



## FINANCIAL RISK LITERACY AS PREDICTOR OF PREVENTIVE BEHAVIOR TOWARD ILLEGAL ONLINE LENDING AMONG STUDENTS

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### Article Info

#### Article History:

Posted : March 13, 2026  
Revised : April 14, 2026  
Accepted : May 29, 2026

#### Keywords:

*financial risk literacy; illegal online lending; preventive behavior; intention to avoid; mediation analysis; digital financial risk*

### Abstract

This study examines the role of Financial Risk Literacy (FRL) in shaping preventive behavior toward illegal online lending among university students. Unlike prior fintech research that primarily focuses on technology adoption, this study shifts attention to financial protection behavior. A cross-sectional survey was conducted involving 106 undergraduate students. FRL was measured using nine risk-oriented items, while preventive behavior was assessed using three action-based indicators. Intention to avoid illegal online lending was measured using a single item and treated as an observed mediator variable. Mediation analysis was performed using bootstrapping procedures. The results indicate that FRL significantly predicts intention to avoid illegal online lending and directly influences preventive behavior. Bootstrapping analysis confirms a significant indirect effect, indicating partial mediation. These findings suggest that FRL operates through both cognitive intention formation and direct behavioral activation pathways. This study contributes to the financial behavior literature by emphasizing risk-focused literacy as a protective cognitive asset in digital financial environments.

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## LITERASI RISIKO KEUANGAN SEBAGAI PREDIKTOR PERILAKU PREVENTIF TERHADAP PINJAMAN ONLINE ILEGAL PADA MAHASISWA

### Abstrak

#### Keywords:

*literasi risiko keuangan; pinjaman online ilegal; perilaku preventif; niat menghindari; analisis mediasi; risiko keuangan digital*

Penelitian ini mengkaji peran **Literasi Risiko Keuangan (Financial Risk Literacy/FRL)** dalam membentuk perilaku preventif terhadap pinjaman online ilegal di kalangan mahasiswa. Berbeda dengan penelitian fintech sebelumnya yang terutama berfokus pada adopsi teknologi, studi ini mengalihkan perhatian pada perilaku perlindungan keuangan. Survei ini melibatkan 106 mahasiswa S-1. FRL diukur menggunakan sembilan item berbasis risiko, sedangkan perilaku preventif diukur menggunakan tiga indikator berbasis tindakan. Niat untuk menghindari pinjaman online ilegal diukur menggunakan item tunggal dan diperlakukan sebagai variabel mediator yang teramati. Analisis mediasi dilakukan menggunakan prosedur bootstrapping. Hasil penelitian menunjukkan bahwa FRL secara signifikan memprediksi niat untuk menghindari pinjaman online ilegal dan secara langsung memengaruhi perilaku preventif. Niat menghindari pinjaman ilegal juga secara signifikan memprediksi perilaku preventif. Analisis bootstrapping mengonfirmasi adanya efek tidak langsung yang signifikan, yang menunjukkan mediasi parsial. Temuan ini mengindikasikan bahwa FRL beroperasi melalui dua jalur, yaitu pembentukan niat secara kognitif dan aktivasi perilaku secara langsung. Studi ini berkontribusi pada literatur perilaku keuangan dengan menekankan literasi berbasis risiko sebagai aset kognitif protektif dalam lingkungan

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## INTRODUCTION

The rapid expansion of digital financial services in Indonesia has generated both unprecedented access to credit and serious consumer protection concerns. Alongside the growth of legitimate financial technology platforms, illegal online lending has proliferated, exposing vulnerable groups to predatory practices, data misuse, and psychologically harmful debt collection strategies (Otoritas Jasa Keuangan, 2024), (2024). Recent empirical research shows that digital financial literacy significantly affects how individuals engage in strategic financial behavior and make responsible financial decisions in emerging markets (Kusumawardhani et al., 2025; Sarlawa, 2025). Systematic reviews further document that digital financial literacy shapes saving, spending, and protective financial behavior across diverse contexts (Yadav & Banerji, 2024).

Public discourse and policy responses have largely emphasized financial literacy as a key preventive instrument. However, empirical evidence from fintech adoption research suggests that knowledge alone does not automatically translate into safer financial behavior. Individuals may understand financial concepts yet still engage in risky decisions due to impulsivity, social influence, or misjudgment of personal vulnerability (Kuntadi, 2025). Prior research in the Indonesian fintech context has further demonstrated that risk awareness is a critical yet underexplored dimension that distinguishes protective behavior from mere adoption intent (Kuntadi, 2025). This gap raises a critical question: does literacy related specifically to financial risk meaningfully foster preventive behavior toward illegal online lending?

