GAMIFICATION OF ONLINE TRADING PLATFORMS AND THE REGULATORY VACUUM UNDER INDIAN SECURITIES LAW: RETHINKING INVESTOR PROTECTION IN THE AGE OF BEHAVIOURAL DESIGN

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ABSTRACT

The dramatic increase in participation among retail investors in Indian capital markets has been accompanied by the rapid spread of application-based trading platforms that employ gamification, using game-like features and metrics outside gaming environments, to maximise user engagement and increase trade volume. Functions such as celebratory animations upon order execution, incentives for streaks, push notifications, leaderboards and badges have severe ramifications when it comes to protecting investors, influencing behaviour and the core functioning of capital markets. This article contends that the current Indian regulatory framework, comprising the SEBI (Stock Brokers) Regulations, 2018,[28] the SEBI (Investment Advisers) Regulations, 2013,[29] and the SEBI (Prohibition of Fraudulent and Unfair Trade Practices) Regulations, 2003 (PFUTP Regulations),[30] is structurally inadequate to address the behavioural and psychological harm inherent in gamified interface design. The existing paradigm is predominantly concerned with informational asymmetry and market abuse and is conspicuously silent about the architecture of persuasive technological design. Drawing on SEBI's empirical finding that 91% of individual retail traders in the equity derivatives segment incurred net losses in FY2024-25,[31] and on comparative experience in the United States, including the January 2024 consent settlement in In re Robinhood Financial LLC and the United Kingdom, including the

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[28] Securities & Exchange Board of India (Stock Brokers) Regulations, 2018.
[29] Securities & Exchange Board of India (Investment Advisers) Regulations, 2013.
[30] Securities & Exchange Board of India (Prohibition of Fraudulent and Unfair Trade Practices relating to Securities Market) Regulations, 2003.
[31] Securities & Exchange Board of India, Empirical Findings on Retail Participation in Equity Derivatives: SEBI Study for FY2024–25 (2025).

Financial Conduct Authority's Consumer Duty framework operative since July 2023, this article identifies a clear regulatory gap in the Indian framework. It proposes targeted reforms, including statutory recognition of Digital Engagement Practices (DEPs), mandatory interface audits, anti-nudging standards, and expansion of the PFUTP framework[32] *to capture manipulative design. The article concludes that modern investor protection must extend beyond the regulation of advice and conduct to encompass the architecture of the digital environments within which investment decisions are made.*

INTRODUCTION

The transformation of retail investment in India over the last half-decade is without modern precedent. The number of dematerialised accounts crossed 170 million by August 2024, with over 60 million new accounts opened since January 2023 alone.[33] Fuelled by the COVID-19 pandemic, the proliferation of zero-commission smartphone brokerage applications, and an unprecedented wave of digital financial media, a new generation of first-time investors from Tier II and Tier III cities entered India's capital markets. Zerodha, Groww, Upstox, and Angel One registered user growth rates that rival their global counterparts, making India the largest equity derivatives market in the world by volume.

Democratisation of market access has, however, been accompanied by a deeply troubling empirical reality. According to SEBI's research report updated in July 2025, 91% of individual traders in the equity derivatives market incurred a net loss in FY2024-25, with cumulative individual losses of Rs. 2.88 trillion between FY2021-22 and FY2024-25.[34] Net losses among individual traders increased by 41% per annum to Rs. 1,05,603 crores in FY2024-25 alone, with an average per-person loss of Rs. 1.1 lakh.[35] More troubling still, this behaviour persists: more than three-quarters of loss-making

[32] *Supra* note 30.

[33] Legal Service India, Regulating Online Share Trading and Investment Platforms in India: A SEBI-Led Framework (Oct. 3, 2025), https://www.legalserviceindia.com (citing NSE data showing 170 million demat accounts by August 2024 and 60 million new accounts opened since January 2023).

[34] Securities and Exchange Board of India, Comparative Study of Growth in Equity Derivatives Segment vis-à-vis Cash Market After Recent Measures (July 7, 2025), https://www.sebi.gov.in [hereinafter **SEBI Comparative Study 2025**].

[35] *Supra* note 31.

traders continued to participate in the derivatives segment even after sustained multi-year losses.[36] This persistence, trading through repeated, documented losses, bears the hallmarks of behavioural compulsion rather than rational economic agency.

One reason behind this trend could lie in how trading apps borrow techniques from games. Notably, these designs include scores, rewards, continuous activity markers, rankings, visual celebrations, and alerts - added on purpose into serious tasks.[37] When applied to investing, such tools quietly shape choices by tapping into immediate reactions rather than careful thought, a mode of thinking highlighted by Nobel winner Daniel Kahneman.[38] These responses tend to be quick, instinctive, and emotionally driven.[39] Rather than simply offering access, platforms using these methods guide user actions toward outcomes that serve business goals. Such outcomes might run counter to what is best for individuals managing their money.

