

FINANCIAL INCLUSION AMONG STUDENTS: THE ROLE OF LITERACY, TECHNOLOGY, AND SOCIAL CAPITAL

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ABSTRACT

Financial inclusion has become a global development agenda, yet in Indonesia a significant gap remains between the level of inclusion and financial literacy. Among young generations, particularly university students, access to financial services is increasing through digital platforms, but effective and responsible utilization is still not fully achieved. This study aims to examine the influence of financial literacy, financial technology, and social capital on financial inclusion among students of the Faculty of Economics and Business, Universitas Kuningan. A quantitative approach was employed using survey data and multiple linear regression analysis. The dependent variable was financial inclusion, while the independent variables included financial literacy, financial technology, and social capital. The findings reveal that all three independent variables have a positive and significant effect on financial inclusion. Among them, financial technology has the strongest impact. The model explains 60.2% of the variance in financial inclusion, indicating a strong explanatory power. The study underscores the importance of integrating behavioural, technological, and social dimensions to strengthen financial inclusion among young people. It contributes to the theoretical framework of the Theory of Planned Behaviour and provides practical implications for policymakers, educators, and financial service providers in promoting inclusive and sustainable financial access.

Keywords: *Financial Inclusion, Financial Literacy, Fintech, Sosial Capital, Student University*

INTRODUCTION

Financial inclusion is a crucial pillar of sustainable economic development. Financial inclusion is a condition where individuals have access to, utilize, and obtain quality benefits from formal financial services, both traditional and digital. Through broader access to financial products and services, individuals can increase their capacity to save, invest, and effectively manage financial risks. At the national and global levels, governments and various institutions continue to promote efforts to increase financial inclusion as a way to reduce economic disparities and empower communities. However, in reality, there are still segments of the population that are not fully covered by formal financial services. Younger generations, including students, often face obstacle in accessing and optimally utilizing financial services.

Based on the results of the 2023 National Socioeconomic Survey (Susenas) conducted by the Central Statistics Agency (BPS), the level of financial inclusion in Indonesia, as seen from the aspect of the use of financial products and services, has reached 88,7%. In line with

this increase, data on account ownership at formal financial institutions shows that 75.3% of adults in Indonesia have financial accounts. Specifically, the highest account ownership rate is among Millennials, at 78.8%, while Gen Z recorded the lowest account ownership rate, at 71.7%. Furthermore, trends in financial service usage also reflect a similar pattern, with Millennials reaching the highest at 89.1%, while Gen Z recorded 88.5%.

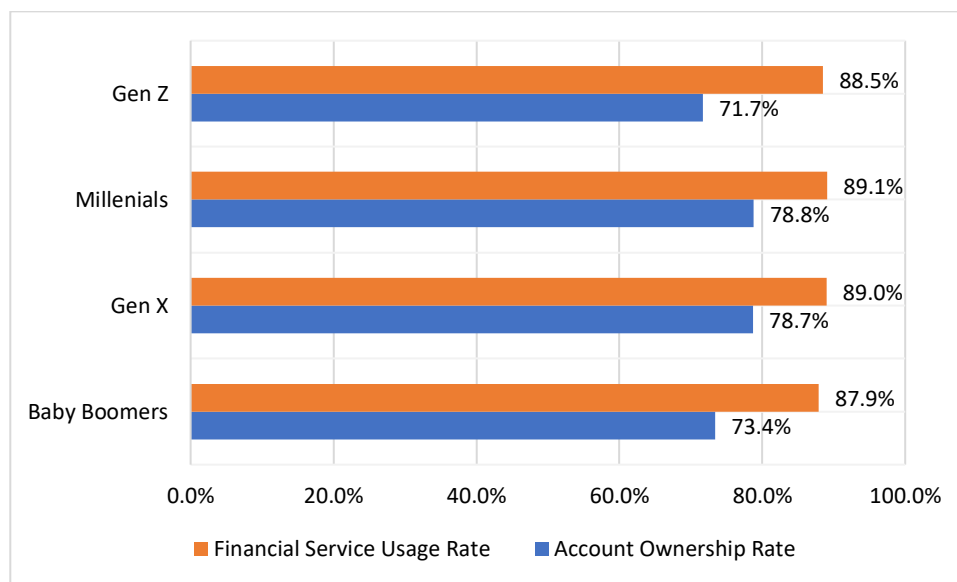


Figure 1. Account Ownership and Financial Service Usage Rate

Sumber: Survei Inkusi Keuangan, diolah (2025)

