The Influence of Financial Technology on Improving Financial Literacy for MSMEs in Cirebon Regency

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ABSTRACT
This study examines the influence of Financial Technology (Fintech) on the improvement of MSME financial literacy in Cirebon Regency. In the digital era, Fintech makes it easier to access and use financial services, overcoming obstacles that MSMEs often face such as collateral requirements, remote locations, and high administrative costs. A quantitative approach with Theory of Planned Behavior (TPB) is used to measure the intentions and behaviors of MSMEs in adopting Fintech. The results of the study show that Fintech has a positive effect on the financial literacy of MSMEs by providing easier, faster, and more efficient services, as well as education on the use of digital financial services. This increase in financial literacy helps MSMEs in optimizing financial management, accessing capital, and expanding their businesses. Government and related institutions support is needed for regulations and educational programs to encourage Fintech adoption. This research concludes that Fintech has great potential to increase financial literacy and support the development of MSMEs in the digital era.
INTRODUCTION

Technological developments from time to time have increased quite drastically and affected human life in various sectors. One of them is in the economic sector that brings the world to transform into digital. In this digital age, the use of technology is also a must for everyone to complete their work or daily activities effectively and efficiently with various electronic service features available. The swift advancement of internet technology has led to a plethora of advances, including financial technology in financial institutions that can promptly, precisely, and effectively address community requirements. (Salsabila et al., 2023)

MSMEs boost economies in underdeveloped nations. It is not surprise that the world—including the United States—is experiencing a crisis, but Indonesia, whose economy is dominated by MSMEs, is not particularly affected.

MSMEs boost economies in underdeveloped nations. It is not surprise that the world—including the United States—is experiencing a crisis, but Indonesia, whose economy is dominated by MSMEs, scarcely feels the effects of it (Safari et al., 2023). Accessing conventional banking and other traditional financial services may provide challenges for MSMEs operating in the Cirebon Regency. One of the biggest challenges is meeting the standards, which can be challenging for MSMEs, such providing the collateral required to obtain a loan. MSMEs frequently lack sufficient assets to serve as security, which makes it challenging for them to get bank loans.

The location of MSMEs that are remote or far from urban centers is also an obstacle to accessing traditional financial services. Banks tend to be more located in urban centers, so MSMEs in rural or remote areas find it difficult to access banking services. High administrative costs are also an obstacle for MSMEs in accessing traditional financial services. MSMEs are often unable to pay the additional fees charged by banks, so they choose not to use banking services.

For MSMEs, a lack of information and comprehension of financial services is another barrier. Many MSMEs lack knowledge about the advantages of using traditional financial services or do not know how to use banking services. Last but not least, the stigma that MSMEs face might make it difficult for them to get traditional banking services. MSMEs may face resistance from certain parties that don't believe they can handle their finances well and won't lend money or offer other financial services to them.
According to figure 1. The financial literacy index for Indonesia was 69.7. Furthermore, the study's findings demonstrate that national financial inclusion received a 64.3% awareness score. According to study conducted by the Katadata Insight Center (KIC), Indonesia's financial literacy level in 2023 was 69.7 points out of 100. This value increased from 2020 which was 66.5 points in 2020. There are three components of financial literacy assessment. First, financial behavior with a score of 34.3 points on a scale of 0-45 points. Second, financial knowledge (knowledge) of 23.3 points on a scale of 0-35 points. Third, attitude related to finance (attitude) of 12.1 points from a scale of 0-20 points. All of these components also increased compared to 2020. In detail, financial behavior is 31.5 points; financial literacy 18.5 points; and attitudes related to finance 16.5 points in 2020.

Financial Technology offers innovative solutions in financial services that can help MSMEs improve accessibility, efficiency, and affordability in managing their finances. One of the main advantages offered by Financial Technology is ease of access. Through online applications or platforms, MSMEs can access various financial services such as loans, payments, and investments without having to visit a physical bank office. This is very beneficial for MSMEs that are located in remote areas or far from urban centers.