The vulnerability of the younger generation to illegal online lending is closely linked to their financial behavior and decision-making patterns. Research in the Indonesian context, specifically among students in major cities like Semarang, highlights that financial literacy and demographic characteristics play a pivotal role in how individuals navigate complex investment and financial choices (Pramesti & Graciafernandy, 2024). While general financial literacy provides a foundation, the specific ability to identify and mitigate risks, defined as Financial Risk Literacy (FRL) in this study, is what often determines whether a student will succumb to or avoid predatory lending practices. Furthermore, financial behavior among students is not only a matter of knowledge but is also influenced by psychological biases and risk perceptions. As noted by Addinpujoartanto & Darmawan (2020), factors such as loss aversion and risk-related biases significantly impact how individuals in Indonesia make financial decisions. In the context of illegal lending, a higher level of FRL is expected to act as a cognitive buffer, transforming risk awareness into a concrete intention to avoid harmful fintech products, which ultimately leads to sustained preventive action

Most prior studies in the fintech domain focus on technology acceptance. Illegal online lending is not merely a technology adoption issue, it is fundamentally a consumer risk management problem. Research on legal protection mechanisms has highlighted that low financial literacy is a primary driver of continued illegal platform use (Hidayat, 2022). Preventive behavior refers to deliberate actions taken to avoid exposure to financial harm, such as verifying regulatory status, refusing suspicious offers, and refraining from engaging with unlicensed platforms (Hidayat, 2022).

The present study argues that the relevant predictor is not generic financial literacy, but Financial Risk Literacy (FRL), a focused capability concerning the identification and evaluation of financial threats embedded in digital environments. This research examines the pathway: FRL enhances intention to avoid illegal online lending, which in turn promotes preventive behavior. Three objectives guide this work: (1) to examine the effect of FRL on students' intention to avoid illegal online lending; (2) to assess the influence of intention on preventive behavior; and (3) to test whether intention mediates the relationship between FRL and preventive behavior.

This study makes three specific contributions to the literature. First, it introduces Financial Risk Literacy (FRL) as a domain-specific cognitive construct distinct from general financial literacy, offering a more targeted predictor of protective behavior in digital lending contexts. Second, it tests a mediation model in which intention to avoid illegal online lending links FRL to preventive behavior, contributing empirical evidence on the cognitive pathway from risk cognition to action. Third, it extends the application of Protection Motivation Theory to the illegal fintech domain, demonstrating its utility for explaining consumer self-protection behavior in emerging digital financial markets.

### **From Financial Literacy to Financial Risk Literacy**

Financial literacy has traditionally been defined as the knowledge and understanding of financial concepts necessary for effective decision-making, encompassing budgeting, interest rates, savings, investment, and debt management. However, this broad conceptualization may not sufficiently capture the cognitive demands of high-risk digital lending environments. A systematic review of 100 peer-reviewed articles on digital financial literacy confirms that risk recognition and protective behavior are understudied dimensions that deserve dedicated theoretical treatment (Yadav & Banerji, 2024). Research on Indonesian consumers specifically documents that higher digital financial literacy significantly enhances responsible financial practices among younger cohorts, supporting the idea that risk awareness is a prerequisite for protective financial behavior (Kusumawardhani et al., 2025). Widyastuti et al (2024) further confirm that digital financial inclusion and literacy interact with demographic factors to shape financial behavior in the Indonesian context. This relationship between financial technology use and financial behavior, mediated by financial literacy, has also been demonstrated in business contexts, underscoring financial literacy as an operational bridge between digital access and responsible behavior (Junaidi et al., 2024). Importantly, Maivalinda et al (2023) demonstrates that digital financial literacy interacts with risk preference to shape online financial behavior, suggesting that the risk-oriented dimension of literacy is particularly predictive of how individuals navigate high-risk digital financial environments.

### **Conceptual Definition of Financial Risk Literacy (FRL)**

Financial Risk Literacy (FRL) is defined as the individual capability to recognize, evaluate, and anticipate financial risks embedded in digital financial services, particularly those associated with illegal or unregulated online lending practices. This definition emphasizes three core dimensions: (1) Risk Recognition, the ability to identify red flags such as unusually high interest rates, lack of regulatory disclosure, and unclear contractual terms; (2) Risk Evaluation, the capacity to assess potential financial, legal, and psychological consequences; and (3) Risk Anticipation, the foresight to project long-term implications of short-term borrowing decisions. Unlike general financial literacy, which focuses on managing resources effectively, FRL centers on defensive cognition in uncertain and potentially harmful environments (Koskelainen et al., 2023).

