

***Bias Beneath the Bench: Cognitive Distortions
in Insolvency Law and the Case for
Behaviourally Informed Reform***

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ABSTRACT

The research paper investigates the critical intersection of behavioural economics and insolvency proceedings, focusing on how cognitive biases systematically skew decision-making among debtors, creditors, and judges, leading to inefficient and inequitable outcomes in insolvency processes. The study examines key biases such as over-optimism, loss aversion, and anchoring and their specific impacts within the insolvency framework, including creditor negotiations and judicial rulings, where high-risk decisions amplify their impact. Additional biases, such as confirmation bias, status quo bias, and the availability heuristic, further exacerbate inefficiency, contributing to prolonged delays in equitable asset distributions and inconsistent rulings. The paper seeks to demonstrate that these biases are central drivers of inefficient outcomes, perpetuating negotiation deadlocks, prolonged timelines, and inconsistent rulings that reduce the economic

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efficiency and fairness in insolvency systems. To address these challenges, the paper proposes targeted reforms, including financially educating debtors to mitigate over-optimism, training creditors on ethical nudging and bias recognition, and judicial interventions like bias-focused training and procedural tools such as checklists and neutral mediators. The paper concludes with a call for further empirical research on the prevalence of cognitive biases in insolvency and cross-country comparisons to refine global insolvency practices, encouraging systems that better align with the real-world decision-making dynamics.

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I. INTRODUCTION

“We don’t have to stop inventing abstract models that describe the behaviour of imaginary Econs. We do, however, have to stop assuming that those models are accurate descriptions of behaviour, and stop basing policy decisions on such flawed analyses.”

~Richard H. Thaler

“Behavioural economics combines elements of economics and psychology to understand how and why people behave the way they do in the real world. It differs from neoclassical economics, which assumes that most people have well-defined preferences and make well-informed, self-interested decisions based on those preferences.”¹ It is based on empirical observations of human behaviour, which demonstrates that people do not always consider taking the ‘rational’ or ‘optimal’ decision as affirmed by the neoclassical economists, even when they possess the necessary information and tools.²

People often change their behaviour based on an ‘anchor’ that influences their decisions. For example, you are shopping for a new jacket and the first shop quotes ₹10,000 for it, which seems expensive. Later, in another shop, a similar jacket is quoted for ₹6,000. Seeing this, you are getting a great deal, you quickly buy it. In this illustration, the price of ₹10,000 acts as an ‘anchor,’ where even though ₹6,000 is high, it appears cheaper than the previous price thereby influencing your decision.

¹ Max Witynski, ‘Behavioral Economics, explained’ (*University of Chicago News*) <<https://news.uchicago.edu/explainer/what-is-behavioral-economics>> accessed 18 June 2025.

² *ibid.*

The theory of behavioural economics intends to state that people are human beings reacting on emotions and impulsiveness, influenced by their environment and circumstances.³ This theory stands in contrast with the traditional economic ideas which assume that people act purely on rationality, having perfect self-control and long-term goals.⁴

Gary Becker, on the intersection of law and economics notes that, “human behaviour can be viewed as involving participants who maximise their utility, from a stable set of preferences and accumulate an optimal amount of information and other inputs in a variety of markets,” referring to the theory that legal rules are best analysed according to standard economic principles.⁵ Appropriately designed legislation, when effectively enforced, can steer agents to opt for decisions that yield optimal outcomes or that incentivise them with the most efficient results. The intersection of law and economics focuses on determining how utility-maximising behaviour of individuals influences the entire economic system under insolvency law framework. This requires analysing the behaviour of key economic agents such as debtors, creditors and judges, under varying conditions and circumstances. The Insolvency and Bankruptcy Code, 2016 (**IBC** or **Code**), provides a useful framework to analyse the intersection of law, economics and decision-making in insolvency procedures.⁶

³ *ibid.*

⁴ *ibid.*

⁵ Gary S Becker, *The Economic Approach to Human Behavior* (University of Chicago Press 2013).

⁶ Anuradha Guru, ‘The Code: A Behavioural Perspective’ Insolvency and Bankruptcy Board of India <<https://ibbi.gov.in/uploads/resources/e06f627dc85e6fa98941c6f0b2c62267.pdf>> accessed 18 June 2025.

The human decision-making process is rarely straightforward and rational, as it is influenced by several factors, such as cognitive biases, emotions, and social pressures,⁷ that affect the behaviour. Behavioural economics offers crucial insights into these decision-making tendencies, aiding lawmakers in designing rules that address barriers to efficient insolvency processes and align with the objectives of the legislation.⁸ Before this Code, insolvency laws heavily favoured debtors, creating a ‘defaulters paradise’,⁹ where the loan repayment to the creditors was considered as an option rather than an obligation, harming creditors and causing significant economic losses. The Code, after coming into force, aimed to reform the debtor behaviour in India and empower creditors by relying on the behavioural psychology principles such as nudging, which refers to strengthening positive choices instead of restricting undesirable behaviour, while giving freedom of choice to individuals, and reframing the plausible solutions to the problems.¹⁰ By subtly shaping the ‘choice architecture’ through these nudges, the IBC steers behaviour toward outcomes that enhance the efficiency and fairness of insolvency proceedings.¹¹

The research paper aims to practically examine the intersection between behavioural economics and insolvency laws, emphasising how cognitive

⁷ Johan E Korteling, Anne-Marie Brouwer and Alexander Toast, ‘A Neural Network Framework for Cognitive Bias’ (2018) 9 *Frontiers* <<https://doi.org/10.3389/fpsyg.2018.01561>> accessed 18 June 2025.

⁸ Neeti Shikha, Shambhavi Singh and Rishabh Ahuja, ‘Assessing Behaviour Change of Creditors under IBC’ (*SSRN Working Paper*, 1 October 2022) <<https://ssrn.com/abstract=5047705>> accessed 10 November 2025.

