Economics, Business, Management, & Accounting Journal
(Ebisma) Vol. 5 No. 2, Desember 2025 (135 – 145)

Website: https://journal.ebisma.net
DOI: https://doi.org/10.61083/ebisma.v5i2.95

E-ISSN 2962-2999

Financial Stress and Digital Debt Behavior: A Systematic Review of Behavioral Finance Evidence

Arimbi Priadipa[1]
[1]Independent Researcher, Indonesia
priadipa21@gmail.com

ABSTRACT

The rapid expansion of digital lending in Indonesia has reshaped household financial behavior, leading to rising financial stress and impulsive borrowing. These patterns cannot be fully explained by classical economic assumptions of rational decision-making. Emerging evidence shows that digital borrowing decisions are strongly influenced by psychological factors, behavioral biases, and technology design that lowers cognitive barriers to credit access. This study conducts a Systematic Literature Review of 42 publications from 2015–2024 to synthesize the relationships among financial stress, behavioral biases, and digital lending mechanisms. The findings reveal that financial stress triggers biases such as present bias, overconfidence, and optimism bias, which in turn drive impulsive borrowing. The fast, frictionless, and instant-approval nature of digital lending amplifies these biases, creating a recurring debt-stress loop that may escalate into a debt spiral. This study contributes a conceptual model integrating psychological and digital factors to explain vulnerability to digital debt and offers policy implications for regulators and fintech providers to design behaviorally informed interventions that can mitigate overborrowing risks.

Keywords: *Digital Lending, Behavioral Bias, Debt Spiral, Financial Stress, Impulsive Borrowing*

ABSTRAK

Pertumbuhan layanan pinjaman digital di Indonesia telah meningkatkan tingkat stres finansial dan perilaku berutang impulsif, yang tidak dapat dijelaskan sepenuhnya oleh asumsi rasionalitas dalam teori ekonomi klasik. Berbagai studi terkini menunjukkan bahwa keputusan berutang melalui platform digital dipengaruhi oleh kombinasi stres finansial, bias kognitif, serta desain teknologi yang mengurangi hambatan dalam proses pengambilan keputusan. Penelitian ini melakukan *Systematic Literature Review* terhadap 42 artikel yang diterbitkan pada periode 2015–2024 untuk mensintesis hubungan antara stres finansial, bias perilaku, dan mekanisme pinjaman digital. Hasil kajian menunjukkan bahwa stres finansial memicu munculnya bias seperti *present bias*, *overconfidence*, dan *optimism bias*, yang mendorong terjadinya peminjaman impulsif. Karakteristik pinjaman digital yang ditandai oleh proses cepat, minim friksi, dan persetujuan instan semakin memperkuat kecenderungan tersebut dan membentuk pola siklus stres utang yang berpotensi berkembang menjadi spiral utang. Penelitian ini memberikan kontribusi melalui pengembangan model konseptual yang menjelaskan kerentanan terhadap utang digital, serta menawarkan implikasi kebijakan bagi regulator dan industri fintech dalam merancang intervensi berbasis perilaku untuk mengurangi risiko pinjaman berlebihan.

Kata Kunci: Bias Perilaku, Peminjaman Impulsif, Pinjaman Digital, Lingkaran Utang, Stres Finansial

INTRODUCTION

The rapid growth of digital lending services in Indonesia has transformed the way individuals access credit, characterized by fast application processes, minimal requirements, and instant approval. While this development has expanded financial inclusion, it has also introduced new risks, including rising

default rates and increasing financial pressure among households. Data from the Financial Services Authority (Otoritas Jasa Keuangan, 2024) indicate that more than two million accounts have experienced payment delays exceeding 90 days, highlighting structural vulnerabilities in digital borrowing behavior. These findings are consistent with global literature suggesting that digital financial services may heighten consumer financial vulnerability when not accompanied by adequate literacy and protection mechanisms (Klapper, Miller, & Hess, 2020).

Classical economic theory assumes that individuals behave rationally when making financial decisions. However, empirical evidence shows that digital borrowing decisions are often shaped by emotional states, stress, and cognitive biases (Thaler & Sunstein, 2008; Kahneman & Tversky, 1981). Financial stress has been found to impair risk evaluation and increase tendencies toward short-term decision-making (Gathergood, 2012; Richardson, Elliott, & Roberts, 2013). In the context of digital lending, these effects are amplified by low-friction technological design, which offers seamless access and reduces psychological barriers, thereby encouraging impulsive borrowing (Li, Xie, & Chen, 2021; Wong & Ho, 2022).