This article examines if India's securities law sufficiently oversees gamified features on digital trading platforms, while also assessing whether compelling interface designs count as unfair practices under the PFUTP Regulations.[40] At issue is how current rules concentrate only on disclosures and advisory content, overlooking how interfaces guide choices through subtle cues. Rather than highlighting transparency alone, attention shifts toward hidden patterns that steer user actions unconsciously. While information flow remains regulated, the way screens prompt behaviour escapes scrutiny. Such omission allows profit-driven game-like elements to thrive unchecked. Observable damage follows, especially among individual traders lacking protection from psychological nudges built into app layouts.

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[36] *Over 93% Retail Traders Lost Money in F&O in Three Years, Says SEBI*, BUSINESS STANDARD (Sept. 23, 2024), https://www.business-standard.com/markets/news/over-93-retail-traders-lost-money-in-f-o-in-three-years-says-sebi-124092300728_1.html.

[37] Juho Hamari, Jonna Koivisto & Harri Sarsa, Does Gamification Work? A Literature Review of Empirical Studies on Gamification, in Proceedings of the 47th Haw. Int'l Conf. on Sys. Sci. 3025 (2014).

[38] Daniel Kahneman, Thinking, Fast and Slow 20–24 (Farrar, Straus & Giroux 2011).

[39] Richard H. Thaler & Cass R. Sunstein, Nudge: Improving Decisions About Health, Wealth, and Happiness 6 (Penguin 2008).

[40] *Supra* note 30.

The structure unfolds in sequence. Following section lays groundwork, introducing gamification while exploring behavioural drivers via economic theory. Next segment assesses India's existing regulations, highlighting inherent limitations within design. A later portion draws parallels across Atlantic jurisdictions, studying shifts in policy from U.S. and U.K. perspectives. Examining the balance of market efficiency against safeguarding investors opens Part V, touching on suitability duties alongside constitutional aspects. Reform ideas appear next, detailed without assumption, forming the core of Part VI. To close, Part VII offers final observations, framed by earlier analysis yet standing apart in tone.

CONCEPTUAL FRAMEWORK: GAMIFICATION IN FINANCIAL MARKETS

Defining Gamification

Gamification became part of academic discussion in 2011. When applied to digital finance, its study began gaining structure through the work of Hamari, Koivisto, and Sarsa, who described it as integrating game-inspired experiences into platforms to enhance user benefit.[41] From another angle, financial tools adopt elements borrowed from gaming dynamics and online social behaviours. Following that idea, visual effects like animated bursts appear after transactions are completed. Activity tracking appears in forms such as counts for consecutive days of trading. Notifications arrive automatically when prices shift or investment goals are met. Performance comparisons emerge via rankings that show how users stack up against peers. Rewards extend to sharing access with others through incentive-based invite systems. Popularity signals arise too - lists highlighting frequently watched stocks suggest what others consider noteworthy.

Every feature, on its own or grouped differently each time, adjusts precisely to lift specific actions tied directly to income - how long users stay, how often referrals turn

[41] *Supra* note 37.

into sign-ups, and the speed at which trades occur. Profit goals like these oppose, by design, the lasting financial health of everyday investors, a group identified clearly through SEBI records as steadily losing money when frequently trading complex contracts.[42]

The Behavioural Economics of Gamified Design

What makes gamification effective lies in how it uses known patterns of human thinking. Not through logic, but through quick reactions does the mind often respond to design cues. From Kahneman's model comes two modes: one swift and feeling-led, the other slow and weighed carefully.[43] Built into digital platforms, game-like features pull attention toward instant feedback, expected gains, or standing among others. A burst of animated shapes after finishing a transaction act like a signal - tying activity to enjoyment. The confetti animation that celebrates each trade completion is a positive reinforcement stimulus that associates trading with pleasure precisely the mechanism identified in behavioural psychology as capable of inducing habitual and compulsive behaviour.

One cognitive distortion stands out: overconfidence. Investors often believe their judgment exceeds reality, an illusion deepened when apps highlight wins more than setbacks, subtly reinforcing flawed self-assessment.[44] What follows? Platforms amplify this by choosing what data to show - success stories gain visibility, failures fade quietly. Another influence emerges from how losses feel heavier than gains. Alerts about shifting prices appear at intervals designed to provoke reaction, nudging users toward impulsive choices without deliberate thought. These interruptions do not inform - they press. The effect grows stronger when popular stocks dominate feeds, making movement seem inevitable. Then there is mimicry. Rankings place certain traders on

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[42] Securities & Exchange Board of India, Updated SEBI Study Reveals 93% of Individual Traders Incurred Losses in Equity F&O Between FY22 and FY24; Aggregate Losses Exceed ₹ 1.8 Lakh Crores Over Three Years, Press Release (Sept. 23, 2024).
[43] *Supra* note 38.
[44] Silje Kamille Friis, Behavioral Biases in Investment Decision-Making: An Empirical Study of Individual Investors' Susceptibility to Behavioral Biases, 12 J. BEHAV. FIN. 201, 208 (2021).

display, drawing attention like crowds around street performers. Others watch, then follow, mistaking visibility for validity. Suitability fades from view. Popularity becomes its own justification - even if the trade makes little sense personally.

