Financial Literacy and Online Lending in Indonesia and Malaysia: A Comparative Study of Regulatory Models and Their Implications

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Abstract. This paper examines how the regulatory architecture of online lending in Indonesia and Malaysia shapes consumer risk and, in turn, the role that financial literacy must play. Building on the authors' earlier comparison of the two regimes, the study combines qualitative-comparative legal analysis of OJK, Securities Commission and Bank Negara Malaysia instruments with updated market, enforcement and redress data for 2023–2025 and with insights from academic and community engagement in Perlis and Makassar. The findings show that Indonesia's inclusive single-regulator model has widened access to digital credit but leaves a large illegal segment that is handled mainly through ex post enforcement, which recovers only a small share of consumer losses. Malaysia's segmented model confines P2P financing to businesses and channels personal credit through licensed institutions, narrowing the space for illegal personal lending ex ante. The study argues that the regulatory model determines the function of financial literacy: defensive in Indonesia, where consumers must verify legality and resist predatory offers, and prudential in Malaysia, where it supports choices among supervised products. Indonesia is advised to pair enforcement with preventive product design and a national literacy strategy, while Malaysia should keep emerging products such as BNPL under close supervision.

Keywords: Consumer protection; Digital finance; Financial literacy; Fintech lending; Regulatory model

1 Introduction

Financial literacy plays an ever more critical role in people's lives and in macroeconomic stability as the digital age rapidly evolves. Financial literacy is the set of skills, knowledge and behaviors that allow people to make sound financial decisions. The term is often used interchangeably with financial education, and both are necessary for navigating an increasingly complex financial market. In Malaysia, measures of financial literacy include an understanding of basic concepts such as inflation, compound interest and risk, as well as good saving and budgeting habits. [1]

In today's digital financial landscape, many new products, such as instant online loans, are emerging to meet clients' changing needs. It is therefore essential that individuals are able to

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analyze risks, interpret complex terms and conditions and identify reliable service providers. If improved access to finance is not matched by adequate knowledge of products and their risks, individuals become more exposed to exploitative practices, hidden costs and unsustainable debt. This creates a systemic vulnerability in which the benefits of financial inclusion can be undermined by the risks of financial exploitation. Consequently, financial literacy is not only an educational objective but also a necessary consumer protection instrument in the digital age. [2]

Online lending, also known as fintech lending or *peer-to-peer* (P2P) lending, is a financial service that connects lenders directly with borrowers through an electronic system. Applications, approval and disbursement of funds can all be completed online. Although the basic definition is similar across jurisdictions, the implementation and regulatory framework of online lending vary widely between countries, reflecting national priorities that range from rapid financial inclusion to controlled financial stability. This paper highlights the significant differences between Indonesia's and Malaysia's approaches to regulating and supervising the sector. [3]

The existing literature discusses financial literacy and online lending extensively in various contexts, including the behavior of online loan users, the effect of financial literacy on the intention to borrow online, and the influence of risk perception and consumptive behavior on interest in online loans. [4] Comparative analyses that examine fundamental regulatory philosophies and their distinct effects on consumer protection and financial stability across developing economies nevertheless remain scarce. Our earlier study [21] began to address this gap by contrasting the Indonesian and Malaysian regimes and arguing that preventing risk through market design is more efficient than reacting to it through enforcement. That study, however, relied mainly on regulatory documents, headline market figures and a pre-test/post-test evaluation of a single community education program, and it treated the different roles of financial literacy in the two countries as a concluding observation rather than as an analytical framework.

The present paper builds on and extends [21] in three ways. First, it broadens the evidence base with 2024–2025 enforcement and redress indicators from OJK and the Indonesia Anti-Scam Centre (IASC), namely complaints, blocked debt-collector numbers, flagged and blocked bank accounts, and recovered victim funds (Table 1), and with issuer- and campaign-level data on Malaysian P2P financing (Table 2). Second, it moves the comparison from regulatory philosophy as such to the point at which each regime controls risk, either before market entry (*ex ante*) or after harm has occurred (*ex post*), and asks what this implies for consumer redress. Third, it links each regulatory model to a distinct function of financial literacy, defensive or prudential, and draws on an academic discussion in Perlis, Malaysia, and community education in Makassar, Indonesia, to derive differentiated literacy and policy recommendations.