Although prior studies have examined financial stress, behavioral biases, and digital lending, most research discusses these aspects separately. Few studies explain how financial stress and behavioral biases interact within digital environments to produce overborrowing and create a debt-stress loop. Literature specifically addressing debt-stress mechanisms in digital lending remains limited, even though several studies show that financial pressure can trigger impulsive borrowing, which in turn increases debt burdens and worsens stress (Bijleveld, 2020; Gathergood, 2012).

With the growing penetration of digital lending and the rising rates of delinquency, an integrative examination of the psychological and structural mechanisms influencing digital debt behavior has become increasingly urgent. Therefore, this study conducts a Systematic Literature Review (SLR) to synthesize empirical and conceptual evidence on the relationships among financial stress, behavioral biases, the digital lending environment, and overborrowing behavior.

This study offers two primary contributions. First, at a theoretical level, it develops an integrative conceptual model explaining how financial stress, behavioral biases, and digital choice architecture interact to shape impulsive borrowing, overborrowing, and the debt-stress loop. This model expands behavioral finance perspectives by incorporating the role of digital technology. Second, at a practical level, the study provides recommendations for regulators and fintech industries on behaviorally informed interventions that can mitigate default risks, including behavioral warnings, cost transparency, and restrictions on loan stacking. Thus, this study addresses an important literature gap and provides a comprehensive understanding of digital debt vulnerability in Indonesia.

LITERATURE REVIEW

Financial Stress and Financial Behavior

Financial stress refers to a psychological condition in which individuals feel unable to meet their financial obligations or face uncertainty in their income. This condition is associated with anxiety, emotional pressure, and reduced risk-evaluation capacity (Richardson, Elliott, & Roberts, 2013). Gathergood (2012) found that individuals experiencing financial stress tend to engage in maladaptive financial behaviors such as delaying payments, using high-cost credit, and making short-term decisions to relieve immediate pressure. Other studies show that financial stress contributes to low self-control and weak household financial planning (Lusardi & Mitchell, 2014), thereby increasing vulnerability to over-indebtedness.

In developing countries, financial stress is often triggered by income volatility, high living costs, and employment uncertainty. Research in Southeast Asia indicates that financial pressure is directly linked to the use of short-term loans and digital credit facilities for non-productive consumption (Wong & Ho, 2022). In the Indonesian context, financial stress has been shown to play a significant role in driving the use of online loans. Marlina et al. (2025) found that poor financial behavior increases the risk of financial stress and simultaneously raises the likelihood of individuals becoming trapped in digital lending, particularly among urban workers. These findings underscore the importance of financial behavior as a protective factor against overborrowing in digital environments.

Digital Lending and Digital Debt Behavior

Digital lending is a component of digital financial services that provides fast and convenient access to credit. Although it promotes financial inclusion, multiple studies warn that digital finance may increase the risk of a debt trap when financial literacy and regulation are insufficient (Klapper, Miller, & Hess, 2020). Frictionless platform design characterized by fast processes, minimal requirements, and instant approval lowers psychological barriers to borrowing, thereby encouraging impulsive borrowing (Li, Xie, & Chen, 2021).

Research in Asia shows that digital lending users frequently engage in loan stacking when facing repayment difficulties (Wong & Ho, 2022). In many countries, the rapid expansion of digital lending has outpaced regulatory oversight, creating the need for greater cost transparency, risk disclosure, and strengthened consumer protection mechanisms (OECD, 2020; Alliance for Financial Inclusion, 2022).

Behavioral Biases in Borrowing Decisions

Behavioral finance explains that financial decisions are not purely rational but are influenced by cognitive and emotional biases. Present bias the tendency to prioritize short-term gratification becomes a major driver of high-cost borrowing and impulsive financial decisions (Laibson, 1997). Overconfidence leads individuals to overestimate their ability to repay debt, while optimism bias causes them to underestimate the likelihood of default (Thaler & Sunstein, 2008).

The literature shows that these biases are exacerbated by low financial literacy, which in turn increases the use of consumer credit and digital lending services (Fernandes, Lynch, & Netemeyer, 2014; Lusardi & Mitchell, 2014). Recent studies in Southeast Asia also reveal a connection between impulsive buying, exposure to digital loan advertising, and the tendency to use online lending platforms particularly among younger generations (Wong & Ho, 2022).