## **Illegal Online Lending in Indonesia: Problem and Policy Context**

Indonesia has experienced a surge of unlicensed online lending actors that pose consumer risks: aggressive offers via SMS/WhatsApp, hidden interest rates and fees, misuse of personal data, and intimidating collection practices. The Financial Services Authority (OJK) has actively blocked thousands of illegal applications and websites (Otoritas Jasa Keuangan, 2024). Trust between lenders and borrowers in digital lending platforms is a central determinant of willingness to engage, and its absence contributes to consumer vulnerability in P2P lending ecosystems (Simanjuntak et al., 2025). Research documents that low financial literacy is a primary structural driver of vulnerability to illegal platforms, and that legal protection frameworks alone are insufficient without consumer education (Hidayat, 2022). A netnographic analysis of online discussions confirms that risk perceptions toward illegal lending platforms are shaped by direct and vicarious negative experiences, highlighting the experiential dimension of consumer vulnerability (Alim, 2025). Furthermore, empirical evidence shows that factors such as low financial literacy, financial inclusion gaps, lifestyle pressures, and environmental influences collectively drive the rise in illegal loan usage among young Indonesians (Yuannisa et al., 2025). These conditions collectively suggest that analysis should focus on avoidance and protective mechanisms rather than technology adoption variables.

## **Protection Motivation Theory and Related Theoretical Anchors**

Protection Motivation Theory (PMT) posits that protective behavior is driven by threat appraisal (severity and vulnerability) and coping appraisal (self-efficacy and response efficacy). A comprehensive meta-analysis of PMT applications confirms consistent roles of these components in predicting protective actions across diverse behavioral domains including digital security (Hedayati et al., 2023). FRL aligns with the coping appraisal component of PMT: by equipping individuals with structured capabilities to recognize and evaluate digital financial threats, FRL enhances the perceived response efficacy necessary to motivate avoidance behavior. Furthermore, digital financial literacy has been shown to improve financial self-efficacy and prudent decision-making (Adielyani, 2025), reinforcing the motivational pathway from literacy to action. In faith-based financial contexts, awareness of illegal online loans has also been linked to Shari'ah financial literacy, further illustrating how domain-specific literacy variants activate protective cognition across different consumer segments (Sumar'in et al., 2025).

## **The Intention–Behavior Gap**

The relationship between intention and action is often imperfect. Even strong intentions do not always translate into actual behavior due to situational barriers, self-regulatory capacity, or cognitive load (Conner & Norman, 2022). In the context of illegal online lending, the intention to avoid risky services must be tested to determine whether it triggers preventive actions such as checking OJK registration or rejecting suspicious links. Research on digital financial behavior emphasizes that self-control and intention play crucial mediating roles in digital environments where ease of access and impulsive behavior are prevalent (Choung et al., 2023). Among Gen Z populations specifically, risk perception, financial literacy, and trust jointly influence financial decision-making and behavioral intentions, underscoring the importance of examining intention as a distinct mediator variable (Setiadi & Budiyo, 2022). Accordingly, this study positions intention to avoid as a cognitive mediator between FRL and preventive behavior, consistent with a simplified reasoned action perspective.

## **Synthesis and Conceptual Gap**

The preceding review highlights three critical gaps. First, general financial knowledge appears insufficient in high-risk digital lending contexts, motivating the introduction of FRL as a distinct, domain-specific construct. Second, behavioral theory suggests that intention

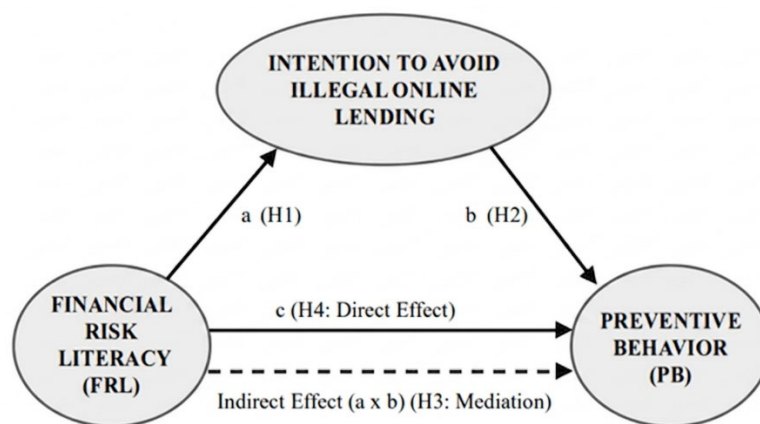
plays a central role in translating cognition into action, yet the intention–behavior gap indicates that forming avoidance intentions does not automatically ensure protective behavior (Conner & Norman, 2022). Third, while digital financial literacy broadly predicts positive financial behavior (Yadav & Banerji, 2024), its risk-specific manifestation in illegal lending contexts remains understudied. Notably, Feryana et al (2025) find that risk perception and lifestyle function as significant mediators between financial literacy and online loan decision-making, suggesting that the pathway from literacy to protective behavior is not direct but runs through evaluative and motivational processes. This finding reinforces the theoretical rationale for testing intention as a mediator between FRL and preventive behavior in the present study. The present study addresses this gap by proposing a mediation framework in which FRL influences preventive behavior both directly and indirectly through intention to avoid illegal online lending.

### Control / Auxiliary Variables

Perceived severity and self-efficacy were measured using single items to capture the perceived seriousness of consequences from illegal online lending and confidence in one's ability to avoid illegal platforms, respectively. These variables were included as exploratory covariates to test robustness of the main mediation model.

