DESIGNED TO BORROW: DARK PATTERNS, EMBEDDED LENDING, AND THE LIMITS OF INDIA'S FINANCIAL REGULATORY ARCHITECTURE

Bhavya Sharma, O.P. Jindal Global University, Sonipat

Neil Khurana, O.P. Jindal Global University, Sonipat

ABSTRACT

Embedded lending is the new new-age arena of digital lending, wherein credit is integrated into non-financial digital transactions, transforming the accessibility of borrowing. Its commercial convenience, however, conceals a deeper regulatory danger, wherein platform interfaces systematically deploy dark patterns to manufacture demand, obscure credit costs and exploit behavioural vulnerabilities. Embedded lending so far, has been addressed by the regulators from the lens of consumer protection. This essay puts forth the notion that dark patterns in embedded lending constitute market misconduct, beyond just consumer harm. The RBI's Digital Lending Directions (2025), the KFS disclosure framework, and the CCPA's Dark Patterns Guidelines govern a part of the problem while the harm seeps through their jurisdictional confines. This essay assesses the issue of interface manipulation which generates adverse selection, distorts credit markets, and creates systemic risk. It proposes four reforms, which are shifting KFS disclosure upstream to the first point of credit presentation, treating interface design as a prudential norm, institutionalizing RBI-CCPA coordination, and extending conduct obligations to merchant BNPL arrangements.

I. Introduction

You want to buy a watch worth ₹5000, but your bank balance reads ₹3500. You know ₹10,000 is coming in next month, but so is rent, hospital bills, groceries, so on. The watch sits in your cart as you weigh the pros and cons of making this purchase. Then, as if the screen sensed your hesitation, something appears. A bright, bold, dead centered, positioned above the checkout button, like an answer to a question you hadn't finished asking. "Buy Now, Pay Later!". The calculation dissolves, the anxiety lifts. One click and the watch is yours, not because your finances changes, *but the interface did.* The friction dissolved at the moment your resolve was the weakest. This is embedded lending, and the entry point wasn't a bank a contract, or a conversation with a lender. It was a button, designed to be clicked, positioned to intercept doubt, and worded to feel like a solution rather than a debt.

In 2023, M. Rajeshwar Rao, Deputy Governor of the Reserve Bank of India, observed that the future of finance lies in hyper-personalized embedded banking, where financial products are consumed within non-financial digital ecosystems rather than through conventional banking channels.[1] Credit can now be inserted into everyday transactions through interface designs that obscure cost, weaken consent, and exploit behavioral vulnerability. Embedded lending allows dark patterns to fundamentally alter the way demand is generated for credit itself. The RBI has already warned that mis-selling has acquired a "digital avatar,"[2] including in the form of high-cost short-term consumer credit embedded within ordinary digital experiences. This essay argues that dark patterns in embedded lending must be understood not merely as consumer harm, but as market misconduct. The core regulatory failure lies in a structural mismatch. The manipulation occurs at the platform interface, while financial regulation still attaches primarily to the lender behind it.

II. Embedded Lending and the Architecture of Dark Patterns

Embedded lending refers to the integration of credit and forms of it, into a non-financial digital transaction.[3] It enables digital platforms to offer financial services, such as loans, without sending their customers off the platform to access them.[4] The borrower does not begin

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[1] Rajeshwari Rao, 'Changing paradigms in the financial landscape' < https://www.bis.org/review/r231205e.pdf> accessed 29 May 2026.
[2] Ibid.
[3] Ibid.
[4] ChargeAfter, 'Glossary: Embedded Lending' (20 December 2023) <https://chargeafter.com/glossary/embedded-lending> accessed 30 May 2026.

their journey into the line of credit in an ordinary manner like approaching a bank or a lending application. Credit here pops up to the customer inside the very commercial transaction they wish to complete. It is part of daily life in every mode imaginable, such as being part of your experiences of ordering food, booking travel or checking out on almost every e-commerce platform.

The significance of it legally, is in the structure by which this credit is delivered to the consumers. Visible to the consumer sits the platform, which could be any of the merchant websites, the online marketplace, food-delivery application or payment gateway that the user is interacting with. Beneath this layer is the Lending Service Provider ('LSP'), which can assist in customer acquisition, underwriting support, servicing or technological integration. At the back end of all this is the Regulated Entity ('RE'), which in most scenarios is an RBI-licensed bank or an NBFC, which would formally be originating the credit and therefore is the one who bears the credit risk.

