

Exploring How Digital Financial Literacy Affects Fintech Credit Behavior through Psychological and Digital Financial Access

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Abstract

This study investigates the influence of digital financial literacy on the credit behavior of Generation Z as fintech users, with digital financial inclusion and internal locus of control as mediating variables. Using a quantitative approach with 150 respondents in Malang, data were collected through an online questionnaire and analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM). The findings demonstrate that digital financial literacy significantly affects credit behavior both directly and indirectly, with mediation confirming the crucial role of financial inclusion and psychological control. This research provides novelty by integrating digital financial literacy, financial ecosystem access, and psychological factors into a single framework for understanding Gen Z's credit behavior. Theoretically, it enriches behavioral finance literature, while practically, it emphasizes the need for policymakers and fintech institutions to design targeted programs that strengthen financial decision-making among younger generations.

Mengeksplorasi Bagaimana Literasi Keuangan Digital Mempengaruhi Perilaku Kredit Fintech melalui Psikologi dan Akses Keuangan Digital

Abstrak

Penelitian ini meneliti pengaruh literasi keuangan digital terhadap perilaku kredit Generasi Z sebagai pengguna fintech, dengan inklusi keuangan digital dan locus kontrol internal sebagai variabel mediasi. Dengan menggunakan pendekatan kuantitatif dengan 150 responden di Malang, data dikumpulkan melalui kuesioner online dan dianalisis menggunakan Partial Least Squares Structural Equation Modeling (PLS-SEM). Temuan ini menunjukkan bahwa literasi keuangan digital secara signifikan memengaruhi perilaku kredit baik secara langsung maupun tidak langsung, dengan mediasi menegaskan peran penting inklusi keuangan dan kontrol psikologis. Penelitian ini memberikan kebaruan dengan mengintegrasikan literasi keuangan digital, akses ekosistem keuangan, dan faktor psikologis ke dalam satu kerangka kerja untuk memahami perilaku kredit Gen Z. Secara teoritis, ini memperkaya literatur keuangan perilaku, sementara secara praktis, menekankan perlunya pembuat kebijakan dan lembaga fintech untuk merancang program yang ditargetkan yang memperkuat pengambilan keputusan keuangan di kalangan generasi muda.

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INTRODUCTION

The transformation of Indonesia's financial landscape through digital innovation has triggered a surge in the use of fintech platforms, especially among younger generations. Financial technology (fintech) started its rapid growth since 2013, which has transformed traditional financial practices into digital ones through innovative technologies like P2P (peer-to-peer) lending, crowdfunding, and blockchain (Hong et al., 2023). According to Lee et al. (2023), the rise of fintech has attracted various stakeholders and expanded beyond non-bank payment transactions to include brokerage, credit, and insurance services by leveraging information technology and big data. Junarsin et al. (2023) stated that fintech lending, particularly P2P lending, facilitates direct lending between creditors and debtors with domestic currency, bridging financial service gaps for individuals with limited access to traditional banking.

In Indonesia, P2P lending addresses the public's financial service needs amid decreased trust in formal banking institutions and becomes an alternative source of financing outside traditional banks (Suryono et al., 2021; Putri et al., 2023). Its simplicity and accessibility have attracted tech-savvy Generation Z (Gen Z) users, most of whom rely on digital technology in everyday life (Szymkowiak et al., 2021). However, this convenience comes with a concerning trend.

Recent data from OJK show that fintech lending NPLs reached IDR 5.1 trillion in 2022, with over 60% coming from Gen Z and Millennials—signaling generational credit vulnerability. In Malang City, where Gen Z is dominant, consumptive digital credit use has risen amid slowing economic growth (BPS Malang, 2023). While fintech offers convenience, it also exposes financially unprepared users to risks. This raises a key question: to what extent does digital financial literacy (DFL)

shape Gen Z's credit behavior? Although DFL improves awareness of risks and credit management, persistent poor credit habits suggest that knowledge alone is insufficient, warranting exploration of other influencing factors.

Previous studies have shown mixed results. Some found a direct positive influence of digital financial literacy on responsible credit behavior (Liu & Zhang, 2021; Choung et al., 2023; Abdallah et al., 2024), while others observed that even literate users sometimes engage in high-risk credit decisions, assuming they can manage the consequences (Mukharomah & Kurniawan, 2023; Surya & Evelyn, 2023). These contrasting findings reveal a gap in understanding how other internal or external factors might influence the literacy-behavior link.

To address this gap, this study introduces two mediating variables: digital financial inclusion (DFI) and internal locus of control (ILC). According to Naumenkova et al. (2019) DFI refers to a user's actual ability to access and utilize digital financial services, not merely knowing about them. Previous research by Hasan et al. (2021) suggests that DFI amplifies the benefits of DFL, especially in environments where access is uneven. Meanwhile, ILC which derived from Social Cognitive Theory represents individuals' belief in their control over financial outcomes (Salamanca et al., 2020). Gen Z with high ILC are more likely to regulate their credit decisions and resist impulsive spending behaviors driven by social media or peer influence (Anastasia et al., 2016).

This study is guided by the Theory of Planned Behavior (TPB) and Social Cognitive Theory (SCT). TPB explains how DFL influences attitudes, subjective norms, and perceived behavioral control toward responsible credit use (Lee and Lee, 2022). SCT, on the other hand, highlights how internal psychological factors like self-efficacy and control expectations

shape behavior (Toti et al., 2021; Hernandez et al., 2022). Integrating these theories provides a more holistic view of the cognitive and environmental dynamics affecting fintech credit practices.