Overborrowing, Debt Spiral, and the Debt-Stress Loop

Over-indebtedness occurs when individuals are no longer able to meet their debt obligations without sacrificing essential needs. The literature shows that over-indebtedness is influenced not only by objective economic factors but also by psychological factors such as low self-control and financial pressure (Gathergood, 2012; Bijleveld, 2020).

Digital lending increases the risk of a debt-stress loop, a cycle in which stress triggers impulsive borrowing, the resulting debt aggravates stress, and heightened stress subsequently leads to further borrowing (Richardson et al., 2013). Global fintech literature indicates that digitalization can accelerate the growth of household debt and contribute to a debt spiral if not accompanied by strong regulation and financial education (Klapper et al., 2020; Wong & Ho, 2022).

RESEARCH METHODS

This study employs a Systematic Literature Review (SLR) approach to identify, evaluate, and synthesize scientific findings related to financial stress, digital lending, behavioral biases, and digital debt behavior. The SLR method was selected because it provides a systematic, transparent, and replicable procedure for mapping the development of multidisciplinary knowledge. Given that digital lending involves interactions among psychology, behavioral economics, and financial technology, SLR is the most appropriate method to capture the breadth and depth of the relevant literature, as recommended by the PRISMA 2020 guidelines.

Data were collected from five reputable databases Google Scholar, ScienceDirect, DOAJ, Taylor & Francis Online, and Emerald Insight which collectively cover literature in economics, psychology, finance, and risk management. The search process used a combination of keywords such as "financial stress," "digital lending," "online loan behavior," "impulsive borrowing," and "behavioral bias in finance," supported by Boolean operators to broaden and refine the search results. The initial search yielded 423 articles.

Article selection followed the four PRISMA 2020 stages: identification, screening, eligibility, and inclusion. In the identification stage, 102 duplicates were removed, leaving 321 articles. The screening stage involved reviewing titles and abstracts to assess relevance to the research focus, resulting in the elimination of 221 articles. During the eligibility stage, 100 articles were reviewed in full to evaluate methodological quality, theoretical relevance, and contextual suitability. A total of 58 articles were excluded for not meeting the criteria, leaving 42 final articles included in the SLR analysis.

The inclusion criteria consisted of: (1) publications from 2015–2024, (2) focus on financial stress, digital lending, or digital debt behavior, (3) peer-reviewed articles, and (4) full-text availability in either Indonesian or English. Non-academic articles, opinion pieces, media reports, or publications lacking clear methodology were excluded. These criteria ensured that the reviewed literature was credible, relevant, and up-to-date. In addition to the 2015–2024 articles included in the SLR, several seminal works published before 2015 (e.g., Gathergood, 2012; Richardson et al., 2013) were used as theoretical foundations. These publications were not part of the 42 articles analyzed in the SLR but were included to strengthen the conceptual basis related to financial stress and behavioral finance.

The analysis employed a thematic synthesis approach. Each article was coded based on core concepts such as financial stress, present bias, impulsive borrowing, loan stacking, digital lending mechanisms, and the debt-stress loop. The coding results were then grouped into four major themes: (1) financial stress and household financial behavior, (2) characteristics and mechanisms of digital lending, (3) behavioral biases in decision-making, and (4) overborrowing and over-indebtedness. Cross-study synthesis was conducted to identify relational patterns, consistency of findings, and research gaps, which subsequently formed the foundation for developing the conceptual model.

To maintain the validity and reliability of the review process, the study implemented several quality assurance procedures, including the use of multiple databases, explicit selection criteria, full-text assessment, and cross-checking during coding and synthesis. This approach ensured that the SLR results were comprehensive, transparent, and reflective of the latest developments in behavioral finance and digital lending risk literature.

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REVIEW FINDINGS

Financial Stress as a Trigger for Borrowing Decisions

The synthesis of 42 modern articles (2015–2024) reveals that financial stress is a psychological factor that consistently drives impulsive borrowing behavior, particularly among middle-income groups and younger generations. This finding aligns with foundational literature (e.g., Gathergood, 2012; Richardson et al., 2013), which explains that financial stress reduces individuals' risk-evaluation capacity and encourages short-term decision-making. A longitudinal study by Weller et al. (2022) further demonstrates that chronic financial pressure increases myopic decision-making, leading individuals to prioritize quick solutions such as digital loans.

Research on financial stress shows consistent patterns across developing countries. Mani et al. (2013) found that economic pressure can reduce cognitive capacity and lead to suboptimal short-term decisions. In the Southeast Asian context, Mansor et al. (2022) showed that financial stress has a dual effect: it acts as both a trigger for impulsive behavior and a consequence of accumulating digital debt. Overall, the literature agrees that financial stress is not merely a supporting variable it is a central determinant of digital borrowing behavior.