The underlying policy problem is how to extend digital credit to as many people as possible while protecting them from illegal lending and fraud. Indonesia and Malaysia have resolved this dilemma in markedly different ways, and the contrast offers lessons for other developing economies that are designing their own fintech lending rules.

Accordingly, this paper addresses three questions: (1) how the online lending regimes of Indonesia and Malaysia differ in structure and scope; (2) how these differences relate to observable outcomes for financial stability and consumer protection; and (3) what type of

financial literacy each regime requires. The answers are intended to inform policymakers in both countries and in other emerging markets.

2 Method

This study combines qualitative-comparative legal analysis with an empirical review of market data. The design makes it possible to examine online lending in Indonesia and Malaysia at two related levels: how different regulatory choices produce different market effects, and which practices and problems are specific to each national context. Comparing the two cases supports more general conclusions about which regulatory arrangements are better able to contain illegal lending and the systemic risks of digital credit. Compared with the authors' earlier study [21], the legal and empirical materials have been updated to mid-2025 and extended as described below.

For Indonesia: the legal materials comprise OJK Regulation No. 77/POJK.01/2016 on information technology-based lending services [5], its successor, OJK Regulation No. 10/POJK.05/2022 on Information Technology-Based Joint Funding Services (LPBBTI) [23], and OJK Circular Letter No. 19/SEOJK.06/2023, which, among other things, limits the number of platforms from which a borrower may obtain funding to three.

For Malaysia: the materials comprise the Securities Commission's (SC) framework for P2P financing under its Guidelines on Recognized Markets [16] and Bank Negara Malaysia's (BNM) policy on personal financing, including the rules for *Buy Now Pay Later* (BNPL) products [15]. The Consumer Credit Bill 2025, passed by Parliament in 2025 and in force as the Consumer Credit Act since 1 March 2026, is also considered because it brings BNPL firms and other non-bank credit providers under a licensing regime. [22]

Quantitative data were obtained from OJK and IASC reports for Indonesia and from SC, BNM and MyCIF reports for Malaysia. For Indonesia, the indicators are the number of licensed P2P platforms, the value of financing, the non-performing loan ratio (TWP90), illegal entities stopped, consumer complaints, blocked contact numbers and bank accounts, financial losses and recovered funds. For Malaysia, they cover business P2P financing volumes, campaigns, issuers and government co-investment. Malaysia publishes no comparable statistics on illegal online personal lending. This absence is not treated as proof, but, read together with the legal analysis, it is taken as an indicator consistent with the preventive effect of the Malaysian regime. The legal and statistical analysis is complemented by observations from an academic discussion at Universiti Muhammadiyah Malaysia in Perlis (Fig. 1) and a community education program in Makassar (Fig. 2).

3 Results and Discussion

3.1 Financial Literacy Overview and the Context of Online Lending

In the dawning era of digital finance (as well as popular investment democratization) financial literacy is essential not only to personal wealth, but the health of broader economies. Given a world of increasingly complex financial products like online loans, being financially literate that

is, having the ability to obtain and understand the knowledge and skills needed to manage money matters has become essential. In Malaysia, that translates to an understanding of concepts such as inflation, compound interest and risk; a reasonable savings habit and budgeting. [6]



Fig. 1. A discussion at Universiti Muhammadiyah Malaysia in Perlis, Malaysia

Digital lending follows a fast-moving innovation model that can reach users anywhere. It brings credit to people underserved by formal institutions and allows investors to fund borrowers from a smartphone, so that easily accessible online loan products now reach millions of mobile devices. At the same time, consumers with limited financial knowledge are especially exposed to predatory intermediaries, hidden fees and unsustainable debt. Because these exposures are widespread, they become a systemic risk in which the gains of financial inclusion can be offset by financial exploitation. Promoting financial literacy is therefore not only an educational goal but also a consumer protection instrument in the digital financial space. [7]

