



# The Effect of Technology Literature, Financial Literature and Financial Technology on the Financial Performance of MSMEs in Purworejo Regency Moderated by Financial Inclusion

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## ABSTRACT

This study aims to examine the effect of Technological Literacy, Financial Literacy, and Financial Technology on MSME Financial Performance and the role of Financial Inclusion to moderate this relationship. The population in this study is 65 people. The data analysis used is Validity and Reliability, Data Normality Test, Multiple Correlation, Multiple Regression, Determination Test, Hypothesis Testing and Model Accuracy Test. The results of this study Technology Literacy Value -1.728 with a significance value of  $0.089 > 0.05$ . Financial Literacy value 4.195 with a significance value of  $0.000 < 0.05$ , Financial Technology t value of -3.031 with a significance of  $0.004 < 0.05$ , Financial Inclusion t value -1.392 with a significance of  $0.169 > 0.05$ . The value of the interaction between Technology Literacy and Financial Inclusion t value of 2,420 with a significance value of  $0.020 < 0.05$ , The value of the interaction between Financial Literacy and Financial Inclusion obtained a t value of -3.392 with a significance value of  $0.001 < \text{probability } 0.05$ . The local government should cooperate with academics from local universities to make real efforts to increase knowledge, especially for MSMEs in Purworejo Regency as an effort to increase knowledge and develop knowledge which includes Technology Literacy and Financial Technology as well as with the banking sector. For the creation of Financial Inclusion. It is hoped that if business actors understand the basic context, it will have a good positive impact, especially in improving their Financial Performance.

**Keywords:** *Literacy; Financial Literacy; Financial Technology; Financial Inclusion; Financial Performance*

## 1. INTRODUCTION

The world turmoil that has occurred since the beginning of 2020 has had a major impact on all business sectors until the end of 2021. Along with the emergence of the Covid-19 pandemic which was first discovered in Wuhan, China at the end of 2019, it has had a lot of influence and has devastated all aspects. life in the education, political, economic, security, and socio-cultural sectors though. This is due to the presence of the virus which is very easily transmitted from one human to another in a relatively short period of time, so to reduce the rate of spread, almost all company employees are forced to work from home (WFH). The regulation is intended for various types of businesses in Indonesia that are forced to temporarily close unless they are legalized to operate by the government.

Alongside the occasions, the organization's monetary execution is vital to gauge and know how it creates from one year to another. As indicated by Moerdiyanti [1], uncovers that the organization's monetary execution is the aftereffect of a progression of business processes which penance different sorts of assets, specifically HR and friends accounts. Assuming the Company's Financial Performance expands, it very well may be seen from the ceaseless organization exercises to produce the most extreme benefit. Benefits or benefits created will absolutely be diverse relying upon the size of the trucking organization. Notwithstanding the advancement of monetary proficiency, the improvement of the present innovation is done something considered unfamiliar by individuals in Indonesia. Mechanical improvements that happen as of now are encountering fast advancement which will give accommodation in getting to data and

simplicity in overseeing assets adequately and proficiently. This change is a change that simplifies everything, more affordable and simpler to utilize. Problematic innovation can set out more extensive market open doors and can help business entertainers in adjusting rapidly. Improvements in monetary innovation that happen will significantly affect society as far as credit only exchanges [2]. This adjustment of society's exchange style is alluded to as the credit only economy peculiarity. Albeit the vast majority actually use cash exchanges, certain individuals are beginning to become accustomed to utilizing non-cash exchanges. The term credit only economy is a condition that shows that individuals right now decide to utilize electronic cash rather than actual cash. The event of this credit only economy peculiarity is one of the jobs of monetary innovation [3]. Fintech services have targeted millennials who often use the internet. Based on data from the Indonesian Internet Service Providers Association (APJII), there are 143.26 million Internet users in Indonesia, and 49.52% of those internet users are millennials. For the millennial generation, it has become commonplace to shop or transact without cash. They are used to using electronic devices such as debit cards, credit cards, or electronic money. This development as well as the ease of using a smartphone can provide convenience in financial transactions. To avoid the risks of these conveniences such as the risk of fraud, crime, and fraud in fintech, the government is needed so that later it can try to help maximize these non-cash transactions that can be implemented safely by supporting public financial literacy. Financial technology services such as the use of payment channels are fintech services that are often used by several MSME actors who provide electronic services as a means of payment, this system will also automatically provide convenience in checking payments that occur in buying and selling transactions for MSME actors. Banking services are also utilized by MSMEs, such as ATMs, internet banking, and mobile banking to facilitate transaction activities for buyers. In addition, MSME actors use fintech services as