⁹ *Swiss Ribbons Pvt Ltd v Union of India* (2019) 4 SCC 17.

¹⁰ *ibid.*

¹¹ Dee Gill, ‘When “Nudging” Is Forever - The Case of Sweden’ (*Chicago Booth Review*, 20 February 2018) <www.chicagobooth.edu/review/when-nudging-forever-case-sweden> accessed 18 June 2025.

biases systematically distort rational decision-making among key stakeholders in insolvency proceedings. The research includes a detailed analysis of research studies, case laws, and empirical findings from various jurisdictions, examining the impact of specific biases such as over-optimism, loss aversion, and anchoring, shaping both creditor and debtor behaviour as well as judicial rulings in the insolvency contexts. The core argument of the research is that cognitive biases are not peripheral but primary forces that drive inefficient outcomes, resulting in prolonged delays, negotiation deadlocks, and unfair asset allocations in insolvency processes.

II. COGNITIVE BIAS IN DECISION MAKING

Rather than treating individuals as fully rational actors or *homo economicus*, behavioural economics recognises that decisions are influenced by bounded rationality, constrained by limited attention, information-processing ability, and time, alongside inherent cognitive shortcuts known as heuristics. These heuristics lead to cognitive biases, which are systematic tendencies to misinterpret information or evaluate risks in consistently skewed ways.¹²

One of the most common behavioural traps is anchoring, wherein people rely excessively on the first solution presented to them, particularly under stress. In India, a financially distressed borrower may be nudged toward a One-Time Settlement (**OTS**) with a bank account without being fully informed about alternative options such as loan structuring,

¹² Amos Tversky and Daniel Kahneman, 'Judgment under Uncertainty: Heuristics and Biases' (1974) 185 *Science* 1124 <<https://www.science.org/doi/10.1126/science.185.4157.1124>> accessed 10 November 2025.

repayment moratoriums, or potential relief under the IBC. When a trusted figure, like a lender or advisor, or even a trusted friend or family member proposes a specific solution, it often becomes the borrower's mental default. This anchoring effect hinders borrowers from pursuing alternative remedies that might better suit their financial situation.¹³

Biases such as the status quo and decision inertia also exist that often prevent individuals from acting even when viable financial relief options exist, due to the complicated or intimidating nature of procedures thereunder. With personal insolvency provisions under Part III of the IBC still in their nascent phase, these behavioural barriers are particularly acute. Many Indians rely on informal or app-based credit, lack access to reliable financial guidance, and face significant stigma when it comes to admitting financial failure. With such a system demanding proactive engagement with complicated legal procedures without mitigating these cognitive and emotional barriers, such an idea is unlikely to succeed.¹⁴

Another such bias is over-optimism, or the optimism bias, which refers to “the tendency to overestimate the likelihood of positive outcomes and underestimate risks or negative contingencies.”¹⁵ This leads most individuals to anticipate favourable outcomes even when challenges or

¹³ Neeti Shikha and Emily Reeve, ‘It’s Time to Rethink Personal Insolvency: How Behavioural Economics Can Fix a System that Fails the Most Vulnerable’ (*Centre for Commercial Law in Asia*, 19 May 2025) <<https://ccla.smu.edu.sg/sgri/blog/2025/05/19/its-time-rethink-personal-insolvency-how-behavioural-economics-can-fix-system>> accessed 18 June 2025.

¹⁴ *ibid.*

¹⁵ Kassiani Nikolopoulou, ‘What is Optimism Bias | Definition & Examples’ (*Scribbr*, 27 January 2023) <<https://www.scribbr.com/research-bias/optimism-bias/>> accessed 18 June 2025

setbacks are rationally present. Individuals tend to believe that they might experience negative events less likely than other people.¹⁶ For example, debtors may believe that recovery is imminent even in the face of mounting evidence to the contrary, while creditors may overestimate the probability of full recovery on defaulted loans.

Joll, Sunstein, and Thaler identify optimism bias as a common human behaviour. Believing themselves less likely to face negative outcomes, decision-makers often take excessive risks, making this bias a frequent cause of impulsive or high-stakes decisions and reflecting a lack of self-control.¹⁷

Kahneman and Tversky's prospect theory suggests that decision makers assess and optimise expected outcomes not independently but relatively, to an initial reference point.¹⁸ While this concept is widely accepted, this theory introduces the empirical insight that individuals place greater weight on losses related to this reference point on equivalent gains or behaviour, known as 'loss aversion'. A central experimental finding of the theory is that people often hesitate to part with a good they possess, even if they are offered a price higher than what they would pay to obtain it.¹⁹

¹⁶ *ibid.*

¹⁷ Joshua D Wright and Douglas H Ginsburg, 'Behavioural Law and Economics: Its Origins, Fatal Flaws, and Implications for Liberty' (2012) 106(3) *Northwestern University Law Review* <<https://scholarlycommons.law.northwestern.edu/cgi/viewcontent.cgi?article=1100&context=nulr>> accessed 18 June 2025.

¹⁸ Daniel Kahneman and Amos Tversky, 'Prospect Theory: An Analysis of Decision under Risk' (1979) 47(2) *Econometrica* 263, 277–79.

¹⁹ Amos Tversky and Daniel Kahneman, 'Loss Aversion in Riskless Choice: A Reference-Dependent Model' (1991) 106(4) *The Quarterly Journal of Economics* 1039, 1041–42.