Therefore, this study aims to analyze the influence of digital financial literacy on the credit behavior of Gen Z fintech users in Malang City. Specifically, it investigates whether digital financial inclusion and internal locus of control mediate this relationship.

The novelty of this study lies in its integration of digital financial inclusion and internal locus of control as mediators, which has rarely been explored in previous digital financial literacy research, thus extending the understanding of both external (access to financial services) and internal (psychological control) mechanisms that shape credit behavior.

This research offers some key contribution; First, it enriches the literature by combining behavioral, psychological, and technological variables in understanding credit behavior. Second, it highlights the importance of digital access and internal motivation as mediators—factors often overlooked in earlier models. Third, it provides local empirical evidence on Gen Z behavior in fintech, offering insights for policymakers, educators, and fintech developers to design better interventions.

Hypothesis Development

Theory of Planned Behavior (TPB)

The Theory of Planned Behavior (TPB), introduced by Fishbein and Ajzen (1991), provides a comprehensive framework to explain individual decision-making by incorporating three key components: attitude, subjective norm, and perceived behavioral control (Fishbein & Ajzen, 2011). In the context of financial behavior, TPB suggests that individuals are more likely to engage in responsible financial actions when they possess a posi-

tive attitude toward those actions, feel social support for doing so, and believe they have control over the outcomes. Digital financial literacy (DFL), as a form of knowledge and competence, influences not only attitudes but also perceived behavioral control over financial decisions. Hence, TPB offers a theoretical foundation for understanding how DFL shapes credit behavior, particularly among young adults navigating fintech platforms.

Social Cognitive Theory (SCT)

Social Cognitive Theory (SCT), developed by Bandura (1986), emphasizes the role of cognitive, behavioral, and environmental influences in shaping human behavior. One of the core constructs in SCT is locus of control, particularly the internal locus of control (ILC), which reflects an individual's belief in their capacity to influence outcomes through personal effort. Within the financial domain, individuals with a high ILC are more likely to manage their spending, regulate debt, and make proactive financial decisions. Bandura (1989) stated that Social Cognitive Theory (SCT) posits that human behavior is conceptualized as a reciprocal relationship among intrapersonal, behavioral, and environmental factors. It underscores the significance of self-efficacy and outcome expectancies, which refer to an individual's confidence in their capacity to execute specific actions and their conviction in the consequences of their actions.

By integrating TPB and SCT, this research builds a comprehensive model that includes both rational-cognitive and psychological aspects of behavior, while also accounting for access-based external influences. The combination of these frameworks supports a deeper understanding of how digital financial literacy interacts with both internal dispositions and external access in influencing credit behavior within the digital economy.

Digital Financial Literacy

Digital Financial Literacy (DFL) as defined by Kumar et al. (2023) is a multivarious construct that encompasses a thorough understanding of the digital financial products and services available, risk management, and consumer rights and redress procedures. As posited by Ut-haileang & Kiattisin (2023), the concept involves the use of software and applications on personal digital devices to access financial services and products. Choung et al. (2023) have asserted that the DFL encompasses not only the capacity to utilize digital financial instruments but also the expertise necessary to safeguard against cyber threats.

An individual's DFL level can be measured based on their understanding of financial literacy using digital technology (Yadav & Banerji, 2023). Ravikumar et al. (2022) also stated that DFL can be considered as "financial literacy on digital platforms" which can also be measured using financial literacy and digital literacy metrics. In the current digital era, it is imperative to prioritize the promotion of digital financial literacy to ensure the effective utilization of financial resources and the optimal management of financial transactions in the digital landscape (Respati et al., 2023).

Several studies have demonstrated a significant relationship between financial literacy and responsible credit behavior among younger generations. Anastasia et al. (2016) and Mukharomah & Kurniawan (2023) found that individuals with higher levels of financial literacy tend to manage credit more responsibly and consistently meet payment obligations, thereby reducing credit risk. Similarly, Liu & Zhang (2021) concluded that financial literacy negatively influences risky credit behavior by enhancing financial confidence and self-regulation. These findings consistently suggest that strong financial literacy

correlates with better credit management practices among Gen Z.

Digital financial literacy (DFL) also plays a vital role in expanding access to digital financial services. Hasan et al. (2021) found that individuals with higher DFL are more likely to understand and engage with various digital financial platforms, which supports broader digital financial inclusion (DFI). A solid foundation in digital finance enhances individuals' confidence in navigating digital tools and utilizing formal financial services. Conversely, Singh (2021) observed that low levels of financial literacy, particularly in developing economies, limit individuals' access to digital financial services, thereby hindering financial inclusion. These findings suggest that DFL serves as a critical enabler for promoting inclusive participation in digital financial ecosystems.

Current research has increasingly emphasized the psychological impact of financial literacy, particularly on an individual's internal locus of control (ILC). Khoirunnisa & Rochmawati (2021) found that individuals with strong financial literacy exhibit greater personal control over their financial behaviors, including budgeting, saving, and debt management. Similarly, Cahyaningrum & Fikri (2021) confirmed a significant relationship between financial knowledge and ILC, indicating that knowledge enhances individuals' belief in their capacity to influence financial outcomes.

These findings suggest that digital financial literacy may not only affect financial behavior directly but also empower individuals psychologically by strengthening their internal sense of control.

Based on the explanation above, the following hypothesis is formulated:

H1: Digital financial literacy has a significant positive effect on credit behavior.

H2: Digital financial literacy has a signi-

ficant positive effect on digital financial inclusion.

- H3: Digital financial literacy has a significant positive effect on internal locus of control.

