based on the data collected and processed using PLS, the full regression model is shown in Figure 4.1.



Source: Processed data

Figure 4.1  
 FULL RESEARCH MODEL

Based on the figure above, the regression model equation can be written as follows:

$$Y = 0.542X_1 + 0.551X_2 - 0.285X_1X_2$$

The model is interpreted as the SMEs' growth (Y) which is positively influenced by the financial literacy (X1) with a regression coefficient of 0.542, an external access source variable (X2) with a regression coefficient of 0.551 and moderation variable (X1X2) with a regression coefficient -0.285..

#### 4.2.2. Outer Model Analysis

##### Validity

The validity is used to assess whether the indicators really measure the research variables, with the value of the probability of each indicator is significant (<0.05). The research model involves three latent variables and 12 indicators. Based on PLS output shown in Table 2.3, not all indicators of exogenous and endogenous variables is valid, because they have a probability value more than 0.05, namely x3 and y2, so they must be dropped from the model. After the two indicators that do not meet validity are excluded from the model, the remaining indicators meet the validity requirements with the probability value less than 0.05 so they can be used further to answer the research problems and hypotheses, as Table 2.4.

TABLE 2.3  
ORIGINAL SAMPLE

Indicator	Original Sampling	T Statistics	P Values
X1 □ Fin. Literacy	0.795	5.183	0.000
X2 □ Fin. Literacy	0.764	5.188	0.000
X3 □ Fin. Literacy	0.294	1.059	0.290
X4 □ Fin. Literacy	0.537	2.378	0.018
X5 □ Ex Financing	0.590	3.351	0.001
X6 □ Ex Financing	0.781	6.222	0.000
X7 □ Ex Financing	0.730	3.835	0.000
X8 □ Ex Financing	0.859	5.493	0.000
y1 □ Growth	0.489	2.426	0.016
y2 □ Growth	0.449	1.752	0.080
y3 □ Growth	0.793	4.080	0.000
Y4 □ Growth	0.782	3.865	0.000

Source: Processed data

TABLE 2.4  
ORIGINAL SAMPLE

Indicator	Original Sampling	T Statistics	P Values
X1 □ Fin. Literacy	0.720	4.982	0.000
X2 □ Fin. Literacy	0.790	7.075	0.000
X4 □ Fin. Literacy	0.617	3.672	0.000
X5 □ Ex Financing	0.612	3.843	0.000
X6 □ Ex Financing	0.745	6.315	0.000
X7 □ Ex Financing	0.733	5.093	0.000
X8 □ Ex Financing	0.863	7.864	0.000
Y1 □ Growth	0.573	3.124	0.002
Y3 □ Growth	0.776	5.308	0.000
Y4 □ Growth	0.777	5.328	0.000
X1X5 □ Moderation	0.643	3.283	0.001
X1X6 □ Moderation	0.542	2.581	0.010
X1X7 □ Moderation	0.686	3.925	0.000
X1X8 □ Moderation	0.705	4.122	0.000
X2X5 □ Moderation	0.785	6.692	0.000
X2X6 □ Moderation	0.651	3.505	0.000
X2X7 □ Moderation	0.790	6.342	0.000
X2X8 □ Moderation	0.761	5.915	0.000
X4X5 □ Moderation	0.656	3.663	0.000
X4X6 □ Moderation	0.701	5.006	0.000



X4X7 □Moderation	0.713	4.685	0.000
X4X8 □Moderation	0.713	4.625	0.000

Source: Processed data

### Reliability

Based on PLS output as shown in Table 2.5, all the research variables, both exogenous and endogenous, already meet the reliability because they have a composite reliability value higher than 0.7 and Average Variance Extracted is same or higher than 0.5, so that the data can be used further to answer the research problems and hypotheses.

