Antecedents Effect of Financial Inclusion for the People of North Sumatera

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Abstract: *This study aims to determine the effect of financial literacy and financial technology (fintech) partially influencing financial inclusion in the people of North Sumatra, then to determine the effect of financial literacy and financial technology (fintech) simultaneously influencing financial inclusion in the people of North Sumatra. The research samples are 100 respondents. The method of analysis in this study is multiple linear regression analysis. The results of the regression analysis partially show financial literacy and financial technology have a positive and significant effect on financial inclusion in the people of North Sumatra. Simultaneously financial literacy and financial technology affect financial inclusion in society North Sumatra. The most dominant variable affecting financial inclusion is financial literacy.*
Keywords: *Financial literacy; financial technology; financial inclusion; North Sumatera.*

I. Introduction

Financial literacy is a measurement of one's understanding of financial concepts, and the ability and confidence to manage personal finances through appropriate short-term decision making, long-term financial planning, and attention to economic events and conditions (Remund, 2010). Huston (2010) said financial literacy includes awareness and knowledge of financial instruments and their applications in business and life. According to Otoritas Jasa Keuangan (Financial Services Authority) (2016) financial literacy is knowledge, skills and beliefs that influence attitudes and behaviors to improve the quality of decision making and financial management in order to achieve prosperity. Someone who has a low level of financial literacy will not understand in using his money. Conversely someone who has a high level of financial literacy will be able to decide and utilize financial products and services according to their needs, the ability in financial planning will avoid unclear financial activities and know the benefits and risks of financial products and services (Lestari, 2015). Survei Nasional Literasi dan Inklusi Keuangan Indonesia (Indonesian National Financial Literacy and Inclusion Survey) (2016) states that the condition of financial literacy in Indonesia is still low, although it has increased from a survey conducted previously in 2013, the level of financial literacy of Indonesian people in 2016 which is around 29.7% which means that out of every 100 people the population is only around 30 people who are in the well literate category. One of the things that can overcome various causes of the still low financial literacy in Indonesia is the emergence of a program to expand financial access called financial inclusion. According to Otoritas Jasa Keuangan (2017) in Survei Nasional Literasi dan Inklusi Keuangan Indonesia Revisit, public financial literacy will be followed by financial inclusion of its people. Based on this it is expected that consumers using financial products and services as well as the wider community can be helped by not only knowing and understanding institutions financial services, but can change or improve people's behavior in financial management so as to improve people's welfare.

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The development of technology and information at this time is very rapid and bring changes to human life. The development of technology in the field of information and communication has given an impact on non-cash payments with new innovations in payments. Financial Technology (Fintech) is a new development for the financial services industry can change people's behavior in almost all aspects of life (Siregar, 2016).

According to Asosiasi Penyelenggara Jasa Internet Indonesia (Association of Indonesian Internet Service Providers) (2019) internet users in Java 55.7%, North Sumatra 21.6%, Kalimantan 6.6%, Sulawesi 5.2%, while Papua reaches 10.9%. The large number of internet users can be utilized to reach the financial system through digital financial services, although internet users are increasing every year but the use of financial technology for accessing banking services in Indonesia is still relatively low. Marzuki (2016) states this is due to the still low access to finance and low literacy in finance. Based on Bank Indonesia (2017), Fintech is considered capable of reaching people who cannot yet be reached by banks. The existence of Fintech aims to make people more easily access financial products, facilitate transactions and also increase financial inclusion. The development of a better Fintech company in the midst of Indonesian society is expected to be able to realize the achievement of the target level of community inclusion. People of North Sumatra are the second largest internet users after Java and the use of financial technology services is also quite low. Based on the background described, the authors wish to analyze the Antecedents consisting of financial literacy and financial technology affect financial inclusion in the people of North Sumatra.

II. Literature of Review

2.1 Financial Literacy

Otoritas Jasa Keuangan (2016) defines literacy as a series of knowledge, beliefs and skills, which influence attitudes and behaviors to improve the quality of decision making and financial management in order to prosper. Whereas Potrich, et al., (2016) financial literacy is understood as mastery of a set of knowledge, attitudes and behaviors, it has assumed the fundamental role of the likelihood of people to make responsible decisions as they strive to achieve financial prosperity. According to Ulfatun et al (2016) there are 4 aspects that are included in Financial Literacy, among others:
  a. Basic Financial Knowledge, this basic knowledge is usually associated with decision making in investing or financing that can affect one's behavior in managing money which are owned.
  b. Saving and Borrowing or better known as savings and credit. Savings are a sum of money saved for future needs. Borrowing or also called credit is a facility to lend money and pay it back within a certain period of time with interest.
  c. Insurance is a form of financial protection that can be done in the form of life insurance, property insurance, education insurance, and health insurance.
  d. Investment is a form of investment activities of funds or assets with the aim to obtain profits in the future.