Among tools available for studying such processes, one developed by Thaler and Sunstein stands out. A nudge, according to their model, means shaping choices in ways that influence decisions while leaving all options open - also avoiding major shifts in financial motivation.[45] Gamified features fit within this idea, yet differ sharply in purpose. Instead of supporting user welfare, as seen in government-led initiatives, they serve business growth. Real-world data support this distinction clearly. Findings published by the Financial Conduct Authority show alerts raised trade frequency by 11%; reward schemes lifted it by 12%. Younger users, particularly those between 18 and 34, showed the strongest response - along with notably higher investment risk at closing periods.[46]

THE INDIAN REGULATORY FRAMEWORK: STRUCTURAL LIMITATIONS

SEBI's Statutory Mandate and Existing Instruments

Established by the SEBI Act, 1992, the Securities and Exchange Board of India holds authority rooted in three objectives - safeguarding investor interests, fostering growth in securities markets, while ensuring regulated operations proceed without disruption.[47] From Section 11(2), power flows to curb deceptive trading tactics along with oversight of intermediary behaviour.[48] In theory, such legal ground offers room to include

[45] *Supra* note 39.
[46] Positive Consumer Outcomes from Gamified Financial Services, KROLL (Apr. 24, 2024), https://www.kroll.com/en/insights/publications/financial-services/ready-trader-one-ensuring-positive-consumer-outcomes-in-gamified-financial-services (citing Fin. Conduct Auth., *Research Note on Consumer Behavior and App Design* (2024)) (noting that push notifications increased trading volumes by 11% and prize draws by 12%).
[47] Securities & Exchange Board of India Act, 1992, § 11(1).
[48] Securities & Exchange Board of India Act, 1992, § 11(2)(g).

gamification within regulatory scope. Whether current rules beneath the primary law sufficiently tackle manipulative interface designs remains open to assessment.

Under the PFUTP Regulations from 2003,[49] oversight of behaviour in financial markets finds its foundation. Not limited to specific forms, deception through any activity stands barred by Regulation 3[50] when harm reaches individuals involved. Instead of listing every forbidden method, Regulation 4(2)[51] outlines examples meant to reflect dishonest or skewed trading moves. From case law such as SEBI against Rakhi Trading Private Limited comes clarity - methods built on trickery fall within scope.[52] Even if shaped differently, strategies aiming at investor loss qualify under what is termed 'artifice' by higher courts.

The SEBI (Stock Brokers) Regulations, 2018, impose obligations of due diligence, suitability assessment, and fair dealing upon registered stock brokers. The SEBI (Investment Advisers) Regulations, 2013, require investment advisers to act in the best interest of clients and to take account of the investor's risk profile before making recommendations. Neither instrument, however, addresses the design of the digital interface through which the broker or adviser interacts with the client. The law regulates what is communicated - but not how the communication environment is engineered to influence the decision to trade. This is the core structural gap.

SEBI'S RECENT ENFORCEMENT ACTIONS: INCREMENTAL BUT INSUFFICIENT

SEBI has demonstrated growing awareness of the risks posed by gamified and gaming-adjacent platforms. In August 2016, SEBI first cautioned investors against leagues, schemes, and competitions related to the securities market. In May 2024, SEBI issued

[49] Securities & Exchange Board of India (Prohibition of Fraudulent and Unfair Trade Practices relating to Securities Market) Regulations, 2003.
[50] Securities & Exchange Board of India (Prohibition of Fraudulent and Unfair Trade Practices relating to Securities Market) Regulations, 2003, Regulation 3.
[51] Securities & Exchange Board of India (Prohibition of Fraudulent and Unfair Trade Practices relating to Securities Market) Regulations, 2003, Regulation 4(2).
[52] Securities & Exchange Board of India v. Rakhi Trading Pvt. Ltd., (2018) 4 SCC 622, 630.

a circular restricting market infrastructure institutions and intermediaries from sharing real-time price data with third-party applications, effectively disabling the operational foundation of fantasy stock gaming platforms.[53] On 4 November 2024, SEBI issued a formal advisory warning investors against unauthorised virtual trading, paper trading, and fantasy gaming platforms based on real-time stock price data, finding that such activities violated the Securities Contracts (Regulation) Act, 1956,[54] and the SEBI Act, 1992.[55]