Although P2P lending is defined in broadly similar terms across jurisdictions, as an electronic platform that matches lenders and borrowers and completes the whole process online, its scope, supervision and enforcement differ considerably between countries. The following subsections examine these differences in Indonesia and Malaysia. [8]

3.2 Model of Regulation and Impact of Online Loans in Indonesia

Most online lending in Indonesia is classified as LPBBTI (Information Technology-Based Joint Funding Services), in which a licensed platform intermediates between funders and recipients of funds. OJK is the single authority that licenses and supervises these platforms, which may serve both individuals and businesses. The market therefore has a dual structure: licensed platforms operating under OJK rules, and unlicensed operators that continually re-enter the market and complicate both consumer protection and macro-financial oversight. OJK responds on two fronts. It urges the public to borrow only from licensed providers, and, through the Task Force for the Eradication of Illegal Financial Activities (Satgas PASTI), it blocks access to and shuts down illegal lending and investment entities in coordination with other agencies. Our

earlier study described this as a regime in which the regulator must supervise the licensed market while conducting continuous enforcement against illegal operators [21]; the indicators below allow that description to be examined against more recent enforcement and redress data. [9]

Within the licensed segment, the figures indicate steady expansion. The value of financing on legal P2P platforms reached Rp80.07 trillion as of February 2025, an increase of 31.06% *year-on-year* (YoY), while the 90-day default ratio (TWP90) stood at 2.78%. Meanwhile, the number of licensed providers declined from 101 in October 2023 to 96 in July 2025 (Table 1). Rising volumes handled by fewer licensed firms show that demand for digital credit is genuine and growing. Consistent with [21], the core policy problem is therefore not online lending itself but how to direct this demand to supervised platforms and away from illegal ones. [10]

The illegal segment remains large. OJK stopped 2,930 illegal lending entities in 2024, and Satgas PASTI stopped a further 1,556 illegal online lenders and 283 illegal investment schemes between January and June 2025, a period in which reported public losses reached Rp3.4 trillion. By 23 May 2025, OJK had also received 4,344 complaints about illegal online loans. The terms imposed by these operators, such as daily interest of up to 0.8%, penalties of up to 100% of the principal, coercive collection and misuse of borrowers' personal data, explain why their harm extends beyond individual debtors to confidence in the digital financial sector as a whole. [11]

The newer indicators in Table 1 add a dimension that was not covered in [21]: the downstream enforcement and redress chain. Through IASC, the authorities proposed blocking 2,422 contact numbers used by illegal debt collectors and identified 267,962 bank accounts linked to fraud, of which 56,986, or about one in five, had been blocked. Funds secured for victims amounted to Rp558.7 billion, roughly one-sixth of the Rp3.4 trillion in losses reported for January–June 2025. These ratios suggest that *ex post* enforcement, however intensive, reaches only part of the harm and returns only a fraction of what consumers lose. [12] The persistence of illegal lending despite this effort reflects unmet demand for small, fast credit and a wide information gap between operators and borrowers, many of whom are under financial stress and unable to judge the legality or true cost of an offer. Each case that is stopped addresses a symptom rather than the conditions that produce it, and the resulting losses erode public trust in legitimate digital finance and in the innovation it supports. [13]

Table 1 summarizes the main indicators of the Indonesian online lending sector.