Digital Financial Inclusion

Digital financial inclusion signifies the provision of adaptable digital financial services that are more readily available than conventional services (Naumenkova et al., 2019). The objective of this initiative is to facilitate universal access to financial services through the integration of digital principles. Mpofu & Mhlanga (2022) asserted that DFI plays a prominent role in achieving the Sustainable Development Goals (SDG's), particularly in developing countries. The objective is to extend financial services to individuals and businesses that are currently underserved by offering them cost-effective digital tools.

Adopting digital financial inclusion helps vulnerable populations use digital technologies for services like savings, payments, insurance, and credit (Shen et al., 2021; Xi & Wang, 2023). According to Ali & Ghildiyal (2023), the shift towards digital financial inclusion is driven by tech advancements, which enhance the efficiency of financial services and contributing to economic development. DFI also has a beneficial impact on societal inclusiveness also increases financial participation.

The impact of digital financial inclusion (DFI) on credit behavior has been studied from both supportive and critical perspectives. Ghasarma et al. (2019) reported that higher financial inclusion could lead to riskier credit behaviors, as access does not always equate to responsible use. However, Yang & Masron (2024) and Tao et al. (2023) found contrasting evidence, showing that DFI reduces risky credit behavior by improving access to reliable financial products and lowering transaction costs. López & Winkler (2019) also supported this, highlighting that inclusion

enhances informed financial decision-making.

While literacy provides knowledge, inclusion determines whether that knowledge can be acted upon in real-world financial contexts. Prior research suggests that DFI amplifies the behavioral impact of financial literacy by enabling individuals to interact with financial products in a meaningful way (Naumenkova et al., 2019). Therefore, this study also positions DFI as a mediating factor linking DFL and credit behavior, especially in fintech-based credit usage among Generation Z.

Drawing from TPB, knowledge alone (DFL) may not influence behavior unless supported by actual access and opportunity (DFI). Therefore, DFI is expected to mediate the effect of DFL on credit behavior by enabling action based on knowledge. Individuals with strong DFL but limited access may still struggle with credit behavior, reinforcing the importance of DFI as an enabler. Based on the logic of TPB and inclusive finance literature, DFI enables individuals to exert more control and make informed financial decisions, thus reducing the likelihood of risky credit behavior.

Referring to the explanation above, the hypothesis of this research is as follows:

- H4: Digital financial inclusion has a significant positive effect on credit behavior.
H5: Digital financial literacy has a significant positive effect on credit behavior through digital financial inclusion.

Internal Locus of Control

Locus of control, as originally devised by Rotter (1966) in Chujan et al. (2022), is a psychological concept referring to an individual's belief in the linkage between their behavior and life outcomes. It has attained considerable attention in the field of applied economics. Rotter developed the concept as part of Social Learning

Theory, which aims to understand human behavior without relying on operational definitions and empirical testing (Rotter, 1975). The theory identifies four variables that influence social behavior: behaviors, expectations, reinforcements, and psychological situations.

Cahyaningrum & Fikri (2021) stated that locus of control is classified as internal or external. Internal locus of control is characterized by a belief in personal responsibility and decision-making, while external locus of control relies on fate and external factors. Individuals who are internally locus of control are more likely to engage in responsible financial behavior, take risks, and have optimistic expectations (Anastasia et al., 2016). It is also associated with problem-solving abilities and personal effort in the economic context.

According to Nießen et al. (2022) individuals who possess a high internal locus of control are more likely to exhibit a propensity for risk-taking behavior and show significant impulsive behavior because they have optimistic expectations. Individuals with a high internal locus of control (ILC) are more likely to take responsibility for their financial outcomes and make deliberate, informed decisions. Amanda & Adiati (2023) found that such individuals tend to demonstrate more responsible credit behavior. Mutlu & Özer (2022) also showed that ILC, when supported by financial knowledge, significantly enhances financial discipline.

This study draws from SCT to explore how ILC mediates the relationship between digital financial literacy and credit behavior, particularly in a digital financial ecosystem that demands strong self-regulation. This study argues that ILC mediates the effect of DFL on credit behavior. In other words, literacy alone may not guarantee responsible credit practices unless individuals also believe in their ability to control financial outcomes. However, the

interaction between ILC and financial literacy must be considered carefully, as high ILC without sufficient knowledge may lead to overconfidence in credit decisions. Overall, individuals with strong ILC tend to anticipate consequences and practice better financial self-regulation.

According to the description presented above, the hypothesis is outlined as follows:

H6: Internal locus of control has a significant positive effect on credit behavior.

H7: Digital financial literacy has a significant positive effect on credit behavior through internal locus of control.

Credit Behavior

Credit behavior according to Lee & Lee (2022) is the behavior of individuals in using existing credit facilities to meet the financial needs of these individuals. Credit behavior is determined by factors such as loan and payment patterns, credit scoring, and other psychological factors that can influence individuals' positive or negative credit behavior (Gao et al., 2023). Research by de Moraes & Costa (2023) has demonstrated a correlation between credit growth in developing countries and financial stability. Positive growth, accompanied by conscientious credit utilization, fosters financial stability.

METHOD

This study adopts a quantitative approach with a survey method to examine the effect of digital financial literacy on credit behavior among Generation Z, as well as the mediating roles of digital financial inclusion and internal locus of control. The data were obtained through a structured online questionnaire distributed using Google Forms. Respondents were selected using purposive sampling with the criteria being Generation Z individuals aged 18–27 who had prior experience

with fintech-based credit services. A total of 150 valid responses were collected and used for analysis. To reduce self-selection bias from online surveys, the questionnaire was distributed through multiple channels to reach diverse respondents. Clear inclusion criteria (Malang-based Gen Z with fintech lending experience) ensured relevance. Anonymity was guaranteed to limit social desirability bias, and a pilot test was conducted to refine items and reduce measurement bias. The sample size was considered adequate and representative of the Gen Z population in Malang City who actively use fintech lending, based on population proportion and the minimum requirement for Structural Equation Modeling (SEM) analysis. Referring to Hair et al. (2021), a sample of 150 is acceptable for models with moderate complexity and reflective constructs.