Financial Technology also offers a faster and more efficient process in managing finances. The process of applying for a loan or payment through Financial Technology is usually faster compared to the traditional process. This can help MSMEs in addressing urgent financial needs or managing cash flow better. Affordability is also one of the advantages of Financial Technology for MSMEs. Some Financial Technology services offer lower fees compared to traditional financial services, such as cheaper administration fees or more competitive loan interest rates. This makes financial services more affordable for MSMEs, which may have limitations in terms of budget.
Based on a survey report by the Indonesia Financial Technology Association (Aftech), in the second quarter of 2023, financial technology users in Indonesia are dominated by the middle-income group. The majority or 41.5% of respondents who use Financial Technology in Indonesia have an income between IDR 5 million and IDR 10 million per month. Then 20% of respondents earn between IDR 2.5 million and IDR 5 million, and the other 20% earn between IDR 10 million and IDR 25 million per month. There are also 18.5% of respondents from the income group of IDR 25 million-IDR 50 million per month. According to Aftech, the large number of Financial Technology users from the middle group indicates that Financial Technology is an alternative financial service for the unbanked and underbanked. When viewed by age, the majority or 70.8% of respondents who use Financial Technology come from the age group of 26-35 years. Then users with an age range of 36-50 years are 23.1%, and the age group of 18-25 years is only 6.1%.

However, understanding and acceptance of Financial Technology among MSMEs may still be low. Some MSMEs may still lack an understanding of how Financial Technology works and the benefits that can be obtained. In addition, there is distrust or concern about data security and privacy can also be an obstacle in the adoption of Financial Technology by MSMEs. To increase understanding and acceptance of Financial Technology among MSMEs, more intensive education and socialization are needed regarding the benefits and how to use Financial Technology. The government and related institutions can also play a role in providing adequate support and regulations to ensure the security and reliability of Financial Technology services for MSMEs. The researcher raised the title "The Influence of Financial Technology in Improving Financial Literacy for MSMEs in Cirebon Regency" based on the phenomena that has been communicated.
LITERATURE REVIEW

Grand Theory

Theory of Planned Behavior (TPB)

Ajzen's (1985) Theory of Reasoned Action (TRA) is developed into the theory of planned behavior (TPB). This theory is a social theory that evaluates how people behave, concluding that norms, attitudes, and behavioral control are the primary drivers of decision-making behavior. The causes behind human behavior can be attributed to several factors. This may happen as a result of the attitudes or behaviors that one believes in, the expectations of other people who share those beliefs, or other things that hinder that belief (Sri Lestari Yuli Prastyatini, 2021). Numerous scholars have applied this idea to comprehend behavior and convey emotions in people. A person's confidence in everything will ultimately be impacted, just as Islamic financial literacy, which consists of components of financial knowledge, financial conduct, and financial attitude. It will also eventually affect how the business is developed. When a person does a certain action, their purpose, which is governed by their attitudes and concurrent control over their perceptual behavior, has an impact on their actual conduct. When engaging in certain actions, an individual's aim is to direct his efforts toward acting at his degree of desire (Ratih and Agung, 2016).

In this theory, the important thing that can estimate an individual's action is the attitude towards a person's behavior, although it is necessary to consider whether a person's attitude is also influenced by behavioral control and subjective norms put forward by the person. If there is a positive or supportive attitude, then the support from the people around is very involved and there is an assumption from within the person, namely convenience because the thing that is an obstacle to behavior does not exist, then a person's intention in doing this behavior will be higher (Astuti, 2023).

Financial Technology

Financial Technology (Fintech) is a financial technology that integrates financial management, savings, money distribution, and technology. Financial Technology has a broader definition and includes various forms of financial services that use technology to simplify, accelerate, and improve financial processes. Financial Technology (Financial Technology) or often known as digital Finance is a digital financial milestone in accessing financial products and services. In short, Fintech can be referred to as the use of technology to further develop admicrostratation in the financial business. Another definition is the assortment of action plans and mechanical advancements that may be able to develop the financial admicrostratation industry further.

Financial Technology helps people access financial services more easily and efficiently, such as borrowing money, investing, paying bills, and providing digital services such as e-wallets and payment gateways. Financial Technology also helps people to compare financial products from various financial service providers, become financial planners, and reduce loan interest. With the existence of Financial Technology, it can fade the barrier to access financial service information because it is entirely done online (Mulasiwi & Julialevi, 2020).
Financial Technology dimensions and indicators include usefulness, easy to use, website design, system availability, privacy, and safety (Andiani & Maria, 2023). Indikator Financial Technology used to measure Financial Technology performance includes service credibility, social influence, and self-efficiency.

**Improving Financial Literacy**

The process of strengthening public knowledge, abilities, and beliefs connected to money in order to be able to handle and utilize funds efficiently is known as improving financial literacy. Financial literacy refers to knowledge and abilities that influence behavior in order to enhance the standard of financial management and decision-making. A person needs a variety of skills and knowledge in finance, known as financial literacy, in order to manage or utilize a particular amount of money in order to raise their standard of life and pursue success (Yushita, 2017).

