ZEN LEARN

ZENLEARN RESEARCH · ZENLEARN EWS INTELLIGENCE

SME Underwriting: The 13 Signals Banks Miss Before a Default

Data, case, signal — 50 verified defaults fused with system-wide MSME stress data into one case-derived early-warning-signal (EWS) codebook

2.0% to 4.1% Mar-22 to Mar-24	52%	50 cases
SUB-RS 10 LAKH MSME DELINQUENCY	PUBLIC-SECTOR SHARE OF THAT ORIGINATION	VERIFIED CASE DEFAULTS EXAMINED

REGULATORY ANCHOR

RBI Master Circular on Income Recognition, Asset Classification and Provisioning (IRACP norms) · Banking Regulation Act, 1949, Section 35A · CGTMSE (Credit Guarantee Fund Trust for Micro and Small Enterprises) Scheme Guidelines

BASIS

Layer 1: RBI Financial Stability Report, June 2025, and SIDBI-CIBIL MSME Pulse, May 2025 (system-wide data).

Layer 2: 50 verified SME/Trade-Packing-Credit court and disciplinary cases, reconciled as of July 2026; CAG Report No. 10 of 2020 (CGTMSE audit, as of 30 Sep 2018 guarantee book). Private-bank addendum: three stress events (Yes Bank 2019-20, Axis Bank Watch List FY16-18, IndusInd Bank 2024-25), July 2025.

THE SINGLE-LINE THESIS

System-wide data shows MSME stress concentrated in sub-Rs 10 lakh lending, just over half public-sector-originated (52%). 50 verified court cases corroborate it and show what specifically fails, at three stages of the loan's life. Together, this produces a 13-signal codebook — the report's actionable output.

Prepared by **Rohit Kumar** · **ZenLearn Research**

Founder, ZenLearn Research · MBA, IIM Mumbai

Former Head of Business, Eko India

ex-CFO: Blackstone IARC, Pristyn Care, GE A&C SE Asia · Engine development, Tata Nano programme

Read online: zenlearn.ai/sme-underwriting-signals

Published by Zenlearn Research · July 2026 · zenlearn.ai/research

Contents

00 Executive Summary

This report fuses two evidence layers most SME risk work keeps separate. Layer 1 reads system-wide lending data and regulatory data and finds MSME stress concentrated in the smallest tickets, just over half public-sector-originated (**52%**). Layer 2 reads 50 verified court cases and finds the same concentration, plus what specifically failed. Layer 3 turns both into a 13-signal codebook a bank's own CAM review or EWS system can use.

01 System-wide lending data alone points at the risk: delinquency in the smallest MSME loans (under **Rs 10 lakh**) roughly doubled, from **2.0%**[56] to **4.1%**[56] (Mar-22 to Mar-24 cohorts), even as the overall MSME loan book improved — and public-sector banks hold **52%** of that origination. The bureau's own reading names PSU underwriting of micro-MSME as the driver.

02 The court case evidence corroborates the risk directly, though only for public-sector lenders: all 50 verified defaults with an identifiable lender are public-sector, an SBI-associate, or a regional rural bank. That is not because private banks are exempt — private banks recover through SARFAESI, which produces no court record, and neither their internal write-off decisions nor RBI's divergence assessments for them are made public the way CAG audits and court filings are for public-sector guarantee schemes. The same underwriting weaknesses are plausible at private banks; they are simply undocumented.

Within the public-sector corpus, three patterns lead:

(1) security or valuation mismatch, in 27 of **50 cases**

(2) document verification gaps, in 27 of **50 cases**

(3) a governance failure — someone with authority to stop the loan overrode an objection instead, in 15 of **50 cases**.

03 Fusing system-wide and regulatory lending data with court case evidence produces a 13-signal codebook, organised by loan-lifecycle stage:

(1) five signals to check before sanction — security/valuation mismatch, document verification, forged documents, financial appraisal, site verification

(2) two governance signals at the sanction decision itself — authority overriding an objection, procedural shortcuts

(3) six signals for after disbursement — monitoring failure, end-use diversion, CGTMSE-scheme misuse, evergreening, connected-party lending, and circumvention via multiple accounts.