The Role of Digital Lending in Amplifying Impulsivity

Digital lending exacerbates impulsivity through mechanisms that reduce psychological barriers to decision-making (reduced decision friction). Fast application processes, minimal requirements, and intuitive interfaces cause users to perceive digital loans as less risky than conventional credit. Klapper, Miller, and Hess (2020) found that the simpler the borrowing process, the more likely individuals are to take on debt without careful consideration.

Empirical findings from Li, Xie, and Chen (2021) show that interface design and instant-approval features lead users of digital lending platforms in China to underpredict their financial burden. Wong and Ho (2022) found similar evidence in Southeast Asia, showing that digital lending creates a perception of "safe loans," thereby increasing the likelihood of loan stacking. Cross-country research by Naeser Seldal and Nyhus (2022) demonstrates that digitalization of financial services reduces the pain of paying, which ultimately increases impulsive consumption and short-term credit usage. Thus, digital lending acts as an architectural catalyst that intensifies behavioral biases among borrowers.

Behavioral Biases and Vulnerability to Overborrowing

The literature indicates that behavioral biases play a central role in explaining individuals' vulnerability to overborrowing, especially within low-friction digital environments.

- **Present bias** (Laibson, 1997) drives individuals to prioritize immediate benefits such as quick cash disbursement over the long-term cost implications.
- **Overconfidence bias** causes individuals to overestimate their future repayment ability, increasing their likelihood of engaging in loan stacking (Fernandes et al., 2014; Zhao et al., 2022).
- **Optimism bias** leads individuals to believe often incorrectly that their financial condition will improve, despite lacking objective evidence (Thaler & Sunstein, 2008).
- **Social comparison bias** fuels status-driven consumption and lifestyle spending, as noted by Shim et al. (2010).

Adamek and Solarz (2023) show that these biases operate more strongly in digital lending contexts because digital processes remove cognitive barriers that would otherwise help individuals restrain impulsive actions. The interaction between behavioral biases and easy access to digital credit significantly increases the risk of over-indebtedness.

The Debt-Stress Loop Pattern

The debt-stress loop pattern is reinforced by various modern studies included in this SLR (e.g., Mansor et al., 2022; Weller et al., 2022; Wong & Ho, 2022; Bijleveld, 2020). This pattern is also consistent with pre-2015 foundational literature, such as Richardson et al. (2013), which describes the reciprocal relationship between financial pressure and maladaptive decision-making.
Recent research by Weller et al. (2022) adds that accumulating debt can cause cognitive depletion, reducing individuals' ability to delay gratification and prompting repeated borrowing to meet short-term needs. Mansor et al. (2022) further found that lower–middle-income groups are the most vulnerable to this cycle, particularly when access to digital lending is wide open.

Collectively, international studies (Gathergood, 2012; Klapper et al., 2020; Wong & Ho, 2022) show that the debt-stress loop is a core mechanism in the development of a debt spiral, a condition in which individuals continuously borrow to cover previous obligations until they ultimately reach a state of default. These findings form a strong foundation for developing the study's conceptual model.

Figure 1. The Debt-Stress Loop
Source: Adapted by the author (2025)

Figure 1 illustrates the Debt-Stress Loop model, a behavioral cycle that explains the reciprocal relationship between financial stress and impulsive borrowing decisions within the digital lending ecosystem. The cycle begins with the Financial Stress phase, in which individuals experience economic pressure, income instability, or urgent financial needs. Recent studies show that financial stress reduces cognitive capacity and risk-evaluation ability, while increasing preferences for short-term solutions (Weller et al., 2022; Mansor et al., 2022).

These conditions make individuals more vulnerable to taking Impulsive Borrowing Decisions, especially through digital lending platforms that offer fast processes, minimal friction, and instant approval. Such impulsive decisions often serve as a form of emotional relief to reduce short-term pressure rather than a product of rational financial planning. Modern fintech research highlights that digital platform design plays a substantial role in triggering impulsive behavior (Li, Xie, & Chen, 2021; Wong & Ho, 2022).

Impulsive borrowing then leads to Debt Accumulation, characterized by increasing financial burdens due to high interest rates, service fees, late penalties, and cross-platform loan stacking. Research shows that digital features such as one-click borrowing and auto-increase credit limits accelerate debt accumulation (Wong & Ho, 2022; Adamek & Solarz, 2023).