Financial literacy has different levels, ranging from well-literate to not literate, each of which has different skills and knowledge about financial service institutions and financial service products. Improving financial literacy aims to help people understand basic financial concepts, such as financial planning, debt management, investment, and profitable saving techniques (Wardhani, 2023). The level of financial literacy from an individual or family point of view can have an impact on the ability to have long-term savings used to own assets (such as land or houses), the fulfillment of higher education and retirement funds (retirement) (Basri & Kuswanti, 2019).

Dimensions and indicators of Improving financial literacy include various aspects that are important for understanding and managing finances. The dimensions of financial literacy are divided into 4 categories (Maryati, 2021):

1. Personal finance management (*personal finance*)
2. Forms of savings
3. Definition of financial concepts
4. Definition of financial products and services

Indicators of Improving Financial Literacy (Buchori et al., 2022) include:

1. Basic knowledge of financial management
2. Skills in using financial products and services
3. Confidence in financial services institutions
4. Knowledge of financial concepts
5. Definition of financial products and services

**METHODOLOGY**

**A. Type of Research**

Because the goal of the study is to determine the connection between the variables under investigation, a causal quantitative technique was used in the research process. Another study technique whose number may be determined using statistical techniques is the causal quantitative approach. A scientific method for making administrative and financial decisions, the causal quantitative approach looks for evidence of causal impacts or links in the research variables.
B. Populasi
Population is a generalization area consisting of objects or subjects that have certain quantities and characteristics that are expected to be studied and drawn conclusions (Hardani, 2020) The population of this study is MSME actors in Cirebon Regency.

C. Sampel
"The sample is part of the number and characteristics that the population has" (Sugiyono, 2019) Based on the Slovin formula, the number of samples is as follows:

\[ n = \frac{N}{1 + N(e)^2} \]

Information:
\( n \) = Number of samples  
\( N \) = Number of population  
\( e^2 \) = Precision (set at 10%)

Through the formula above, the number of samples to be taken is

\[ n = \frac{500}{1 + 500 \times (0.1)^2} \]

\[ n = \frac{500}{6} = 83.33 \rightarrow 84 \]

Based on this formula, this study took data from a sample of 84 respondents. From the formula above, the number of samples obtained to facilitate the research was rounded up to 84 respondents or 84 MSME actors.

D. Data Gathering Techniques
The following are the techniques and methods of data gathering that the authors of this study employed:
1) Questionnaire
   One technique for gathering data is the questionnaire, which consists of giving respondents a list of both closed- and open-ended questions. The closed-ended questions are scored on an internal 1–5 scale that includes the following options: strongly agree, agree, hesitate, disagree, and strongly disagree.

2) Observation
   Observation is a direct observation of the object of research. Observations were made on the object of the study, namely MSME Actors in Cirebon Regency.

E. Test Data Instruments
1) Validity Test
   An instrument for testing how carefully an item is measured in relation to what it is intended to measure is called an item validity test. If there is a substantial link between an item's overall
score and its support for disclosing information that is meant to be disclosed, the item is considered legitimate. Items often take the form of statements or questions that are sent to respondents through a questionnaire in an attempt to elicit information (Sugiyono, 2019).

2) **Reliability Test**

In order to ascertain if a measuring tool will yield consistent results if measurements are repeated, reliability tests are performed to assess the consistency of measuring equipment, which often include questionnaires. Cronbach Alpha, which is employed in this study at 0.60, is a technique frequently used in research to measure span scales (such as Likert scales 1-5) (Syahza, 2021).

### F. Classical Assumption Test

1) **Normality Test**

The significance of data normality lies in the fact that regularly distributed data is seen as typical of the population. This test has a larger tolerance; if the data is deemed abnormal by the Lillefors (Kolmogorov-Smirnov) approach, the data can be distributed normally using this method, or this method has a higher degree of normalcy for the same amount of data (Violanti et al., 2023).

2) **Linearity Test**

The purpose of the linearity test is to ascertain whether or not there is a linear connection between two variables, or how linear the data is. For linear regression or Pearson correlation analysis, this test is required. Using the Test for Linearity in SPSS with a significance threshold of 0.05. When the significance (linearity) of the link between two variables is less than 0.05, it is considered to be linear (Noor, 2017).