The endowment effect is the most widely recognised and extensively debated cognitive bias in the behavioural law and economics literature, due to its robustness by behavioural economists and legal scholars, as well as its profound policy implications. Its key implication is that it challenges the Coase theorem, suggesting that market transactions may fail to achieve efficient resource allocation, with broad consequences for virtually all areas of substantive law.²⁰

III. COMPLEXITY OF THE INSOLVENCY PROCESS

The Corporate Insolvency Resolution Process (**CIRP**) under the IBC faces significant challenges due to prolonged timelines in resolution which takes an average of 683 days or roughly two (2) years, resulting from procedural complexities, court backlogs, inefficiencies in adjudication, and disruptive interim applications (**IAs**) filed by non-stakeholders, leading to erosion of asset values, increased costs, and consequent harm to creditors and employees, while undermining timely revival of distressed companies and corporate debtors (**CDs**).²¹

Recovery rates under CIRP are low, with financial creditors recovering thirty two percent (32%) and operational creditors recovering twenty five percent (25%) of their claims. Even though operational creditors file greater number of cases than financial creditors, they are more proactive in pursuing settlements, as most cases filed by them are withdrawn under section 12A of the IBC, as compared to the financial creditors,

²⁰ Wright & Ginsburg (n 17).

²¹ Mukesh Chand, 'Revamping India's Insolvency Framework: Challenges, Trends, and Strategic Improvements' (*Economic Laws Practice Law*, 27 May 2024) <<https://elplaw.in/leadership/revamping-indias-insolvency-framework-challenges-trends-and-strategic-improvements/>> accessed 18 June 2025.

which permits case withdrawals pursuant to settlements either before or after the institution of the case. Such withdrawals account for around fourteen percent (14%) of all filed cases, indicating a clear stakeholder preference for resolving insolvency disputes outside the formal framework, likely due to its inefficiencies.²²

Personal insolvency under the IBC is equally challenging. The resolution track record is abysmal, with only four (4) cases concluding with a resolution plan over a four (4) year period, yielding an overall recovery rate of just two percent (2%), highlighting significant inefficiency in the personal insolvency framework.²³

Although the IBC prescribes a 330-day resolution timeline, many cases exceed this limit due to National Company Law Tribunal (NCLT) backlogs and appellate delays driven by insufficient NCLT benches, reducing asset values and credit recovery rates.²⁴ The uniform approach adopted by the Code struggles with sector-specific complexities, especially in real estate, where homebuyers' status as financial creditors is recognised, but delays in the completion of the project and unclear asset distribution persist, involving multiple stakeholders like financial institutions and government bodies. The lack of a robust cross-border insolvency framework creates complexities for multinational companies under the Code, as insufficient international collaboration obstructs the

²² *ibid.*

²³ *ibid.*

²⁴ Chandra Shekhar, 'Bailing Businesses, Boosting Banks: The Evolution of Insolvency and Bankruptcy Law in India' (2025) 6(2) Intl Journal of Research and Publication Rev <<https://ijrpr.com/uploads/V6ISSUE2/IJRPR39167.pdf>> accessed 18 June 2025.

retrieval of overseas assets, posing significant debt recovery challenges for firms operating across various jurisdictions.²⁵

IV. COGNITIVE BIAS IN INSOLVENCY PROCEEDINGS

The fate of a company and its directors in situations of impending insolvency lies, to a large degree, in the hands of financial backers and legal professionals, whose decisions are subject to cognitive biases.²⁶ Understanding these biases is crucial for developing more effective insolvency laws and procedures that account for actual human behaviour rather than idealised rational decision-making.²⁷ This paper examines four primary cognitive biases that significantly impact insolvency proceedings: over-optimism, loss aversion, anchoring bias, and confirmation bias.²⁸

The approach of behavioural economics to insolvency law recognises that participants in bankruptcy proceedings operate under conditions of high stress, incomplete information, and significant uncertainty, leading to systematic deviations from rational decision-making.²⁹

A. *Over-Optimism*

Over-optimism, or the consistent tendency to exaggerate positive results and downplay negative ones, is one of the most widespread cognitive

²⁵ *ibid.*

²⁶ Niek Strohmaier, 'Cognitive Biases in Insolvency Proceedings' (PhD thesis, Leiden University 2020) 67.

²⁷ Chris Guthrie, Jeffrey J Rachlinski and Andrew J Wistrich, 'Inside the Judicial Mind' (2001) 86(4) *Cornell L Rev* 778, 810.

²⁸ Dan Lovallo and Daniel Kahneman, 'Delusions of Success: How Optimism Undermines Executives' Decisions' (2003) 81(7) *Harv Bus Rev* 56.

²⁹ Strohmaier (n 26) 89.

biases in insolvency proceedings.³⁰ Debtors facing financial crises will often put off seeking protection under bankruptcy, believing that the market will improve or their business plans will succeed, even as more and more evidence suggests otherwise.³¹ This postponement most often leads to a further erosion of the debtor's financial situation.³²

The *Blockbuster Entertainment* case³³ is a strong illustration of corporate insolvency over-optimism.³⁴ In the face of obvious market trends toward digital streaming and decreasing customer demand for physical movie rentals, the management of Blockbuster postponed restructuring, seemingly expecting their established business model to recuperate.³⁵ This over-optimistic evaluation ultimately contributed to the company's ultimate liquidation instead of effective reorganisation.³⁶

B. Loss Aversion

In insolvency situations, loss aversion has strong effects on the behaviour of both debtors and creditors, generating systematic opposition to efficient resolution processes.³⁷ For borrowers, loss aversion manifests as hesitation to accept reorganisation offers that demand sacrificing control over their business or accepting diminished ownership

³⁰ Lovallo and Kahneman (n 28).

³¹ Strohmaier (n 26) 112.

³² Jay Lawrence Westbrook, 'Empirical Research in Consumer Bankruptcy' (2002) 80(7) *Texas L Rev* 2123.

³³ *Harper v Blockbuster Entertainment Corp* [1998] 139 F3d 1385 (11th Cir).

³⁴ Lovallo and Kahneman (n 28) 61.

³⁵ *ibid.*

³⁶ Lovallo and Kahneman (n 28) 62.