Table 1. Key Statistics of the Online Lending Sector in Indonesia (Legal and Illegal)

Indicator	Quantitative Data (Source: OJK, IASC)
Number of Legal P2P Organizers	101 (Oct 2023), 97 (May/Dec 2024), 96 (Jul 2025)
Total Legal Loan Disbursement (Feb 2025)	IDR 80.07 Trillion (up 31.06% YoY)
Legal Non-Performing Loan Ratio (TWP90) (Feb 2025)	2.78%
Number of Illegal Loans Eradicated (2024)	2,930
Number of Illegal Loans Eradicated (Jan-Jun 2025)	1,556

Indicator	Quantitative Data (Source: OJK, IASC)
Number of Illegal Loan Complaints (as of May 23, 2025)	4,344
Number of Illegal Debt Collector Contact Numbers Proposed to Be Blocked	2,422
Number of Bank Accounts Indicated by Fraud	267,962
Number of Bank Accounts Blocked Due to Fraud	56,986
Total Financial Losses Due to Illegality (Jan-Jun 2025)	IDR 3.4 trillion
Victim Funds Secured (Jan-Jun 2025)	IDR 558.7 Billion

Source: Obtained from secondary data from OJK and IASC. [14]

3.3 Regulatory Model and Impact of Online Lending in Malaysia

Malaysia divides oversight of digital lending between two authorities. The SC has regulated P2P financing since May 2016 under its Guidelines on Recognized Markets, which require operators to be locally incorporated, to hold a minimum paid-up capital of RM5 million and to maintain transparent credit-assessment and default-management procedures; SC-regulated P2P financing is open only to businesses. Personal financing, by contrast, falls under BNM and is provided by licensed conventional and Islamic banks and by development financial institutions, and BNM's personal financing policy now explicitly covers BNPL products, which have grown rapidly in Malaysia. This division of labor, with the SC responsible for business P2P and BNM for personal credit and BNPL, is the sharpest institutional contrast with Indonesia's single-regulator model, and it leaves little room for an unregulated 'grey area' of personal online lending. [15]

The eligibility rules make this business orientation explicit. Only sole proprietorships, partnerships, limited liability partnerships, private limited companies and unlisted public companies may raise funds on P2P platforms, and proposals that would use the funds for on-lending or for investment in other companies are not permitted. Individuals are therefore excluded from borrowing for personal consumption through SC-regulated P2P platforms. The rationale is that market-based financing should serve enterprise development and economic growth rather than household consumption. [16]

SC data confirm this orientation (Table 2). Cumulative P2P financing reached about RM5.96 billion by the end of December 2023, compared with RM3.87 billion a year earlier, raised through 85,793 successful campaigns by 14,715 issuers. In 2023 alone, the number of issuers rose by 42% to 5,355, and RM2.09 billion was raised through 31,002 campaigns. Public co-investment through the Malaysia Co-Investment Fund (MyCIF) has reinforced this pattern: RM1.19 billion has been channeled into more than 9,000 MSMEs via *equity crowdfunding* (ECF) and P2P platforms, with a reported multiplier of 4.1. Whereas [21] reported only the aggregate volume and the MyCIF figures, the issuer- and campaign-level data added here show that this growth rests on a broad and expanding base of business issuers, with an average of roughly RM70,000 per campaign, which is consistent with MSME financing. [17]

For personal credit, Malaysia's stance is markedly more restrictive than Indonesia's. BNM and the SC have consistently treated consumer protection and the containment of household debt as conditions for domestic financial stability, and concerns about excessive borrowing have kept personal credit within prudential limits. Excluding individuals from P2P platforms is thus a trade-off in which some speed and breadth of access are given up in exchange for stability and manageable household debt. Because consumer demand for digital credit must pass through licensed banks, development financial institutions or supervised BNPL providers, the conditions that sustain Indonesia's illegal lending market are largely absent. [18] The Consumer Credit Act 2025 extends this logic by placing BNPL firms and other non-bank credit providers under the licensing regime of a new Consumer Credit Commission. [22]

The segmented design therefore works as an *ex ante* form of risk control. Assigning business P2P to the SC and personal credit to BNM-supervised institutions creates a transparent and controlled ecosystem in which each authority manages a narrower set of risks and in which there are fewer regulatory gaps for illegal operators to exploit. The MyCIF experience further shows that active government support can steer P2P financing towards productive uses. Malaysia publishes no specific statistics on non-performing or illegal online personal loans; read alongside the legal analysis, this absence is consistent with, though not conclusive proof of, the regime's effectiveness in keeping illegal personal lending from taking root. [19]

Table 2 presents the main indicators of business P2P financing in Malaysia.

