

Financial Inclusion: Analyzed from Financial Literacy and Use of Financial Technology in Garut, Indonesia

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Abstract

Background - Financial inclusion has become a strategic priority in Indonesia, particularly in regions experiencing disparities in digital access and financial awareness. Garut Regency, as a predominantly rural area in West Java, faces uneven access to formal financial institutions, limited digital infrastructure, and varying levels of financial literacy across subdistricts. Although fintech development has expanded nationally, empirical evidence at the regional level, especially in rural-dominated districts such as Garut, remains limited.

Research Urgency - Despite national improvements in financial inclusion, local disparities persist, particularly between rural and urban communities. Garut Regency represents a unique case due to its rural dominance, limited banking access, and growing fintech penetration. Understanding how financial literacy and fintech usage interact in this context is essential to support regional financial inclusion initiatives and to reduce access inequality.

Research Objective - This study aims to examine the influence of financial literacy and fintech usage on financial inclusion among communities in Garut Regency.

Research Method - The study employs a quantitative approach using survey data collected through structured questionnaires distributed to fintech users in Garut Regency. The sample was determined using stratified random sampling to ensure demographic representation. Data were analyzed using multiple regression analysis to assess the simultaneous and partial effects of financial literacy and fintech usage on financial inclusion.

Research Findings - The findings indicate that both financial literacy and fintech usage have positive and statistically significant effects on financial inclusion. Financial technology demonstrates a stronger standardized effect ($\beta = 0.466$) than financial literacy ($\beta = 0.217$). The regression model explains 37.3% of the variation in financial inclusion, indicating that other external factors also contribute to inclusion outcomes.

Research Conclusion - Financial inclusion in Garut Regency improves when communities possess adequate financial literacy and actively utilize fintech services aligned with their daily economic activities. However, disparities in digital access and financial knowledge across rural areas remain challenges that require targeted policy intervention.

Research Novelty/Contribution - This study provides localized empirical evidence from an understudied rural region and integrates perception, attitude, intention, and satisfaction dimensions into the analysis of fintech-driven financial inclusion.

Keywords: financial inclusion; financial literacy; financial technology; rural communities; nonformal community education.

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INTRODUCTION

The rapid development of the Indonesian economy requires individuals to manage their finances effectively, as proper financial management plays a critical role in making informed decisions regarding the use and allocation of financial resources. At the national level, financial inclusion has become a strategic priority, reflected in various government programs aimed at expanding public access to formal financial services. Financial inclusion refers to the availability of financial services that are accessible, affordable, and tailored to the needs of society (Olorogun, 2018). According to Otoritas Jasa Keuangan (2016), financial inclusion ensures that the public has access to financial institutions and services that can support overall well-being. The National Strategy for Financial Inclusion (Peraturan Presiden No. 114/2020) further emphasizes that every citizen should be able to access fast, simple, secure, and affordable financial services (Wardhono et al., 2018).

In addition to the regulatory framework and national priorities, the rapid advancement of digital technology has become a major driver of financial inclusion in Indonesia. The emergence of technology-based financial services, such as mobile banking, e-wallets, and various fintech platforms, has transformed how individuals' access and utilize financial products, particularly for communities that previously faced barriers to reaching traditional banking services (Wahyuddin et al., 2022). Nevertheless, this progress is accompanied by several challenges, including gaps in financial literacy, uneven digital infrastructure, and disparities between urban and rural areas (Vijay et al., 2026). These conditions indicate that achieving effective financial inclusion requires more than merely providing financial services; it also depends on the public's ability to understand, adopt, and meaningfully use these services (Widiyatmoko et al., 2024). Therefore, examining the factors that influence financial inclusion becomes increasingly important, especially in regions where access to and understanding of financial services remain limited.

To illustrate Indonesia's financial inclusion achievements, national data show fluctuations in the growth of inclusion and literacy indicators over the past decade, as summarized in Table 1.