³⁷ HealPay, '7 Cognitive Biases and How They Impact Consumer's Debt Decisions' (*HealPay*, 7 September 2023) <<https://blog.healpay.com/blog/cognitive-biases-impact-consumers-debt-decisions/>> accessed 18 June 2025.

interests.³⁸ Even when economic analysis proves that reorganisation proposals yield better expected outcomes than liquidation, borrowers tend to avoid such alternatives because they concentrate on perceived losses rather than potential gains.³⁹

Creditors also demonstrate loss aversion by refusing to accept settlement proposals that, although economically sound, come across as accepting losses from initial debt levels.⁴⁰ This bias may prompt creditors to engage in expensive litigation or decline reasonable offer proposals.⁴¹

C. Anchoring Bias

Anchoring bias is the mental predisposition to place substantial weight on the initial information obtained while making judgements.⁴² Anchoring effects in insolvency proceedings can powerfully distort negotiations, valuations of assets, and judicial decisions.⁴³

Initial valuations of debtor or creditor claims often become anchors that affect further negotiations and settlements.⁴⁴ When creditors make first claims or asset valuations, these values anchor further negotiations, even when other information indicates different valuations to be more suitable.⁴⁵ Judges in insolvency cases often anchor on first proposals or valuations from parties and potentially influence their reorganisation

³⁸ Kahneman and Tversky, 'Prospect Theory: An Analysis of Decision under Risk' (n 18) 280.

³⁹ *ibid* 281.

⁴⁰ *ibid* 282.

⁴¹ *ibid* 283.

⁴² Amos Tversky and Daniel Kahneman, 'Judgment under Uncertainty: Heuristics and Biases' (1974) 185(4157) *Science* 1124.

⁴³ Guthrie, Rachlinski and Wistrich (n 27) 790.

⁴⁴ *ibid* 791.

⁴⁵ Tversky and Kahneman, 'Judgment under Uncertainty: Heuristics and Biases' (n 42) 1129.

plans or liquidation value assessments like in the case of *Re Virgin Active Holdings Ltd*⁴⁶ and *Re Adler Group SA*⁴⁷ / *AGPS BondCo plc*,⁴⁸ and *Petrofac Limited* restructuring plans^{49,50}

D. Confirmation Bias and Other Cognitive Distortions

Confirmation bias, which is the tendency to look for, interpret, and remember information in a way that confirms preconceptions, notably influences insolvency cases by introducing systematic distortions in information processing and decision-making.⁵¹

Debtors facing financial hardship tend to display confirmation bias by focusing on favourable indicators while discounting or dismissing unfavourable financial cues.⁵² This selective attention leads to delayed recognition of insolvency, and consequently, to late filings that eventually harm both debtors and creditors.⁵³

**V. IMPACT OF COGNITIVE BIASES ON STAKEHOLDERS IN
INSOLVENCY PROCEEDINGS**

The behavioural economic perspective analyses how psychological factors challenge the conventional rational actor model that has long dominated the legal and economic analysis of bankruptcy law. Empirical evidence further reveals that companies assigned to courts one standard

⁴⁶ [2021] EWHC 1246 (Ch).

⁴⁷ [2023] EWHC 1000 (Ch).

⁴⁸ [2024] EWCA Civ 24.

⁴⁹ [2025] EWCA Civ 821.

⁵⁰ Guthrie, Rachlinski and Wistrich (n 27) 7.

⁵¹ Raymond Nickerson, 'Confirmation Bias: A Ubiquitous Phenomenon in Many Guises' (1998) 2(2) *Rev Gen Psychol* 175.

⁵² *ibid* 185.

⁵³ Strohmaier (n 26) 145.

deviation higher in pro-continuation bias are 8.8 percentage points more likely to remain operational five years after filing for bankruptcy, thereby illustrating the measurable impact of judicial biases on bankruptcy outcomes.⁵⁴

A. Impact on Debtors: Psychological Barriers to Rational Financial Decision Making

i. Loss Aversion and Resistance to Insolvency Filing

Debtors tend to exhibit loss aversion, a heuristic bias whereby debtors feel losses more intensely than comparable gains.⁵⁵ This bias is particularly evident in insolvency situations, as debtors often avoid filing for bankruptcy or entering formal insolvency processes even when they are clearly facing financial distress.⁵⁶

The hesitation to seek insolvency protection usually stems from the perceived stigma and loss of control associated with formal proceedings.⁵⁷ Debtors may irrationally hang on to failing businesses or unviable debt positions, perceiving insolvency filing not as a strategic tool but as an admission of defeat.⁵⁸

⁵⁴ A Araujo and others, 'The Labour Effects of Judicial Bias in Bankruptcy' (2023) 150 *Journal of Financial Economics* 103720.

⁵⁵ Kahneman and Tversky (n 42) 279.

⁵⁶ Michelle J White, 'Personal Bankruptcy Under the 1978 Bankruptcy Code: An Economic Analysis' (1987) 63(1) *Indiana LJ* 1.

⁵⁷ Rafael Efrat, 'The Evolution of Bankruptcy Stigma' (2006) 7 *Theoretical Inquiries L* 365, 366.

⁵⁸ Douglas G Baird, *The Elements of Bankruptcy* (6th edn, Foundation Press 2014) 23–45.

ii. Over-Optimism and Delayed Decision Making

Over-optimism bias significantly influences debtor behaviour during insolvency proceedings.⁵⁹ Debtors have a persistent tendency to overestimate their potential for recovery from financial hardship without formal intervention.⁶⁰ This results in undue delays in filing, which subsequently yields lower recovery rates for both creditors and debtors.⁶¹ This pattern of behaviour continues to deplete assets and increase liabilities.⁶²

iii. Sunk Cost Fallacy in Settlement Negotiations

The sunk cost fallacy is a key driver of debtor behaviour in the context of settlement negotiations.⁶³ A common cognitive bias encountered in bankruptcy practice is the sunk cost fallacy, which generally manifests as a client's reluctance to relinquish assets or agree to a settlement due to the substantial resources already invested.⁶⁴ This irrational persistence in investments prevents optimal resolution of insolvency matters.⁶⁵

⁵⁹ Karen Gross, *Failure and Forgiveness: Rebalancing the Bankruptcy System* (Beard Books 1997) 89–112.