### Conceptual Framework

Building upon the identified conceptual gap, this study advances a mediation-based framework (Figure 1). Financial Risk Literacy is positioned as an upstream cognitive capability shaping individuals' evaluative processes in digital financial environments. FRL is expected to strengthen intention to avoid illegal online lending, which in turn facilitates preventive behavior. FRL is also hypothesized to exert a direct influence on preventive behavior, constituting a partial mediation model.



**Figure 1**  
**Conceptual Mediation Model of Financial Risk Literacy and Preventive Behavior**  
 Source: Processed data, 2026

### Hypotheses Development

- H1:** FRL has a significant positive effect on intention to avoid illegal online lending ( $a_1 > 0$ ).
- H2:** Intention to avoid illegal online lending has a significant positive effect on preventive behavior ( $b_1 > 0$ ).
- H3:** Intention to avoid illegal online lending (single-item observed mediator) mediates the relationship between FRL and preventive behavior (indirect effect  $a_1 \times b_1$  is significant).

**H4:** FRL has a significant direct positive effect on preventive behavior beyond the mediation pathway ( $c' > 0$ ).

## **METHOD**

### **Research Design**

This study employed a quantitative cross-sectional survey design to examine the relationship between Financial Risk Literacy (FRL), with the intention of avoiding illegal online lending, and preventive behavior among university students. The analytical framework focuses on observed-variable path analysis, examining both direct and indirect relationships among composite variables. This approach maintains methodological parsimony while avoiding model redundancy with prior fintech adoption research.

### **Participants and Data Collection**

The sample consisted of 118 undergraduate students enrolled in semesters 2, 4, 6, and 8 at a private university in Indonesia. The stratified distribution across academic levels ensured variation in financial exposure and digital experience. Participants were selected using purposive sampling to ensure prior exposure to digital lending platforms, targeting students with at least basic awareness of such services. Data was collected via a structured online questionnaire. After data cleaning, the final analytical sample comprised  $N = 106$  respondents. The sample size is adequate for mediation analysis using regression-based approaches (PROCESS Model 4; Hayes & Little, 2022), and bootstrapping procedures further enhance the robustness of indirect effect estimation.

### **Measurement of Variables**

#### **Financial Risk Literacy (FRL)**

Financial Risk Literacy was operationalized using nine items assessing: (1) recognition of warning signs of illegal online lending, (2) evaluation of potential financial and legal consequences, and (3) anticipation of long-term risks. Sample items: "I can identify characteristics of illegal online lending platforms"; "I understand the potential long-term consequences of borrowing from unlicensed digital lenders"; "I know how to verify whether an online lending platform is legally registered." A composite FRL score was calculated by averaging the nine items ( $\alpha = 0.92$ ).

#### **Intention to Avoid Illegal Online Lending**

Intention to Avoid was measured using a single direct item: "I intend to avoid using illegal online lending platforms," recorded on a 7-point Likert scale (1 = Strongly Disagree, 7 = Strongly Agree). Although measured with a single item, intention is conceptually straightforward and has been widely operationalized as a direct evaluative statement in behavioral research (Conner & Norman, 2022). Single-item intention measures are particularly appropriate when the construct is concrete, unambiguous, and behaviorally specific (Bergkvist & Rossiter, 2007), as is the case here. The single-item measure was treated as an observed mediator variable in the path analysis.

#### **Preventive Behavior**

Preventive behavior was measured using three items capturing actual protective actions: (1) verifying platform registration through official regulatory sources (OJK), (2) refusing suspicious online loan offers, and (3) avoiding downloading unverified lending applications. A composite preventive behavior score was computed by averaging the three items ( $\alpha = 0.87$ ).

## Data Analysis Procedure

Data analysis was conducted in four stages. Stage 1: Preliminary analysis including descriptive statistics, reliability analysis (Cronbach's  $\alpha$ ), and correlation matrix. Stage 2: Direct effect testing via simple regression. Stage 3: Mediation analysis using PROCESS Macro (Model 4; Hayes & Little, 2022) with 5,000 bootstrap resamples and 95% confidence intervals; the indirect effect was computed as  $a_1 \times b_1$ . Stage 4: Robustness check by adding perceived severity and self-efficacy as covariates.

## Ethical Considerations

Participation was voluntary and anonymous. Respondents were informed that their data would be used solely for academic research purposes. No identifying information was collected. The study procedures were consistent with standard ethical guidelines for social science research.

## RESULTS AND DISCUSSION

### Descriptive Statistics and Reliability Analysis

Descriptive statistics and reliability results are presented in Table 1. Financial Risk Literacy demonstrated a mean score of 3.42 (SD = 0.99) with excellent internal consistency ( $\alpha = 0.92$ ). Preventive Behavior had a mean of 4.24 (SD = 0.93) and good reliability ( $\alpha = 0.87$ ). Intention to Avoid Illegal Online Lending showed a mean of 4.25 (SD = 1.42); as a single-item measure, Cronbach's alpha is not applicable. Overall, the descriptive results suggest moderate levels of financial risk awareness and relatively strong preventive behavioral tendencies among respondents.