Within this framework of lending, the patterns that jump out at first include the *Drip Pricing of APR*. The user generally would encounter a zero-fee repayment window at checkout, an amount of the installment as a confirmation, and when reading the email regarding the facility they have availed hidden beneath the terms and conditions is the APR for the loan. The United States' FTC has identified this pattern, more clearly defined as 'burying key limitations', as among the most prevalent and harmful in digital consumer transactions.[5]

Secondly, there is interface interference. This dark pattern encloses the asymmetric visual design. It can be through multiple different avenues such as the size, the colour or the animation relative to the standard payment option. The borrower here is not compelled to take any credit, but the hierarchy of the choices presented to him and the decision-making process is tainted. Empirical research also shows that the choice of interface converts directly to selection rates, where a large-scale crawl of over 11,000 shopping websites showed that 'interface interference' was one of the most commonly deployed dark patterns across e-commerce, and the preferred option for the websites was the one that enjoyed a positional advantage in display over competitors.[6]

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[5] Federal Trade Commission Bureau of Consumer Protection, 'Bringing Dark Patterns to Light' (Staff Report, September 2022) <https://www.ftc.gov/reports/bringing-dark-patterns-light.> accessed 24 May 2026.

[6] Arunesh Mathur et. al, Dark Patterns at Scale: Findings from a Crawl of 11K Shopping Websites (2019) Vol. 3 CSCW Article 81.

Thirdly, there is false urgency. This translates to falsely stating or implying urgency or scarcity so as to mislead the user into immediate action.[7] This is problematic because any rational credit decision-making by a borrower requires a reflection of their choice and if this is made under duress, it will taint the process.

Finally, there is pre-ticked or default consent. The CCPA Guidelines treat the automatic addition of paid ancillary services through pre-ticked boxes as a form of basket sneaking.[8] The user's agreement to receive marketing communications from the NBFC, to have their financial data shared with the LSP's credit bureau partners, or to auto-enroll in a revolving credit facility is assumed by default and requires a positive action to reverse it.

III. From Interface to Market Misconduct

The ground reality of interface manipulation within embedded lending clearly establishes a causal chain that shows how these subtle design choices change into market misconduct. By influencing how borrowers are to perceive, access, and accept credit, these practices then cause an inflated demand, distort price discovery, and change the composition of borrowers entering the lending ecosystem.

The first step in this chain is at the understanding of the obligation by the borrower, and their consent. Meaningful financial consent would require that a borrower understands that they are entering into a credit transaction, and that they appreciate the cost of borrowing, and have had a genuine opportunity to compare alternatives before making a decision. Embedded lending interfaces frequently undermine this. Drip pricing obscures the true cost of credit by delaying disclosure of APR, processing fees, penalties, or other charges until after the borrower has already progressed through the checkout journey. RBI's KFS framework wants to reduce information asymmetry by requiring disclosure before execution of the loan contract, yet the behavioral decision to borrow is made earlier, at the platform interface itself.

Interface interference and false urgency compound this by targeting borrowers who are already under this sham pressure. At checkout, often on mobile devices, under the pressure of completing a transaction, a prominently displayed "Pay Later" button, highlighted in color or

[7] Central Consumer Protection Authority, *Guidelines for Prevention and Regulation of Dark Patterns, 2023*, Annexure, para 2.
[8] Central Consumer Protection Authority, *Guidelines for Prevention and Regulation of Dark Patterns, 2023*, Annexure, para 4, illustration (1).

pre-selected by default, subtly directs users toward credit while making ordinary payment methods appear secondary. Behavioral economics offers a substantial literature on decision fatigue and choice architecture effects in precisely these conditions.[9] The effect of all of this is that the consumer is then put in a position of adverse selection. Dark-patterns try to make "Pay Later" most attractive to consumers who are least able to bear the cost of credit such as lower-income users who see a deference to their impending payment as some short-term relief, first-time borrowers and users making urgent transactions. In this sense, the dark pattern does not just increase overall use, but it pushes uptake toward those with the weakest ability to assess the credit risks they end up in beforehand. By deferring immediate payment obligations, platforms artificially inflate the consumer's current willingness to buy, encouraging impulsive over-consumption and trapping vulnerable individuals in unsustainable debt cycles, like the watch you bought in the beginning. If embedded lending dark patterns drive uptake among adverse-selected borrowers, those whose credit appetite has been manufactured by flashy buttons, the consequence for banking structures at the portfolio level is the structural degradation of the NBFC's loan book quality.