⁶⁰ Sendhil Mullainathan and Eldar Shafir, *Scarcity: Why Having Too Little Means So Much* (Penguin Books 2013) 155–170.

⁶¹ Gross (n 59).

⁶² Elizabeth Warren and Jay Lawrence Westbrook, *The Law of Debtors and Creditors* (7th edn, Wolters Kluwer 2014) 567–589.

⁶³ Hal R Arkes and Catherine Blumer, 'The Psychology of Sunk Cost' (1985) 35 *Organisational Behav & Hum Dec Proc* 124.

⁶⁴ Akshay Pingale, 'Sunk Cost Fallacy' (*Medium*, 13 October 2024) <<https://medium.com/@akshaypingale/sunk-cost-fallacy-3a3facd8cc87>> accessed 18 June 2025.

⁶⁵ *ibid.*

B. Impact on Creditors: Behavioural Influences on Collection and Negotiation Strategies

i. Anchoring Bias in Debt Evaluation

Anchoring Bias occurs when individuals heavily rely on the initial information that is received while making decisions.⁶⁶ Creditors who base their evaluations on pre-insolvency values of debt may reject reasonable settlement proposals that reflect prevailing market conditions.⁶⁷ Such behaviour often leads to lengthy proceedings and lower overall recovery rates.⁶⁸

ii. Framing Effects in Collection Strategies

Creditors often structure repayment messages in loss reduction instead of as perceived gains, taking advantage of debtor loss aversion for collection ends.⁶⁹ However, creditors themselves can be vulnerable to framing effects when evaluating their own positions.⁷⁰ The format in which information regarding debtor financial condition is conveyed can

⁶⁶ *ibid.*

⁶⁷ Kee-Hong Bae and Vidhan K Goyal, 'Creditor Rights, Enforcement, and Bank Loans' (2009) 64 J Fin 823, 824.

⁶⁸ D G Baird, A Bris and N Zhu, 'The Dynamics of Large and Small Chapter 11 Cases: An Empirical Study' (Yale ICF Working Paper No 05-29, ECGI Finance Working Paper No 107/2005, January 2007) <<https://ssrn.com/abstract=866865>> accessed 19 June 2025.

⁶⁹ Tobias Baer, 'Behavioral Insights and Innovative Treatments in Collections' (*McKinsey & Company*, 2 March 2018) <www.mckinsey.com/capabilities/risk-and-resilience/our-insights/behavioral-insights-and-innovative-treatments-in-collections#/> accessed 22 October 2025.

⁷⁰ Christine Jolls, Cass R Sunstein and Richard Thaler, 'A Behavioral Approach to Law and Economics' (1998) 50 Stan L Rev 1541.

have strong impact on creditor negotiation tactics and settlement choices.⁷¹

iii. Confirmation Bias in Information Processing

Confirmation bias causes creditors to look for information that supports their existing notion of debtor viability and reject information that contradicts this notion.⁷² This type of selective information processing may cause creditors to adopt overly forceful tactics or insufficient risk evaluation.⁷³ They might be missing opportunities for mutually fair restructuring agreements.⁷⁴

C. Impact on Judges: Cognitive Biases in Judicial Decision Making

i. Anchoring Bias in Judicial Rulings

The seminal work of Guthrie, Rachlinski, and Wistrich into judicial cognition unveils the fact that judges are often prone to anchoring bias in making decisions.⁷⁵ In insolvency cases, this bias appears when judges anchor on initial claims of creditors or early valuations while making follow up decisions.⁷⁶ Judges who ground themselves on irrelevant or stale information may be incapable of properly taking into account altered circumstances or novel evidence.⁷⁷

⁷¹ David Paulus and others, 'The Influence of Cognitive Bias on Crisis Decision-Making: Experimental Evidence on the Comparison of Bias Effects between Crisis Decision-maker Groups' (2022) 82 Intl J Disaster Risk Reduction 1, 3, 4.
⁷² *ibid.*

⁷³ Alan Schwartz, 'A Theory of Loan Priorities' (1989) 18 J Legal Stud 209.

⁷⁴ Strohmaier (n 26) 1160.

⁷⁵ *ibid.*

⁷⁶ *ibid* 784.

⁷⁷ Tracey E George, 'Court Fixing' (2001) 43 Ariz L Rev.

ii. Confirmation Bias in Evidence Evaluation

Judges also display confirmation bias in assessing evidence in insolvency cases.⁷⁸ This bias can lead to selective attention to evidence that supports initial impressions regarding merits of cases.⁷⁹ This selective processing compromises thoroughness necessary for just insolvency adjudication.⁸⁰

Legal professionals must determine the causes of a company's collapse, as the directors of the company can be held personally responsible if mismanagement is deemed to be a significant cause for the failure of the company, but confirmation bias can undermine this vital evaluation.⁸¹ Judges susceptible to confirmation bias may give poor attention to alternative explanations of financial information.⁸²

iii. Pro Continuation and Pro Debtor Bias

Recent empirical studies have identified systematic judicial biases that favour either firm continuation or debtor interests.⁸³ The labour market implications of such bias in bankruptcy demonstrate that judicial rulings propel variance in firm survival rates, which is particularly important for employees and other stakeholders.

⁷⁸ Guthrie, Rachlinski and Wistrich (n 27) 787.

⁷⁹ *ibid.*

⁸⁰ Marvin E Frankel, 'The Search for Truth: An Umpireal View' (1975) 123 U Pa L Rev 1031.

⁸¹ Strohmaier (n 26).