**Table 1**  
**Descriptive Statistics and Reliability**

Variable	Items	Mean	SD	Cronbach's $\alpha$
Financial Risk Literacy (FRL)	9	3.42	0.99	0.92
Preventive Behavior (PB)	3	4.24	0.93	0.87
Intention to Avoid (INT)	1	4.25	1.42	—

N = 106. All scales used a 7-point Likert format (1 = Strongly Disagree, 7 = Strongly Agree).

Source: Processed primary data, 2026

### Direct Effect and Mediation Analysis

#### *Path a: FRL → Intention to Avoid*

Financial Risk Literacy significantly predicted intention to avoid illegal online lending ( $\beta = 0.394$ , SE = 0.136,  $t = 2.90$ ,  $p = .0046$ ). The intention variable was re-coded so that higher scores indicate stronger avoidance intention, ensuring all hypothesized paths are expressed in a positive direction consistent with H1-H4. The model explained 15.5% of variance in intention ( $R^2 = 0.155$ ), supporting Hypothesis 1.

#### *Direct Effect: FRL → Preventive Behavior*

A simple regression analysis revealed a positive and significant direct effect of FRL on Preventive Behavior ( $\beta = 0.348$ , SE = 0.072,  $t = 4.83$ ,  $p < .001$ ), with  $R^2 = 0.177$ , supporting Hypothesis 4.

#### *Mediation Model: Full Path Results*

When Intention to Avoid was included in the model, it significantly predicted Preventive Behavior ( $\beta = 0.185$ , SE = 0.056,  $t = 3.30$ ,  $p = .0015$ ), supporting Hypothesis 2. The direct effect of FRL on Preventive Behavior remained significant ( $\beta = 0.348$ ,  $p < .001$ ), indicating

partial rather than full mediation. The combined model explained 21.1% of the variance in Preventive Behavior ( $R^2 = 0.211$ ).

**Indirect Effect (Bootstrapping)**

Bootstrapping analysis confirmed a statistically significant indirect effect of FRL on Preventive Behavior through Intention (effect = 0.073, Boot SE = 0.039, 95% CI [0.010, 0.169]). Because the confidence interval excluded zero, the mediation effect was significant, supporting Hypothesis 3. Multicollinearity diagnostics showed VIF values below 5.

**Table 2**  
**Mediation Analysis Results**

Path	$\beta$	SE	t	p
FRL → Intention (a)	0.394	0.136	2.90	.0046
Intention → Preventive Behavior (b)	0.185	0.056	3.30	.0015
FRL → Preventive Behavior (Direct, c')	0.348	0.072	4.83	< .001
FRL → Preventive Behavior (Total, c)	0.421	0.073	5.76	< .001

N = 106.  $\beta$  = standardized regression coefficient; SE = standard error.

Source: Processed primary data, 2026

**Table 3**  
**Indirect Effect (a × b)**

Effect	Boot SE	95% CI Lower	95% CI Upper
0.073	0.039	0.010	0.169

N = 106. Indirect effect estimated using 5,000 bootstrap resamples. The mediation is significant because the confidence interval does not include zero, indicating partial mediation.

Source: Processed primary data, 2026

Based on the coefficients presented in Table 2, the total effect of FRL on Preventive Behavior ( $c = 0.421$ ) is larger than the direct effect ( $c' = 0.348$ ). However, because the direct effect remains statistically significant ( $p < 0.001$ ) after including the mediator, these results indicate **partial mediation**, not full mediation. In partial mediation, the mediator (Intention to Avoid) explains only a portion of the relationship between FRL and Preventive Behavior, while the remaining variance is explained by the direct pathway. This pattern is consistent with the theoretical framework positing that FRL operates through two parallel mechanisms: a cognitive pathway via intention formation and a direct behavioral activation pathway.

The empirical findings support all proposed hypotheses. Based on the coefficients in Table 2, the direct effect of FRL on Preventive Behavior ( $c' = 0.348$ ,  $p < 0.001$ ) remains significant even after including Intention as a mediator. This indicates **partial mediation**, meaning that Intention to Avoid (IA) does not fully explain how FRL influences Preventive Behavior (PB). The total effect of FRL on PB is  $c = 0.421$ , which consists of a direct effect ( $c' = 0.348$ ) and an indirect effect through IA ( $a \times b = 0.073$ ). Because the direct effect (0.348) is substantially larger than the indirect effect (0.073), FRL's influence operates primarily through a **direct behavioral activation pathway**, with a smaller but significant contribution via cognitive intention formation. Thus, H4 is supported: FRL has a significant direct positive effect on PB beyond the mediation pathway.