The Development of financial inclusion and literacy in Indonesia has shown a dynamic trend over the past decade. According to data from the Financial Services Authority (OJK), the financial inclusion rate has steadily increased from 59.74% in 2013 to 85.10% in 2022, although it declined slightly to 75.02% in 2023. Meanwhile, the financial literacy rate has also increased significantly from 21.84% in 2013 to 65.43% in 2023.

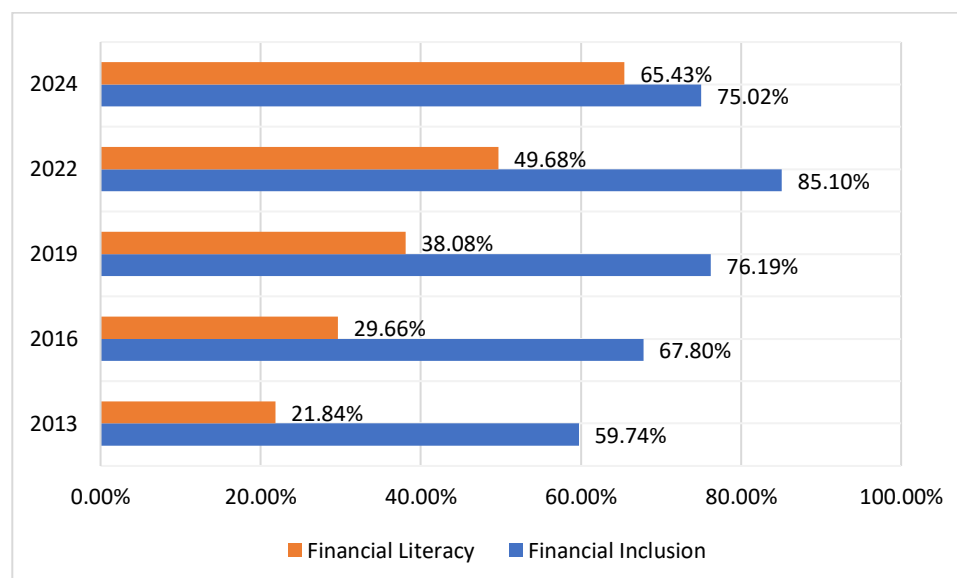


Figure 2. Financial Literacy and Financial Inclusion

Sumber: Survei Inkusi Keuangan, diolah (2025)

These data demonstrate a gap between financial inclusion and financial literacy, indicating that despite increasing public access to financial products and services, a deeper understanding of financial management still needs to be improved. This situation presents both a challenge and an opportunity, particularly among the younger generation and students who are potential users of digital financial services. According to Xu & Zia (2012), financial literacy is an important prerequisite for sustainable financial inclusion, because adequate understanding will improve the quality of financial decision-making. Financial literacy is an individual's comprehensive ability (knowledge, attitudes, behaviour) to understand, manage, and make decisions related to finance.

Previous studies have confirmed that financial literacy plays a crucial role in promoting financial inclusion, both directly and through indirect mechanisms. Khan et al. (2022) highlighted that despite the consistent positive relationship, measurements of financial inclusion vary and often focus solely on access, rather than quality of use. Hasan & Hoque (2021) demonstrated that financial literacy influences financial behaviour and attitudes, while social capital factors facilitate inclusion. In Indonesia, Ainiyah & Yuliana (2022) demonstrated that financial literacy positively influences student financial inclusion, and Geriadi et al. (2023) added that fintech can act as a mediator in this relationship.

Meanwhile, Asyik et al. (2022) found that intellectual capital can intervene in the relationship between financial literacy and financial inclusion, although there are indications that certain financial behaviours negatively impact financial inclusion. Peter et al. (2025) findings further demonstrate that financial literacy does not always function as a mediator in the context of digital financial inclusion, and thus its role is highly dependent on the socioeconomic context.