The questionnaire consisted of two sections. The first section captured respondents' demographic information, while the second section contained measurement items for each research variable. All constructs in this study were measured using previously validated instruments and adapted from relevant literature. Digital financial literacy was measured using items adapted from Lyons et al. (2021) and Rahayu (2022), while digital financial inclusion was measured with indicators developed from Nandru et al. (2024) and Okello Candiya Bongomin et al. (2024). Internal locus of control was assessed using scales adapted from Toti et al. (2021) and Hernandez et al. (2022). Credit behavior was measured using indicators from Liu & Zhang (2021) and Teoh et al. (2013). All items were measured using a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree).

To ensure construct validity and reliability, this study used Structural Equation Modeling (SEM) with the Partial Least Squares (PLS) approach using SmartPLS. Pilot testing was conducted prior to the

main data collection on 30 respondents to ensure the clarity and reliability of the instrument. Based on the results of the pilot, several items were revised for improved comprehensibility. The sample size met the minimum requirement for SEM analysis, following the rule of ten times the number of indicators, as recommended by Hair et al. (2021). Descriptive analysis was performed to describe the demographic profile of respondents, and model evaluation was conducted by testing convergent validity, discriminant validity, and reliability of the constructs. Finally, hypothesis testing was carried out through bootstrapping procedures to determine the direct and indirect effects among the variables.

RESULT AND DISCUSSION

This section discusses the results of hypothesis testing by interpreting the empirical findings in relation to previous studies and relevant theoretical frameworks. The aim is to provide a deeper understanding of how digital financial literacy influences credit behavior among Generation Z fintech users, both directly and through the mediating roles of digital financial inclusion and internal locus of control. The results of this study contribute to the development of behavioral finance theory, particularly in the context of young digital consumers who are increasingly engaged with fintech lending. By analyzing each hypothesis individually, this section highlights the novelty and practical implications of the research, especially for improving financial behavior among Gen Z in Indonesia's digital economy. Respondent Profile

Out of the 150 respondents in this study, the number of female respondents dominated with 78 respondents (52%), and based on education level, the most were high school/vocational schools with 65 people (43%). Based on the occupation, they most worked as private company's

employees with a total of 57 respondents (38%) with an income that dominated at IDR 3,100,000 – IDR 5,000,000 for a total of 67 people (45%). With a total of 96 respondents (64%), the age range between 23 and 27 years was predominant. Most

of them have been domiciled in Malang City for 4-10 years (34%) and more than 10 years (34%) with 51 people each. The profile of the respondent presented in Table 1.

Table 1. Respondent Profile

Category of Demographic		Frequency	%
Gender	Male	72	48%
	Female	78	52%
Education Level	Junior High School	1	1%
	Senior High School	65	43%
	Diploma	22	14%
	Bachelors	61	41%
	Master/Doctoral	1	1%
Occupation	Student	30	20%
	Entrepreneur	33	22%
	Private Employee	57	38%
	Public Employee	18	12%
	Police/Soldier	1	1%
	Civil Servant	11	7%
Age	18-22 y.o.	54	36%
	23-27 y.o.	96	64%
Income Level	<500.000	2	1%
	500.000-1.000.000	17	11%
	1.100.000-3.000.000	47	31%
	3.100.000-5.000.000	67	45%
	5.100.000-10.000.000	17	12%
Domicile Duration	1-3 years	48	32%
	4-10 years	51	34%
	>10 years	51	34%
District	Blimbing	33	22%
	Kedungkandang	36	24%
	Klojen	23	15%
	Lowokwaru	30	20%
	Sukun	28	19%
Fintech Lending	Easycash	45	30%
Company Used	(most used platform)		

Source: Processed Data (2025)

Outer Model Testing

The purpose of conducting outer model testing in Partial Least Squares Structural Equation Modeling (PLS-SEM) is to determine the validity and reliability of the indicators used to represent

latent constructs in a study. The analysis evaluates convergent validity, which measures the correlation among indicators of the same construct, discriminant validity, which ensures that constructs are distinct from each other, also reliability, indicating

the consistency of measurements (Hair et al., 2021). Convergent validity is assessed through the average variance extracted (AVE) values and loading factors, with values over 0.50 or 0.70 considered acceptable. The results of convergent validity testing are shown in Table 2.

Discriminant validity is determined by comparing loading values within constructs versus on other constructs, en-

suring indicators are aligned with their intended construct which shown in Table 3. Finally, construct validity is assessed by means of Cronbach's alpha and composite reliability scores, with scores more than 0.70 being indicative of high reliability.