The risk we see cements itself here by a self-reinforcing propagation mechanism that establishes dark patterns as the primary demand bedrock of embedded finance itself. In highly competitive digital marketplaces, platforms that deploy aggressive choice architectures to exploit such behavioral biases enjoy a significantly higher transaction volume and checkout conversion rates. This financial success would then create a powerful coercive effect across the digital economy and marketplace. Regulators who address dark patterns only through consumer redressal mechanisms that include individual complaint mechanisms and after-the-fact enforcement are not addressing this structural dynamic, since the harm is already priced into the market.

IV. The Legal Framework and Its Structural Deficiencies

Three instruments presently govern the intersection of dark patterns and embedded lending in India. They are, the RBI (Digital Lending) Directions, 2025, the RBI (Non-Banking Financial Companies- Responsible Business Conduct) Directions, 2025 read with the Key Fact Statement Circular of 2024 and the CCPA Guidelines for Prevention and Regulation of Dark Patterns, 2023. While each of these address a part of the problem, none squarely cover the

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[9] Stripe, 'Embedded Lending 101: What It Is, How It Works, and How Businesses Can Use It' (Stripe, 13 June 2024) <https://stripe.com/in/resources/more/embedded-lending-101> accessed 29 May 2026.

interplay of dark patterns in embedded finance. The structural diagnosis that emerges from reading them in conjunction is not that the law on this subject does not exist, but that it is systematically misaligned. These frameworks patrol the same terrain, but each guards a different border while the harm crosses between them.

A. RBI (Digital Lending) Directions, 2025

The 2025 Directions represent a meaningful regulatory evolution, consolidating earlier instructions while expressly incorporating dark patterns vocabulary into credit-specific directive for the first time. The most significant intervention is Paragraph 6(iv) that applies to LSPs in multi-lender RE-LSP arrangements, to hold that the content displayed by them must be unbiased, objective and shall not use deceptive or dark patterns to mislead borrowers into choosing certain loan offers.[10] Paragraph 7(ii) bars automatic credit-limit enhancing without an explicit borrower request.[11] Paragraph 10 mandates a cooling-off period to allow the borrower to exit a digital loan by exempting her from paying any penalty during the said cooling off-period.[12]

However, the protective reach of these provisions is structurally limited by how they are defined. An LSP, according to the Directions, is an agent of a Regulated Entity who carries out one or more of the RE's digital lending functions.[13] An entity, therefore, acquires the status of an LSP only by virtue of an agency relationship with an RE. For instance then, a food delivery platform or e-commerce marketplace presenting a BNPL option at checkout does not, on that basis alone, qualify as an LSP. Moreover, the effect of the Directions is to regulate the LSP-RE relationship in the specific context of multi-lender agreements primarily.

The relationship status between a merchant platform and the regulated financial system takes two distinct structural configurations, each generating a different regulatory gap. First, the platform may operate as a referral or marketplace channel that merely guides users to an LSP-RE chain without entering into a formal agency agreement. Here, the platform falls entirely outside the purview of the Directions, and the dark pattern at the checkout interface operates above the layer that the law reaches. Second, the merchant platform may obtain its own NBFC license and become an RE itself. Flipkart Finance Private Limited did this in March

[10] Reserve Bank of India (Digital Lending) Directions, 2025, Paragraph 6(iv).
[11] Reserve Bank of India (Digital Lending) Directions, 2025, Paragraph 7.
[12] Reserve Bank of India (Digital Lending) Directions, 2025, Paragraph 10.
[13] Reserve Bank of India (Digital Lending) Directions, 2025, Paragraph 4(v).

2025, becoming the first large e-commerce platform to receive an NBFC license from RBI.[14] In this configuration, what would have been an LSP, becomes the RE itself, and therefore the dark pattern prohibition under Paragraph 6(iv) fails to apply due to the lack of an LSP-RE agency relationship.

In embedded lending, it may not be so easy to discern whether an LSP-RE relationship exists or whether the merchant platform can be classified as an LSP altogether. In embedded lending, this line becomes blurry. Is the credit-service being offered by the merchant platform, "lending" in its conventional sense? A merchant presenting deferred payment options at checkout may characterize this as commercial credit extended by the seller rather than a loan disbursement. Further, is it lending "on behalf" of its RE? While Paragraph 16 (ii) deals with short-term, unsecured or secured credits or deferred payments to be reported to the CICs by REs, it falls prey to the same definitional problem highlighted above. It only operationalizes when REs and LSPs are engaging in such a conduct, which, as demonstrated above, cannot always be presumed in embedded lending arrangements. The deployment of dark patterns in embedded lending therefore, amplifies this regulatory uncertainty.