THE 3 PATTERNS THAT LEAD, BY HOW OFTEN THEY RECUR ACROSS 50 VERIFIED CASES

Case-level presence — a signal counted once per case if it appeared at least once, not an occurrence count.

01 Layer 1 — Data: the smallest MSME loans are failing fastest, majority public-sector-originated (52%)

> System-wide data already shows MSME stress concentrated in the smallest tickets — and originated just over half the time by public-sector banks (52%).

2.0%[56] to 4.1%[56]

DELINQUENCY, SMALLEST MSME LOANS (MAR 2022 VS MAR 2024 ORIGINATIONS)

System-wide, MSME asset quality looks like it is improving: GNPA on MSME lending fell from 4.5%[55] in March 2024 to 3.6%[55] in March 2025, and sub-prime MSME borrowers fell from 33.5%[55] to 23.3%[55] over three years (RBI Financial Stability Report, June 2025). That average hides a tail moving the opposite way: the sub-Rs 1 crore ticket band already shows delinquency at 3.1% and rising, against the system's declining trend.

Narrow further, to the sub-Rs 10 lakh band — the band this report's case corpus sits in — and delinquency within the first 12 months of the loan has doubled: 2.0%[56] for loans made in March 2022, to 4.1%[56] for loans made in March 2024 (SIDBI-CIBIL MSME Pulse, May 2025). The smallest, least-scrutinised loans are getting worse while everything larger improves.

52%

SUB-RS 10 LAKH MSME ORIGINATIONS HELD BY PUBLIC-SECTOR BANKS

10.8%[55]

NPA RATE ON THE CGFMU GUARANTEE SCHEME COVERING THIS TICKET BAND

First, origination: public-sector banks hold 52% of these sub-Rs 10 lakh originations, and the bureau's own read is unambiguous — this is a public-sector underwriting problem, not a private-bank or NBFC one. Split by lender type, system-wide MSME delinquency sits at a five-year low of 1.79%[56] (Mar-25), but that split moves in different directions: 2.1%[56] at public-sector banks, 1.2%[56] at private banks — both broadly improving — while NBFCs move the opposite way, worsening on this same measure.

Second, a completely separate data source agrees: the CGFMU government credit-guarantee scheme, which covers exactly this ticket band, runs a 10.8%[55] NPA rate — roughly three times the system-wide MSME GNPA of 3.6%[55], worse than the banking system headline suggests.

Third, the CGTMSE guarantee scheme's own audit adds a sharper cut: of 12,10,061 guaranteed accounts, 6,976[57] turned bad within just 90 days of sanction (CAG Report No. 10 of 2020) — failure fast enough to point at the sanction decision itself, not slow post-disbursement drift.

3.4%[58] / 1.1%[58]

NBFC-SECTOR GNPA / NNPA, END-SEP-2024

NBFCs get their own direct anchor too, not an inference from bank data. RBI's Report on Trend and Progress of Banking in India 2023-24 puts NBFC-sector GNPA and NNPA at 3.4%[58] and 1.1%[58] respectively (end-Sep-2024) — a healthier headline than the bank-originated sub-Rs 10 lakh figure above.

Read against the lender-type split above: on that same measure, NBFCs were the one lender type moving the wrong way while banks broadly improved. That exposure keeps growing too — NBFCs held 11.7%[58] of total bank-plus-NBFC MSME credit at end-March 2024, a rising share.

Rs21,640 cr[60]

BANK OF MAHARASHTRA'S WRITE-OFF POOL VS ITS 1.45% HEADLINE GNPA

One public-sector bank's own disclosure shows both patterns at once. Bank of Maharashtra reports a headline GNPA of 1.45%[60] (Mar-26) — but its cumulative written-off-account pool stands at Rs 21,640 crore[60], roughly five times that GNPA figure: stress that has already moved off the books rather than disappeared.

Its MSME advances grew 10.7%[60] year-on-year against 21.7%[60] for total advances — MSME lending slowing relative to the rest of the bank, the same deceleration signal Section 2 shows from the NBFC side.

