The Influence of Financial Technology and Financial Literacy on Inclusion Financein the Community in Kuta Galuh Village

Vedra br Sinuraya, Indah Cahya Sagala, Fauziah Rahman

Abstract

This research aims to determine the effect of financial technology and financial literacy on financial inclusion in the community of Kuta Galuh Village. This research uses a quantitative research type. The population in this research is the community in Kuta Galuh Village. The number of samples used in this research is 85 respondents. The data collection method in this research is by distributing questionnaires to respondents and the data is processed through the SPSS (Statistical Package for the Social Sciences) program. Based on the hypothesis testing, it shows that: a) financial technology has a positive and significant effecton financial inclusion in the community of Kuta Galuh Village (t-count value > t-table, 2.443 > 1.989), so the research hypothesis H2 is accepted. b) financial literacy has a positive and significant effect on financial inclusion in the community of Kuta Galuh Village (t-mcount value > t-table, 4.862 > 1.989), so the research hypothesis H1 is accepted. c) financial technology and financial literacy simultaneously have a significant effect on financial inclusion in the community of Kuta Galuh Village (F-count value > F-table, 20.391 > 3.11 at sig. 0.000 < 0.05), so the research hypothesis H3 is accepted. The results of this research indicate that partially and simultaneously, financial literacy and financial technology have a significant effect on financial inclusion in the community of Kuta Galuh Village.

Keywords: Financial Literacy, Financial Technology, Financial Inclusion

Vedra br Sinuraya
Accounting Study Program, Universitas Medan Area, Indonesia.
e-mail: vedracarrera@gmail.com

Indah Cahya Sagala, Fauziah Rahman
Accounting Study Program, Universitas Medan Area, Indonesia.
e-mail: Indahcahya@staff.uma.ac.id, fauziah@staff.uma.ac.id

Introduction

Financial inclusion is very important for individuals to improve their economy, because with financial inclusion people can more easily manage their finances. Financial inclusionas *Financial Resilience,* namely a financially inclusive society is better able to overcome financial crises and reduce uncertainty through access to various financial instruments. Financial inclusion can also increase society's economic productivity, because it allows more people to manage savings, invest and take advantage of overall economic opportunities (Ministry of Finance of the Republic of Indonesia, 2022).

The financial inclusion index in North Sumatra Province will reach 95.58 percent in 2022. Achieving this high level of financial inclusion is achieved by encouraging the use of various financial products and providing training to potential consumers so they can choose financial products and services that suit their needs, rights, obligations, benefits and risks. With an index achievement of 93.98 percent, the level of financial inclusion in North Sumatra Province is the second highest nationally in Indonesia.

Table 1. North Sumatra Financial Inclusion Index Based on Gender in 2019(Percentage)

	Gender	%
Inclusion	Man	91,62
	Woman	96,34

Financial inclusion from a gender perspective is very important in ensuring equality and sustainable development. Meanwhile, in North Sumatra Province, the level of financial inclusion for women is still higher than for men, indicating that efforts to increase financial inclusion for men still need to be increased (OJK, 2019). This happens because in North Sumatra, women have an important role in managing family finances.

Not a few housewives play a dual role, that is, apart from taking care of the household, they also act as the backbone of the family by having a side business or working. The involvement of women in economic activities and financial management is what causes the level of financial inclusion for women in North Sumatra to be higher than men (Lubis,2022).

One of the efforts made to expand financial access for the community is by forming a Regional Financial Access Acceleration Team (TPAKD). A total of 29 TPAKDs have been formed in several districts in North Sumatra Province, including Karo Regency (sumutprov.go.id, 2020). Financial inclusion services for local communities are strengthened by providing the widest possible access. For example, expanding BRI services through Brilink Agents which serve digital banking transactions. In Kuta Galuh Village, Brilink agents are present and widely used by the community for transactions such as cash withdrawals, money deposits, and transfers between accounts. The presenceof banking service agents like this really helps increase financial inclusion in rural areas.

The Financial Services Authority is expanding financial inclusion in rural North Sumatra through the Inclusive Financial Ecosystem (EKI) program, but there are still 7 villages thathave been involved in EKI since 2023, namely Lumban Bulbul Village in Toba Regency, Timbang

Jaya Village in Langkat Regency, Lolo Golu Village in West Nias Regency, Sidodadi Village and Pemagang Johar Village in Deli Serdang Regency, Lingga Cultural Village in Karo Regency and Karang Anyar Village in Simalungun Regency (antaranews.com, 2024). The IKE program implemented by OJK has not yet reached KutaGaluh Village.