a means of paying bills, in credit payments and in paying their employees' wages/salaries online.

## 2. METHOD

The types of data available include quantitative data in the form of a recapitulation of the results of questionnaires distributed to MSME actors in Purworejo Regency. The source of the data used is primary data in the form of information used for research materials obtained from MSME actors directly. The population in this study were MSME actors who were registered in the District MSME Forum as many as 1400 people. Sampling in this study was using purposive sampling, namely taking samples using certain criteria, so that in this study the number of samples obtained was 65 people. Data collection methods used in this study were observation, interviews, questionnaires, documentation and literature study. Data analysis techniques in this study include validity, reliability, data normality test, multiple regression, determination test, model accuracy test and hypothesis testing.

## 3. RESULT AND DISCUSSION

### 3.1. Presenting the Results

#### 3.1.1. Validity and Reliability

On the basis of Table 1's Validity and Reliability Test, it can be seen that of the 8 variables, all question items have been deemed valid and can proceed to the next test. All items in a question are deemed valid due to their validity value of 0.30. For the reliability test using the Cronbach Alpha method, an Alpha value of 0.6 indicates that the measuring device is dependable and that the questionnaire satisfies the requirements for dependability. The results of the reliability test in table 1 indicate that all variables give a Cronbach's Alpha value of 0.60, hence it can be stated that the findings of the reliability test are reliable, i.e., all questionnaire items measure the study variables consistently.

**Table 1** Validity and Reliability

Variable	Pearson Correlation	Minimum Value	Description
Technology Literacy	0.646	$\geq 0.3$	Valid
Financial Literacy	0.696	$\geq 0.3$	Valid
Financial Technology	0.347	$\geq 0.3$	Valid
Financial Inclusion	0.378	$\geq 0.3$	Valid
Technology Literacy Financial Inclusion	0.604	$\geq 0.3$	Valid
Financial Literacy Financial Inclusion	0.610	$\geq 0.3$	Valid
Financial Technology Financial Inclusion	0.420	$\geq 0.3$	Valid
Financial Performance	0.615	$\geq 0.3$	Valid
Reliability Value	0.775	$\geq 0.6$	Reliable

### 3.1.2. Data Normality Test

Based on the data shown in Table 2, it shows that the value of the normality test with the Kolmogorov-Smirnov Z obtained a value of 0.768, namely with a significance

probability level of 0.597 and indicating that the value is far above 0.05, the results indicate that the data is spread around the line which means the data has been normally distributed.

**Table 2** Data Normality Test

	Unstandardized Predicted Value
Kolmogorov-Smirnov Z	0.768
Asymp. Sig. (2-tailed)	0.597

### 3.1.3. Multiple Regression

a. Constant ( $\alpha$ )

This means that if all independent variables have a value of zero (0) or constant, the value of MSME Financial Performance is 13,137.

b. Technology Literacy (X1) on Financial Performance (Y)

The X1 variable's Technological Literacy coefficient value is -1.019. This suggests that for every unit increase in Technology Literacy, the Financial Performance of MSMEs decreases by -1,019, assuming the other independent variables in the regression model remain constant.