Apart from financial literacy, presence of financial technology (fintech) encouraging the creation of more sustainable financial inclusion. Various studies confirm that fintech contributes significantly to expanding access to financial services, particularly through digital channels such as online payments, mobile banking, and peer-to-peer lending (Goswami et al., 2022; Aswirah et al., 2024). Fintech is a catalyst for financial inclusion by creating service that are cheaper, faster, and more inclusive than conventional banks (Ediagbonya & Tioluwani, 2023; Sarto & Ozil, 2025). In fact, during the Covid-19, fintech has proven to be a crucial tool in maintaining the continuity of public financial activities and economic recovery (Marginingsih, 2021).

Recent studies show that the relationship between fintech and financial inclusion is not simple. Amnas et al. (2024) emphasized that FinTech adoption is only effective in increasing financial inclusion if mediated by digital financial literacy, because without digital skills, people risk not being able to optimally utilize services. Furthermore, trust in regulations and service security emerge as important determinants; without clear regulatory support, public participation in the FinTech ecosystem will be hampered even if access is available (Ediagbonya & Tioluwani, 2023). Rohmah & Gunarsih (2021) research even shows contradictory results: some studies find a positive effect of FinTech on financial inclusion, while others find no significance, indicating the presence of intervening variables (e.g., digital literacy, trust, and social norms).

Social capital can increase participation and utilization of financial services, particularly for previously underserved groups, thereby strengthening overall financial inclusion. Several studies have shown that social capital, which encompasses networks, norms, and trust, plays a crucial role in strengthening financial inclusion. Studies by Suryani (2021) and Pradana (2021) found that social capital significantly influences access to and utilization of formal financial services among low-income groups, such as market workers and

the general public. In this context, trust among community members, norms of mutual cooperation, and social networks have been shown to facilitate the exchange of financial information and increase individuals' willingness to use formal financial services. Similar findings were demonstrated by Prasetyo (2023), who explained that social capital not only directly impacts financial inclusion but also plays a role in improving financial literacy through social learning mechanisms, which in turn strengthens formal financial participation.

However, Onodugo et al. (2021) research highlights that the influence of social capital on financial inclusion can be complex and contextual. In some cases, social capital actually acts as a moderating factor, for example, strengthening the influence of financial behavior on financial inclusion. This indicates that the effects of social capital are not always direct but can operate indirectly through other variables such as financial literacy or financial behavior. Furthermore, most research still focuses on the general public, rural communities, or working groups with low financial literacy, while the student population—whose unique characteristics include intense digital technology use, strong social networks, but varying levels of financial literacy—rarely receives specific attention.

Research on the influence of financial literacy, financial technology, and social capital on financial inclusion can be understood through the Theory of Planned Behavior (TPB) framework. According to TPB, individual behavior is determined by intentions, which are influenced by attitudes, subjective norms, and perceived behavioral control (Ajzen, 1991). In this context, financial literacy plays a role in shaping students' positive attitudes toward using financial services, as adequate understanding of financial products fosters the belief that utilizing these services will bring benefits. Social capital reflects subjective norms, where social support, trust, and social networks create social pressure and incentives for students to use formal and digital financial services. Meanwhile, financial technology increases perceived behavioral control because the ease of access, affordability, and flexibility offered by fintech make students feel they have greater control in utilizing financial services. The combination of positive attitudes, supportive social norms, and strong perceptions of control will strengthen students' intentions to participate in the formal financial system, which ultimately manifests in concrete behaviors such as increased levels of financial inclusion.

Previous research on financial literacy, financial technology, and social capital has shown positive contributions to increasing financial inclusion. However, these findings still leave several gaps. First, most studies emphasize access, while the quality of use of formal and digital financial services has received little attention. Second, although FinTech has been shown to expand the reach of services, its effectiveness is highly dependent on digital literacy, regulation, and trust, so its role is not entirely consistent across contexts. Third, social capital is generally studied in rural communities or low-income groups, while it is rarely studied in the student population, which has unique characteristics such as intense digital technology use, strong social networks, and varying financial literacy. This situation emphasizes the urgency of research that simultaneously integrates these three variables in the context of students as a strategic group in building sustainable financial inclusion. The purpose of this study is to analyze the extent to which financial literacy, financial technology, and social capital play a role in driving financial inclusion, and to provide theoretical and practical contributions to the development of strategies for increasing financial inclusion in the digital era.