3) **Multicollinearity Test**

Multicollinearity means that the independent variables contained in the regression model have a perfect linear relationship or close to perfect (the correlation coefficient is high or even 1). A good regression model should not have a perfect or near-perfect correlation between its free variables. The consequence of multicollinearity is that the correlation coefficient is indefinite and the error becomes very large (Syahza, 2021).

4) **Heteroscedasticity Test**

The Heteroscedasticity Test with the Glejser Test is a method to test whether there is a variance difference from the residual in all observations in the linear regression model. If the heteroscedasticity assumption is not met, then the regression model is declared invalid as a forecasting tool. The Glejser test can be carried out by regressing the independent variable to its residual absolute value, and the significance value of the independent variable is compared to the alpha value (0.05). If the significance
value is greater than 0.05, then no heteroscedasticity symptoms occur in the regression model (Sugiyono, 2019).

G. Influence Test

Simple Linear Regression Analysis Test

This study will use a simple linear test is a statistical method used to understand the relationship between two variables, namely independent variables (X) and dependent variables (Y) (Violanti et al., 2023). This analysis seeks to find the best straight line describing the relationship between the two variables, which is often represented by the equation $Y = a + bX$, where $a$ is the intercept and $b$ is the regression coefficient indicating the mean change in the dependent variable for every one-unit change in the independent variable. Simple linear tests help determine how strong the relationship between these variables is as well as their statistical significance, which is often evaluated through p- and R-squared values (Muizzuddin & Ilmu, 2021).

H. Hypothesis Test

1) Test $T$

The $T$-test is used to see if the independent variable has any impact on the dependent variable. During the test, it is possible to choose one of two routes. Two methods are shown here: (1) the comparison of the $t$-value obtained by the study with the $t$-table, and (2) the comparison of the $t$-value with a significant level of 0.05 (Nuryadi et al., 2017).

2) Uji $F$

The Simultaneous Test or F-Test is a statistical procedure used to evaluate the simultaneous significance of a number of independent variables in a regression model. This F test provides information about the extent to which independent variables collectively affect dependent variables in the regression model. The first is to check the significance level of 0.05 to the F value that has been determined by the study using the F table, and the second is to check the F value directly (Sugiyono, 2019).

3) Koefisien Determinasi ($R^2$)

The coefficient of determination ($R^2$) is a tool to measure the extent to which a model is able to explain variations in dependent variables (Ghozali & Astuti, 2023). A high $R^2$ value indicates that the independent variable makes a significant contribution in explaining the variation in the dependent variable, while a low value indicates that the model is not effective in explaining the variation (Sugiyono, 2014).

RESEARCH RESULT AND DISCUSSION

A. Descriptive Analysis

1) Frequency Description of Respondents by Gender
The distribution of gender frequencies from 84 respondents in a survey. Most of the respondents, namely 59 people or 70.2%, were women. Meanwhile, 25 respondents or 29.8% were men. The valid percentage and cumulative percentage show that the majority of respondents are women.

2) Description of Respondent Frequency by Age

Distribution Frequency of the age of the respondents involved in the survey, with a total of 84 respondents. The 20-25 year age group dominated with 79 respondents, which was 94% of the overall sample. The age group of 26-30 years only had 1 respondent or 1.2%. Meanwhile, the age group of 31-35 years and 36-40 years each had 2 respondents, each of whom accounted for 2.4% of the total respondents. The cumulative percentage shows that almost all respondents are under the age of 30, with 94% being 20-25 years old and 95.2% being under 30 years old.

3) Description of Respondent Frequency Based on Position Based on Position in Business

Shows the distribution of positions in the business, with two main categories: Employees and Owners. Out of a total of 84 respondents, each category has the same number of 42 people, which is 50% of the total respondents. This means that the distribution between the Employee and the Owner in this business is balanced. The valid percentage for these two categories is also the same, which is 50%. The cumulative percentage shows that 50% of respondents are Employees and 100% of respondents are Owners, reflecting that all positions in the business have been identified in these two categories.

4) Description of Respondent Frequency by Position in the Business

Distribution of the last education frequency of 84 respondents in a survey. The majority of respondents, namely 55 people or 65.5%, had their last high school education. A total of 27 people or 32.1% have the last education of S1, while only 2 people or 2.4% have the last education of D3. The valid percentage and cumulative percentage show that high school education is the most common level of education among respondents.