Table 1. Percentage of Financial Inclusion and Literacy at the National Level

Year	Inclusion achievement (%)	Inclusion growth (%)	Literacy achievement (%)	Literacy growth (%)
2019	76.19	12.34	38.03	28.22
2016	67.82	13.53	29.66	35.81
2013	59.74	–	21.84	–

Source: Otoritas Jasa Keuangan (2021).

Despite these improvements, a recent national opinion survey shows that the 76.19% inclusion rate does not automatically translate into higher financial literacy. Otoritas Jasa Keuangan (2021) has highlighted that increased literacy does not always lead to optimal financial access, as many individuals still use financial services without fully understanding the associated products, risks, and long-term benefits. This condition is reflected in the decline in the growth of financial inclusion (–1.19%) and financial literacy (–7.59%) reported by Widiyatmoko et al. (2024).

These challenges indicate a persistent gap in the utilization of financial services, suggesting insufficient public engagement and a limited understanding of financial products. In response, the government continues to strengthen literacy initiatives, emphasizing financial behavior, decision-making, and financial management skills. Financial literacy, which involves knowledge, skills, and confidence in managing financial resources, is essential for ensuring responsible financial behavior (Otoritas Jasa Keuangan, 2016; Soetiono & Setiawan, 2018).

Alongside these initiatives, the rapid advancement of digital technology, supported by broader access to high-speed internet, has enabled the emergence of financial technology (fintech). Fintech integrates financial services with digital innovations to provide more efficient, affordable, and accessible financial solutions (Bank Indonesia, 2021). Fintech services in Indonesia have grown rapidly across various categories, including peer-to-peer lending, digital payments, crowdfunding, market provisioning, wealth management, insurtech, and analytics powered by artificial intelligence (Wang, 2020). The distribution of this growth is presented in Figure 1.

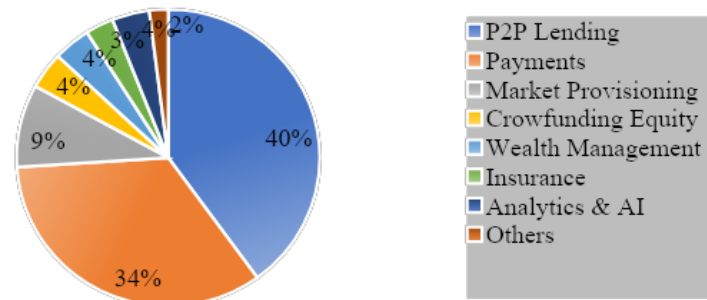


Figure 1. Distribution of Fintech Growth in Indonesia

According to Asosiasi FinTech Indonesia (2019), most Indonesians use funding-based fintech services (40%), followed by payment services (34%). These findings indicate that fintech is a key driver of financial inclusion, especially by offering broader access to funding and secure, efficient payment systems (Niswah et al., 2019). While national progress is notable, financial inclusion remains uneven across regions, particularly between urban and rural areas. This issue is critical in West Java, one of Indonesia's most populous provinces, where significant disparities persist in economic access, digital adoption, and financial literacy.

Garut Regency, as one of the largest rural-dominated regions in West Java, presents a unique case that remains understudied in the existing literature. More than 70% of its population resides in rural areas, where access to banks, formal financial institutions, and digital infrastructure is limited (Badan Pusat Statistik Kabupaten Garut, 2022). This rural–urban divide creates distinctive challenges: lower financial literacy levels, limited access to banking services, reliance on informal lending, and slower adoption of digital financial platforms.

These conditions make Garut a strategically important yet underexplored setting for examining the dynamics of financial literacy, fintech usage, and financial inclusion. In particular, fintech has the potential to bridge literacy gaps in rural communities by offering user-friendly interfaces, educational features, automated guidance, and simplified financial services accessible via mobile devices (Pancho, 2022). This creates an opportunity to assess whether fintech can compensate for limited financial knowledge and expand responsible access to financial services.

Given Garut's socio-economic characteristics, geographical constraints, and limited scholarly attention, this study seeks to fill the research gap by examining how fintech usage and financial literacy influence financial inclusion at the local level. The findings are expected to provide a more contextualized understanding of digital financial behavior within rural communities and to contribute to strengthening regional financial inclusion initiatives, including the Regional Financial Access Acceleration Team (TPAKD) and the Electronification of Regional Government Transactions.