METHOD

This study uses descriptive and verification methods with a quantitative approach. The population of this study is 2,125 active students of the Faculty of Economics and Business, Universitas Kuningan. By using the Slovin formula with a margin of error of 5%, a sample size of 337 students was obtained. The sample was distributed proportionally to each study program, namely: accounting 76 respondents, management 252 respondents, and digital business 9 respondents. Primary data was collected through a questionnaire with an interval scale of 1–10. The data analysis technique used was multiple linear regression analysis using the IBM SPSS 25.0 program.

RESULT AND DISCUSSION

Before testing the influence of financial literacy (X1), fintech (X2), and social capital (X3) on financial inclusion (Y) using multiple linear regression, a diagnosis and testing will first

be carried out related to classical assumptions, including: normality, multicollinearity, and homoscedasticity.

1. Normality Test

Normality refers to whether the residuals from the resulting regression model follow a normal distribution. This can be tested using the Kolmogorov-Smirnov test.

Table 1 Normality Test

		Unstandardized Residual
N		337
Normal Parameters	Mean	.0000000
	Std. Deviation	4.10860226
Most Extreme Differences	Absolute	.042
	Positive	.035
	Negative	-.042
Test Statistic		.042
Asymp. Sig. (2-tailed)		.200

Source: SPSS Output (2025)

Based on the output above, it can be seen that the p-value (asymptotic sig.) is greater than the 5% significance level. Thus, it can be concluded that the residuals from the regression model are normally distributed.

2. Multicollinearity

Multicollinearity is a condition where the independent variables in a regression model are correlated with each other. To check for multicollinearity, the Variance Inflation Factor (VIF) is used.

Table 2 Multicollinearity Check

Model	Collinearity Statistics	
	Tolerance	VIF

1	Financial Literacy (X1)	.755	1.325
	Financial Technology (X2)	.926	1.080
	Social Capital (X3)	.790	1.265

Source: SPSS Output (2025)

The diagnostic results show a VIF value of less than 10 for each independent variable, so it can be concluded that the regression model is free from multicollinearity.

3. Homoscedasticity

Homoscedasticity means constant residual variance. To test residual homogeneity, the Glesjer procedure is used by regressing the independent variable against the absolute residual.

Table 3 Homoskedasticity Test

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.940	2.221		2.224	.027
	Financial Literacy (X1)	.009	.034	.016	.255	.799
	Financial Technology (X2)	.002	.035	.003	.045	.964
	Social Capital (X3)	-.049	.033	-.090	-1.491	.137

Source: SPSS Output (2025)

The test results show that all independent variables do not have a significant effect on the absolute residual, so it can be concluded that the residual variance of the regression model is constant (homoscedasticity).

Because the classical assumptions have been met, the regression model is suitable for identifying the determinants of financial inclusion among students in the Faculty of Economics

and Business, Universitas. The results of the Ordinary Least Squares (OLS) regression modelling are presented in the following table:

Table 4 Regression Output

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	18.196	1.451		12.540	.000
	Financial Literacy (X1)	.205	.024	.336	8.440	.000
	Financial Technology (X2)	.282	.023	.441	12.282	.000
	Social capital (X3)	.162	.022	.291	7.478	.000

Source: SPSS Output (2025)

The linear regression equation formed

$$Y = 18.196 + 0.205X_1 + 0.282X_2 + 0.162X_3$$

Interpretation:

1. The effect of financial literacy on financial inclusion

The t-test results indicate that financial literacy has a positive and significant effect on financial inclusion. This means that increased financial literacy significantly increases individuals' opportunities to access and responsibly use appropriate products (accounts, payments, savings, credit, insurance). These results align directly with an empirical study conducted by Rohmah & Gunarsih (2021) in the Special Region of Yogyakarta, which found that financial literacy has a positive and significant effect on inclusion. Furthermore, these findings also corroborate the research findings of Edigbonya & Tioluwani (2023), which emphasized the importance of financial literacy. The study stated that low financial literacy is a major structural barrier to promoting financial inclusion in many developing countries. This emphasis emerges in institutional studies, which highlight the role of government policies and community capacity in expanding financial access and participation.