Table 2. Key Statistics of P2P Financing for Businesses in Malaysia

Indicator	Quantitative Data (Source: SC, MyCIF)
Total P2P Financing Collected (End Dec 2023)	RM5.96 Billion (up from RM3.87 Billion in 2022)
Number of Successful Campaigns	85,793
Number of Issuers (Businesses)	14,715
Increase in the number of issuers (2023)	42% (to 5,355)
Fundraising Through Campaigns (2023)	RM2.09 Billion through 31,002 campaigns
Government Support (MyCIF Investment)	RM1.19 Billion in >9,000 MSMEs
MyCIF Multiplier Effect	4.1 times

Source: Derived from SC and MyCIF secondary data. [17]

3.4 Comparative Analysis of the Regulatory Model and Its Impact

The two cases show how regulatory philosophy interacts with consumer protection and financial stability. Indonesia regulates all P2P lending, including consumer micro-loans, through a single authority under the LPBBTI framework. This maximizes the reach of digital credit but places the burden of risk control largely after market entry, through blocking, takedowns and redress, so that enforcement against illegal operators becomes a permanent task. [20] Malaysia, by contrast, has taken a more cautious and segmented route: the SC supervises business-only P2P

financing, while BNM supervises personal credit supplied by licensed banks and BNPL providers.

These architectures produce different outcomes. In Indonesia, the open model has been accompanied by a large illegal lending market marked by very high interest, abusive collection and data misuse, causing losses of trillions of rupiah, weakening consumer rights and creating spillovers for the wider economy. In Malaysia, excluding personal loans from P2P has largely closed the channel through which such a market could emerge. By steering digital innovation towards the productive sector while keeping strict control over personal finance, Malaysia has sustained growth in digital financing and protected consumers from the hazards of personal online lending.

The role of financial literacy differs accordingly. In Indonesia, literacy has to work as a front-line protective mechanism: in an open market with many illegal operators, consumers themselves must be able to check a provider's license, understand loan terms and recognize risks before borrowing. In Malaysia, where the regulatory perimeter already excludes most such operators, literacy matters less for avoiding illegal lenders and more for choosing among supervised products and borrowing responsibly.

The comparison also shows that what counts as 'good' regulation depends on the economic priorities a country sets. Indonesia's emphasis on the rapid democratization of credit has left unregulated risks in which illegal operators thrive, partly because the boundary between formal and informal lending services has not been clearly drawn. Malaysia combined room for innovation with clear limits on the types of lending each channel may offer. This supports the conclusion of [21] that preventive regulation, which sets clear boundaries at an early stage on what is and is not allowed, is more effective than reactive enforcement after a whole category of lending has deteriorated. The present analysis adds that the reactive route is also costly for consumers because, as Table 1 shows, the enforcement chain recovers only a fraction of their losses.

These differences have practical consequences for the design of financial literacy programs. In Indonesia, literacy is a key line of defense that helps consumers resist illegal and high-risk lenders, so programs should focus on verifying legality, understanding the full cost of credit and knowing the complaint and reporting channels. In Malaysia, or in any system with a more developed regulatory infrastructure, literacy serves prudent money management within a system that already functions properly, so the emphasis shifts to comparing supervised products, managing BNPL use and avoiding over-indebtedness. Universal financial literacy is therefore necessary in both countries, but its content and emphasis should follow the risk profile created by each regulatory model.

Table 3 summarizes the comparison. Beyond the regulatory features compared in [21], it adds the legal basis, the point of risk control, the enforcement and redress tools, the evidence of residual risk and the corresponding function of financial literacy.