5) Description of Respondent Frequency Based on the Type of Fintech/Digital payment you use in your business

Description Respondents are the type of fintech or digital payment used by 84 respondents in their business. Most of the respondents, namely 25 people or 29.8%, used QRIS. Dana is also quite popular with 21 users or 25%. The use of a combination of various services was also recorded, such as QRIS and ShopeePay, which were used by 5 respondents or 6%, and Ovo, QRIS, and Gopay, which were used by 8 respondents or 9.5%. Other types of fintech such as Bank, Gopay, and ShopeePay were each used by a small number of respondents. Overall, this table shows that QRIS and Dana are the most widely used digital payment methods, either alone or in combination with other services.

6) Description of Respondent Frequency Based on How Long You Have Used the Fintech/Digital Payment

Frequency Description Respondents the duration of the use of fintech or digital payments by 84 respondents in their business. Most of
the respondents, namely 54 people or 64.3%, have been using fintech or digital payments for 1 to 2 years. Meanwhile, 30 respondents or 35.7% have used the service for 3 to 5 years. This data shows that the majority of respondents are relatively new to adopting digital payment technology.

7) Description of Respondent Frequency by Type of Business

Frequency of respondents type of business from 84 respondents in a survey. Most of the respondents, namely 74 people or 88.1%, run a trading business. Agricultural business followed by 5 respondents or 6.0%. The service business had 2 respondents or 2.4%, while welding workshops, educators, and culinary businesses each had only 1 respondent or 1.2%. This data shows that trade efforts dominate among respondents.

8) Description of Respondent Frequency by Type of Business

Description of business entity frequencies from 84 respondents in a survey. The majority of respondents, namely 58 people or 69.0%, run businesses individually. Meanwhile, 26 respondents or 31.0% run a business in the form of a company. This data indicates that individual business forms are more dominant among respondents.

B. Validity Test

The results of the data test using the IBM SPSS version 27 application, it can be known that the validity test uses the person product moment formula for each research variable. As for the product moment table with the number of 20 respondents, the criteria (n-2) became (20-2=18) at a significance level of 0.05 (5%) of 0.444.

1. Financial Technology Variable Validity Test (X)

The results of the validity test for the Financial Technology (X) variable can be seen in the table below using the SPSS Version 27 application as follows:

<table>
<thead>
<tr>
<th>No Item</th>
<th>r value</th>
<th>r table</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>X1.1</td>
<td>0.767</td>
<td>0.444</td>
<td>Valid</td>
</tr>
<tr>
<td>X1.2</td>
<td>0.726</td>
<td>0.444</td>
<td>Valid</td>
</tr>
<tr>
<td>X1.3</td>
<td>0.456</td>
<td>0.444</td>
<td>Valid</td>
</tr>
<tr>
<td>X1.4</td>
<td>0.763</td>
<td>0.444</td>
<td>Valid</td>
</tr>
<tr>
<td>X1.5</td>
<td>0.656</td>
<td>0.444</td>
<td>Valid</td>
</tr>
<tr>
<td>X1.6</td>
<td>0.599</td>
<td>0.444</td>
<td>Valid</td>
</tr>
<tr>
<td>X1.7</td>
<td>0.751</td>
<td>0.444</td>
<td>Valid</td>
</tr>
<tr>
<td>X1.8</td>
<td>0.823</td>
<td>0.444</td>
<td>Valid</td>
</tr>
<tr>
<td>X1.9</td>
<td>0.795</td>
<td>0.444</td>
<td>Valid</td>
</tr>
<tr>
<td>X1.10</td>
<td>0.785</td>
<td>0.444</td>
<td>Valid</td>
</tr>
<tr>
<td>X1.11</td>
<td>0.848</td>
<td>0.444</td>
<td>Valid</td>
</tr>
<tr>
<td>X1.12</td>
<td>0.667</td>
<td>0.444</td>
<td>Valid</td>
</tr>
</tbody>
</table>
Based on the data of table 1, it is known that the calculation value in 12 statement items is greater than in the table, so in 10 items the statement of the Religiosity variable (X1) in katakana is valid.