c. Financial Literacy (X2) on Financial Performance (Y)

The value of the Financial Literacy coefficient for the X2 variable is 3.133. This means that for every one unit increase in understanding of Financial Literacy, the Financial Performance variable (Y) will increase by 3.133 with the assumption that the independent variable from the regression model is constant.

d. Financial Technology (X3) on Financial Performance (Y)

-2.302 is the value of the Financial Technology coefficient for variable X3. This indicates that for each unit rise in the Financial Technology variable, the Financial Performance variable (Y) will fall by -2,302, assuming the other independent variables of the regression model remain constant.

e. Financial Inclusion (X4) on Financial Performance (Y)

Financial Inclusion's coefficient for the moderating variable is -0.752. This indicates that for each unit rise in the Financial Inclusion variable, the Financial Performance variable (Y) will fall by -0.752, assuming that the other independent variables in the regression model stay constant.

f. Technology Literacy\_Financial Inclusion (X5) on Financial Performance (Y)

The interaction coefficient between Financial Literacy and Financial Inclusion for variable X5 is 0.126. This indicates that the Financial Performance variable (Y) will increase by 0.126 units for each one-unit increase in the interaction between Financial Literacy and Financial Inclusion, assuming the other independent variables in the regression model remain constant.

**Table 3** Multiple Regression

Independent variable	Dependent Variable Financial Performance			
	Coefficient	t statistic	Sig	Note
Constant	13.137	1.902	0.062	-
Technology Literacy	-1.019	-1.728	0.089	Ho is Accepted and H1 is Rejected
Financial Literacy	3.133	4.195	0.000	Ho is Rejected and H2 is Accepted
Financial Technology	-2.302	-3.031	0.004	Ho is Rejected and H3 is Accepted
Financial Inclusion	-0.752	-1.392	0.169	Ho is Accepted and H4 is Rejected
LT_IK	0.126	2.402	0.020	Ho is Rejected and H5 is Accepted
LK_IK	-0.213	-3.392	0.001	Ho is Rejected and H6 is Accepted
FT_IK	0.156	2.579	0.013	Ho is Rejected and H7 is Accepted
F test	17.206			
Sig	0.00			
R <sup>2</sup>	0.679			

Adjusted R <sup>2</sup>	0.639
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g. Financial Literacy\_Financial Inclusion (X6) on Financial Performance (Y)

The interaction coefficient between Financial Literacy and Financial Inclusion for variable X6 is -0.213. The Financial Performance variable (Y) will increase by -0.213 units for each one-unit increase in the interaction between Financial Literacy and Financial Inclusion, assuming the other independent variables in the regression model remain constant.

h. Financial Technology\_Financial Inclusion (X7) on Financial Performance (Y)

The interaction coefficient between Financial Technology and Financial Inclusion for variable X7 is 0.156. This indicates that the Financial Performance variable (Y) will increase by 0.156 units for each one-unit increase in the interaction between Financial Technology and Financial Inclusion, assuming the other independent variables of the regression model remain constant.

### 3.1.4. Determination Test

The value of the Adjusted R Square is 0.639, as shown in Table 2, and this number is known as the coefficient of determination. The determination value is 0.639, or 63.9 percent. This figure indicates that the variables of Technology Literacy, Financial Literacy, Financial Technology, Financial Inclusion, and the interaction between Financial Literacy and Financial Inclusion, Financial Literacy and Financial Inclusion, and Financial Technology and Financial Inclusion can explain 63.9 percent of the MSME Financial Performance level. Other variables not investigated, such as the quantity of costs incurred, the calculation of the cost of goods sold, and current corporate governance, may influence the remaining 32.1 percent (100 percent - 63.9 percent).