This increasing debt burden triggers the Increased Stress phase, a state of psychological and financial pressure more severe than the initial level. Behavioral finance studies indicate that rising debt levels can reduce psychological well-being and further weaken decision-making capacity (Bijleveld, 2020; Mansor et al., 2022).

In this condition, individuals tend to engage in Repeat Borrowing, either to cover previous installments or to meet other urgent needs. The fast and convenient nature of digital lending makes it easy for individuals to re-enter the cycle, reinforcing the feedback loop between financial stress and impulsive decision-making.

When this cycle continues repeatedly, it culminates in a Debt Spiral, a condition in which debt grows progressively until it becomes uncontrollable. Recent literature emphasizes that the debt spiral is the most severe consequence of the debt-stress loop, particularly among vulnerable groups who actively use digital lending services (Wong & Ho, 2022; Yuan, Fang, & Sun, 2024).
Thus, Figure 1 reinforces that overborrowing in digital lending is a complex process shaped by the interaction between financial stress, behavioral biases, and digital technology architecture that amplifies impulsivity.

DISCUSSION

Theoretical Implications

The findings of this study demonstrate that the classical economic framework—which assumes that individuals behave rationally and are capable of optimally evaluating risks—is insufficient to explain digital debt behavior in the fintech era. Digital borrowing occurs in a context fundamentally different from conventional credit: it is fast, technology-driven, frictionless, and often undertaken when individuals are in a state of emotional distress.

Therefore, this study reinforces the need to understand modern financial behavior through the lens of behavioral finance, where cognitive biases such as present bias, overconfidence, and optimism bias play a central role in shaping financial decisions (Laibson, 1997; Thaler & Sunstein, 2008). Although the SLR in this study limits its core sources to the period 2015–2025, the theoretical discussion still refers to foundational theories such as Laibson (1997) and Thaler & Sunstein (2008), as these works remain fundamental to understanding behavioral biases and continue to be highly relevant today.

A key theoretical contribution of this study lies in addressing the gap in literature that has traditionally examined financial stress, behavioral biases, and the digital environment separately. This research integrates these three domains through the debt-stress loop model, illustrating how financial stress triggers behavioral biases and how these biases are amplified by the architecture of digital lending systems, resulting in overborrowing patterns.

Additionally, this study expands the literature on over-indebtedness (Gathergood, 2012) by demonstrating that digital contexts create structural conditions that differ significantly from traditional credit settings. Technology functions not only as a transaction medium but also as a *psychological amplifier* through interface design (choice architecture) that reduces barriers to impulsive decision-making. Thus, this research contributes to cross-disciplinary scholarship by connecting behavioral economics, financial psychology, and fintech studies to better understand financial vulnerability in the digital era.

Policy Implications

From a public policy perspective, the findings highlight that fintech lending regulation in Indonesia must move beyond conventional structural approaches. Because digital borrowing behavior is heavily influenced by psychological factors, policymakers must adopt a *behaviorally informed regulatory framework*.

First, regulators should implement clear cost-transparency standards through simplified and highly salient *key facts statements*. Many consumers underestimate the total cost of borrowing because cost information is presented in complex or obscure formats. Providing installment simulations, total cost disclosures, and default risk explanations can significantly improve decision quality.

Second, governments should develop behavioral warnings as interventions to prevent impulsive borrowing. Risk-based prompts such as *"Your installment-to-income ratio exceeds the safe threshold"* have been shown to increase caution, as evidenced in regulatory practices in the United Kingdom, South Korea, and Singapore.

Third, restrictions on loan stacking and repeat borrowing are crucial. Strengthening credit registries provides significant benefits, enabling platforms to detect borrowers approaching risky thresholds before issuing additional credit.

Fourth, implementing a *cooling-off period* after loan repayment can reduce momentum-driven impulsive borrowing. This policy has been adopted in several jurisdictions and proven effective in lowering delinquency rates.

Thus, effective policy should not only regulate products but also address the *process* through which consumers make financial decisions aligning with the principles of behavioral public policy.

Implications for the Fintech Industry

For the fintech lending industry, the findings offer strategic implications for enhancing business sustainability and consumer protection. First, fintech firms should provide risk simulation tools that enable borrowers to understand financial consequences realistically. Features such as obligation calculators, late-payment scenarios, and total cost estimations can support more informed risk assessments.