In February 2025, SEBI issued a circular on the safer participation of retail investors in algorithmic trading, bringing retail-facing algorithmic trading within the regulatory framework.[56] While notable, this circular has material limitations: it does not require alignment between algorithmic strategies and individual investor risk profiles, and its revenue-sharing provisions between brokers and algorithm providers create structural conflicts of interest that are left unaddressed.[57]

THE STRUCTURAL GAP: DESIGN VS. DISCLOSURE

The fundamental constraint of the existing Indian approach is its exclusive reliance on disclosure as the primary mechanism of investor protection. Disclosure-based regulation rests on the premise of the rational investor: an individual who, when provided with adequate information, will process it and act in accordance with their financial interests. Behavioural economics has comprehensively falsified this premise in

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[53] Securities & Exchange Board of India, Circular No. SEBI/HO/MRD/MRD-POD-3/P/CIR/2024/59, Norms for Sharing of Real-Time Price Data with Third Parties (May 24, 2024); see also Khaitan & Co, SEBI Cracks Down on Unauthorised Gaming and Trading Platforms, LEXOLOGY (Nov. 28, 2024), https://www.lexology.com/library/detail.aspx?g=41c9c58f-10c2-414d-9ecd-1142f4b49aec.

[54] Securities Contracts (Regulation) Act, 1956.

[55] Securities & Exchange Board of India, Circular No. SEBI/HO/MIRSD/MIRSD-PoD/P/CIR/2025/0000013, *Advisory on Unauthorized Virtual Trading/Gaming Platforms, Press Release* (Nov. 4, 2024), https://www.sebi.gov.in/legal/circulars/feb-2025/safer-participation-of-retail-investors-in-algorithmic-trading_91614.html [hereinafter **SEBI Nov 2024 Advisory**].

[56] Securities & Exchange Board of India, Circular No. SEBI/HO/MIRSD/MIRSD-PoD/P/CIR/2025/0000013, *Safer Participation of Retail Investors in Algorithmic Trading* (Feb. 4, 2025), https://www.sebi.gov.in/legal/circulars/feb-2025/safer-participation-of-retail-investors-in-algorithmic-trading_91614.html [hereinafter **SEBI Algo Circular 2025**].

[57] Priyam Mitra, *Algorithmic Trading and Retail Investors: Rethinking SEBI's Regulatory Framework*, IRCCL (July 19, 2025), https://www.irccl.in/post/algorithmic-trading-and-retail-investors-rethinking-sebi-s-regulatory-framework.

the context of retail investors operating under conditions of cognitive overload, emotional activation, and time pressure - precisely the conditions that gamified platforms are engineered to induce.

The PFUTP Regulations contain no concept of manipulative interface design. The SEBI (Stock Brokers) Regulations, 2018, impose no restriction on frequency-based incentives. No SEBI instrument requires design audits or imposes any standard on the behavioural architecture of trading platforms. As a consequence, a registered brokerage platform can lawfully deploy the full arsenal of gamification - confetti, streaks, push notifications, leaderboards, prize draws - while remaining in technical compliance with all existing regulatory requirements. The law has not adapted to the shift from informational asymmetry to what this article terms behavioural asymmetry: the gap between a platform's sophisticated deployment of behavioural psychology to maximise trading frequency, and the retail investor's vulnerability to psychological manipulation. It is this asymmetry that the proposed reforms seek to address.[58]

COMPARATIVE JURISPRUDENCE

The United States: Fragmented Regulation and State-Level Innovation

The United States lacks a comprehensive federal framework for the regulation of gamification in financial services. The SEC's Regulation Best Interest, effective June 2020, requires broker-dealers to act in the best interest of retail customers at the time a recommendation is made, but does not expressly address digital engagement practices or platform design.[59]

The most significant regulatory development in this area is the January 2024 consent settlement in *In re Robinhood Financial LLC*,[60] before the Massachusetts Secretary of the Commonwealth's Securities Division. This was the first enforcement action under a

[58] *Supra* note 31.
[59] Securities Exchange Commission, Regulation Best Interest: Exchange Act, Release No. 34-86031 (June 5, 2019), 17 CFR pt 240.
[60] In re Robinhood Financial, LLC, No. E-2020-0047, E-2022-0006 (Mass. Sec'y of the Commw., Secs. Div. Jan. 18, 2024) [hereinafter **Robinhood Consent Order**].

state-level fiduciary rule directed at a brokerage platform's gamification practices. It is important to note that the settlement was structured as a consent order and did not constitute a judicial finding of liability; accordingly, its weight as precedent is persuasive rather than binding. Nonetheless, the Securities Division's findings are analytically significant.