2. Variable Validity Test for Increasing Financial Literacy (Y)

The results of the validity test for the variable Increase in financial literacy (Y) can be seen in the table below using the SPSS Version 27 application as follows:

Table 2. Results of the Variable Validity Test for Increasing Financial Literacy (Y)

<table>
<thead>
<tr>
<th>No Item</th>
<th>r hitung</th>
<th>r tabel</th>
<th>Keterangan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y.1</td>
<td>0,845</td>
<td>0,444</td>
<td>Valid</td>
</tr>
<tr>
<td>Y.2</td>
<td>0,845</td>
<td>0,444</td>
<td>Valid</td>
</tr>
<tr>
<td>Y.3</td>
<td>0,542</td>
<td>0,444</td>
<td>Valid</td>
</tr>
<tr>
<td>Y.4</td>
<td>0,410</td>
<td>0,444</td>
<td>Valid</td>
</tr>
<tr>
<td>Y.5</td>
<td>0,456</td>
<td>0,444</td>
<td>Valid</td>
</tr>
<tr>
<td>Y.6</td>
<td>0,899</td>
<td>0,444</td>
<td>Valid</td>
</tr>
<tr>
<td>Y.7</td>
<td>0,880</td>
<td>0,444</td>
<td>Valid</td>
</tr>
<tr>
<td>Y.8</td>
<td>0,755</td>
<td>0,444</td>
<td>Valid</td>
</tr>
<tr>
<td>Y.9</td>
<td>0,860</td>
<td>0,444</td>
<td>Valid</td>
</tr>
<tr>
<td>Y.10</td>
<td>0,870</td>
<td>0,444</td>
<td>Valid</td>
</tr>
<tr>
<td>Y.11</td>
<td>0,840</td>
<td>0,444</td>
<td>Valid</td>
</tr>
<tr>
<td>Y.12</td>
<td>0,868</td>
<td>0,444</td>
<td>Valid</td>
</tr>
<tr>
<td>Y.13</td>
<td>0,916</td>
<td>0,444</td>
<td>Valid</td>
</tr>
<tr>
<td>Y.14</td>
<td>0,866</td>
<td>0,444</td>
<td>Valid</td>
</tr>
</tbody>
</table>

Based on the data of table 4, it is known that the value of the calculation in item numbers 1 to 14 statements is greater than that in the r table, then in 14 items the statement of the variable Increase in financial literacy (Y) is said to be valid.

C. Reliability Test

Table 3. Reliability Test Results

<table>
<thead>
<tr>
<th>Variabel</th>
<th>Cronbach's Alpha</th>
<th>Keterangan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial Technologi (X)</td>
<td>0,912</td>
<td>Reliabel</td>
</tr>
<tr>
<td>Peningkatan literasi keuangan (Y)</td>
<td>0,948</td>
<td>Reliabel</td>
</tr>
</tbody>
</table>

Based on the data of table 3 which is the output of the results of the variable reliability test, it can be concluded that of the four variables of this study can be said to be reliable and have a good level of reliability and can be accepted. This is because each variable has a Cronbach’s Alpha value that is greater than the set value of 0.60.
D. Classical Assumption Test

1. Normality Test

The normality test with the graph method is by looking at the distribution of data from diagonal sources on the normal graph of P-P Plot of regression residual. With decision making, if the point spreads across the line and follows the diagonal, then the value of the residual is normal. The results of the normality test can be seen from the graph using the SPSS Version 25 application below.

![Normal P-P Plot of Regression Standardized Residual](image)

Figure 1. Normality Test Results
Source: IBM SPSS 25 Output Results

Based on Figure 1, it shows that the points spread around the line and follow the diagonal line, the residual results are normally distributed.

2. Linearity Test

Linearity tests are used to ensure that these relationships are indeed linear, which is important in regression analysis to support a proper interpretation of the results. The results of the linearity test using the SPSS Version 27 application are as follows:

<table>
<thead>
<tr>
<th>ANOVA Table</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peningkatan literasi keuangan * Financial Technologi Between Groups (Combined)</td>
<td>9144.162</td>
<td>19</td>
<td>481.272</td>
<td>21.797</td>
<td>.000</td>
</tr>
<tr>
<td>Linearity</td>
<td>8310.805</td>
<td>1</td>
<td>8310.805</td>
<td>376.407</td>
<td>.000</td>
</tr>
<tr>
<td>Deviation from Linearity</td>
<td>833.356</td>
<td>18</td>
<td>46.298</td>
<td>2.097</td>
<td>.216</td>
</tr>
<tr>
<td>Within Groups</td>
<td>1413.076</td>
<td>64</td>
<td>22.079</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 4 displays the results of the linearity test, and it is known that the linearity test has a significance value of 0.000. It is possible to infer that there is a linear association between the variables Brand Loyalty (Y) and Religiosity (X1) because the significance is less than 0.05. A linear relationship exists between the variables of financial technology (X) and financial literacy improvement (Y), according to the significant value on the deviation for linearity, which shows a significance value of 0.216>0.05.