Based on Table 2 and Table 3, the outer loading, Average Variance Extracted (AVE), and reliability values for each construct. All item loadings exceed the re-

Table 2. Validity and Reliability Testing

Variable	Indicator	Item	Loading Factor	AVE	Composite Reliability	Cronbach's Alpha
Digital Financial Literacy (DFL)	Knowledge (DFL1)	DFL.1.1	0.816	0.632	0.965	0.961
		DFL.1.2	0.774			
		DFL.1.3	0.807			
		DFL.1.4	0.824			
		DFL.1.5	0.830			
		DFL.1.6	0.782			
	Experiences (DFL2)	DFL.2.1	0.790			
		DFL.2.2	0.833			
		DFL.2.3	0.731			
		DFL.2.4	0.773			
	Awareness (DFL3)	DFL.3.1	0.839			
		DFL.3.2	0.782			
		DFL.3.3	0.805			
	Skills (DFL4)	DFL.4.1	0.775			
		DFL.4.2	0.742			
		DFL.4.3	0.802			
Digital Financial Inclusion (DFI)	Accessibility of DFS (DFI1)	DFI.1.1	0.792	0.656	0.939	0.925
		DFI.1.2	0.818			
		DFI.1.3	0.819			
	Usage of DFS (DFI2)	DFI.2.1	0.809			
		DFI.2.2	0.841			
		DFI.2.3	0.807			
		DFI.2.4	0.825			
		DFI.2.5	0.768			
Internal Locus of Control (ILC)	Self-efficacy (ILC1)	ILC.1.1	0.850	0.682	0.938	0.922
		ILC.1.2	0.777			
		ILC.1.3	0.808			
	Outcome Expectancies (ILC2)	ILC.2.1	0.838			
		ILC.2.2	0.816			
		ILC.2.3	0.869			
		ILC.2.4	0.822			

Variable	Indicator	Item	Loading Factor	AVE	Composite Reliability	Cronbach's Alpha
Credit Behavior (CB)	Borrowing Behavior (CB1)	CB.1.1	0.821	0.639	0.951	0.943
		CB.1.2	0.783			
		CB.1.3	0.786			
		CB.1.4	0.796			
		CB.1.5	0.804			
		CB.1.6	0.754			
	Repayment behavior (CB2)	CB.2.1	0.832			
		CB.2.2	0.799			
		CB.2.3	0.765			
		CB.2.4	0.831			
		CB.2.5	0.818			

Source: Processed Data (2025)

Table 3. Cross Loading Value

	Credit Behavior (CB)	Digital Financial Inclusion (DFI)	Digital Financial Literacy (DFL)	Internal Locus of Control (ILC)
CB.1	0.821	0.516	0.544	0.565
CB.10	0.831	0.557	0.640	0.589
CB.11	0.818	0.483	0.598	0.595
CB.2	0.783	0.516	0.569	0.569
CB.3	0.786	0.480	0.569	0.476
CB.4	0.796	0.519	0.569	0.578
CB.5	0.804	0.503	0.551	0.549
CB.6	0.754	0.495	0.589	0.567
CB.7	0.832	0.569	0.613	0.571
CB.8	0.799	0.576	0.542	0.588
CB.9	0.765	0.405	0.458	0.458
DFI.1	0.491	0.792	0.425	0.392
DFI.2	0.447	0.818	0.451	0.405
DFI.3	0.559	0.819	0.456	0.453
DFI.4	0.547	0.809	0.470	0.470
DFI.5	0.516	0.841	0.504	0.450
DFI.6	0.533	0.807	0.474	0.456
DFI.7	0.488	0.825	0.486	0.450
DFI.8	0.564	0.768	0.515	0.496
DFL.1	0.561	0.438	0.816	0.586
DFL.10	0.535	0.498	0.773	0.598

	Credit Behavior (CB)	Digital Financial Inclusion (DFI)	Digital Financial Literacy (DFL)	Internal Locus of Control (ILC)
DFL.11	0.600	0.515	0.839	0.610
DFL.12	0.580	0.441	0.782	0.579
DFL.13	0.589	0.452	0.805	0.602
DFL.14	0.610	0.460	0.775	0.619
DFL.15	0.503	0.411	0.742	0.574
DFL.16	0.568	0.486	0.802	0.577
DFL.2	0.529	0.471	0.774	0.579
DFL.3	0.544	0.439	0.807	0.562
DFL.4	0.602	0.512	0.824	0.639
DFL.5	0.624	0.551	0.830	0.685
DFL.6	0.519	0.394	0.782	0.625
DFL.7	0.573	0.472	0.790	0.594
DFL.8	0.616	0.471	0.833	0.598
DFL.9	0.486	0.402	0.731	0.496
ILC.1	0.606	0.506	0.639	0.850
ILC.2	0.525	0.436	0.546	0.777
ILC.3	0.581	0.461	0.608	0.808
ILC.4	0.582	0.480	0.625	0.838
ILC.5	0.575	0.376	0.621	0.816
ILC.6	0.601	0.466	0.679	0.869
ILC.7	0.558	0.474	0.616	0.822

Source: Processed Data (2025)

commended threshold of 0.70, indicating adequate indicator reliability. The AVE values for all constructs are above 0.50, which meets the criteria for convergent validity (Hair et al., 2021). Furthermore, the composite reliability (CR) values range from 0.938 to 0.965, and Cronbach's alpha values range from 0.922 to 0.961. These results confirm that each construct demonstrates strong internal consistency and construct reliability. Taken together, these results indicate that the measurement

model has met the required standards for convergent validity and reliability. The indicators used to measure digital financial literacy, digital financial inclusion, internal locus of control, and credit behavior are statistically valid and reliable, allowing for further analysis at the structural level.

Structural Model Testing

The relationships between latent constructs and theory are represented through a structural model. According

to Hair et al. (2021), inner model testing involves R-squared testing to gauge the impact of exogenous variables on endogenous variables, with a higher R-squared value indicating a better research model. Additionally, a Q-squared test assesses the relevance of exogenous constructs on specific endogenous constructs, and a Goodness of Fit Model (GoF) test is used to evaluate both structural and measurement models. These tests are integral in analyzing research hypotheses and determining

the effectiveness of the model used.