2.2 Financial Technology (FinTech)

Financial technology is one implementation of the use of information technology related to finance (Alimirruchi, 2017). Fintech refers to the use of technology to provide

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financial solutions (Arner, et al., 2015). Fintech is a digital technology application for financial problems (Aaron, et al., 2017).

2.3 TAM (Technology Acceptance Model)

Davis et al., (1989) states the Technology Acceptance Model (TAM) is a model used to analyze and help to understand the factors that influence the acceptance of the use of computer technology. TAM defines there are two factors that influence the acceptance of use of technology, namely:

a. Perceived Usefulness is the degree where users believe that the use of technology or systems will improve their performance at work.
b. Perceived Ease of Use as a belief in ease of use, which is the level where the user believes that the technology or system can be used easily and free from problems.
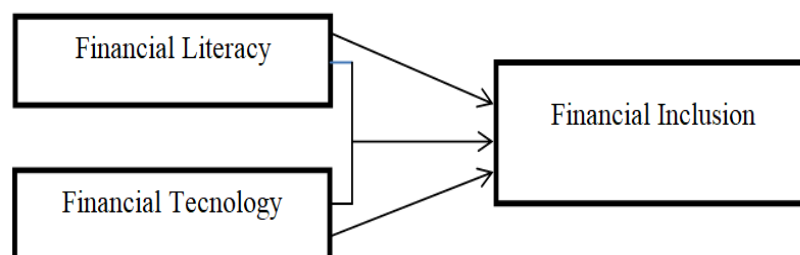
2.4 Financial Inclusion

Bank Indonesia (2014) defines financial inclusion as all efforts aimed at eliminating all forms of price and non-price barriers to public access in utilizing financial services. The Otoritas Jasa Keuangan (2016) defines financial inclusion as the availability of access to various financial institutions, products and services in accordance with the needs and abilities of the community in order to improve public welfare. OECD, Organization for Economics Co-operation Development (2016) has developed questions on the questionnaire that can be used to measure the level of financial inclusion. This questionnaire has been used in several countries with different conditions and characteristics of respondents, namely:

a. Product holding, there are four indicators that identify financial products currently owned by respondents, namely savings or pension products, payment products, current accounts, or e-money (not including credit cards), insurance, and credit or mortgage products. This indicator can explore whether consumers are at least aware of financial products that are available nationally, whether they are making financial product choices, and whether they have switched families or friends to help them save money or make ends meet.
b. Product awareness, in addition to having financial products, awareness of the use of products according to needs is also important. This awareness will prevent election errors and help providers of financial products find out about the demands of the public.
c. Product choice, financial inclusion is very beneficial for consumers if the financial products they have are monitored well. Changes are needed if there are new financial products or services or when the price structure changes. Conversely, consumers who take financial products can suffer losses if they are not managed properly. For example, holding insurance that does not meet their needs, credit products that charge because of high interest rates or using unnecessary transaction services with expensive payment facilities.
d. Seeking alternatives to formal financial services, the last indicator is used to identify people who have the potential to not have access to formal financial services. The question draws on two things namely, whether people turn to family or friends for financial support. The results reflect a number of factors, including the extent to which people are actively saving in whatever way and how far they meet their needs. But it also shows that there may be room for designing simple and inexpensive products to meet consumer needs.

403

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III. Research Method

This research is a causal study. The location of this study is carried out in North Sumatra region. The sample of this study amounted to 100 people, this study used a non-probability sampling technique with convenience sampling method. The technique of collecting this research is primary data using a questionnaire and observing. In this study secondary data sources namely books, articles, journals related to the research conducted. The method of analysis in this study is descriptive analysis and multiple linear regression analysis.

Research Conceptual Framework

The research hypothesis is:

H1: Financial Literacy has a partial effect on financial inclusion for the people of North Sumatra

H2: Financial Technology partially influences financial inclusion for the people of North Sumatra

H3: Financial Literacy and Financial Technology simultaneously influence financial inclusion for the people of North Sumatra

IV. Discussion

4.1 Result

In managing data using multiple linear regression, several stages are carried out to find the relationship between the dependent variable and the independent variable. The results of the regression can be seen from the table below:

Table 1. Multiple Linear Regression Test Results

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.213	2.308		1.819	.075
	Financial Literacy	.646	.076	.532	5.687	.000
	Financial Technology	.374	.098	.346	3.683	.000

The dependent variable is Financial Inclusion (Y) of 4,213, while the independent variable is Financial Literacy (X1) of 0,446, Financial Technology (X2) of 0,374.