In Kuta Galuh Village there is no ATM machine from any bank, there is only one Brilink agent who still has problems such as internet network disruption which is the main obstacle in accessing digital financial services, making the transaction process take a long time and sometimes the transaction process fails, lack of information about programs and digital financial services from both the government and private financial institutions, many village communities rely more on informal financial systems such as social gatherings which may not be well regulated and can be risky.

Research Methods

Theory of Planned Behavior

The theory underlying this research is *the* Theory of Planned Behavior, this theory explains that individuals act based on a sense of confidence in the information obtained, focusing on studying actions carried out consciously, based on individual choices. *The* Theory of Planned Behavior states that an individual's attitude towards action, subjectivenorms, and perceptions of action control influence the individual's intention to act. An individual's attitude towards an action can be positive or negative as indicated by the individual's belief in the benefits and harms of the action.

Financial Inclusion

According to the Law of the Republic of Indonesia Number 4 of 2023 article 1 paragraph (37) Regarding the Development and Strengthening of the Financial Sector, financial inclusion is the availability of access to the use of products and/or services of financial sector business actors that are affordable, high quality and sustainable in accordance with the needs and capabilities of the community to improve the financial welfare of the community.

Based on the Financial Services Authority Circular Number 31/SEOJK.07/2017 concerning Activities to Increase Financial Inclusion in the Financial Services Sector, financial inclusion is the availability of access to various financial institutions, products and services in accordance with the needs and capabilities of the community in order to improving community welfare (OJK, 2017). Financial inclusion also means individuals andbusiness actors who have the ability to access financial products and services such as transactions, payments, savings and insurance (Ika, 2021). Sirait's (2023) research suggests that financial technology has a positive influence on financial inclusion. Based on the results of this research, the hypothesis obtained is as follows:

H1: Financial technology has a positive effect on financial inclusionFinancial Technology

Bank Indonesia said that the progress of fintech occurred due to the emergence of changes in people's lifestyles which are currently dominated by users of information technology, fast-paced lifestyles. With the presence of fintech, problems in transactions include reluctance to visit a place due to lack of service, buying and selling transactions and payments, going to the bank to carry out transactions Previous research conducted by Sirait (2023) also found that financial literacy had a positive influence on financial inclusion. Based on this research, the hypothesis obtainedis as follows:

H2: Financial literacy has a positive effect on financial inclusion Financial Literacy

Financial literacy is knowledge, skills and beliefs that influence attitudes and behavior to improve the quality of decision making and financial management to achieve community financial prosperity (OJK, 2017) According to the World Bank (2018) financial literacy is the ability to use one's knowledgeand skills to manage financial resources effectively, ideally for lifelong financial prosperity. The existence of Fintech in the world, including Indonesia, has proven to be a driver of financial inclusion, because of its role in creating efficient and competitive financial accessfor consumers, however in Indonesia digital financial literacy is still not optimal (Bokarev,Andras Horvai, 2018).

Financial literacy can be said to be a person's ability to obtain, understand and evaluate information that is relevant for decision making by understanding the financial consequences it causes (Krishna et al., 2010).

Population Research

In this research, the population is all the people in Kuta Galuh Village (Tiganderket District). The total population is 1,063 people based on data from the population administration book of Kuta Galuh Village (Tiganderket District) received from the Headof Financial Affairs of Kuta Galuh Village.

Sample Research

Sampling in this study used Probability Sampling, namely using the Simple Random Sampling technique, which is sampling from a population that is carried out randomly without paying attention to the strata in the population. According to Slovin, to determinethe sample size, look for the Slovin formula, namely:

$$\frac{N}{1 + Ne^2}$$

This research initially had a population of 1,063 people based on data obtained from Kuta Galuh Village. However, because this research focuses on productive age, the population was filtered based on these criteria. The results obtained were a target population of 565people who were included in the productive age category, namely 15-64 years old. Basedon sampling calculations using the Slovin estimate, then The sample used in this researchwas 85.

Operational Definition of Variable and Research Instruments

This research uses an ordinal scale to evaluate research instruments to make it easier for survey participants to identify whether they agree or disagree.