⁸² *ibid.*

⁸³ Kris Boudt and others, 'Pro-Debtor Bias, Court Shopping, and Bankruptcy Outcomes' (2024) Ghent Uni Dept of Econ <https://wps-feb.ugent.be/Papers/wp_24_1088.pdf> accessed 22 October 2025.

iv. Impact on Procedural Fairness

The collective impact of cognitive biases on judicial decision-making significantly affects procedural fairness in insolvency proceedings, as the inconsistent application of legal standards driven by such biases undermines stakeholder confidence in the insolvency framework. Mitigating these biases is therefore essential to preserve the legitimacy and effectiveness of insolvency processes.⁸⁴

VI. CASE STUDIES/ EMPIRICAL EVIDENCE

A. AOL-Time Warner Merger

The merger announced between America Online (**AOL**) and Time Warner in 2000, valued at \$350 billion, demonstrates how overconfidence bias, confirmation bias, and saliency bias led to near-insolvency conditions. This merger is universally accepted as the worst merger in the history of humankind.⁸⁵ AOL's CEO Stephen Case and Time Warner's CEO Gerald Levin displayed overconfidence bias, by projecting 15–20% annual growth by way of merger between AOL's internet platform with Time Warner's media assets, despite AOL's reliance on declining dial-up technology.⁸⁶ This reflects debtors'

⁸⁴ Australian Law Reform Commission, 'Cognitive and Social Biases in Judicial Decision-Making' (*Background Paper JI6*, April 2021); G F Peluso Lopes, 'Bias in Adjudication and the Promise of AI: Challenges to Procedural Fairness' (2025) 7 *Law, Technology and Humans* 47.

⁸⁵ David Malone and James Turner, 'The Merger of AOL and Time Warner: A Case Study' (2010) 16(7) *Journal of the Intl Academy for Case Studies* <https://www.researchgate.net/publication/291711379_The_merger_of_AOL_and_Time_Warner_A_case_study> accessed 18 June 2025.

⁸⁶ Lynda M Applegate and others, 'Valuing the AOL Time Warner Merger' (*Harvard Business School* 802-098 2002) 5 <<https://www.hbs.edu/faculty/Pages/item.aspx?num=28738>> accessed 5 June 2025.

overconfidence in insolvency which leads to delay in filings because one is expecting a recovery.⁸⁷ Further, AOL ignored dot-com bubble risks.⁸⁸ The confirmation bias made the board to focus on AOL's stock surge resulting in overlooking the broadband's rise.⁸⁹ Confirmation bias leads to evaluation of selective data.⁹⁰ Moreover, saliency bias caused AOL to overweigh the prior collaborations with Time Warner, assuming that past successes would result in achieving the current predicted merger outcomes while ignoring the integration complications and cultural differences between the two. Saliency bias is prioritising past vivid and successful events which influences the risk assessment.⁹¹ The said merger between AOL and Time Warner resulted in a \$99 billion loss in 2002 and a goodwill write-down from \$220 billion to \$20 billion.⁹²

B. Microsoft-Nokia Acquisition

The 2013 acquisition of Nokia's mobile phone business by Microsoft for \$7.2 billion reflects anchoring bias, loss aversion, and status quo bias, leading to an insolvency-like financial situation. Microsoft's CEO Steve Ballmer exhibited the anchoring bias by heavily relying on Nokia's historical market valuation and brand forte to rationalise the \$7.2 billion

⁸⁷ J Leng, 'Can Managerial (Over)Confidence Lead Firms to Bankruptcy?' (EFMA 2018 Milan Paper, 2018) <https://efmaefm.org/oeefmameetings/efma%20annual%20meetings/2018-Milan/papers/EFMA2018_0504_fullpaper.pdf> accessed 10 June 2025.

⁸⁸ Lovallo and Kahneman (n 28) 58-61.

⁸⁹ M Garbuio, D Lovallo and J Horn, 'Overcoming Biases in M&A: A Process Perspective' (2010) 9 *Advances in Mergers & Acquisitions* 83 <https://www.researchgate.net/publication/235320596_Overcoming_biases_in_MA_A_process_perspective> accessed 18 June 2025.

⁹⁰ Nickerson (n 51) 185-190.

⁹¹ Daniel Kahneman and others, *Choices, Values, and Frames* (Cambridge University Press 2011) 45-50.

⁹² Robert F Bruner, *Deals from Hell: M&A Lessons That Rise Above the Ashes* (John Wiley & Sons 2005) 275-80.

price, despite Nokia’s decreasing valuation of up to 96% since 2007.⁹³⁹⁴ Loss aversion resulted in Microsoft continuing with Windows Phone, despite heavy competition from Android and iOS dominance, due to their fear of not entering the mobile market. Loss aversion encourages avoiding losses over gains, reflecting debtors’ attitude by trying to resist restructuring to avoid control loss.⁹⁵ Microsoft’s \$7.6 billion write-down in 2015 reflects this pricey persistence.⁹⁶ Status quo bias resulted in Microsoft maintaining and using Nokia’s existing and outdated hardware strategies, causing delayed innovation in mobile operating systems.⁹⁷ Shareholders held onto their declining stocks, while the creditors faced losses from Nokia’s reduced value, creating insolvency-like situation. This case of acquisition highlights how anchoring, loss aversion, and status quo bias influence the decisions and result in financial distress.

C. *Enron Scandal*

In 2001, Enron Corporation faced bankruptcy, costing its shareholders \$74 billion, showcasing overconfidence bias, bandwagon effect, and self-serving bias resulting in insolvency. Overconfidence bias led the company’s CEO Jeffrey Skilling to use mark-to-market accounting which inflated the earnings based on projected market growth by mid-2000

⁹³ Quy Huy and Timo Vuori, ‘Who Killed Nokia? Nokia Did’ (*INSEAD* 22 September 2015) <<https://knowledge.insead.edu/strategy/who-killed-nokia-nokia-did>> accessed 22 October 2025.

⁹⁴ Tversky and Kahneman, ‘Judgment under Uncertainty: Heuristics and Biases’ (n 42) 1128-30.

⁹⁵ Tversky and Kahneman, ‘Prospect Theory: An Analysis of Decision under Risk’ (n 18) 270-75.