The structural model test result show that the model used in this study is robust, so that the model is able to provide consistent and valid results despite interference or variation in the data and the research environment. The strength of a model is measured using R^2 values. A model is described as strong if the R^2 value is 0.67, moderate if the R^2 value is 0.33, and weak if the R^2 value is 0.19 (Hair et al., 2021).

Table 4. Determinant Coefficient (R-Square)

Endogenous Variable	R^2	Adjusted R^2
Digital Financial Inclusion	0.343	0.338
Internal Locus of Control	0.564	0.561
Credit Behavior	0.622	0.614

Source: Processed Data (2025)

The Q^2 value is a critical component in assessing the predictive relevance of exogenous constructs for endogenous constructs. The values assigned to these categories are 0.02, 0.15, and 0.35, respectively, with the former two categories designated as "small" and "medium," respectively, and the latter two categories

designated as "large". Blindfolding tests in Smart PLS software check model prediction accuracy using a chosen omission distance. The Q^2 value owned by each endogenous variable in this study is > 0 , which explains that this research model can predict endogenous variables well.

Table 5. Predictive Relevance Test (Q^2)

Endogenous Variable	Q^2 Value
Digital Financial Inclusion	0.220
Internal Locus of Control	0.374
Credit Behavior	0.380

Source: Processed Data (2025)

Goodness Of Fit Model (GoF) testing on a scale of 0 to 1, with criteria defining levels of model strength: >0.36 as GoF big, >0.25 as medium, and >0.10 as small (Hair et al., 2021). A coefficient close to 1 indicates high accuracy, while moving towards 0 suggests weaker accuracy. The GoF result in this study indicates a strong inner model, suggesting the model

effectively explains data relationships and predictions.

Goodness of Fit (GoF) formula:

$$\begin{aligned}
 \text{GoF} &= \sqrt{AR^2 \times Acom} \\
 &= \sqrt{0,509 \times 0,652} \\
 &= \sqrt{0,332} \\
 \text{GoF} &= 0,576
 \end{aligned}$$

The structural model evaluation indicates that the model has a strong explanatory and predictive capability. The R^2 values demonstrate that the endogenous variables are well-explained by the model, while the Q^2 values—being greater than zero—confirm that the model possesses adequate predictive relevance. In addition, the Goodness of Fit (GoF) index falls within the acceptable range, indicating that the model achieves a satisfactory level of overall fit. These results affirm that the proposed structural model is both statistically sound and theoretically appropriate for further interpretation and discussion.

Hypothesis Testing

The hypothesis testing conducted using the t-test and p-values. The PLS-SEM result found that digital financial literacy significantly impacts credit behavior, with a t-statistic value of 14.363 and a P-value of 0.000 confirming this relationship. A further discovery indicated a considerable influence of DFL on DFI. This finding was supported by a t-statistic value of 9.841 and a p-value of 0.000. The

findings of this study lend support to both hypothesis 1 and hypothesis 2, underscoring the significance of digital financial literacy in shaping credit behavior and digital financial inclusion. Digital financial literacy exerts a substantial influence on internal locus of control, as evidenced by a path coefficient of 0.751 and a t-statistic value of 13.343 (p-value=0.000). Consequently, digital financial inclusion exerts a substantial influence on credit behavior, thereby substantiating hypotheses 3, 4, and 5.

Digital financial literacy exhibits a substantial influence on credit behavior through the conduit of digital financial inclusion, as evidenced by a path coefficient of 0.170, a t-statistic value of 2.518, and a p-value of 0.012. A similar pattern of results emerges with the internal locus of control mediation, which exhibits partial mediation. The findings of this study demonstrate that all of the stipulated hypotheses have been validated. Table 6 summarizes the outcomes of the hypothesis testing conducted in this study.

Table 6. Hypothesis Testing

Hypothesis	Path Coefficients	t-statistic	P values	Results
Digital Financial Literacy → Credit Behavior	0.321	14.363	0.000	Support
Digital Financial Literacy → Digital Financial Inclusion	0.585	9.841	0.000	Support
Digital Financial Literacy → Internal Locus of Control	0.751	13.343	0.022	Support
Digital Financial Inclusion → Credit Behavior	0.291	2.747	0.006	Support
Internal Locus of Control → Credit Behavior	0.295	2.183	0.029	Support
Digital Financial Literacy → Digital Financial Inclusion → Credit Behavior	0.170	2.518	0.012	Support
Digital Financial Literacy → Internal Locus of Control → Credit Behavior	0.222	2.047	0.041	Support

Source: Processed Data (2025)