Table 2. Operational Definition

Variable	Operational Definition	Indicator	Scale
Financial Inclusion (Y)	Financial inclusion is supporting access to various financial institutions, goods and services that are in harmony with the needs and abilities of society to improve their welfare	1. Access 2. Availability of Financial Products 3. Use of Financial Products Quality of Financial Products (OJK, 2017)	Ordinal
Financial Technology (X2)	It is a financial kombination system withtechnology that makes it easier to access financial products and services online	1. Crowdfunding and Peer to Peer(P2P) Lending 2. Market Aggregator 3. Risk and Investment Management 4. Payment, Settlement, and Clearing (Bank Indonesia) umum keuangan (Chandra, 2018)	Ordinal
Financial Literacy (X2)	Financial Literacy is someone proficiency in planning and manage their finances so that everyone can live a prosperous life	1. Invesment 2. Insurance 3. Savings andloans 4. General financial knowledge (Pulungan, 2017)	Ordinal

Data Type

This research is quantitative research, using survey methods. Survey research is quantitative research conducted on large or small populations, but the data studied is data from samples taken from that population.

Data Source

1. Data Primer

Primary data is a source of data obtained by directly providing data to data collectors. Directly from the research object, interviews and a list of questions are distributed to respondents who meet the criteria, then processed in the form of data using the SPSS statistical tool.

2. Data Seconds

Secondary data is a source that does not directly provide data to data collectors. It is supporting data to complement primary data which includes reading sources obtained in connection with the problem being studied.

Data Analysis Method

In quantitative research methods, after collecting data from all respondents or other data sources, data analysis is carried out. Analysis of the data contained in this research was obtained using the SPSS program.

Results

Descriptive Statistical Analysis

Descriptive statistics is a method that deals with collecting or presenting a collection of data to provide useful information. Descriptive statistics function to describe or provide an overview of the object being studied through a sample or population. The description given is usually presented in the form of mean, diagram, table, sum, range, minimum. Thefollowing is a table of descriptive statistical analysis results:

Tabel 3. Statistical Analysis Result

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Financial Technology	85	12	36	22,69	5,251
Financial Literacy	85	24	39	32,25	3,422
Inclusion Finance	85	15	40	32,36	4,434
Valid N (listwise)	85				

The conclusions from the results of descriptive statistical analysis from the table above are:

1. Financial technology has the lowest value of 12, the highest value of 36, an averagevalue of 22.69, and a deviation value of 5.251.
2. Financial literacy has the lowest value of 24, the highest value of 39, the averagevalue of 32.25, and the deviation value of 3.422.
3. Financial inclusion has the lowest value of 15, the highest value of 40, an averagevalue of 32.36, and a deviation value of 4.434.

Classic assumption test

Table 4. Classical Assumption Test Results

Name	Kriteria	Kesimpulan
Normality test	Significant value 0,200 > 0,05	Data is normally distributed
Multicollinearity test	vif value 1,105 < 10 and value tolerance 0.905 is highter from 0,01	Data is normally distributed multicolinearity does not occur
Heteroscedasticity test	The points spread radnomly so the data as well as whether it is above or not	Data is normally distribu ornot heteroscedastisity

Based on the table above, it can be seen that all the data in this research are with a normal distribution, there are no symptoms of multicollinearity normali, ty, the independent variables can be stated to not experience heteroscedasticity and positive ornegative autocorrelation.

Multiple Linear Regression Analysis

Multiple linear regression analysis is an analytical method used to determine the influence of two or more independent variables on the dependent variable.

Table 5. Results of Multiple Linear Regression Analysis

Coefficients[a]								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	13.962	3.796		3.678	.000		
	X1	.389	.080	.461	4.862	.000	.905	1.105
	X2	.296	.121	.232	2.443	.017	.905	1.105
a. Dependent Variable: Y								

The conclusion from the results of multiple linear regression analysis from the regression coefficient table X1 has a value of 0.389 and is positive. So it can be interpreted that X1 has a positive influence of 38.9% on variable Y. The value for variable X2 is 0.296 and the value is positive. It can be interpreted that X2 has a positive influence of 29.6% on variable Y.