B. Fair Practices Code and the KFS Obligation

The second instrument operates at the level of the lending relationship itself. The disclosure obligations imposed on NBFCs require that borrowers receive a KFS disclosing the APR, processing fees, repayment tenure, and penal charges before the finalization of a digital loan.[15] This, however, is remedial rather than preventive. The KFS is presented at loan execution, after the borrower has already navigated the checkout interface, encountered the dark pattern, and committed to a credit-inclusive purchase. This framework only governs what must be disclosed but is silent on how credit must be presented at the first point of encounter.

C. CCPA Guidelines for Prevention and Regulation of Dark Patterns, 2023

These Guidelines are issued under Section 18(2)(1) of the Consumer Protection Act, 2019

[14] Ashwin Manikandan, 'Exclusive: Walmart's Flipkart secures approval for direct lending in India' (2025) < https://www.reuters.com/business/finance/walmarts-flipkart-secures-approval-direct-lending-india-2025-06-05/> accessed 29 May 2026.

[15] Reserve Bank of India, 'Key Facts Statement (KFS) for Loans and Advances' (Circular No DOR.STR.REC.13/13.03.00/2024-25, 15 April 2024); Reserve Bank of India (Non-Banking Financial Companies – Responsible Business Conduct) Directions 2025 (Circular No DoR.MCS.REC.No.23/01.01.039/2025-26, 28 August 2025) para 6.

('CPA')[16] and is the broadest instrument in jurisdictional reach, applying to all platforms systematically offering goods or services in India. Clause 6 stipulates that they operate "in addition to" and "not in derogation of" other applicable laws,[17] acknowledging that dark patterns in lending must be read conjunctively with the financial regulatory framework.

There are however, two structural failures that prevent the Guidelines from closing the gaps the 2025 Directions leave open. First, the draft Guidelines contained a Clause 8 creating a direct penalty linkage to the CPA.[18] This clause was omitted from the final Guidelines, leaving enforcement to travel through the CPA's general institutional framework rather than a tailored remedial mechanism.[19] The Guidelines classify and prohibit dark pattern conduct but do not furnish their own enforcement mechanisms, weakening their deterrent effect in the absence of sector-specific penalties.

Second, and crucially, the CCPA lacks financial regulatory competence.[20] Its principle purpose is centered around consumer protection rather than financial market supervision. It does not possess the expertise to assess whether platform interface-induced credit demand has distorted NBFC loan book quality, produced adverse selection of financially vulnerable borrowers, or generated systemic stress in the credit system. When dark patterns in embedded lending cease to be a question of deceptive design alone and become a mechanism of financial market misconduct, the CCPA's consumer protection lens is structurally insufficient to address the full dimension of the harm.

The result is that no singular regulator currently possesses both the jurisdictional reach and the financial expertise to govern the problem in its entirety, and the borrower falls through the gap between them.

V. Reform Proposals

The structural deficiencies identified above necessitate regulators to re-consider the evolving landscape of embedded lending in India in a manner that targets the problem in a holistic manner, involving the interests of borrowers, regulated entities and platform

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[16] Consumer Protection Act, 2019, s. 18(2)(1).

[17] Central Consumer Protection Authority, Guidelines for Prevention and Regulation of Dark Patterns, 2023, cl 6.

[18] Medha Garg, 'Dark Patterns and weak remedies: Why the CCPA Advisory falls short' (*Internet Freedom Foundation,* 23 June 2025) < https://internetfreedom.in/dark-patterns-and-weak-remedies-why-the-ccpa-advisory-falls-short/> accessed on 29 May 2026.

[19] Ibid.

[20] Ibid.

intermediaries alike.

First, the KFS obligation should be shifted from loan execution to the first point of credit presentation. The KFS obligation, triggered at the stage of loan execution, arrives once the dark pattern has already operated and lured in borrowers. It is proposed that a KFS-equivalent disclosure should be mandated at the first point of credit presentation, which in the case of embedded lending could be diverse, such as the check-out screen, the BNPL toggle, the "No Cost EMI" banner, or the "pay later" prompt. Operationally, this requires no new legislative instruments and can be achieved through the Responsible Business Conduct Directions applicable to NBFCs and extended to merchant platforms through contractual obligations imposed on REs for their LSP and distribution arrangements. Where the platform itself is an RE, the obligation would apply directly. This ensures that legal protection is aligned with the site of harm, and that the borrower encounters material credit information at the moment of decision instead of at the time of execution.