Second, companies should adopt responsible lending design. Rather than prioritizing loan volume growth through aggressive promotions and automated loan offers, underwriting algorithms should be adjusted to detect indicators of financial stress, repeated borrowing, and behavioral risk patterns. This approach aligns with regulatory directions issued by the Indonesian Financial Services Authority (OJK) for 2023–2024 regarding fintech consumer protection.

Third, the implementation of behavioral safeguards is essential to reduce user impulsivity. Examples include:

- double confirmation screens for high loan amounts,
- more conservative default tenors,
- automated notifications when a user's debt ratio approaches risky levels,
- *"Are you sure?"* friction prompts before finalizing transactions.

These safeguards do not restrict user autonomy; rather, they provide meaningful moments of reflection that effectively reduce impulsive decision-making.

By adopting these strategies, fintech companies not only meet regulatory expectations but also build a more ethical and sustainable digital financial ecosystem. In the long run, such approaches may reduce default rates, improve user loyalty, and strengthen public trust in digital financial services.

CONCLUSION

This study analyzes the relationships among financial stress, behavioral biases, digital lending, and overborrowing through a Systematic Literature Review of 42 articles published between 2015 and 2024. Although the SLR limits its primary analysis to publications within this period, the study also refers to foundational theories published prior to 2015 (e.g., Laibson, 1997; Thaler & Sunstein, 2008) to strengthen the conceptual framework. These classic works are not part of the SLR dataset but serve as essential theoretical support.

The findings indicate that digital borrowing behavior cannot be fully explained by the rationality assumptions of classical economic theory. Instead, modern financial decision-making is better understood through the lens of behavioral finance, which highlights the role of stress, emotions, and cognitive biases in shaping financial choices.

Financial stress is identified as a primary trigger of present bias, overconfidence, and optimism bias. Under financial pressure, individuals are more likely to make short-term, emotion-driven decisions, including rapid borrowing through digital applications. The low-friction characteristics of digital lending instant processes, seamless user interfaces, and quick approvals further amplify these impulsive tendencies.

A central finding of this study is the existence of a debt-stress loop, a recurring cycle in which financial stress triggers impulsive borrowing, increased debt burdens intensify stress, and heightened stress subsequently leads to repeated borrowing. This mechanism explains how individuals may enter a debt spiral, particularly vulnerable groups such as informal workers, urban middle-income earners, and younger borrowers. The study contributes theoretically by developing a conceptual model integrating psychological factors, digital technology, and financial behavior to explain vulnerability to digital debt.

RESEARCH LIMITATIONS

This study has several limitations that should be acknowledged:

1. Limited database coverage.
   Although five major databases were used (Google Scholar, ScienceDirect, DOAJ, Taylor & Francis, and Emerald), relevant studies indexed in Scopus or Web of Science may not have been captured.
2. No quantitative meta-analysis.
   Due to methodological diversity across studies, synthesis was performed thematically rather than through statistical meta-analysis.
3. Dominance of studies from developed countries.
   Findings based on advanced economies may not be fully generalizable to Indonesia, given differences in financial culture and regulatory structures.
4. Absence of primary data.
   The conceptual model has not yet been empirically tested, requiring further validation through field data.

These limitations provide clear directions for future research aimed at strengthening validity, generalizability, and theoretical contributions.

RECOMMENDATIONS

Future studies should conduct empirical testing of the conceptual model developed in this research, using quantitative approaches such as Structural Equation Modeling (SEM) or Partial Least Squares-SEM (PLS-SEM). Such testing is essential to measure the strength of relationships among variables and identify the most influential factors driving overborrowing. Additionally, behavioral intervention experiments are needed to assess the effectiveness of mechanisms such as risk simulation prompts, behavioral warnings, cooling-off periods, and more ethical choice architecture designs. These experimental approaches may be conducted in controlled laboratory settings or in direct collaboration with fintech lending platforms.

Qualitative research is also crucial for exploring the subjective experiences of digital borrowers, including emotional motivations, risk perceptions, social pressures, and the dynamics of financial stress that are difficult to capture through quantitative surveys. Phenomenological studies or in-depth interviews may reveal new constructs that enrich theoretical understanding of digital financial behavior. Furthermore, cross-country comparative studies in developing economies such as the Philippines, Vietnam, and Thailand can help determine whether the debt spiral phenomenon is universal or context-dependent.

Future research may also integrate machine learning and big data analytics to predict default risks, repeated borrowing patterns, and early indicators of financial stress, thereby contributing to more precise and relevant risk mitigation models for the fintech industry.

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