### 3.1.5. Model Accuracy Test

In table 4, the F value, sig value, and R square value reveal the test results for the model's correctness. Technology Literacy, Financial Literacy, Financial Technology, and Financial Inclusion have a positive and statistically significant influence on MSME Financial Performance, and Financial Inclusion moderates the relationship between Technology Literacy, Financial Literacy, and Financial Technology and MSME Financial Performance, as shown in Table 4.

### 3.1.6. Hypothesis Test

The results of the t-test in table 4 are used to examine the effect of Technological Literacy, Financial Literacy, and Financial Technology, as well as to determine the moderating role of Financial Inclusion in the Relationship between Technology Literacy, Financial

Literacy, and Financial Technology on Financial Performance. Based on table 4 it can be concluded:

- Technology Literacy Value obtained t value of -1.728 with a significance value of  $0.089 > 0.05$  probability, which means that Technology Literacy has no positive and significant effect. This means that the higher the understanding of technological literacy that is owned does not always improve the financial performance of SMEs.
- The value of Financial Literacy obtained t value of 4.195 with a significance value of  $0.000 < 0.05$  probability, which means that Financial Literacy has a positive and significant effect. This means that the higher the understanding of Financial Literacy that is owned, it will improve the Financial Performance of MSMEs.
- The value of Financial Technology has a t value of -3.031 with a significance value of  $0.004 < 0.05$  probability, which means that Financial Technology has a significant effect. This means that the higher the Financial Technology will improve the Financial Performance of SMEs.
- Financial Inclusion value obtained t value -1.392 with a significance value of  $0.169 > 0.05$  probability, which means that Financial Inclusion has no significant effect. This means that the higher the Financial Technology does not always improve the Financial Performance of MSMEs.
- The value of the interaction between Technology Literacy and Financial Inclusion obtained t value of 2.420 with a significance value of  $0.020 < 0.05$  probability, which means that Financial Inclusion moderates the relationship between Technology Literacy and MSME Financial Performance. The higher the Financial Inclusion Value, the stronger the relationship between Technology Literacy and MSME Financial Performance.
- The value of the interaction between Financial Literacy and Financial Inclusion obtained a t value of -3.392 with a significance value of  $0.001 < 0.05$  probability, which means that Financial Inclusion moderates the relationship between Financial Literacy and Financial Inclusion.

## 3.2. Discussion

### 3.2.1. The Effect of Technological Literacy on MSME Financial Performance

Technology Literacy has no positive and significant effect. This means that the higher the understanding of technological literacy that is owned does not always improve the financial performance of SMEs. This shows that MSME actors in Purworejo district do not yet have good technological knowledge, meaning they have not been able to fully understand existing technological

developments, apply technological developments to their businesses and support attitudes towards existing technological changes. Therefore, in this study it can be concluded that the higher understanding of technological literacy does not contribute to the improvement of MSME Financial Performance.

### **3.2.2. The Effect of Financial Literacy on MSME Financial Performance**

Financial Literacy has a substantial and positive impact. MSME actors require financial literacy, particularly in the process of creating business financial reports. A business owner must have financial knowledge to make it easier to manage funds and optimize corporate performance. [4]. According to Anggraeni [5], financial literacy has a direct effect on a person's mindset, which in turn affects how a person makes financial decisions and manages money. According to research by Apristi [6], the performance of MSMEs will increase in tandem with the culprits' financial literacy. A high/good degree of literacy makes businesspeople more cautious in their operations and simpler to supervise, hence optimizing corporate performance.

### **3.2.3. The Effect of Financial Technology on MSME Financial Performance**

Financial Technology has a substantial impact. Therefore, the higher the Financial Technology, the higher the Financial Performance of SMEs. Changes in the form of financial services and products, from conventional to technology-based, have reduced the community's time and operational expenses. Fintech is defined by the Financial Stability Board in 2017 as technology innovation in financial services that can develop business models, apps, procedures, or products with tangible implications relating to the provision of financial services. In this instance, the ease of access to financial transactions, whether directly or indirectly, will boost a person's purchasing motivation and shopping efficiency. Thus, it can be argued that the more the firm's productivity, the greater its financial performance, as seen by the rise in sales turnover and company profits.