## **Discussion**

The findings provide consistent empirical support for the proposed mediation framework. Financial Risk Literacy (FRL) predicts preventive behavior both directly and indirectly through intention to avoid illegal platforms.

### **Which factor most strongly influences Preventive Behavior: FRL or Intention to Avoid?**

When comparing the two predictors, Financial Risk Literacy exerts a stronger influence on preventive behavior than does intention to avoid illegal online lending. The direct effect of FRL on students' protective actions is substantial and remains significant even after accounting for the role of intention. In contrast, the contribution of intention to avoid is relatively smaller. This pattern suggests that students with stronger risk cognition do not necessarily need to form a deliberate intention before acting protectively. Instead, their risk literacy enables more spontaneous, heuristic-based responses when encountering suspicious digital lending offers—such as immediately refusing to share personal data, instinctively closing an unverified application, or directly checking the platform's registration status. In this sense, FRL functions as "knowledge-for-action" that can bypass or complement the intentional pathway, making it a more powerful and immediate predictor of actual preventive behavior. It is important to note that intention was operationalized as a single-item measure in this study, consistent with behavioral research practice for conceptual unidimensional constructs (Conner & Norman, 2022). The mediation effect, while significant, should be interpreted with this methodological consideration in mind, while still offering meaningful evidence of the cognitive pathway from FRL to preventive behavior.

### **The role of partial mediation by Intention to Avoid**

Intention to avoid illegal online lending plays a partial mediating role in the relationship between Financial Risk Literacy and preventive behavior. Partial mediation implies the existence of two parallel mechanisms linking FRL to protective actions.

First, there is an indirect pathway: FRL enhances students' conscious motivation to avoid illegal lending, and this strengthened intention then translates into preventive behavior. In this pathway, intention serves as a cognitive bridge that transforms risk awareness into deliberate protective action.

Second, and more notably, there is a direct pathway: FRL triggers preventive behavior without requiring the formation of a prior intention. This direct route indicates that financially risk-literate individuals do not always engage in effortful deliberative processing before acting. When confronted with obvious red flags—such as exorbitant interest rates, lack of regulatory disclosure, or aggressive collection threats—their risk literacy activates protective responses automatically.

The present findings resonate with behavioral literature emphasizing that cognition contributes to intention formation, yet intention does not always guarantee behavioral execution (Conner & Norman, 2022). The continued significance of the direct FRL-to-preventive behavior pathway suggests that FRL may reduce the intention-behavior gap by equipping individuals with actionable knowledge about what specific protective actions to take. In this sense, FRL functions as knowledge-for-action rather than merely knowledge-for-judgment. This interpretation is consistent with evidence that digital financial literacy activates both motivational and behavioral pathways in digital financial contexts (Choung et al., 2023; Adielyani, 2025).

### **Theoretical and Practical Implications**

The findings extend the literature in three important ways, corresponding to the contributions outlined in the introduction. First, this study shifts the analytical focus from fintech adoption to financial protection, positioning risk literacy as a proactive behavioral trigger rather than a moderating perception. Second, the results reinforce the importance of domain-specific literacy. General financial literacy may not sufficiently capture the cognitive demands of digital risk environments; FRL as a distinct construct proves more predictive of context-specific protective behavior, consistent with the research agenda identified by Koskelainen et al. (2023). Furthermore, evidence from SME contexts shows that financial risk attitude mediates the relationship between financial literacy and sustainable financial behavior, reinforcing the importance of risk orientation as a distinct and actionable dimension of financial competence (Masdupi et al., 2024). Third, the findings align conceptually with Protection Motivation Theory (PMT), particularly the coping appraisal dimension. FRL may operate as a cognitive coping resource that strengthens adaptive responses to perceived digital threats, paralleling meta-analytic evidence on PMT applications (Hedayati et al., 2023).

Educational programs should move beyond traditional financial literacy topics to incorporate structured modules on digital risk recognition and mitigation. The practical implication of partial mediation is particularly important: interventions that focus solely on strengthening students' intentions to avoid illegal lending may be insufficient, because intention alone does not guarantee action. However, interventions that build FRL directly equip students with both the motivation and the procedural know-how to act immediately when confronted with predatory lending offers. Therefore, enhancing FRL should be prioritized over merely trying to boost avoidance intentions.

Students need procedural competence—knowing how to verify legal registration, interpret warning signs, and assess long-term borrowing consequences. Scenario-based simulations, verification checklists, and decision-making exercises may reduce friction between recognizing risk and executing protective actions. Furthermore, collaboration between universities and OJK may enhance preventive ecosystems by embedding regulatory information within campus systems and providing direct access to official verification platforms (Widyastuti et al., 2024). Evidence also indicates that financial inclusion and financial literacy jointly shape economic outcomes, and this dual influence underscores the importance of integrating inclusive access with risk-focused education (Khoiriyah & Amalia, 2023). The role of government and regulatory bodies in improving financial literacy in the digital era is particularly vital, as institutional support can systematically reach populations most vulnerable to illegal financial practices (Solihati et al., 2023). Targeted interventions directed at younger generations must also account for their distinct risk profiles and digital exposure patterns, as documented in research on Gen Z financial decision-making (Setiadi & Budiyo, 2022).