The Securities Division found that Robinhood had deployed gamified elements - including confetti effects upon trade completion, digital scratch tickets, free stock incentives, push notifications directing users to particular securities, and features simulating games of chance - without regard to the individual needs, objectives, or risk profile of each investor.[61] The Division concluded that these practices were inconsistent with the fiduciary duty imposed by the Massachusetts Uniform Securities Act, which requires brokers to act without regard to their own financial interest.[62] Robinhood agreed to a settlement of $7.5 million[63] and undertook to overhaul its digital engagement practices, discontinuing celebratory animations tied to trading frequency and features designed to simulate games of chance.

At the federal level, the regulatory picture remains fragmented. The Trading Isn't a Game Act of 2021, which would have mandated a Government Accountability Office study on the impact of gamification, was not enacted.[64] The Securities and Exchange Commission proposed a rule in 2023 requiring firms to identify and mitigate conflicts of interest arising from predictive analytics and engagement optimisation technologies, but ultimately withdrew the proposal in June 2025.[65] Oversight of gamified trading in

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[61] Robinhood Consent Order, at 6-7.
[62] Robinhood Consent Order, at 8-9.
[63] Vinson & Elkins LLP, *Beyond the Trading Window: Why Prediction Markets Are the Next Frontier of Insider Trading Risks*, JD SUPRA (Nov. 27, 2025), https://www.jdsupra.com/legalnews/beyond-the-trading-window-why-prediction-6423838/.
[64] Trading Isn't a Game Act, H.R. 2655, 117th Cong. (2021).
[65] Securities Exchange Commission, Conflicts of Interest Associated with the Use of Predictive Data Analytics by Broker-Dealers and Investment Advisers, 88 Fed. Reg. 53, 960 (proposed Aug. 9, 2023).

the United States continues to depend principally on state-level enforcement, general anti-fraud principles, and industry self-regulation.[66]

The United Kingdom: A Design-Sensitive Regulatory Framework

The United Kingdom has adopted a more sophisticated approach through the FCA's Consumer Duty, promulgated through Policy Statement PS22/9 and operative since 31 July 2023.[67] The Consumer Duty establishes Principle 12, requiring firms to act to deliver good outcomes for retail customers, and imposes three cross-cutting obligations: to act in good faith; to avoid causing foreseeable harm to retail customers; and to enable and support customers in pursuing their financial objectives.[68]

The Consumer Duty has been expressly applied to digital design. The FCA's Dear CEO Letter to CFD firms of April 2023 required firms to review how they advertise and market products to consumers, with specific reference to the negative impacts of gamification on high-risk investing behaviours, and to assess whether their design choices were causing foreseeable harm by encouraging consumers to put money at risk.[69] The foreseeable harm standard operates proactively: it places the burden on platforms to assess and mitigate the behavioural risks of their design choices before deployment, with senior management personally accountable for failures. This represents a fundamental reorientation of regulatory responsibility - from disclosure to design accountability.[70]

[66] Tommaso Mambrini, *The Gamification of Investments: A Comparative Approach Between the US and EU*, BERKELEY TECH. L.J. BLOG (Nov. 3, 2025), https://btlj.org/2025/11/the-gamification-of-investments-a-comparative-approach-between-the-us-and-eu/.
[67] Fin. Conduct Auth., *Policy Statement PS22/9: A New Consumer Duty* (July 2022), https://www.fca.org.uk/publications/policy-statements/ps22-9-new-consumer-duty [hereinafter **FCA Consumer Duty PS22/9**].
[68] FCA Consumer Duty PS22/9, *supra* note 44, at PRIN 2A.2.8 R.
[69] Fin. Conduct Auth., *Dear CEO Letter: Consumer Duty Implementation Plans for CFD Firms* (Apr. 24, 2023), https://www.regulationtomorrow.com/2023/04/fca-dear-ceo-letter-implementing-the-consumer-duty-in-the-cfd-portfolio/.
[70] Freshfields Bruckhaus Deringer, *FCA Refines Consumer Duty: Balancing Protection and Proportionality*, FRESHFIELDS (Oct. 24, 2025), https://www.freshfields.com/en/our-thinking/briefings/2025/10/fca-refines-consumer-duty-balancing-protection-and-proportionality.

Comparative Table: Regulatory Approaches to Gamification in Financial Services

India (SEBI)	PFUTP Regs 2003; Stock Brokers Regs 2018	Disclosure and anti-fraud only; silent on design architecture	Structural gap; no DEP definition; no design audit requirement
US (Federal)	Reg BI; Rule 10b-5	Best interest standard; predictive analytics rule withdrawn (June 2025)	Fragmented; enforcement depends on state-level action
Massachusetts	MA Uniform Securities Act; MA Fiduciary Rule	Fiduciary duty applied to gamified DEPs; In re Robinhood Financial LLC (2024)	$7.5M consent settlement; platform redesign mandated
UK (FCA)	Consumer Duty PS22/9 (effective July 2023)	Foreseeable harm standard; design accountability; Good Outcomes mandate	Proactive design audits; senior management liability

The comparative survey reveals a clear international regulatory trajectory: investor protection increasingly requires oversight of the design architecture of investment platforms, not merely their informational content. India's existing framework lags materially behind this trend, leaving platforms free to deploy practices that have attracted enforcement action and regulatory censure in comparable jurisdictions.