2. The effect of fintech on financial inclusion

The t-test results indicate that the penetration and use of fintech services such as e-wallets, peer-to-peer lending, and payment gateways are key drivers of increased financial inclusion. Practically, expanding access through mobile devices and agent networks enables communities previously underserved by formal financial institutions to begin utilizing these services. This finding aligns with literature showing that fintech can expand financial access, reduce transaction costs, and reach rural and remote areas. Furthermore, the results of this study are consistent with Aswurah et al. (2024) review of fintech's growth in Indonesia and its role in expanding access to financial services, including increased literacy and inclusion as recorded in the 2023 National Survey of Financial Literacy and Inclusion (Sekretariat Dewan Nasional Keuangan Inklusif, 2023). Even during the pandemic, the fintech sector remained relevant and played a role in assisting groups difficult to reach by formal financial institutions, supporting the large influence coefficient found in this study (Marginingsih, 2021).

3. The effect of social capital on financial inclusion

The analysis results show that social capital has a positive and significant effect on financial inclusion. Network aspects, norms of mutual trust, and social influence facilitate the process of adopting financial services, where individuals tend to be more trusting and motivated to try new services if encouraged by their social networks, such as neighbours, communities, or local business actors and financial agents. This finding is in line with Goswami et al. (2022) research which shows that social influence increases behavioural intentions to use fintech services. This mechanism provides a logical basis for why social capital significantly increases financial inclusion. Furthermore, cross-country studies emphasize that informal financial services and social networks need to be integrated into the financial inclusion framework because both play complementary roles, which also aligns with the significant findings of the social capital variable (X3) in this study.

Table 5 Coefficient of Determination

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
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1	.776	.602	.599	1.73337
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Source: SPSS Output (2025)

The R-Square value of 0.602 indicates that the combination of financial literacy, financial technology, and social capital explains 60.2% of the variation in student financial inclusion, with the dominant contribution coming from financial technology ($\beta = 0.441$), followed by financial literacy ($\beta = 0.336$) and social capital ($\beta = 0.291$), while the remaining 39.8% is influenced by factors outside the model. This is in line with OJK data, which shows a gap between the financial inclusion index and financial literacy index. This gap aligns with the 39.8% “remaining variation” unexplained by this model. This means that although literacy, fintech, and social capital play important roles, there is still room for factors that cannot be explained by these three factors alone, such as government regulations, trust in financial institutions, telecommunications infrastructure, income, gender, and cultural barriers. This aligns with the critiques of Ediagbonya & Tioluwani (2023) and Amnas et al. (2024), which assert that literacy and FinTech do not automatically lead to inclusion without regulatory support, trust, and digital literacy.

These findings underscore the importance of synergy between individual capabilities, technological innovation, and the power of social networks in driving financial inclusion, while also indicating room for further research to explore external factors not yet covered.

CONCLUSION

Based on the research results, it can be concluded that financial literacy, financial technology, and social capital individually (partially) play a significant role in increasing student financial inclusion, with financial technology providing the largest contribution. This indicates that digital technology innovation has become a major catalyst in expanding financial access, but its sustainable benefits still require adequate financial literacy support and strengthening social capital as a foundation for trust and community support. The R-Square value of 0.602 indicates that the research model is quite robust, but still leaves ample room for other factors such as regulation, trust, digital literacy, and macroeconomic conditions that also influence financial inclusion. This research contributes to strengthening the theoretical framework of the Theory of Planned Behaviour through the role of attitudes,

social norms, and perceived behavioural control as determinants of inclusive financial behaviour. From a practical perspective, the results of this study can provide input for educational institutions, regulators, and financial service providers to design more effective financial literacy programs, expand a safe FinTech ecosystem, and utilize student social networks as a medium for education and the diffusion of financial innovation. Further research is recommended to explore additional variables and use a longitudinal design to gain a deeper understanding of the dynamics of financial inclusion in the digital era.

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