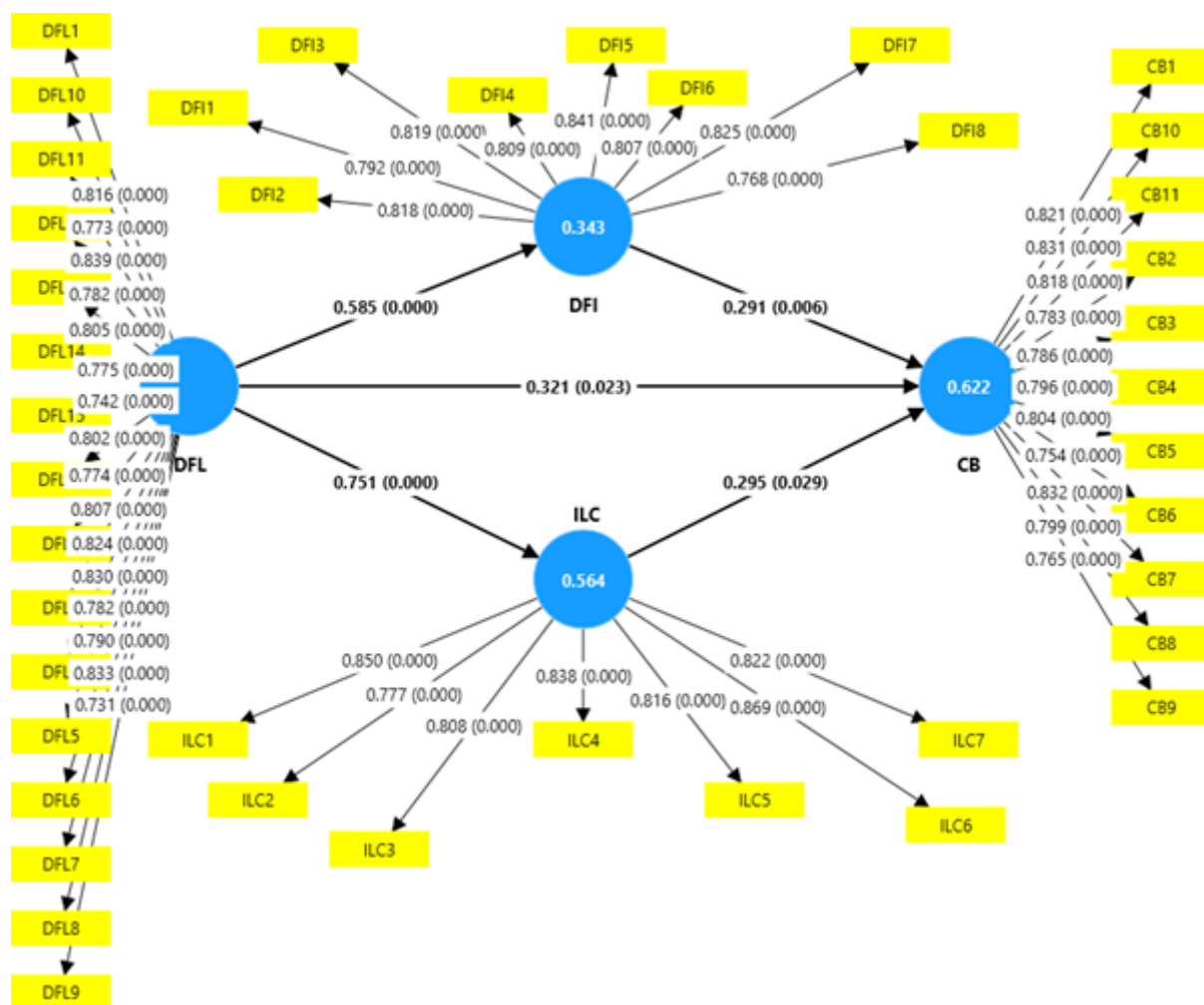


Figure 1. Structural Model Results of the Hypothesized Relationships

The Effect of Digital Financial Literacy on Credit Behavior

The results show that digital financial literacy (DFL) significantly improves credit behavior among Generation Z fintech users. This suggests that strengthening DFL through education programs or clearer loan information from fintech providers, can reduce default risks and promote more responsible borrowing. Theoretically, the finding supports the Theory of Planned Behavior (Ajzen, 1991), as knowledge and competency enhance perceived control over financial choices. Consistent with Liu & Zhang (2021), financial literacy reduces credit card misuse and impulsive borrowing among youth. Mukharomah & Kurniawan (2023) also observed that individuals with higher DFL are more disciplined in managing credit. The

present study contributes to the literature by affirming this linkage in the context of Indonesia's digital economy and highlighting the relevance of DFL in shaping responsible credit behavior within fintech environments.

The Effect of Digital Financial Literacy on Digital Financial Inclusion

The study finds that digital financial literacy (DFL) positively influences digital financial inclusion (DFI). Practically, this suggests that enhancing DFL can expand access to formal financial services, reduce exclusion, and encourage greater engagement with digital platforms. The result aligns with the Theory of Planned Behavior, as knowledge increases confidence and reduces uncertainty in adopting financial technology. According to Hasan

et al. (2021), individuals with higher DFL are more likely to engage with digital platforms and participate in formal financial systems. This finding is in line with TPB's component of perceived behavioral control, where knowledge reduces uncertainty and increases individuals' confidence to act. Singh (2021) emphasized that lack of DFL is a major barrier to inclusion in developing countries. Therefore, the current result underscores the need to improve DFL not only as a knowledge tool but also as a gateway to wider financial access and participation.

The Effect of Digital Financial Literacy on Internal Locus of Control

The results show that digital financial literacy (DFL) significantly strengthens internal locus of control (ILC). This implies that improving DFL can foster a greater sense of personal responsibility and confidence in managing financial risks—key factors for responsible borrowing and repayment in fintech contexts. This aligns with Bandura's Social Cognitive Theory (1986), where cognitive competence builds self-efficacy and a sense of control over outcomes. Prior study by Rohmatin & Rochmawatinisa (2021) demonstrated that financial knowledge contributes to stronger ILC in youth populations. Similarly, Cahyaningrum & Fikri (2021) found that individuals with higher DFL are more likely to exhibit belief in their ability to manage financial risks. By incorporating ILC as a mediating factor, this study adds a psychological perspective to the financial behavior literature, which is often underexplored.