3. **Multicollinearity Test**
Multicollinearity tests are conducted to ensure that the relationships between independent variables do not exceed limits that can affect the reliability and validity of the model. The tolerance value criteria should be greater than 0.10 and the VIF value should be less than 10. The results of the multicollinearity test using the SPSS Version 27 application are as follows:

<table>
<thead>
<tr>
<th>Coefficients*</th>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
</tr>
<tr>
<td>1 (Constant)</td>
<td></td>
<td>4.329</td>
<td>2.914</td>
<td>1.486</td>
</tr>
<tr>
<td>Financial Technology</td>
<td>1.071</td>
<td>.062</td>
<td>.887</td>
<td>17.417</td>
</tr>
</tbody>
</table>

Based on the results of the Multicollinearity test in table 10, it shows that the tolerance value of Religiosity is 1,000 and Customer Trust is 0.967 From both variables, the value is more than 0.10 > and the VIF value is 1,034. Therefore, it can be concluded that Financial Technology (X) towards the improvement of financial literacy (Y) is stated to be multi-linearity.

4. **Heterokedacity Test**
The Heteroscedasticity Test with the Glejser Test is a method to test whether there is a variance difference from the residual in all observations in the linear regression model. The Glejser test can be carried out by regressing the independent variable to its residual absolute value, and the significance value of the independent variable is compared to the alpha value (0.05). If the significance value is greater than 0.05, then no heteroscedasticity symptoms occur in the regression
model. The results of the Heteroscedasticity Test with the Glejser Test using the SPSS Version 27 application are as follows:

Table 6. Heterokedacity Test Results

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
</tr>
<tr>
<td>1 (Constant)</td>
<td>7.923</td>
<td>1.893</td>
<td>4.185</td>
</tr>
<tr>
<td>Financial</td>
<td>-.088</td>
<td>.040</td>
<td>-.236</td>
</tr>
</tbody>
</table>

Source: IBM SPSS 27 Output Results

Based on the output results above, it shows that the significance value of both independent variables is more than 0.05. Therefore, it can be concluded that there is no heterokedaness problem in the regression model.

5. Multiple Linear Regression Test Results

This study will use linear regression analysis The following are the results of the Simple Regression Test using SPSS version 27 as follows:

Table 7. Simple Linear Regression Test Results

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1 (Constant)</td>
<td>4.329</td>
<td>2.914</td>
<td>1.486</td>
<td>.141</td>
</tr>
<tr>
<td>Financial Technology</td>
<td>1.071</td>
<td>.062</td>
<td>.887</td>
<td>17.417</td>
</tr>
</tbody>
</table>

Source: IBM SPSS 27 Output Results

\[ Y' = a + bX \]

Keterangan

- \( Y' \): Nilai Prediksi Variabel Dependen
- \( a \): Kontanta
- \( b \): Koefisien Regresi
- \( X \): Variabel Independen

Based on the coefficients table, the regression equation can be written:

\[ Y = 4.329 + 1.071X \]

The constant of 4.239 can be translated which means that the consistency value of the Financial Technology variable is 4.239 and the
regression coefficient X is 1.071 which states that the addition of 1% of
the value of 4.239 will increase consumer loyalty by 1.071. The
regression coefficient has a positive value, so it can be said that the
direction of the influence of Financial Technology (variable X) on the
improvement of financial literacy (variable Y) is positive. And based
on the significance value obtained from the table above of 0.000 < 0.05,
it can be concluded that the Financial Technology variable (X) has an
effect on the variable of Increasing financial literacy (Y).

E. Hypothesis Test Results

1. T Test (Partial Test)

Partial tests help identify variables that have a significant influence
on dependent variables, so that they can provide a basis for the
selection of the most relevant variables to include or ignore in the
regression model (Darma, 2021). In this test, it is necessary to
determine the degree of freedom determined by the formula df = n-k,
with 0.05. Where the amount of data and the number of dependent and
independent variables. So, in this study, df = n-k or df = 84-2 = 82 with
a significance of 0.05 obtained a table of 1.291. The results of the Pasial
Test using the SPSS Version 27 application are as follows:

<table>
<thead>
<tr>
<th>Model</th>
<th>Coefficientsa</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Unstandardized Coefficients</td>
</tr>
<tr>
<td></td>
<td>B</td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
</tr>
<tr>
<td>Financial Technology</td>
<td>1.071</td>
</tr>
</tbody>
</table>

Based on the coefficients table, it is known that the Thical value for
Financial Technology [X] is 17.417 with a probability of 0.000;
because the probability is much smaller than α = 0.05, Ho is rejected,
meaning that the regression coefficient of Financial Technology [X]
is significant or has a real effect on the Dependent variable (Increase
in financial literacy [Y]).