Based on the survey conducted by Asosiasi Penyelenggara Jasa Internet Indonesia (2019), Indonesia's internet penetration rate reached 73.7%. This indicates that 196.71 million out of 266.91 million people from diverse backgrounds had accessed the internet, allowing fintech services to be reachable across various residential areas. The continuous advancement and growing accessibility of fintech are expected to help achieve the targeted level of financial inclusion. The survey also revealed that Java contributed the highest share of internet penetration, accounting for 41.7% of the total population, which translates to approximately

111.30 million internet users. Figure 2 presents the distribution of internet penetration across provinces in Java relative to the total population in 2019.

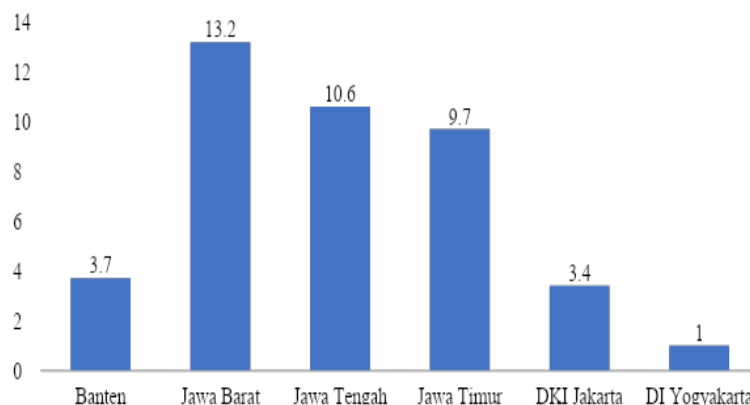


Figure 2. Internet Penetration by Province in the Java Region, 2019

West Java is the province with the highest contribution to internet penetration, namely 13.2%, meaning that 35,100,611 people in Java in 2019–2020 had used the internet network. Garut Regency is part of West Java and belongs to the region with the highest internet penetration. At the same time, Garut Regency is one of the areas with low financial inclusion, a condition evidenced by the inauguration of the Regional Financial Access Acceleration Team (TPAKD) in the regency.

Based on the news released by the Garut Regency Government (Lutfhi, 2021), only around 30% of the people of Garut Regency have access to financial institutions. The TPAKD is expected to encourage the electronification of financial transactions within the Garut Regency Government, because its mandate is aligned with the role of Bank Indonesia in promoting the electronification of regional government transactions in the community (Bank Indonesia, 2021).

The results of the pre-research survey presented in Table 2 show that the community's financial literacy level is still below 50% in several dimensions, especially the financial attitude dimension, which records the lowest percentage at 40%. This suggests that the people of Garut Regency have not fully implemented their financial knowledge in daily life. Meanwhile, on the financial inclusion variable, most respondents perceive that financial access, use, and quality are reasonably affordable and consistent with community needs, both in terms of financial products and services (World Bank, 2014).

In addition, the survey results regarding the use of fintech indicate that most people in Garut Regency consider fintech applications trustworthy and necessary for accessing financial products or services within a short time. The public is also aware of the benefits of fintech applications for financial needs, both in terms of management and transactions (Mupokosera, 2023; Pancho, 2022).

Table 2. Results of a Pre-Research Survey on Financial Literacy, Financial Inclusion, and Use of Fintech in Garut Regency Communities

Statement	Yes (%)	No (%)
Financial literacy		
Financial knowledge	57.9	42.1
Financial behavior	45.0	55.0
Financial attitude	40.0	60.0
Financial inclusion		

Access	70.0	30.0
Use	90.0	10.0
Quality	95.0	5.0
Fintech use		
The fintech application is easy to operate	95.0	5.0
Transaction speed through fintech is very effective	100.0	0.0
The use of the fintech application is deemed necessary	90.0	10.0
I use the fintech application because I was influenced by other people	55.0	45.0
The use of the fintech application can be trusted	85.0	15.0
I do not feel safe providing personal information online	75.0	25.0
The fintech application provides benefits consistent with industry types (payment, lending, equity participation, and others)	95.0	5.0

Source: Pre-research survey conducted by the authors (2024).