### **3.2.4. The Effect of Financial Inclusion on MSME Financial Performance**

Financial Inclusion has no significant effect. This indicates that an increase in Financial Technology does not always result in an increase in the Financial Performance of MSMEs. Financial inclusion is required for MSMEs to obtain ease in all business processes. Capital is one of the factors that support a firm. Istiyana, Hasiyah, and Irmawati [7] note that financing and the selling process are frequent obstacles for MSME actors. Financial inclusion has a good and considerable effect on the performance of small businesses.

### **3.2.5. Financial Inclusion Moderates the Relationship between Technological Literacy and MSME Financial Performance**

The connection between Technology Literacy and MSME Financial Performance is moderated by Financial Inclusion. The link between Technology Literacy and MSME Financial Performance is strengthened as Financial Inclusion Value increases. In addition, financial inclusion is essential for MSMEs to obtain convenience in all business processes. Capital is one of the factors that support a firm. Istiyana, Hasiyah, and Irmawati [7] note that financing and the selling process are frequent obstacles for MSME actors. This issue can be resolved by expanding access to financial services. Yanti's [8] research demonstrates that if financial inclusion is enhanced, it will have a beneficial and significant effect on a company's financial success.

### **3.2.6. Financial Inclusion Moderates the Relationship between Financial Literacy and MSME Financial Performance**

The link between Financial Literacy and Financial Performance is moderated by Financial Inclusion. The link between Financial Literacy and MSME Financial Performance is strengthened when the Financial Inclusion Value rises. MSME actors require financial literacy, particularly in the process of preparing their financial reports. A business owner must have financial knowledge to make it easier to manage funds and optimize corporate performance [4]. According to Anggraeni [5], financial literacy has a direct effect on a person's thinking, which in turn affects how a person makes financial decisions and manages money.

In addition, financial inclusion is essential for MSMEs to obtain convenience in all business processes. Capital is one of the factors that support a business. Istiyana, Hasiyah, and Irmawati [7] note that financing and the selling process are frequent obstacles for MSME actors. This issue can be resolved by expanding access to financial services.

### **3.2.7. Financial Inclusion Moderates the Relationship of Financial Technology To The Financial Performance Of MSMEs**

The link between Financial Technology and Financial Performance is moderated by Financial Inclusion. In addition, financial inclusion is essential for MSMEs to obtain convenience in all business processes. Capital is one of the factors that support a business. Istiyana, Hasiyah, and Irmawati [7] noted that financing and the marketing process are frequent obstacles for MSME actors. This issue can be resolved by expanding access to financial services. Easier access to financial institution services will make it simpler for the general public and business people to obtain the funds necessary to execute their respective business operations [9]. Yanti's [8] research demonstrates that if financial inclusion is

enhanced, it will have a beneficial and significant effect on a company's financial success.

#### 4. CONCLUSION

Based on the results of the studies that have been carried out, the conclusions in this study are as follows:

- a. Technology Literacy has no positive and significant effect on the Financial Performance of MSMEs in Purworejo Regency.
- b. Financial Literacy has a positive and significant effect on the Financial Performance of MSMEs in Purworejo Regency.
- c. Financial Technology has a positive and significant effect on the Financial Performance of MSMEs in Purworejo Regency.
- d. Financial Inclusion has no positive and significant effect on the Financial Performance of MSMEs in Purworejo Regency.
- e. Financial Inclusion moderates the relationship between Technological Literacy on the Financial Performance of MSMEs in Purworejo Regency.
- f. Financial Inclusion moderates the relationship between Financial Literacy on the Financial Performance of MSMEs in Purworejo Regency.
- g. Financial Inclusion moderates the relationship between Financial Technology and the Financial Performance of MSMEs in Purworejo Regency.

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