Table 3. Regulatory Architecture, Residual Risk and the Function of Financial Literacy in Indonesia and

Malaysia

Dimension	Indonesia	Malaysia
Legal basis	POJK 77/POJK.01/2016, replaced by POJK 10/POJK.05/2022 (LPBBTI); SEOJK 19/SEOJK.06/2023	SC Guidelines on Recognized Markets (P2P financing, since 2016); BNM personal financing policy (incl. BNPL); Consumer Credit Act 2025
Institutional design	Single regulator (OJK) for all P2P lending	Split mandate: SC for business P2P; BNM for personal credit
Who may borrow through P2P	Individuals and businesses	Businesses only (sole proprietorships, partnerships, LLPs, private and unlisted public companies)
Point of risk control	Mainly ex post: blocking, takedowns and victim redress after harm occurs	Mainly ex ante: product scope, borrower eligibility and licensing (minimum paid-up capital RM5 million)
Enforcement and redress tools	Satgas PASTI; IASC blocking of debt-collector numbers and bank accounts; recovery of victim funds	Licensing and supervision of operators and lenders; Consumer Credit Commission for non-bank credit (from 2026)
Evidence of residual risk (2024–2025)	2,930 illegal entities stopped (2024) and 1,556 (Jan–Jun 2025); 4,344 complaints; Rp3.4 trillion lost vs Rp558.7 billion secured	No published data indicating a comparable illegal personal online lending market
Primary function of financial literacy	Defensive: verify legality, understand the full cost of credit, report illegal lenders	Prudential: compare supervised products, manage BNPL use and household debt

Source: Authors' analysis of regulatory documents and Tables 1–2, extending the comparison in [21]

4 Results of Financial Literacy Intervention

To evaluate the effectiveness of financial empowerment, the community service (PKM) program used a pre-test/post-test model adapted to participants' needs. The program yields qualitative information on borrower behavior, such as reasons for borrowing and experiences with illegal lenders, and quantitative evidence of changes in participants' knowledge after the intervention. It thus offers a field-level view of how online lending and targeted education interact in practice.



Fig. 2. Socialization and Education to Community Partners in Makassar, Indonesia

The program offers several lessons. It shows that focused education can strengthen consumers' capacity to manage digital financial risks: participants' understanding of financial products improved, indicating that education has a measurable effect. Participants also gained practical skills to check whether a lender is licensed and operates through proper channels, and to anticipate the consequences of borrowing from unlicensed providers. In a country such as Indonesia, where illegal lending poses a serious threat to household welfare and public order, such interventions are essential: they empower consumers against manipulative practices and complement the work of law enforcement agencies in building a safer digital financial environment.

5 Conclusion

5.1 Summary

The analysis of online lending regulation in Indonesia and Malaysia reveals a clear contrast. Indonesia's inclusive model has broadened access but is accompanied by persistent illegal lending and substantial consumer losses, and OJK's response remains largely reactive; the enforcement and redress data show that this approach recovers only a small share of the losses incurred. Malaysia's more restrictive two-regulator model, which excludes individuals from P2P platforms and directs P2P financing to businesses, has been effective in containing illegal personal lending while preserving financial stability. Extending our earlier comparison [21], this study shows that the regulatory model determines the function of financial literacy. In Indonesia, literacy is the foremost consumer protection tool and must change how people assess and manage personal loans; in Malaysia, where the risk of illegal personal lending is low, it supports more prudent financial management within supervised channels.

5.2 Policy Recommendations

1. Intensifying Financial Literacy and Consumer Education: The government and OJK should intensively provide education to the public regarding the characteristics of illegal online loans, risk of high interest, and checking the legality of service providers. It is the primary bastion of consumer protection.
2. Make a More Holistic and Proactive Online Loan Regulation: Aside from taking action, OJK must have in mind a comprehensive way to deal with the source problems that push people to seek illegal loans, such as by providing accessibility on legal and low interest microcredit products.
3. Enhance Cross-Sector Collaboration in Law Enforcement: strengthen collaboration between OJK, the police, the Ministry of Communication and Digital Affairs, banks and telecommunications operators so that illegal lending can be stopped, including by blocking access and tracing fraudulent accounts.

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