52%

HIGHEST-RISK SEGMENT: SUB-RS 10 LAKH, MAJORITY PUBLIC-SECTOR-ORIGINATED

0.58%

CGTMSE ACCOUNTS TURNING BAD WITHIN 90 DAYS OF SANCTION

This is Layer 1's picture, built entirely from system-wide and regulatory data, before a single court case is read. It says where to look (sub-Rs 10 lakh, majority public-sector-originated at 52%) and gives an early hint of when in the loan's life things go wrong (CGTMSE's 90-day failures).

Layer 2 tests both: do the 50 verified default cases actually come from this same segment, and if so, what specifically failed?

> THE POINT
>
> Implication for portfolio oversight: System-wide data alone already points at majority-PSU-originated (52%), sub-Rs 10 lakh MSME lending as the highest-risk, least-scrutinised segment.

02 Layer 1 continued — NBFC lenders show the same pattern, in their own disclosures

> Three independent NBFC MSME lenders and RBI's own system-level data all show the same shape: the smallest, least-secured tickets carry the highest stress, and at least two lenders are now voluntarily pulling back from exactly that segment.

Rs95,238 cr / 22.7%

MSME NPAS, ALL SCHEDULED COMMERCIAL BANKS, FY25 — MSME NPA IS 22.7% OF ALL NPAS

RBI's Report on Trend and Progress of Banking in India 2024-25 puts a rupee figure on the bank-side finding from Section 1: Micro & Small Enterprise NPAs across all scheduled commercial banks stood at **Rs 95,238 crore** in FY25 — **22.7%** of all SCB NPAs. Split by bank group, public-sector banks carry **Rs 70,708 crore** of that (**25.9%** of their own total NPAs), against private banks' **Rs 21,041 crore** (**16.1%** of their own total NPAs) — MSME stress is a disproportionately larger share of public-sector banks' NPA stock specifically, not just a larger absolute number.

9.9%[50]

MSME SHARE OF NBFCS' OWN TOTAL BOOK, AND GROWING

The same RBI report gives NBFCs their own numbers directly. MSME credit is **9.9%**[50] of NBFCs' own total book and growing, while NBFC lending to microfinance contracted **11.6%**[2] over the same window even as vehicle and gold loans accelerated: NBFCs pivoting away from MFI stress toward secured, asset-backed segments.

−19% to −68%

YOY SME/UNSECURED DISBURSEMENT CONTRACTION, CHOLA AND BAJAJ FINANCE

Three individual NBFC lenders' own disclosures show this same pattern directly, at the individual-lender level.

Cholamandalam's SME book shows 150-day Stage 3 (150+ days overdue, roughly NPA-equivalent) of **2.36%** (Mar-25). Its own response was to cut SME disbursements **19%** year-on-year in that same quarter (Q4FY25) — a lender voluntarily tightening SME originations, which is itself a leading indicator, not just a lagging one.

Bajaj Finance's consolidated GNPA rose to **1.21%** and its unsecured Business Loan disbursements were cut **68%** year-on-year, management citing over-leveraging in small-ticket unsecured borrowers.

UGRO Capital, a third independent NBFC MSME lender, shows product-level GNPA of **0.8%**[61] on its Secured Business Loan (**Rs 89 lakh**[61] average ticket, property-secured) versus **3.9%**[61] on its Business Loan (**Rs 20 lakh**[61] average ticket, CGTMSE-guaranteed), overall **2.4%**[61] — confirming, for a third time, that the smallest-ticket product is where GNPA concentrates.

6x

TRANSPORT-OPERATOR NPA VS SME NPA AT SHRIRAM FINANCE

Shriram Finance's own FY25 sectoral-exposure disclosure shows its SME-loan book actually improved, GNPA falling from 4.97%[59] to 4.08%[59] even as the book grew 45% (Rs 25,621 cr to Rs 37,066 cr) — SME is not where Shriram's stress sits. Transport operators are: a much larger book (Rs 2,03,460 cr) carrying Rs 9,421 cr[59] of gross NPAs, more than six times the SME segment's Rs 1,510 cr[59], even though the transport-operator GNPA ratio also improved (5.60% to 4.63%).

Shriram's write-offs rose 64% year-on-year (Rs 2,942 cr[59] to Rs 4,813 cr[59]) in the same year its headline GNPA improved — some of that improvement is real, and some of it is cleaning via write-off, the same pattern Section 1 already flags for public-sector banks generally.