THEORETICAL EVALUATION

Market Efficiency vs. Investor Protection

One concern about regulating gamification lies in its role enabling broader access. When mental hurdles fade, more people join trading spaces - this shift lifts participation rates, supports smoother transactions, while aiding how prices form. Evidence backs part of this view - the design choices in mobile apps helped drive a surge in retail activity within India's derivative markets after 2020, deepening overall market presence.

One might consider this claim about efficiency worth careful attention. Rather than focusing on isolated outcomes, another perspective suggests aggregated activity by everyday investors contributes indirect value via trading patterns and pricing cues, enhancing broader market function. Seen differently, minor financial setbacks among individuals could represent a tolerable trade-off for sustaining fluid and responsive markets. Meanwhile, certain services suggest interactive design elements reduce barriers, opening pathways to resources once limited to affluent or experienced participants.

Yet the case for efficiency loses strength when measured against SEBI's findings. A total of Rs. 2.88 trillion lost individually from FY2021-22 to FY2024-25 points toward erosion, not growth, in household wealth. That three out of every four losing F&O participants earned less than Rs. 5 lakhs annually show impact lands heaviest where recovery is least possible - among those who can ill afford permanent setbacks.[71] For efficiency claims to hold, engagement must stem from reasoned judgment - even if flawed. Yet ongoing activity amid continuous loss hints at influence deeper than miscalculation: it suggests patterns shaped by interface-driven impulses rather than deliberate choice. Such behaviour feeds neither market insight nor fair valuation; instead, it fuels earnings for entities positioned ahead in speed and access. Backing this

[71] Pankaj Sharma & Urav Soni, *India's Derivatives Market and Retail Investors*, CFA INST. MKT. INTEGRITY INSIGHTS (Nov. 5, 2025), https://blogs.cfainstitute.org/marketintegrity/2025/11/05/indias-derivatives-market-and-retail-investors/.

view, nearly all gains seen by foreign portfolio investors and proprietary traders come via algorithm-based systems - a method inaccessible to small-scale individuals absorbing corresponding losses.[72]

So begins a different view: blocking public access misses the point entirely - such exclusion risks deeper harm by rolling back open financial systems. Instead comes clarity: involvement must stem from clear understanding, free will guiding each step. From here flows another truth - not gamesmanship on trading platforms, but self-directed decisions shape reliable market flow. When design nudges vanish, what remains is real engagement, built without tricks masked as features.

The Suitability Obligation and the Case for Design Neutrality

One key rule demands that those offering financial services match offerings to what clients know, their background, money status, and goals. This expectation forms a core part of how everyday investors are shielded.[73] Over time, the highest court has backed SEBI's power to set these fit-for-purpose rules for firms in the markets. Authority in such matters rests clearly with the regulator, according to judicial decisions.[74]

This piece suggests suitability duties online call for something new: design neutrality. Interfaces guiding investment choices ought to avoid steering people into risky moves unfit for their finances. Not every layout change breaks this rule - only those clearly meant to push actions at odds with personal limits. Effects matter just as much as intent when judging such setups. A pattern favouring profit over prudence fails the test. Even subtle cues shaping decisions may cross the line if they work against stated goals. Rules must adapt where screens shape outcomes.

Assessment of adherence to design neutrality happens via the compulsory review process outlined in Part VI. When reviewed, platforms must present records on every DEP used, what conduct it aims to influence, evidence from tests guiding its

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[72] *Supra* note 31.
[73] Securities & Exchange Board of India (Stock Brokers) Regulations, 2018.
[74] Sahara India Real Estate Corp. v. Securities and Exchange Board of India, (2012) 10 SCC 603, 682.

implementation, also results measured over time such as shifts in transaction rates tied directly to interface elements. If paperwork shows an intent behind certain designs is solely to increase transactions - regardless of client fit - that approach fails the neutrality rule. Even when suitable products are offered, a firm may still fall short if the online setting subtly pushes excessive activity, meaning true alignment with duty remains unmet despite surface-level compliance.

The Constitutional Dimension: Autonomy and Article 21

Life and personal freedom stand protected under Article 21 of India's Constitution.[75] Expanding its reach, the highest court has included deeper aspects of individual autonomy within this guarantee. Notably, in a ruling involving retired Justice K.S. Puttaswamy,[76] such independence in managing personal information emerged as part of constitutional privacy. Control over collection, handling, and application of private data - especially when shaping personal choices - became affirmed through that judgment.