Second, RBI should treat interface design standards as prudential norms, rather than as a matter of general consumer-facing disclosure alone. Presently, the framework assumes that dark patterns are primarily consumer protection issues. The same is evidenced by Paragraph 16 of the Digital Lending Guidelines as they too talk about deployment of dark patterns to deceive consumers. However, in embedded lending structures, as seen above, dark patterns also have prudential consequences. They can manufacture demand, weaken price sensitivity and distort borrower quality. The RBI already requires REs to be fully responsible for the lending activities taken up by LSPs on their behalf, and this contractual architecture can be expanded. RE-LSP agreements should be required to include mandatory interface obligations applicable to any platform through which credit product is distributed and should be made applicable to single-lender agreements as well. These should include prominence requirements for APR disclosure, a ban on pre-ticketed credit consent, prohibition on false urgency and manipulated visual hierarchy. A useful comparative model is the UK FCA's Consumer Duty, which requires firms to ensure that communications support effective consumer understanding, make key information prominent and easy to identify, and consider customer vulnerability throughout the consumer journey.[21]

[21] 'Consumer duty: Raising the bar on consumer outcomes', (*PwC UK)* <https://www.pwc.co.uk/industries/financial-services/understanding-regulatory-developments/fca-proposes-new-consumer-duty-in-paradigm-shift-for-firms.html> accessed on 29 May 2026.

Third, a formal RBI-CCPA coordination mechanism needs to be instated. The problem, as diagnosed above, arises because while the CCPA can reach the interface which interacts with consumers, it lacks financial regulatory competence, which the RBI possesses. A formal memorandum of understanding, or a statutory coordination framework should be introduced to govern financial-product interfaces. Such a mechanism could permit the CCPA to refer platform-design cases involving embedded credit and deceptive patterns to the RBI for technical assessment, while allowing the RBI to support CCPA investigations where manipulative interface design has prudential implications. The Financial Stability and Development Council and its Sub-Committee provide a standing model for structured inter-regulatory coordination amongst RBI, SEBI, IRDAI, and PERDA.[22] This precedent demonstrates that regulatory silos can be bridged where the subject matter cuts across sectors.

Fourth, the merchant BNPL exclusion should be removed, or narrowed through a tiered threshold approach. Paragraph 16(ii) of the 2025 Directions acknowledges short-term credit or deferred payments over merchant platforms but limits its response to CIC reporting, which is insufficient. Where merchant BNPL products exceed a defined transaction value, frequency or aggregate exposure threshold, they should be brought within the full conduct framework of the Digital Lending Directions, including pre-contract disclosure, cooling-off rights and dark-patterns restrictions. A threshold model would preserve proportionality by sparing genuinely low-risk, de minimis deferrals, while ensuring that repeated or high-value merchant credit cannot escape scrutiny merely because it is presented at the checkout stage. RBI should clarify that where merchant-platform embedded credit is structured in substance as a digital loan, the interface through which it is offered forms part of the regulated credit journey.

VI. Conclusion

Our analysis highlights the real danger of embedded lending which lies in the manner that credit is made accessible to borrowers using dark patterns. It made to appear natural, frictionless, and costless. Dark patterns have become functionaries of demand creation, pushing credit uptake among those least equipped to assess its risks. In that sense, the problem is not just about consumer manipulation, but also of market integrity, because interface manipulation distorts price discovery, alters borrower composition, and embeds risk into the credit ecosystem

[22] PIB, 'Financial Stability and Development Council (FSDC)'; RBI, 'Meeting of the Sub-Committee of the FSDC (FSDC-SC)'.

before regulation meaningfully intervenes. The present legal framework remains structurally insufficient to address this challenge. The RBI governs the lender and the loan, the CCPA reaches the interface, but neither can regulate the full chain through which design becomes debt and debt becomes market distortion. If embedded finance continues to expand along its current path, dark patterns will not remain incidental features of digital lending, they will become its hidden operating logic. The unequal burden of this will fall most heavily on financially vulnerable borrowers, whose consent is easiest to manufacture and whose losses are least visible until they have already been absorbed into the system.