Hypothesis testing

Table 6. Hypothesis Test Results

Name	Kriteria	Kesimpulan
Statistic Test (Partial)	Significant *financial technology* value 0,000 < 0,05 Significant financial value literacy is 0,017 < 0,05	The first hypothesis or financial technology positive influence on inclusion The second hypothesis is that financial positive effect on inclusion <0,05 finance
F Test (Simultaneous)	Significant value 0,000 < 0,05	Financial technology and financial literacy together influence financial inclusion
Coeficient of determination R2	Adjusted R value square 0,316 or 31%	Variable X1 dan X2 can explain 31,6% the variation in the dependent variable Y, while the remaining 68,4% is explained by other variables not included in the model variables X1 and X2 can esplain around 31,6% of the variation in the dependent variable Y

Result

The Influence of Financial Technology on Financial Inclusion in Society inKuta Galuh village

The results of multiple linear regression testing show that the financial technology variable has a positive and significant effect on financial inclusion. Thus, this research accepts the first hypothesis (H1) which states that financial technology has a positive effect on financial inclusion. This is proven by the results of the hypothesis test which shows that the value of the fintech variable is significant equal to 0.000 < 0.05, then H1 is accepted. This means that financial technology has been proven to have a positive and statistically significant effect on financial inclusion.

This finding is in line with the Theory of Planned Behavior which states that positive attitudes, subjective norms, and perceived behavioral control can shape a person's intentions and behavior. In the context of this research, society has a positive attitude towards financial technology which is seen as providing easy access and financial services.The existence of social environmental support and perception of ability using financial technology also strengthens the intention to adopt digital financial services. This ultimately increases financial inclusion in society. The results of this research are consistent with previous research conducted by Mulasiwi and Julialevi (2020), Putri, Wirianingtyas, and Pramitasari (2022) and Sirait (2023) which stated that financial technology has a positive effect on financial inclusion.

The Influence of Financial Literacy on Financial Inclusion in Village Communities Kuta Galuh

The results of hypothesis testing show that financial literacy has a positive and significant effect on financial inclusion. This is proven by the results of the t test which shows a significance value of 0.017 <0.05 for the financial literacy variable. A regression coefficient of 0.296 indicates that every unit increase in financial literacy will increase financial inclusion by 0.296 units. So H2 is accepted.

The results of this research are in line with the Theory of Planned Behavior which states that attitudes towards behavior and perceived behavioral control can shape a person's intentions and behavior. In this context, positive attitudes and strong perceptions of behavioral control regarding financial literacy encourage people to participate in the formal financial sector, thereby increasing financial inclusion. Good financial literacy reflects people's positive attitudes and perceptions of strong behavioral control in managing personal finances. Individuals with high financial literacy tend to have a more open and confident attitude in accessing and utilizing financial products and services, both conventional and digital. The results of this research are supported by previous research by Kusuma (2019), Sari and Kautsar (2020), Putri, Wirianingtyas, and Pramitasari (2022), and Sirait (2023) which stated that financial literacy has a positive effect on financial inclusion.

The Influence of Financial Technology and financial literacy on Financial Inclusion in the Community in Kuta Galuh Village

Based on the results of the F test, a significance value of 0.000 <0.05 was obtained, indicating that financial technology and financial literacy together or simultaneously have a significant effect on financial inclusion. The R Square value of 0.316 indicates that 31.6% of the variation in financial inclusion can be explained by these two independent variables. So it can be concluded that H3 is accepted.

These results can be explained using the Theory of Planned Behavior. In this research, financial technology and financial literacy together represent attitudes towards behavior, subjective norms and perceived behavioral control which influence individual intentions and behavior in adopting and utilizing services finance.

The results of this research are also in line with previous research conducted by Sirait (2023) which stated that financial literacy and financial technology have a positive effect on financial inclusion.

Conclusion

Based on the results of the research and discussion, several conclusions can be drawn drawn from the research are:

1. The financial technology variable (X1) has a positive effect on the financial inclusion variabl (Y) at the 95% confidence level. This is shown from the results of the partial test (t test) which has a significance value of 0.000 < 0.05.

2. The financial literacy variable (X2) also has a positive effect on the financial inclusion variable (Y) at the 95% confidence level. The partial test results show a significance value of 0.017 <0.05.

3. Simultaneously, the variables financial technology (X1) and financial literacy (X2) together have a significant effect on the financial inclusion variable (Y). This is proven by the results of the simultaneous test (F test) which has a significance value of 0.000 < 0.05.

4. The coefficient of determination (R^2) is 0.316 or 31.6%, which means that the variables financial technology (X1) and financial literacy (X2) can explain around31.6% of the variation in the financial inclusion variable (Y), while the rest 68.4%is explained by other variables not included in this research model.