The electrification of financial transactions for the people of Garut Regency is useful for reaching residents who have difficulty obtaining access to finance. Limited financial access in terms of location and facilities is one of the factors behind low financial inclusion in Garut Regency, and it is thought to be caused by low financial literacy, including in financial knowledge, the utilization of financial institutions, and regular financial management (Butar, 2021).

Financial literacy refers to a combination of skills, knowledge, and beliefs that shape an individual's mindset and actions when making financial decisions and managing money effectively to achieve success (Otoritas Jasa Keuangan, 2013). Similarly, Atkinson and Messy (2012) describe financial literacy as a comprehensive awareness, understanding, skill set, attitude, and behavior necessary for individuals to make informed financial choices, ultimately leading to economic well-being. A strong foundation in financial literacy benefits individuals, financial institutions, and nations by fostering economic growth, alleviating poverty, reducing income inequality, and maintaining financial system stability. It enables individuals to comprehend the utility and risks associated with various financial products and services while equipping them with the knowledge, skills, and confidence needed to make sound financial decisions (Santoso et al., 2024).

Based on the definitions above, financial literacy can be interpreted as an individual's insight, understanding, attitude, and behavior toward utilizing financial services to achieve financial security. Before implementing a nationwide financial education and literacy strategy, it is crucial to assess the level of public understanding regarding financial products and services. The OECD (2016) developed a survey methodology known as Tools to Measure Financial Literacy and Financial Inclusion, which serves as a foundation for this assessment and evaluates three key aspects: financial knowledge, financial behavior, and financial attitude.

In addition, Otoritas Jasa Keuangan (2013) assesses financial literacy using three dimensions and their indicators. The first dimension focuses on knowledge and understanding, covering familiarity with formal financial institutions, their products and services, methods of access, and product characteristics. The second dimension measures individuals' ability to calculate financial aspects, including interest rates on loans and savings, investment returns, service fees, and penalties. The third dimension examines trust in financial institutions, reflecting an individual's confidence in their operations, products, and services. Complementarily, the OECD (2016) outlines knowledge and skills, application of knowledge, and attitudes and behavior as the dimensions for assessing financial literacy.

Fintech, or financial technology, emerges from the integration of financial services and technological advancements. According to Bank Indonesia (2021), fintech reshapes traditional business models into a more adaptable structure, enabling direct transactions to be conducted remotely with greater ease and efficiency. Financial technology is an example of the application of information technology in the financial domain (Alimirruchi, 2017). Advances in technology are able to expand information flows and minimize distance and time barriers, while in the financial sector they expand access to services. The rise of financial technology companies is therefore clear evidence of the development of information technology (Wang, 2020).

Fintech can also be defined as a system designed to facilitate transactions and provide technology-based financial services, enabling broader access for individuals regardless of their location. This innovation allows the public to obtain financial services without direct face-to-face interaction while ensuring transparent and affordable administrative costs. The rapid growth of fintech in Indonesia is driven by high demand for domestic financing, the uneven distribution of financial resources, and the need for fast and transparent funding processes (Soetiono & Setiawan, 2018; Wahyuddin et al., 2022).

The Technology Acceptance Model (TAM), a widely accepted framework, explains individuals' acceptance and use of information technology systems and provides insights into why people adopt technological advancements (Davis, 1989). According to TAM, a person's acceptance of a technology system is influenced by five key dimensions. The first is perceived usefulness, which refers to an individual's belief that using technology will improve performance. The second is perceived ease of use, which reflects how effortless and intuitive a person finds the technology. The third is attitude toward technology usage, which represents an individual's overall perception and willingness to adopt technology. The fourth is behavioral intention to use, which indicates a person's readiness and intention to utilize the technology. The fifth, actual usage, measures the extent to which a person incorporates the technology into real-life applications. Subsequent studies have extended TAM by incorporating trust, perceived risk, and social influence as antecedents of adoption in financial contexts (Lee, 2009; Ramayah et al., 2009; Roca et al., 2009), while Niswah et al. (2019) demonstrated the relevance of this extended framework among Indonesian users of fintech platforms.