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The explanation of the multiple linear regression equation above is:

a. Constants (a) = 4.213

Based on the results of the multiple linear regression analysis above, that the value of financial inclusion is 4,213 if other variables such as financial literacy and financial technology are considered constant.

b. Coefficient X1 = 0.646

Indicates that the relationship between financial literacy and financial inclusion is 0.646. If there is an increase in one unit (1%) in the financial literacy variable, the financial inclusion variable will increase by 0.646 (64.6%). Financial literacy is the highest factor in this study in influencing financial inclusion for the people of North Sumatra.

c. Coefficient X2 = 0.374

Shows that the relationship between financial technology and financial inclusion is 0.374. If there is an increase of one unit (1%) in the financial technology variable, the financial inclusion variable will increase by 0.374 (37.4%). Financial technology is the variable that has the smallest influence in influencing financial inclusion for people of North Sumatra.

a. Hypothesis Testing

Partial Test (t-test)

The value of the table in the number of samples (n) is 100 respondents and the total of all variables (k) = 3 variables, then df = n - k = 100 - 3 = 97 with a standard error rate of 5%, amounting to 1.66071. Below this is the result of a partial test.

Table 2. Partial Test Results
Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.213	2.308		1.819	.075
	Financial Literacy	.646	.076	.532	5.687	.000
	Financial Technology	.374	.098	.346	3.683	.000

Based on the table above it is known that the influence of the independent variables on the dependent variable in the form of:

- Financial Literacy has a significant value of 0,000 less than 0.05 and tcount of 5,687 is greater than table 1.67071. So that financial literacy partially has a positive and significant effect on financial inclusion for the people of North Sumatra.
- Financial Technology has a significant value of 0,000 less than 0.05 and tcount of 3,683 is greater than table 1.67071. So that financial technology partially has a positive and significant effect on financial inclusion for the people of North Sumatra.

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b. Simultaneous Test (F Test)

The F test aims to determine whether the independent variables together have an influence on the dependent variable. The results of the Simultaneous Test can be seen in the table below:

Table 3. Simultaneous Test Results

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	154.804	3	57.402	102.509	.000[b]
	Residual	88.946	96	1.458		
	Total	203.750	99			

The result of the F_{count} is 102.509 with a significance level of 0.000. The F_{count} value of 102.509 is greater than the F_{table} of 3.090. The significance value of 0.000 is smaller than 0.05. Then the financial literacy and financial technology variables simultaneously affect the financial inclusion for the people of North Sumatra.

c. Determination Coefficient Test (R^2)

The following table shows the results of the coefficient of determination in this study:

Table 4. Determination Coefficient Test Results

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.818[a]	.716	.760	.70753

From the table above, it is known that:

- Value of R = 0.818. This means that the relationship between financial literacy and financial technology variables with financial inclusion in the people of North Sumatra is 81.8%. This shows that the relationship between the independent variable and the dependent variable is quite related.
- The biggest Value of R Square is 0.716 (71.6%). These results indicate that 71.6% of financial inclusion variables can be explained by financial literacy and financial technology variables. This shows that the ability of the independent variable is sufficient in explaining the dependent variable.
- The biggest Adjusted Value R Square of 0.760 (76%). These results indicate that 76% of financial inclusion variables can be explained by financial literacy and financial technology variables. While the difference of 24% is explained by other variables not examined in this study.
- Standard Error of the Estimate of 0.70753. This is the number of errors in measuring variations in the predicted value of 0.70753.

4.2 Discussion

The results of testing this hypothesis provide support for the proposed hypothesis and the results of this study are in line with the opinions expressed by Aliyah et al. (2019) The results of the study indicate the influence of technology-based financial services on the financial literacy performance of Dago Atas Bandung community is influential, indicating

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that financial services technology-based has a positive and significant effect on financial literacy. Then the research conducted by Hutabarat (2018) results of this study concluded that financial literacy and financial technology had a positive and significant effect on financial inclusion in Jabodetabek communities. In this study financial literacy and financial technology had a positive and significant effect on financial inclusion in North Sumatra society.

V. Conclusion

Based on the results of regression analysis in terms of financial paralleling and financial technology, a positive and significant effect on financial inclusion for the people of North Sumatra Simultaneously financial literacy and financial technology affect financial inclusion, having a significant effect at a significant level of 5 % the most dominant variable affects financial inclusion is financial literacy.

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