2. Test F (Simultaneous Test)

This F test can provide a basis for decision-making regarding the
significance of the regression model as a whole, and whether the
independent variables that exist together have a considerable impact
on the dependent variables. In this test, it is necessary to determine the
degree of freedom determined by the formula df1 (N1) K-1 and df2
(N2) = n-k, with a significance of 0.05. Where n = the amount of data
and k the sum of the many variables X and Y. So, in this study df1 (N1)
= K-1 = 4-1 = 3 and df2 (N2) = 96-4 = 92 with a significance of 0.05
obtained Ftable of 3.10. The results of the Simultaneous Test using the
SPSS Version 27 application are as follows:
Table 9. Test Result F

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Regression</td>
<td>8310.805</td>
<td>1</td>
<td>8310.805</td>
<td>303.364</td>
<td>0.000a</td>
</tr>
<tr>
<td>Residual</td>
<td>2246.433</td>
<td>82</td>
<td>27.396</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>10557.238</td>
<td>83</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Peningkatan literasi keuangan  
b. Predictors: (Constant), Financial Technologi

Source: IBM SPSS 27 Output Results

Based on the ANOVA test F-test, the result of the Fcal value is 303.364 with a probability of 0.000, because the probability is much smaller than α = 0.05, so Ho is rejected. This means that simultaneously the independent Financial Technology variable [X] is significant or has a real effect on the Dependent variable (Increase in financial literacy [Y]).

3. Coefficient of Determination Test

Determination coefficient is used to determine the close relationship between free variables and bound variables. The value of R2 is located between 0 to 1 (0 ≤ R2 ≤ 1). The purpose of calculating the determination coefficient is to determine the influence of the independent variable on the bound variable. In this study, the SPSS Statistics 27 application was used. From the results of the data analysis, the following results were obtained:

Table 10. Determination Coefficient Test Results

<table>
<thead>
<tr>
<th>Model</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>Durbin-Watson</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.887</td>
<td>.787</td>
<td>.785</td>
<td>5.23407</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Financial Technologi  
b. Dependent Variable: Peningkatan literasi keuangan

Source: IBM SPSS 25 Output Results

Based on the results of the determination coefficient test showing that there is an influence between independent variables on bound variables, the magnitude of R2 is 0.787 so it means that 78.7% of the change in the value of the dependent variable The increase in financial literacy [Y] can be described by the change of all independent variables.
of Financial Technology [$X$] and the rest ($100\% - 78.7\% = 21.3\%$) is explained by other causes outside the model.

**CONCLUSIONS AND RECOMMENDATIONS**

The research concludes that the dependent variable, the rise in financial literacy [$Y$], is significantly or actually influenced by the independent variable, financial technology [$X$]. The critical value of $17.417 > T$ table $1.291$ with a probability of $0.000$ supports this, indicating a substantial correlation between these two variables and the advancement of financial literacy. The independent variable's null (Ho) hypothesis is thus rejected, making both regression coefficients statistically significant.

The ANOVA F-test test results showed that all independent variables in the model, specifically Financial Technology ($X$), had a significant impact on raising financial literacy ($Y$) at the same time. The F-count value of $303.364$ with a probability of $0.000$, which is much less than the significance threshold ($\alpha$) of $0.05$, indicates this. As a result, the null hypothesis (Ho) is disproved, and it is clear that there is substantial confidence in the regression model that was built to explain the connection between independent and dependent variables.

The determination coefficient test indicates that there is a relationship between the bound variable, Increase in financial literacy ($Y$), and the independent variable, Financial Technology ($X$). The increase in financial literacy ($Y$) accounts for $78.7\%$ of the variation or change in the value of the dependent variable Financial Technology ($X$) to the variable, according to the magnitude of the determination coefficient ($R^2$) of $0.787$. Other factors outside the model account for the remaining $21.3\%$ of the variation. As a result, the regression model that was developed may explain the majority of the differences in the bound variables; nevertheless, Brand Loyalty is also influenced by factors that are not included in the model.

**ADVANCED RESEARCH**

Considering the researchers' own limited knowledge and skills, the researcher has come to the realization while producing this article that there are still several deficiencies in language, writing, and presenting style. As a result, the researcher anticipates helpful critiques and recommendations from a range of sources to ensure the piece is flawless.

**REFERENCES**