RBI SYSTEM-LEVEL MSME AND NBFC DATA, FY2024-25

METRIC	VALUE	SOURCE
Micro & Small Enterprise NPAs, all SCBs	Rs 95,238 cr (22.7% of all SCB NPAs)	RBI Trend & Progress 2024-25, Table IV.20
Public-sector banks' share of that MSME NPA stock	Rs 70,708 cr (25.9% of their own NPAs)	RBI Trend & Progress 2024-25, Table IV.20
Private banks' share of that MSME NPA stock	Rs 21,041 cr (16.1% of their own NPAs)	RBI Trend & Progress 2024-25, Table IV.20
MSME as share of NBFCs' own total book	9.9%[50], Mar-25, growing	RBI Trend & Progress 2024-25, §VI.F
NBFC MFI/SHG lending change	-11.6%[2] (Mar-24 to Sep-25)	RBI Trend & Progress 2024-25, Table VI.6

RBI Report on Trend and Progress of Banking in India, FY2024-25 edition (published Dec 2025). · *Source: ZenLearn Research*

THREE NBFC MSME LENDERS, OWN-DISCLOSED PRODUCT/SEGMENT DATA

LENDER	KEY FIGURES	SOURCE
Cholamandalam Investment & Finance	SME Stage 3 (Ind-AS ECL classification, 150+ days overdue, broadly equivalent to NPA): 2.36% (Mar-25); SME disbursements -19% YoY (Q4FY25)	Chola Q4FY25 Investor Presentation
Bajaj Finance	Consolidated GNPA 1.12% to 1.21% YoY; unsecured Business Loan disbursements -68% YoY, cited cause: over-leveraging in small-ticket unsecured borrowers	Bajaj Finance Q3FY26 Investor Presentation
UGRO Capital	Product-wise GNPA: Secured Business Loan 0.8%[61] (Rs89[61]L ticket), Business Loan 3.9%[61] (Rs20[61]L ticket, CGTMSE-guaranteed), overall 2.4%[61] (Sep-25)	UGRO Capital Q2FY26 Investor Presentation

THREE NBFC MSME LENDERS, OWN-DISCLOSED PRODUCT/SEGMENT DATA (CONTINUED)

LENDER	KEY FIGURES	SOURCE
Shriram Finance	SME GNPA improved **4.97%**[59] to **4.08%**[59] (book +**45%**); Transport operators carry **Rs 9,421 cr**[59] NPA (6x SME's **Rs 1,510 cr**[59]) even as their GNPA also improved **5.60%** to **4.63%**; write-offs +**64%** YoY (**Rs 2,942 cr**[59] to **Rs 4,813 cr**[59]) alongside the improving headline	Shriram Finance Annual Report FY2024-25, Note 91.03 (Sectoral Exposure)

All three are independent NBFC MSME lenders; none is the source of any case in this report's 50-case corpus (Layer 2) — this is separate, corroborating lender-level evidence. · *Source: ZenLearn Research*

THE POINT

Implication for lender-behavior monitoring: when a lender voluntarily cuts SME or unsecured disbursement by double digits year-on-year, that contraction is itself an early-warning signal worth tracking — not just the GNPA that follows it a few quarters later.

03 Layer 2 — The verified court cases corroborate exactly what Layer 1 predicts, and name what specifically failed

> Every identifiable lending bank across the 50 verified court cases is public-sector — corroborating Layer 1's finding, for reasons this section explains, not because private banks are exempt from these same failures.

This report is built on 50 verified, fetched, cited SME and trade-finance default cases: 25 Cash Credit, 10 Trade/Packing-Credit, 7 Overdraft, 5 Term Loan, and 3 SSI Term Loan.

Every case carries a citation and a direct link to the source judgment.

50/50

IDENTIFIABLE-BANK CASES ARE PUBLIC-SECTOR, SBI-ASSOCIATE, OR RRB

Before reading what failed, it is worth testing what Layer 1 predicted. Of the **50 cases** where the lending bank is identifiable in the record, every single one is a public-sector bank, an SBI-associate, or a government-sponsored regional rural bank — zero private-sector banks appear as the lending institution anywhere in this corpus.