From a constitutional standpoint, consideration arises when gamification enters financial spaces. Rather than fostering neutral engagement, these systems collect detailed traces of conduct - how one browses, hesitates, reacts to risk, or chooses under artificial pressure. Such information feeds precision-tailored prompts designed around personal cognitive weaknesses. What emerges is a scenario where behaviour patterns, drawn from the user themselves, are repurposed in ways that work contrary to sound investment judgment.

Explaining the connection between *Puttaswamy* and rules governing digital interfaces demands precision. Not simply about being free from intrusion, the right affirmed in *Puttaswamy* includes shaping how personal information influences choices - self-direction in data matters. When platforms shape online spaces using behaviour patterns to sidestep thoughtful investor judgment, agreement to participate loses its authenticity

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[75] India const. art. 21.
[76] Justice K.S. Puttaswamy (Retd.) v. Union of India, (2017) 10 SCC 1.

under constitutional standards. Such willingness emerges not freely, but as a result of insights drawn from constant observation of conduct, leveraging mental weaknesses exposed by monitoring.

Among considerations, the constitutional aspect alone brings no direct legal remedies - those belong correctly to rules made under authority delegated by statute. Still, value emerges through its role in shaping standards: assurance of authentic choice within markets rests on duties imposed by the constitution upon the state, meaning absence of regulation when manipulative conduct occurs might reflect more than oversight - it could signal breach of duty grounded in higher law. Such understanding supports changes suggested in the subsequent section.

REFORM PROPOSALS

The following five reforms are each grounded in the foregoing analysis and informed by comparative regulatory experience. They are designed to operate within the existing statutory framework of the SEBI Act, 1992, requiring no primary legislative amendment beyond targeted modifications to SEBI's subordinate regulations.

Reform 1: Statutory Recognition of Digital Engagement Practices ("DEPs")

SEBI should amend the SEBI (Stock Brokers) Regulations, 2018 to introduce a definition of DEPs as: any feature, design element, notification system, incentive structure, or algorithmic mechanism deployed by a registered broker or trading platform that is designed, or is reasonably foreseeable, to influence the frequency, type, or amount of trading activity of retail clients through psychological or behavioural mechanisms.[77] This definition is adapted from the SEC's 2023 proposed rule on predictive analytics[78] and the European Union's Digital Services Act approach to deceptive design patterns.[79] It provides the legislative foundation for all further

[77] SEBI Algo Circular 2025.
[78] Securities Exchange Commission, Conflicts of Interest Associated with the Use of Predictive Data Analytics by Broker-Dealers and Investment Advisers, 88 Fed. Reg. 53, 960 (proposed Aug. 9, 2023).
[79] *Supra* note 66.

substantive regulation. All registered brokers and trading platforms with more than 100,000 active retail clients should be required to maintain a publicly accessible register of all DEPs deployed, updated annually.

Reform 2: Mandatory Interface Design Audits

Registered stock brokers and trading platforms above the prescribed threshold should be required to submit annual Design Audit Reports to SEBI, documenting all DEPs deployed, their stated behavioural objectives, the testing data informing design decisions, and measurable outcomes data including changes in trading frequency attributable to specific features. Audit methodology should be independently certified by a SEBI-approved auditor, on a model analogous to the requirements imposed under the EU Digital Services Act.[80] SEBI should establish a Behavioural Science and Platform Design Review Committee to evaluate audit findings and issue industry-wide guidance. The design audit mechanism is also the primary instrument through which compliance with the design neutrality standard described in the preceding section would be assessed.

Reform 3: Prohibition of High-Risk Gamified Incentives

Certain categories of gamified features should be categorically prohibited for retail investors on account of their demonstrated propensity to induce harmful trading behaviour. These include: leaderboard-style trading competitions that incentivise performance-chasing; streak-based rewards tied to trading frequency; celebratory animations displayed upon order execution; push notifications referencing portfolio performance or trending stocks outside explicitly opt-in educational contexts; and digital rewards that accrue proportionally to trading volume.[81] Platforms found in

[80] Regulation 2022/2065 of the European Parliament and of the Council of 19 October 2022 on a Single Market for Digital Services and amending Directive 2000/31/EC (Digital Services Act), art. 25, 2022 O.J. (L 277) 1, 51.

[81] Robinhood Consent Order (requiring cessation of celebratory imagery tied to trading frequency, push notifications highlighting specific lists, and features mimicking games of chance).

violation should be subject to remediation orders and proportionate financial penalties under the SEBI Act, 1992.[82]

Reform 4: Expansion of the PFUTP Framework to Include Manipulative Design

Regulation 4(2) of the PFUTP Regulations should be amended to provide expressly that the deployment of a Digital Engagement Practice that has the effect, or is reasonably likely to have the effect, of inducing retail investors to trade in a manner inconsistent with their financial interests, risk profile, or investment objectives, shall constitute an unfair trade practice. This expansion operationalises the Supreme Court's broad holding in *Rakhi Trading*[83] - that 'artifice' encompasses any scheme operating as a fraud upon investors, regardless of form - in the digital design context. It would also address SEBI's finding that certain gamified platforms create experiences that lead to investor exploitation, by providing SEBI with an express enforcement basis rather than requiring reliance on the general anti-fraud provisions.