## **CONCLUSION**

This study demonstrates that Financial Risk Literacy (FRL) plays a significant role in shaping university students' preventive behavior toward illegal online lending through two complementary mechanisms: strengthening avoidance intention and directly activating protective behavior, thereby positioning FRL as a functional protective cognitive capability in digital financial environments. Practically and from a policy perspective, the findings suggest that financial education programs should move beyond general literacy and incorporate structured digital risk recognition and mitigation training, such as scenario-based simulations, verification checklists, and decision-making exercises, while fostering collaboration between universities and regulatory authorities to build stronger preventive ecosystems for young consumers. However, the study is limited by its cross-sectional

design, which restricts causal inference; its single-university sample, which constrains generalizability; the use of a single-item measure for avoidance intention; and the absence of potential psychological or contextual moderators. Future research should employ longitudinal or experimental designs, involve multi-site samples, develop validated multi-item scales for avoidance intention, and integrate broader theoretical frameworks, such as Protection Motivation Theory, while examining moderators (e.g., self-control, financial stress, or peer norms) to better understand the conditions under which FRL most effectively promotes financial self-protection.

## REFERENCES

- Adielyani, D. (2025). Fintech access and digital financial literacy on financial behavior: The mediating role of financial self-control. *Among Makarti Journal*, 18(2),285-300. <http://dx.doi.org/10.52353/ama.v18i2.912>.
- Addinpujoartanto, N. A., & Darmawan, S. (2020). Pengaruh Overconfidence, Regret Aversion, Loss Aversion, dan Herding Bias terhadap Keputusan Investasi di Indonesia. *Jurnal Riset Ekonomi dan Bisnis*, 13(3), 175-187. <https://doi.org/10.26623/jreb.v13i3.2863>.
- Alim, A. S. . (2025). Perceptions of Online Lending Risks: A Netnographic Analysis of Indonesian YouTube Videos. *Ekonomi Islam Indonesia*, 7(1). <https://doi.org/10.58968/eii.v7i1.635>.
- Başar, D. (2025). Digital financial literacy and savings behavior: Cross-country evidence. *Borsa Istanbul Review*. 25 (1), 59-72. <https://doi.org/10.1016/j.bir.2025.09.004>.
- Bergkvist, L., & Rossiter, J. R. (2007). The predictive validity of multiple-item versus single-item measures of the same constructs. *Journal of Marketing Research*, 44(2), 175-184. <https://doi.org/10.1509/jmkr.44.2.175>.
- Choung, Y., Chatterjee, S., & Pak, T.-Y. (2023). Digital financial literacy and financial well-being. *Finance Research Letters*, 58, Article 104344. 10.1016/j.frl.2023.104438.
- Conner, M., & Norman, P. (2022). Understanding the intention–behavior gap: The role of moderators and mechanisms. *Frontiers in Psychology*, 13, Article 923464. DOI: <https://doi.org/10.3389/fpsyg.2022.923464>.
- Feryana, E., Putri, R. A., & Sulistyowati, L. (2025). The role of risk perception and lifestyle in mediating financial literacy effect on online loan decisions. *Journal of Risk & Accounting Knowledge*. <https://doi.org/10.22219/jrak.v15i3.41566> .
- Hayes, A. F., & Little, T.D., (2018). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach* (2nd ed.). Guilford Press.
- Hedayati, S., Moghadam, M. H., Heidari, A., Mohammadi, G., Moghadam, S., & Pirzadeh, A. (2023). Application of protection motivation theory in predicting protective behaviors: A meta-analysis. *International Journal of Disaster Risk Reduction*, 95, Article 103758. <https://doi.org/10.1016/j.ijdr.2023.103758>.
- Hidayat, P. R. (2022). Legal protection for users of illegal online loan services. *Jurnal Justiciabelen*, 5(1), 16-25. <https://doi.org/10.30587/justiciabelen.v5i1.4520>.
- Junaidi, R. P., Gitayuda, M. B. S., & Purnamawati, P. (2024). Analisis kinerja usaha UMKM kuliner di madura: financial behavior dan financial technology dengan mediasi financial literacy. *Jurnal Riset Ekonomi dan Bisnis*, 17(3), 231-243. <https://doi.org/10.26623/jreb.v17i3.10849>.