For the financial industry to grow across various countries, financial inclusion remains a critical concern (Soetiono & Setiawan, 2018; World Bank, 2014). The primary objective of financial inclusion is to eliminate barriers that hinder individuals from accessing financial services at a fair and reasonable cost. According to Otoritas Jasa Keuangan (2016), financial inclusion refers to the availability of financial institutions, products, and services tailored to the needs and capabilities of the community to enhance overall welfare. To achieve greater financial inclusion, four key elements must be considered: access, availability, utilization, and quality. Meanwhile, based on Peraturan Presiden No. 114/2020, financial inclusion is defined as an initiative to improve access and flexibility in economic activities to support national economic development. Therefore, ensuring ease of access to financial services is crucial, meaning that these services must be available according to the financial needs and capabilities of the public while also providing adequate consumer protection. To measure the effectiveness of financial inclusion programs, it is essential to identify key variables that serve as indicators of success. According to the National Strategy for Financial Inclusion outlined in Peraturan Presiden No. 114/2020, financial inclusion is assessed through three core dimensions: access, utilization, and quality. These dimensions serve as benchmarks for evaluating program progress, identifying obstacles in implementation, and ensuring the achievement of financial inclusion objectives at both national and regional levels.

Beyond these dimensions, financial inclusion levels are also assessed using a set of indicators presented in the OECD survey (Soetiono & Setiawan, 2018). The framework evaluates financial inclusion through seven key indicators: savings products, including retirement and investment instruments; payment products, such as debit cards and electronic money; insurance products; credit products, including microcredit, credit cards, and mortgages; awareness of financial products; selection or replacement of financial products; and the ability to seek alternative financial solutions.

METHODS

Research Design

In this study, the collected data were processed and analyzed using a quantitative research approach, in which all variables are measured numerically to enable statistical testing (Basuki, 2021; Sugiyono, 2013). The study employs both descriptive and verification methods. The descriptive method is used to systematically explore and interpret the characteristics of the primary variables, namely financial literacy, fintech usage, and financial inclusion, thereby providing a factual overview of current conditions in Garut Regency. The verification method is applied to empirically test the research hypotheses and to validate whether financial literacy and fintech usage significantly influence financial inclusion (Riyanto & Hatmawan, 2020).

Population and Sample

The population of this study consists of residents of Garut Regency who actively use fintech services. The sample was determined using stratified random sampling, considering variations in age, income level, and type of fintech used. This technique ensures that the sample represents different socio-economic groups within Garut Regency (Riyanto & Hatmawan, 2020). The minimum sample size was calculated using power analysis with a statistical power of 0.80, a significance level of 0.05, and two predictors, resulting in a required minimum of approximately 120 respondents. To enhance robustness, the final sample exceeded this minimum requirement, with 100 complete responses retained for the regression analysis after data screening.

Data Collection Techniques and Instrument Validation

Data were collected using a structured questionnaire distributed to fintech users. Prior to full distribution, a pilot test involving 30 respondents was conducted to ensure the clarity and suitability of the items. Content validity was assessed through expert judgment from academic and industry professionals. Construct validity was evaluated using item-total correlations, while reliability was tested using Cronbach’s alpha, with all variables meeting the acceptable threshold of $\alpha \geq 0.70$. These procedures ensure that the claim of data validity is supported by explicit and rigorous evidence rather than assertion (Firdaus, 2021).

Data Analysis

To analyze the influence of fintech adoption and financial literacy on financial inclusion, the study employs multiple regression analysis, which is appropriate for examining the simultaneous effect of two or more independent variables on one dependent variable. Before conducting the regression, several classical assumption tests were performed, including tests for normality, multicollinearity, heteroscedasticity, and linearity, ensuring that the regression model meets the statistical requirements for unbiased and reliable estimation (Firdaus, 2021; Sugiyono, 2013).