⁹⁶ *ibid.*

⁹⁷ William Samuelson and Richard Zeckhauser, ‘Status Quo Bias in Decision Making’ (1988) 1 *J Risk Uncertainty* 7, 15–20.

completely overestimating Enron's stability.⁹⁸ The Bandwagon effect, the tendency of following the crowd, led the analysts and investors to approve the spiking share prices during the dot-com bubble, ignoring off-balance-sheet entries until April 2001. Self-serving bias encouraged the executives to attribute profits to their expertise while blaming external factors for company's losses. By 2 December 2001, shares were at a low of \$0.26, signalling to an imminent collapse.⁹⁹ There was resistance to restructuring and creditors faced losses from overvaluation. This case sets the perfect example of how diverse biases led to disastrous insolvency.

D. RWE Case Study

Rheinisch-Westfälisches Elektrizitätswerk AG (**RWE**), a German utility, faced near-insolvency in the 2010s due to status quo bias, champion bias, and optimism bias.¹⁴ Status quo bias, the preference for maintaining and supporting existing practices and techniques, resulted in RWE clinging to conventional power plant investments by resisting the new era's renewable energy shifts.¹⁵ Champion bias caused executives to align and follow the path of influential leaders' fossil fuel optimism, approving the unscrutinised investments.¹⁰⁰ Optimism bias caused RWE to overestimate the demand for conventional energy, not providing enough

⁹⁸ Bethany McLean and Peter Elkind, *The Smartest Guys in the Room: The Amazing Rise and Scandalous Fall of Enron* (Portfolio 2003) 120–30.

⁹⁹ Bruner (n 92) 279.

¹⁰⁰ Tim Koller, 'Biases in decision-making: A guide for CFOs' (*McKinsey & Company*, 20 March 2025) <<https://www.mckinsey.com/capabilities/strategy-and-corporate-finance/our-insights/biases-in-decision-making-a-guide-for-cfos>> accessed 18 June 2025.

attention to the renewable trends. All this resulted in a market value drop of 60% by 2016.¹⁰¹

E. Daimler-Benz-Chrysler Merger

In 1998, Daimler-Benz and Chrysler Corporation merged to form DaimlerChrysler AG, being value placed at \$36 billion setting the example for sunk cost fallacy, illusion of control, and affect heuristic leading to insolvency-like situation. The sunk cost fallacy caused Daimler's CEO Jürgen Schrempp to continue with integration by justifying prior investments regardless of cultural differences. Illusion of control made the executives to overestimate their ability to manage the integration despite operational and structural challenges.¹⁰² Affect heuristic caused the executives to favour and support the merger due to positive emotions around a 'merger of equals,' overlooking the risks involved. It led to emotion-driven decisions.¹⁰³ The shareholders were reluctant to abandon the deal, even after a 60% stock price decline by 2001 and Chrysler's value being placed at \$7.4 billion by 2007.¹⁰⁴

VII. MITIGATING COGNITIVE BIAS IN INSOLVENCY AND CORPORATE DECISION MAKING

In the area of corporate insolvency, where financial distress is combined with human decision, cognitive biases shape perception in a subtle but

¹⁰¹ Bruner (n 92) 279.

¹⁰² Lynn M LoPucki and William C Whitford, 'Bargaining over Equity's Share in the Bankruptcy Reorganization of Large, Publicly Held Companies' (1990) U Pa L Rev, 140–45.

¹⁰³ Paul Slovic and others, 'The Affect Heuristic' in Thomas Gilovich, Dale Griffin and Daniel Kahneman (eds), *Heuristics and Biases: The Psychology of Intuitive Judgment* (Cambridge University Press 2002) 400–05.

¹⁰⁴ *ibid.*

influential manner. Over-optimism makes the leader turn a blind eye to escalating losses; anchoring illusions render negotiations based on outdated valuations seem valid, and loss aversion encourages resistance to restructuring. Confirmation bias promotes selective behaviour by filtering out inconvenient truths, while herding and bandwagon effects lead stakeholders into collective delusion. Status quo bias prevents innovation, sunk cost fallacy chains decisions to past failures, and the illusion of control favour fosters reckless gambles. Framing and affect heuristics mould one's perceptions, champion bias enhances unchecked leadership, and saliency blurs the picture leading to risky valuations. These biases play a significant part in minimising the visibility of the inefficiencies resulting in insolvency proceedings. India's IBC suffers with on average 683-day delay in resolution proceedings and 32% rate of creditor recovery.¹⁰⁵ Thus, recognising these cognitive biases is essential to successfully avoid emotion-driven decisions later turning into regrets. Further, it facilitates in understanding human behaviour which helps in taking responsible and sustainable financial decisions. Therefore, one should inculcate reflective practices to overcome such biases and preserve financial prosperity.

The first step is to undertake reflationary practices to identify over-the-top optimism and overconfidence, both practices which often cause illusion in the eyes of the executives, leading to the perception that their decisions are financially sound. Before making a decision, certain analysis should be undertaken to statistically evaluate the options and stakes.¹⁰⁶ Assumptions based on past performance must be properly

¹⁰⁵ *ibid* 23.

¹⁰⁶ Gary Klein, 'Performing a Project Premortem' *Harvard Business Review* (2007), 18–19.

evaluated, and different outcomes should be mapped out to take into account various possibilities. This would reduce the effect of the biases and promote inclusivity in the shareholder arena.

Diversity in thoughts and representation is equally essential to overcome herding, bandwagon, and champion biases which result from blindly following the past decisions of successful leaders. There is a high-level risk involved when stakeholders blindly follow trends or charismatic leaders, often leading to collective disaster.¹⁰⁷ Diverse teammates comprising of different genders, ethnicities, and areas of expertise result in better and financially stable decisions.¹⁰⁸ By incorporating such diversity in corporate boards and insolvency resolution committees, innovative resolutions can be achieved.