Reform 5: Suitability-Linked Access Controls for High-Risk Products

SEBI should require registered brokers to implement suitability-linked access controls for high-risk products, including equity derivatives. Before enabling F&O access, platforms should be required to conduct a verified suitability assessment - administered in an interface environment stripped of gamified design features - that considers the investor's declared income, investment experience, loss tolerance, and financial objectives. Investors who do not meet prescribed suitability criteria should not be offered access to high-risk products, irrespective of the platform's commercial incentive to expand its active user base. This reform would directly address SEBI's finding that 75% of F&O loss-makers had annual incomes below Rs. 5 lakhs,[84] a cohort for whom sustained derivatives losses represent potentially irreversible financial harm.

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[82] Securities & Exchange Board of India Act, 1992.
[83] Securities & Exchange Board of India v. Rakhi Trading Pvt. Ltd., (2018) 4 SCC 622, 630.
[84] *Supra* note 31.

CONCLUSION

What happens when games meet stock trading? In India, it shows up as harm - widespread, quiet, growing. Data reveals a pattern: more than nine out of ten people who trade equity derivatives lost money recently. Over four years, that adds up to nearly three trillion rupees gone from homes across the country. These repeated losses are not random missteps; they trace back to how apps guide users, shaping choices subtly. Decisions unfold less like careful planning and more like responses shaped by interface cues. Behind every click lies architecture meant to hold attention, not support judgment.

Existing Indian laws on securities do not handle this issue well. Focused only on disclosures and advisory content, they ignore how broker apps are built to shape user actions. Design choices guiding investor decisions remain outside oversight. This absence allows profit-driven game-like features to operate unchecked. Clear harm has followed from such unmonitored practices. Regulatory silence enables structural influence over traders. What gets regulated stops short of interface manipulation. Oversight ends where digital engagement begins. Consequences emerge where rules do not reach. Frameworks lag behind technological delivery methods. Attention stays fixed on information, not presentation. Behavioural nudges fall beyond current scope. Control mechanisms evolve faster than policy. Digital formats outpace legal definitions.

This article's comparison shows recognition of the issue across nations along with existing rules to address it. Though lacking a full national policy, the United States made clear in *In re Robinhood Financial LLC* that encouraging investment through game-like features may breach duties to individual clients. Moving ahead, the United Kingdom applied stricter measures under the FCA's Consumer Duty; placing emphasis on likely risks tied to interface layout while assigning to top executives the direct oversight for how products are shaped. So far, India's system remains without such a shift toward proactive design governance.

What stands out here is how uneven things become when platforms use complex data tactics on investors who lack defence against such methods. Protection now needs more than just monitoring what information gets shared. Attention shifts toward shaping the conditions under which choices take place. Decisions do not happen in isolation - they emerge from settings carefully built by design. Oversight widens once context begins to matter as much as disclosure. Where influence hides in interface, rules can no longer focus only on words seen. Subtle cues guide actions, often without awareness. Guarding users means accounting for that invisibility. Frameworks evolve when environments themselves prompt risk. Clarity arises not through assumption of equal footing but recognition of imbalance.

One way to begin would be by acknowledging the five measures outlined here - legal acknowledgment of DEPs, required design reviews, banning certain high-risk game-like elements, extending the PFUTP system, and access limits based on user profiles - as forming a consistent legal foundation within India's present oversight setup. Rooted in SEBI's wide authority to safeguard investors, support fair markets, while curbing deceptive conduct, each measure finds justification there. What stands out clearly emerges when comparing how India handles disclosures now versus the UK's focus on predictable damage - the difference reveals just how large the current oversight shortfall truly is. While British rules demand platforms take preventive steps prior to any injury, Indian mechanisms activate solely once information breakdowns become evident. Addressing this divide goes beyond small adjustments in supervision; it involves reshaping fundamental ideas about protection when investing happens mainly through digital tools built with behavioural nudges.

It rests largely on SEBI's willingness to apply every aspect of its parliamentary authority - whether India's capital markets evolve into real tools for building household wealth or turn into settings where platform mechanics outweigh personal decision-making. The direction taken shapes what comes after.[85]

[85] Lok Sabha, Statement by Minister of State for Finance Pankaj Chaudhary on Losses by Individual Traders in F&O, Unstarred Question No. 2473 (Dec. 15, 2025).