Ethical considerations were strictly observed throughout the study. Participation was voluntary, and informed consent was obtained from all respondents prior to data collection. Respondent anonymity and data confidentiality were fully guaranteed, as no personally identifying information was recorded or disclosed.

RESULTS AND DISCUSSION

To determine the extent to which the independent variables, financial technology and financial literacy, explain the variation in the dependent variable, financial inclusion, a multiple linear regression analysis was conducted. The summary of the results is presented in Table 3, which reports the coefficient of determination (R square), adjusted R square, the standard error of the estimate, and the autocorrelation test using the Durbin–Watson statistic.

Table 3. Model Summary of the Multiple Regression Analysis

Model	R	R square	Adjusted R square	Std. error of the estimate	Durbin–Watson
1	.611	.373	.361	6.980	1.981

Note. Predictors: (constant), financial technology, financial literacy. Dependent variable: financial inclusion.

The results presented in Table 3 show that the value of $R = 0.611$ indicates a fairly strong relationship between financial technology and financial literacy on the one hand and financial inclusion on the other. The R square value of 0.373 suggests that the two independent variables explain 37.3% of the variation in financial inclusion, while the remaining variation is influenced by other factors outside the model. The adjusted R square value of 0.361 confirms that the model remains stable after accounting for the number of predictor variables. The standard error of the estimate, at 6.980, reflects the degree of deviation between the actual data and the values predicted by the model. In addition, the Durbin–Watson value of 1.981 is close to 2, indicating that the regression model does not suffer from autocorrelation problems and that the results are therefore reliable.

Table 4. ANOVA of the Regression Model

Model	Sum of squares	df	Mean square	F	Sig.
Regression	2,817.010	2	1,408.505	28.907	.000
Residual	4,726.300	97	48.725		
Total	7,543.310	99			

Note. Dependent variable: financial inclusion. Predictors: (constant), financial technology, financial literacy.

The results in Table 4 indicate that the regression model involving financial technology and financial literacy as predictors of financial inclusion is statistically significant. The F value of 28.907 with a significance level of 0.000 ($p < 0.05$) shows that the overall regression model is appropriate and that both independent variables simultaneously have a significant influence on financial inclusion.

Table 5. Regression Coefficients of Financial Literacy and Financial Technology

Model	B	Std. error	Beta	t	Sig.
(Constant)	15.145	6.729		2.251	.027
Financial literacy	0.277	0.121	.217	2.283	.025
Financial technology	0.257	0.052	.466	4.898	.000

Note. Dependent variable: financial inclusion.

The results in Table 5 show that both independent variables have a significant influence on financial inclusion. The coefficient for financial literacy is 0.277, with a t value of 2.283 and a significance level of 0.025 ($p < 0.05$), indicating that an increase in financial literacy contributes positively and significantly to improving financial inclusion. Financial technology has a coefficient of 0.257 with a t value of 4.898 and a significance level of 0.000, demonstrating a stronger and significant positive effect compared with financial literacy, as also reflected in the standardized coefficients ($\beta = 0.466$ versus $\beta = 0.217$).

Financial Literacy, Financial Technology, and Community Financial Inclusion in Garut Regency

The financial literacy level of residents in Garut Regency shows encouraging progress, particularly in their ability to recognize the basic roles of financial institutions, such as savings, payment services, and debt management. Survey findings indicate that a majority of respondents understand the importance of timely debt repayment and are able to manage daily financial needs in a relatively disciplined manner. However, a substantial knowledge gap remains in understanding more complex financial products such as investment instruments, insurance, mutual funds, and stocks. This limited product-level literacy appears to stem from

insufficient outreach and education programs provided by financial institutions in rural and semi-urban areas of Garut (Butar, 2021).

Furthermore, although respondents demonstrate responsible financial behavior, such as budgeting, prioritizing essential spending, and maintaining a stable financial attitude, asset-building behavior remains low. Only a small proportion of respondents' report allocating income toward investment or long-term asset accumulation. This suggests that informational deficits regarding diverse financial products continue to hinder broader financial empowerment (Soetiono & Setiawan, 2018).