TABLE 2.5  
COMPOSITE RELIABILITY DAN AVE

Variable	Composite Reliability	Average Variance Extracted (AVE)
Growth	0.755	0.511
Ex. Financing	0.830	0.553
Fin. Literacy	0.754	0.508
Moderation	0.919	0.488

Source: Processed data

### 4.2.3. Inner Model Analysis

#### Hypotheses Testing

The research proposes three hypotheses, and the test is made and analyzed based on PLS output as shown in table 2.5 to set whether the empirical data support the proposed hypotheses proposed or not.

TABEL 2.5  
PATH COEFFICIENTS

PATH	Original Sampling	T Statistics	P Values
Ex. Financing □ growth	0.551	3.880	0.000
Fin Literacy □ growth	0.542	2.625	0.009
Moderation □ growth	-0.285	1.503	0.134

Source: Processed data

#### Influence of External Financing towards the SMEs' Growth

Based on PLS output as shown in Table 2.5, the external financing regression coefficient on grow this 0.551 which is positive and t-count is 3.880 which is higher than the t-table value of 2.00 (alpha 5%) and the probability value of 0.004 is lower than 0.05 (alpha 5%). H1 which states that the external financing has a significant positive effect on the MSMEs' growth is accepted. It means that the higher external financing, the better SMEs' growth.

#### Influence of Financial Literacy towards the SMEs' Growth

Based on PLS output as shown in Table 2.5, the financial literacy regression coefficient on growth is 0.542, and t-count is 2.625, which is higher than t-table value of 2.00 (alpha 5%) and the probability value of 0.009 is lower than 0.05 (alpha 5%). H1 which states that the financial literacy has a significant positive effect on the SMEs' Growth is accepted. Which means the better the financial literacy, the better the MSMEs' Growth.

#### Financial Literacy Moderate to Influence of External Financing to the SMEs' Growth

Based on PLS output as seen in Table 2.5, the moderating variable regression coefficient on the growth is -0.285, which is negative and t-count is 1.503 which is lower than the value of t-table 2 (alpha 5%) and the probability value of 0.134 is more than 0.05 (alpha 5%). H1 which states financial literacy has a significant positive effect on the SMEs' external financing is rejected, meaning financial literacy do not moderate influence of External Financing towards the SMEs' Growth.

### 4.3. Discussion

#### Influence of EF (External financing) towards the SMEs' Performance

Based on the empirical results, it is shown that the external spending has a significant positive effect on the performance. The greater the source of External Financings, the higher the performance of the SMEs, and conversely the lower external spending will also decrease the performance. The empirical findings show that

external spending has a significant positive effect on the SMEs' performance which support the results of previous studies(G. C. B. Okello et al., 2017).

### **Influence of FL (Financial Literacy) towards theSMEs' Growth**

Based on the empirical results, it is proven that the financial literacy has a significant positive effect on the SMEs 'Growth. The empirical findings show that the external funding has a significant positive effect on the SMEs'Growth which support the results of some previous studies(G. C. B. Okello et al., 2017;Salleh, 2015; Purnomo, 2019).

### **External financing Moderates the Influence of Financial Literacy to the SMEs'Growth**

External financing is not able to moderate the influence of Financial Literacy towards the MSMEs' Growth. The empirical findings do not support the results of some previous studies as Okello done (G. C. B. Okello et al., 2017).

### **Conclusions**

- External financing has a significant positive influence towards the MSMEs' performance.
- Financial literacy has a significant positive influence towards the MSMEs' performance.
- External financing is not able to moderate the effect of External financing on the SMEs' growth.

### **Recommendations**

- The regional government of Jepara is suggested to be better able to increase access to the external credit for the furniture MSMEs entrepreneurs in Tahunan sub-district because it can improve their performance significantly.
- The regional government of Jepara is recommended to hold more financial literacy trainings and to promote certain programs to increase the access to the external credit for the furniture MSMEs entrepreneurs in Tahunan sub-district because such actions can improve the performance of furniture MSMEs well.

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