The Effect of Digital Financial Inclusion on Credit Behavior

The findings indicate that digital financial inclusion (DFI) positively influences credit behavior. On a practical level, the evidence points to expanding DFI helps users shift from informal to formal

credit, reducing risks of predatory lending and financial mismanagement. From the perspective of the inclusive finance framework, inclusion not only broadens access to financial tools but also encourages formal borrowing patterns, reducing dependency on informal credit channels. López & Winkler (2019) found that DFI enhances financial discipline by offering transparent, traceable, and regulated credit alternatives. Tao et al. (2023) also argue that access to digital financial platforms increases users' ability to assess credit risks and avoid predatory lending. The present study affirms these arguments in the Gen Z fintech user context, emphasizing that inclusion is not just about access—but also about enabling better behavior through that access.

The Effect of Internal Locus of Control on Credit Behavior

The results confirm that internal locus of control (ILC) positively shapes credit behavior, showing that psychological traits are just as important as financial knowledge in promoting responsible borrowing. In practical terms, strengthening ILC can help young users resist impulsive credit use and manage debt more consistently, especially in fintech environments offering quick-access loans. Theoretically, this aligns with Bandura's Social Cognitive Theory (1986), where strong ILC enhances self-regulation and confidence in decision-making. Amanda & Adiati (2023) observed that individuals with a high ILC are more cautious in managing debt and more consistent in meeting financial obligations. Mutlu & Özer (2022) further suggest that ILC moderates impulsive behaviors, especially in high-risk credit environments. These findings imply that fostering ILC may enhance financial resilience, particularly among Gen Z users who are often exposed to quick-access credit offers through digital platforms.

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The Mediating Role of Digital Financial Inclusion

The findings show that digital financial inclusion (DFI) partially mediates the effect of digital financial literacy (DFL) on credit behavior. These results imply that, in practice knowledge alone is not enough. Users also need accessible and reliable digital financial services to apply what they know. This aligns with the Theory of Planned Behavior, which emphasizes the role of facilitating conditions in shaping behavior. Yang & Masron (2024) argue that literacy alone may be insufficient if individuals lack access to safe, affordable, and user-friendly financial products. Hasan et al. (2021) also note that DFI acts as a bridge between awareness and action. The current findings support this pathway, demonstrating that enhancing DFL must

go hand-in-hand with improving financial access to maximize behavioral outcomes.

The Mediating Role of Internal Locus of Control

The results indicate that internal locus of control (ILC) mediates the relationship between digital financial literacy (DFL) and credit behavior. Applied to practice, this finding underscores that financial education must go beyond technical knowledge to also strengthen psychological traits that foster confidence and self-regulation. In line with Social Cognitive Theory, knowledge builds confidence, and confidence strengthens personal control—which then shapes responsible actions. This is consistent with prior findings by Khoirunnisa & Rochmawati (2021) and Cahyaningrum & Fikri (2021), who reported that financial competence supports the development of internal control. Amanda & Adiati (2023) found that even when individuals are financially literate, responsible credit behavior emerges only when accompanied by a strong sense of control. Therefore, this mediation underscores the importance of addressing both cognitive and psychological dimensions in financial education.

CONCLUSION AND RECOMMENDATION

This study examined the influence of digital financial literacy on credit behavior among Generation Z fintech users, with digital financial inclusion and internal locus of control as mediating variables. The findings reveal that digital financial literacy plays a direct and significant role in shaping responsible credit behavior, while also exerting indirect effects through both financial access and psychological control. These results contribute to a more comprehensive understanding of financial behavior in digital contexts by integrating cognitive, structural, and psychological di-

mensions into a single behavioral model.

Theoretically, this research extends the applicability of the Theory of Planned Behavior and Social Cognitive Theory by demonstrating how competence (DFL), access (DFI), and self-regulation (ILC) jointly influence credit decisions. By emphasizing the mediating roles of inclusion and internal control, the study bridges the gap between knowledge and action—offering a more dynamic framework for analyzing financial behavior in the digital era. The proposed model integrates technological, psychological, and behavioral dimensions into a single framework, which is still limited in the current literature. Most prior studies tend to isolate financial literacy or access issues; in contrast, this research shows that behavioral outcomes in fintech usage are multi-layered—requiring competence (DFL), access (DFI), and control (ILC) to interact.

Practically, the findings suggest that fintech companies, educators, and policymakers must go beyond conventional financial education efforts. Strategies should not only improve financial literacy but also ensure service accessibility and strengthen users' internal capacity to make independent financial decisions. Interventions that integrate educational content, behavioral tools, and inclusive design may lead to more sustainable financial behavior, particularly among young digital borrowers.

From a managerial perspective, the findings highlight the importance of integrating financial literacy features into fintech platforms to promote responsible credit behavior. Service providers are encouraged to design user-centered applications that not only educate but also improve accessibility and foster user confidence. Efforts such as simplified interfaces, personalized financial tools, and behavioral nudges can strengthen users' ability to make informed and disciplined financial decisions. Collaboration between fintech

firms, educators, and regulators is essential to ensure that financial literacy translates into inclusive and sustainable credit practices for the younger generation.

The findings also highlight the importance for educational institutions, particularly universities, to integrate digital financial literacy into curricula through structured courses or workshops that not only build technical knowledge but also strengthen psychological traits such as internal locus of control, thereby equipping students to use fintech services responsibly.

This study has several methodological limitations, including the use of cross-sectional data, which restricts analysis of behavioral changes over time, and closed questionnaires that limit deeper exploration of respondents' experiences. Future research is encouraged to adopt longitudinal designs and qualitative methods to gain richer insights. Additionally, incorporating variables like digital trust, financial anxiety, peer influence, or technology readiness could offer a more comprehensive understanding of credit behavior in fintech lending.

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