Fintech adoption in Garut Regency is generally positive, supported by improvements in digital infrastructure and increasing exposure to mobile-based financial services. Respondents report that fintech applications simplify transactions, reduce waiting times, and offer more efficient alternatives, particularly in sectors such as education, where several institutions now implement virtual account-based payment systems. E-commerce platforms have also accelerated digital payment usage among local residents (Pancho, 2022).

However, fintech usage remains uneven across age groups and regions. While younger respondents adopt fintech rapidly, older and rural populations report limited understanding due to uneven dissemination and a lack of digital financial education. Moreover, although respondents acknowledge the convenience, usefulness, and speed of fintech, the perceived efficiency of fintech services received the lowest mean score in the survey, suggesting that not all users fully benefit from advanced features.

Attitudinal and behavioral indicators toward fintech adoption, such as intention to use, perceived usefulness, and actual usage, fall within the good category, reflecting consistent growth in the number of fintech users in Garut. Respondents' intention to continue using fintech is reinforced by increasingly sophisticated application features that better align with community needs (Lee, 2009; Ramayah et al., 2009).

Financial inclusion indicators in Garut Regency also show positive development. Respondents report that access to financial services, whether banking, digital payments, or lending, has become more accessible and of higher quality. Improvements in distribution channels, the availability of branchless banking agents, and broader digital payment acceptance have contributed to reducing barriers to financial access. Nevertheless, the level of inclusion varies across subdistricts, with some rural areas still facing constraints related to connectivity and financial service coverage (Badan Pusat Statistik Kabupaten Garut, 2022).

The Effect of Financial Literacy on Community Financial Inclusion in Garut Regency

In Garut Regency, financial literacy contributes to financial inclusion through measurable improvements in individuals' financial knowledge, attitudes, and behaviors. Instead of assuming a direct causal link, this study observes specific indicators collected through the survey, such as respondents' ability to identify different financial products (deposits, credit, insurance, and digital wallets), their budgeting habits, and the frequency of using fintech applications. These indicators provide empirical evidence of how literacy translates into practical financial decisions. For example, individuals with higher literacy scores demonstrate more consistent saving behavior, better capability in evaluating financial risks, and a higher likelihood of using formal financial services, including mobile banking and digital payment platforms (Novitasari & Kautsar, 2020).

Financial inclusion outcomes, such as access to accounts, usage of digital payments, and participation in microloan programs, vary across demographic groups in Garut. Farmers, students, and MSME owners show distinct patterns of fintech usage and financial-product knowledge, reflecting different needs and levels of digital access. By analyzing these subgroups separately, the study avoids overgeneralizing the population and provides a clearer picture of how financial literacy affects each segment (Santoso et al., 2024).

Recent post-pandemic fintech research supports this pattern, indicating that increased digital financial literacy significantly enhances fintech adoption, especially in rural districts (Vijay et al., 2026; Widiyatmoko et al., 2024). Prior research by Simanjuntak (2019) and Inayah (2021) remains relevant but must be contextualized for Garut; therefore, this study focuses on local data trends, including the growth of digital payment usage and the accessibility gap between urban and rural areas. By integrating current evidence with

local survey data, the analysis provides a more rigorous explanation of how financial literacy supports financial inclusion in Garut Regency.

The Influence of Financial Technology on Community Financial Inclusion in Garut Regency

The findings of this study show that financial technology contributes meaningfully to improving financial inclusion in Garut Regency; however, the relationship is not automatic. Higher financial inclusion occurs when fintech tools are actually adopted, understood, and aligned with the daily financial needs of specific user groups such as farmers, students, and micro-entrepreneurs. The results indicate that fintech adoption in Garut is largely driven by the actual usefulness of specific products, particularly mobile banking, digital wallets, and branchless banking services. These applications support routine activities such as digital payments, school tuition transfers, online shopping, and receiving remittances, especially in urban subdistricts. In contrast, peer-to-peer lending platforms show very low uptake, primarily due to distrust, fear of over-indebtedness, and a lack of product suitability for farmers and informal workers (Mupokosera, 2023). This differentiation underscores that not all fintech categories develop equally well in Garut, and that each tool influences financial inclusion differently.