Behavioural training can also be used as a tool to overcome the biases of framing, affect heuristic, and loss aversion which blur one's vision due to emotions. Workshops can help train stakeholders to deal with insolvency situations as opportunities rather than dead ends.¹⁰⁹ Such training can reduce emotional biases and enable individuals to reach a clear decision.¹¹⁰ One should critically inquiry and evaluate all aspects before making such decisions as to serve long term financial goals.

¹⁰⁷ Irving L Janis, *Groupthink: Psychological Studies of Policy Decisions and Fiascoes* (2nd edn, Houghton Mifflin 1982) 40–45.

¹⁰⁸ Sundiatu Dixon-Fyle, 'Diversity Wins: How Inclusion Matters' (*McKinsey & Company*, 19 May 2020) <www.mckinsey.com/business-functions/organization/our-insights/diversity-wins-how-inclusion-matters> accessed 18 June 2025.

¹⁰⁹ Stuart C Gilson, *Creating Value Through Corporate Restructuring: Case Studies in Bankruptcies, Buyouts, and Breakups* (2nd edn, Wiley 2010) 50–55.

¹¹⁰ *ibid* 60.

Data-driven mechanical systems and computer algorithms can be used to arrive at systematic and analytical solutions without any intervention of human bias.¹¹¹ Algorithms are proven to predict accurate outcomes and assess the possibilities of a future merger or acquisition, as they rely on evidence and not emotions.¹¹² Lastly, feedback loops and reviews can help identify cognitive errors, as third party perspectives tend to be more rational and less clouded by emotions.

In conclusion, overcoming cognitive biases is not merely about avoiding certain situations but about developing a deeper understanding of human behaviour to enable better financial decision-making. Taking time to reflect, inculcating diversity, conducting training sessions, and integrating data tools and audits into governance frameworks, organisations and insolvency systems like the IBC can overcome the limitations of human judgment.

VIII. CONCLUSION

This research shows that cognitive biases are not occasional but structural factors that influence how debtors, creditors, and judges interpret information and act under financial distress. The analysis of over-optimism, loss aversion, anchoring, confirmation bias, and related distortions exemplifies that these behavioural tendencies frequently prevent timely filings, distort valuations, prolong negotiations, and compromise adjudication. Their presence results in outcomes that

¹¹¹J Kleinberg, J Ludwig, S Mullainathan and A Rambachan, 'Algorithmic Fairness' (2018) 108 AEA Papers & Proceedings 22–27.

¹¹² *ibid* 504.

diverge from the economic, procedural, and ethical objectives of insolvency law.

The findings reveal a consistent pattern. Debtors delay filing because they overestimate recovery even when objective indicators suggest deterioration.¹¹³ This delayed relief-seeking, combined with loss aversion, results in a persistent unwillingness to accept restructuring steps, even when they are financially prudent.¹¹⁴ Similarly, creditors tend to anchor their expectations in debt valuations and selectively process information that confirms those positions, which prolongs negotiations and leads to low recovery rates.¹¹⁵ Judges, despite having institutional safeguards, are affected by similar biases, including anchoring bias in initial evidence assessments and tendencies toward pro-debtors or pro-continuation leanings, that influence procedural fairness.¹¹⁶ The case studies, from the AOL-Time Warner merger to the Enron scandal, exhibit that these biases produce measurable and often severe consequences in real corporate environments.¹¹⁷

These biases demonstrate that cognitive biases are practical realities and not conceptual constructs that directly affect insolvency decisions. The average resolution timelines of 683 days issued under the Indian IBC, along with merely 32% of creditor recovery rates, can be partly attributed to these behavioural influences.¹¹⁸ The recurring inefficiencies within the

¹¹³ Strohmaier (n 26) 112; Westbrook (n 32) 19.

¹¹⁴ Kahneman and Tversky, 'Judgment under Uncertainty: Heuristics and Biases' (n 42) 279; White (n 56) 1.

¹¹⁵ Kahneman and Tversky, 'Judgment under Uncertainty: Heuristics and Biases' (n 42) 1128.

¹¹⁶ Guthrie, Rachlinski and Wistrich (n 27) 784.

¹¹⁷ McLean and Elkind (n 98) 120-30.

¹¹⁸ Chand (n 21).

system do not merely stem from procedural gaps, but from a deeper structural inconsistency between rules premised on rational actors and the actual decision-making shaped by uneven and predictable cognitive biases.

The mitigation strategies highlighted in this research paper, includes reflective decision framework, diversified decision-making structures, behavioural training, and data driven systems, present feasible pathways to reduce the impact of these biases.¹¹⁹ Their success, however, relies on acknowledgment that cognitive biases are inherent to human reasoning and cannot simply be removed. Reform must, therefore, aim to design processes that anticipate and accommodate these behavioural tendencies rather than attempt to eliminate them all.

The contribution of this research paper lies not only in identifying behavioural challenges but also in outlining targeted reform pathways. Proposals such as increasing debtor financial literacy, strengthening creditor awareness of negotiation biases and providing structured decision-making tools for judges reflecting an approach grounded in empirical behaviour understanding.¹²⁰ If implemented these measures would have the potential to improve both efficiency and fairness within the solvency networks.

Future scholars should move towards empirical evaluation of these interventions and comparative analysis across jurisdictions. The relationship between behavioural economics and insolvency law remains a developing field with significant potential to reshape the system design.

¹¹⁹ Kleinberg and others (n 111) 18-19; Janis (n 107) 40-45.

¹²⁰ Gilson (n 109) 50-55; Kleinberg and others (n 111) 502-05.

The next phase requires the evidence driven assessment of reform models and deeper inquiry into how legal frameworks can better align with real world patterns of decision making in conditions of uncertainty.

The overarching conclusion of this research paper is that meaningful insolvency reform cannot remain confined to doctrinal or procedural refinement. Effective restructuring frameworks require the integration of behavioural insights to reflect how individuals and institutions respond to financial distress. Insolvency systems will achieve their intended purpose of efficient recovery, equitable distribution, and viable restructuring only when they recognise the predictable influence of cognitive biases and incorporate that understanding into system architecture and practice.