The main conclusion from this research is that financial technology and financial literacy have a significant influence on community financial inclusion in Kuta Galuh Village, both partially and simultaneously.

Suggestions

Based on the results of the research and discussion, the author recommends the following:

1. The village government or relevant parties need to increase socialization and education to the community about the benefits and use of financial inclusion.

2. Efforts should be made to improve the community's financial training so that the community has the knowledge and skills to manage finances wisely.

3. Considering there are other factors affecting financial inclusion outside of financial technology and financial literacy, futher research is needed to identify these factors.

4. The village government or relevant parties can collaborate with financial institutions or fintech to expand access to financial services for the village community, thereby increasing financial inclusion.

Bibliography

Antaranews.com. (2024). OJK perluas inklusi keuangan di perdesaann Sumut. https://www.antaranews.com/berita/4143468/ojk-perluas-inklusi-keuangan-di-perdesaan-sumut

Bokarev, Andras Horvai, A. A. (2018). Financial Literacy-Helping Citizens Make Smart Financial Choices. worlbank.org. https://www.worldbank.org/en/news/opinion/2018/06/21/financial-literacy-helping-citizens-make-smart-financial-choices

Chandra, E. (2018). Fintech: Pengertian, Klasifikasi, dan Manfaatnya. Finansialku.com.

Ika, S. (2021). Kajian Inklusi Keuangan Untuk Keadilan dan Kemakmuran RakyatIndonesia. fiskal.kemenkeu.go.id.

https://fiskal.kemenkeu.go.id/kajian/2021/12/30/2438-kajian-inklusi-keuangan-untuk-keadilan-dan-kemakmuran-rakyat-indonesia

Kementerian Keuangan Republik Indonesia. (2022). Upaya Peningkatan Akses Perempuan Terhadap Layanan Keuangan Formal. Kementerian Keuangan RI, 1–36.

Krishna, A., Rofaida, R., & Sari, M. (2010). Analisis Tingkat Literasi Keuangan (Survey pada Mahasiswa Universitas Pendidikan Indonesia). Proceedings of The 4th International Conference on Teacher Education; Join Conference UPI & UPSI Bandung, Indonesia, November, 552–560.

Lubis, N. (2022). Tingkat Literasi Rendah, OJK Edukasi Keuangan Bagi Perempuan Sumut. pewarta.co. https://pewarta.co/news/sumut/tingkat-literasi-rendah-ojk-edukasi-keuangan-bagi-perempuan-sumut

Mulasiwi, C. M., & Julialevi, K. O. (2020). Optimalisasi Financial Teknologi (Fintech)terhadap Peningkatan Literasi dan Inklusi Keuangan Usaha Menengah Purwokerto. Performance, 27(1), 12. https://doi.org/10.20884/1.jp.2020.27.1.2284

OJK. (2017). Salinan Surat Edaran Otoritas Jasa Keuangan Nomor 30 /Seojk.07/2017. Journal of Chemical Information and Modeling, 53(9).

OJK. (2019). Survei nasional literasi and inklusi keuangan. Survey Report, 1–26. www.ojk.go.id

Pulungan. (2017). Literasi Keuangan dan Dampaknya Terhadap Perilaku Keuangan Masyarakat Kota Medan. Fakultas Ekonomi dan Bisnis Universitas Muhammadiyah Sumatera Utara, 29(1), 33–45.

Putri, R. S. R., Wiryaningtyas, D. P., & Pramitasari, T. D. (2022). Pengaruh Financial Technology Terhadap Inklusi Keuangan Dengan Literasi Keuangan Sebagai Variabel Intervening Pada Mahasiswa Fakultas Ekonomi dan Bisnis Universitas Abdurachman Saleh Situbondo. Jurnal Mahasiswa Entrepreneurship (JME), 1(6). https://doi.org/10.36841/jme.v1i6.2164

Sirait, T. P. (2023). Pengaruh Literasi Keuangan dan Financial Technology Terhadap Inklusi Keuangan UMKM Kota Medan (Studi Kasus Pada Kecamatan Medan Sunggal)

sumutprov.go.id. (2020). Gubernur Sumut Kukuhkan 29 TPAKD Kabupaten/Kota. https://www.sumutprov.go.id/artikel/artikel/gubernur-sumut-kukuhkan-29-tpakd-kabupatenkota