Perceived usefulness, in this context, is reflected in how respondents evaluate specific fintech features. For example, 72% of student respondents in the sample use digital wallets for daily transactions because they reduce waiting times and eliminate the need to visit bank branches. Among MSME owners, mobile banking is used to track cash inflows, transfer funds to suppliers, and make tax-related payments. Meanwhile, among farmers in rural areas, fintech usefulness is perceived mainly through digital payments for agricultural supplies or the receipt of subsidies, but adoption remains limited due to weak internet access and low digital literacy (Davis, 1989; Wang, 2020).

Perceived ease of use also varies across demographic groups. Younger users report that digital wallets have intuitive interfaces and require minimal onboarding, whereas older adults, especially farmers, report difficulties navigating applications and verifying digital identities. These disparities reveal that ease of use contributes to financial inclusion only when supported by adequate digital skills and infrastructure, particularly in rural districts such as Pangatikan and Cigedug (Roca et al., 2009).

Attitudes toward fintech adoption and behavioral intention are shaped by previous user experiences and community trust. Positive attitudes are most dominant in areas where digital transactions are already embedded in institutional routines, such as schools that use virtual accounts for tuition payments or MSMEs selling through e-commerce marketplaces. Conversely, negative attitudes toward peer-to-peer lending arise from concerns about data misuse and high interest rates. These attitudinal differences directly influence the rate of actual fintech use across population segments (Niswah et al., 2019).

Actual usage, measured through the frequency and type of fintech transactions, shows the strongest association with higher financial inclusion. Respondents who use fintech at least three to five times per week report greater access to savings accounts, smoother payment processes, and more frequent use of financial products such as micro-insurance or investment top-ups. This suggests that financial inclusion in Garut improves not because fintech exists but because the population actively uses fintech tools that match their economic activities.

These results align with previous studies (Inayah, 2021; Rohmah, 2021; Safira et al., 2020), but the present study extends their findings by showing that the impact of fintech varies significantly across user groups in semi-urban and rural areas, highlighting the distinctive socio-economic context of Garut Regency.

CONCLUSION

The overall level of financial literacy among residents of Garut Regency is relatively strong, particularly in basic financial understanding and responsible financial behavior. However, literacy remains uneven across demographic groups, with rural households, farmers, and low-income segments showing lower familiarity with more complex financial products such as insurance, investment instruments, and digital savings. Fintech

adoption is growing, especially in the use of digital wallets for daily transactions, bill payments, and school-related payments, while more advanced fintech services, such as peer-to-peer lending and digital investment platforms, are adopted at a much lower rate. Regression results confirm that both financial literacy and fintech usage have a significant positive effect on financial inclusion. Nevertheless, the lowest-scoring dimension of fintech adoption relates to attitudes toward technology, particularly concerns about data security and privacy. This indicates that despite the convenience of fintech, many users, especially in rural areas, remain hesitant due to fears of fraud or misuse of personal information. To reduce this barrier, residents should be encouraged to use only licensed, OJK-registered fintech platforms, while financial institutions and local government must intensify public education campaigns on digital safety and responsible fintech use.

On the financial inclusion side, the weakest dimension is physical and digital access, particularly the limited availability of banking agents, automated teller machines, and network connectivity in remote districts such as Selaawi, Bungbulang, and Mekarmukti. These access gaps underscore the need for financial institutions to map the distribution of service outlets more carefully and to expand branchless banking agents, mobile banking units, and interoperable payment points. Local government must also strengthen the digitalization program by improving internet penetration in rural areas, ensuring that fintech-based services can be accessed by communities outside urban Garut. Future research is recommended to extend the model by incorporating additional variables such as digital infrastructure quality, trust, and household income, and to employ longitudinal designs that capture changes in financial behavior over time.

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