- Khoiriyah, D. N., & Amalia, F. (2023). Dampak inklusi dan literasi keuangan terhadap ketimpangan pendapatan melalui kredit UMKM di Indonesia tahun 2016 dan 2019. *Jurnal Riset Ekonomi dan Bisnis*, 16(1), 16-31. <https://doi.org/10.26623/jreb.v16i1.6303>.
- Koskelainen, T., Kalmi, P., Scornavacca, E., & Vartiainen, T. (2023). Financial literacy in the digital ageA research agenda. *Journal of Consumer Affairs*, 57(1), 507-528. <https://doi.org/10.1111/joca.12510>.
- Kuntadi, Y. A. (2024). Beyond traditional technology acceptance: The role of financial literacy and risk awareness in Indonesian fintech adoption. *Equilibrium: Jurnal Bisnis & Akuntansi*, 19(2): 226-242. <https://journal.ukrim.ac.id/index.php/jem/article/view/783>.
- Kusumawardhani, R., Prihatin, W., Maysan, J., & Mubarakah, S. (2025). Digital financial literacy and consumer financial behavior in emerging markets: Evidence from Indonesia. *Jurnal Ekonomi Dan Bisnis*, 28(2), 491-512. <https://doi.org/10.24914/jeb.v28i2.15565>.
- Li, C., Khaliq, N., Chinove, L., Khaliq, U., & Oláh, J. (2023). Consumers' perception of risk facets associated with fintech use: Evidence from Pakistan. *SAGE Open*, 13(4). <https://doi.org/10.1177/21582440231200199>.
- Maivalinda, M. (2023). Measuring online financial behavior through digital financial literacy and risk preference. *Jurnal Ekonomi dan Bisnis Dharma Andalas*. 25(2):561-572. <https://doi.org/10.47233/jebd.v25i2.1002>.
- Masdupi, E., Firman, Rasyid, R., & Darni, M. O. (2024). Financial literacy and sustainability in SMEs: Do financial risk attitude, access to finance, and organizational risk-taking tolerance mediate? *Asian Economic and Financial Review*, 14(1), 43-58. <https://doi.org/10.55493/5002.v14i1.4959>.
- Otoritas Jasa Keuangan. (2024). *Siaran Pers: OJK menghormati putusan mahkamah agung dan terus perkuat pengaturan dan pengawasan fintech P2P lending*. <https://www.ojk.go.id/id/berita-dan-kegiatan/siaran-pers/Documents/Pages/OJK-Menghormati-Putusan-Mahkamah-Agung-dan-Terus-Perkuat-Pengaturan-dan-Pengawasan-Fintech-P2P-Lending>.
- Pramesti, A. N., & Graciafernandy, M. A. (2024). Pengaruh literasi keuangan, herding behaviour, dan karakteristik demografi terhadap keputusan investasi pada generasi Z di Kota Semarang. *Jurnal Riset Ekonomi dan Bisnis*, 17(2), 98-112. <https://doi.org/10.26623/jreb.v17i2.8312>.
- Sarlawa, R. (2025). Digital Financial Literacy and Financial Behavior: Pathways to Inclusion and Resilience. *Jurnal Ilmiah Manajemen Kesatuan*, 13(6), 5709-5726. <https://doi.org/10.37641/jimkes.v13i6.4460>.
- Setiadi, N. S., & Budiyo, E. F. (2025). Study of financial technology: The influence of risk perception, financial literacy, and trust on investment decision. *Journal Economics Technology and Entrepreneur*, 4(4):590-612. <https://azramedia-indonesia.azramediaindonesia.com/index.php/ecotechnopreneur/article/view/1820>.

- Simanjuntak, M., Ninuk, P., & Zaky, A. (2025). Trust dynamics in peer-to-peer lending: Analyzing determinants of willingness to lend in Indonesia. *Jurnal Riset Ekonomi dan Bisnis*, 18(2), 180-197. <https://doi.org/10.26623/jreb.v18i2.12791>.
- Solihati, K.D., Rizki, M. ., & Sari, N. (2023). The Role of the Government to Improve Financial Literacy in Efforts to Prevent the Use of Illegal Online Loans. *KnE Social Sciences*, 8(11), 259-276. <https://doi.org/10.18502/kss.v8i11.13552>.
- Sumar'in, S. (2025). Shari'ah financial literacy and awareness of illegal online loans. *Signifikan: Jurnal Ilmu Ekonomi*, 14(1), 179-196. <https://doi.org/10.15408/sjie.v14i1.44735>.
- Widyastuti, U., Respati, D. K., Dewi, V. I., & Soma, A. M. (2024). The nexus of digital financial inclusion, digital financial literacy and demographic factors: lesson from Indonesia. *Cogent Business and Management*, 11(1), 2322778. <https://doi.org/10.1080/23311975.2024.2322778>.
- Yadav, M., & Banerji, P. (2024). Systematic literature review on digital financial literacy. *SN Business & Economics*, 4(11), 142. <https://doi.org/10.1007/s43546-024-00738-y>
- Yuannisa, R. A., Rokan, M. K., & Batubara, M. (2025). The effect of literacy, financial inclusion, lifestyle and environment on rise of illegal loans. *Amkop Management Accounting Review. (AMAR)*, 5(2), 1066–1084. <https://ojs.stieamkop.ac.id/index.php/amar/article/view/3234>.