Part of this is a sourcing-channel effect: most of these cases were prosecuted by the CBI under the Prevention of Corruption Act, which applies to public servants, a category that covers public-sector and RRB bank officers but not private-bank employees in the same way. But that explanation does not cancel the corroboration — it sits alongside Layer 1's independent, bureau-sourced finding that public-sector banks hold **52%** of sub-**Rs 10 lakh** MSME originations — two different evidence sources, reached two different ways, pointing at the same institutional concentration.

27/50

SECURITY OR VALUATION MISMATCH — THE MOST FREQUENT CASE-LEVEL SIGNAL

With that corroboration established, the case evidence names what specifically failed. Every documented failure was tagged by what it actually was, then counted once per case. Security or valuation mismatch — overvaluation, non-panel valuers, forged or missing title verification, undisclosed prior mortgages — is the single most frequent signal at 27 of **50 cases**.

Document verification not performed is close behind at 27 of 50. Forged or fabricated documents accepted at face value appear in 25 of 50, financial or credit appraisal bypassed in 20 of 50, and site verification skipped or falsified in 16 of 50.

15/50

SANCTIONING-AUTHORITY OVERRIDE OR PRESSURE WITHOUT JUSTIFICATION

Two further patterns are large enough to name on their own. In 15 of **50 cases**, a sanctioning officer or committee member overrode a branch recommendation, an advisory cap, or a colleague's dissent without recording why.

In 15 of 50, the sanction itself was processed through a visibly shortened or incomplete procedure.

CASE-LEVEL SIGNAL FREQUENCY — ALL 13 SIGNALS

FAILURE TYPE	CASE-LEVEL FREQUENCY	WHAT IT LOOKED LIKE IN THESE FILES
Security/valuation mismatch	27/50	Overvaluation (2.4x to 13x seen), non-panel valuers, forged or unverified title deeds, undisclosed prior/dual mortgage, book-debt inflation
Document verification not performed	27/50	TIN/VAT/PAN/voter-ID not checked against issuing authority; KYC skipped; CIBIL of borrower or guarantor never pulled
Forged/fabricated document accepted	25/50	Forged certificates, fabricated CA-firm audit reports, forged Bills of Lading and bank statements, backdated appraisal notes
Financial/credit appraisal bypassed	20/50	No TEV study, no fresh appraisal at enhancement, adverse credit rating or prior default with another bank ignored
Site verification bypassed or falsified	16/50	False visit reports, non-existent units, premises mismatch, factory inspection not carried out despite directions
Sanctioning-authority override or pressure	15/50	Branch recommendation or advisory cap overridden without documented reason; objections raised and overruled; direct pressure on processing staff
Procedural shortcut at sanction	15/50	Incomplete applications accepted, formalities compressed into one day, no application or documents on file at all
End-use diversion not controlled	9/50	Disbursement not routed to the named supplier/purpose; proceeds moved to sister concerns same-day
Post-sanction monitoring failure	9/50	Four-eye review bypassed, compliance directions never enforced, erection/commissioning of financed machinery never confirmed
CGTMSE-scheme-specific misuse	4/50	Asset-creation requirement bypassed via cash disbursement, prohibited third-party guarantee taken, scheme eligibility not verified
Evergreening / NPA-classification masking	3/50	Manipulative fund transfers or ad hoc enhancement on an already-overdue account to defer NPA classification
Limit circumvention via multiple accounts	1/50	Same borrower opened parallel accounts to stay under a single-exposure limit
Connected-party / related-borrower lending	1/50	Overdraft facility sanctioned to related borrowers (father and son) against related-party norms

Case-level presence (a signal counted once per case if it appeared at least once), not occurrence count. Based on 50 verified cases. The five largest signals (16-27/50) are a strong within-sample pattern; the smaller signals (1-9/50) are documented but should be read as confirmed occurrences, not system-wide rates. · *Source: ZenLearn Research*

04 Layer 2 — The failure pattern splits into three stages of the loan's life, not one flat list

> The 13 signals in this report are not one undifferentiated list — they cluster into three points in a loan's life, and the newest, most consequential cluster is about the sanctioning decision itself being overridden.

First, the five largest signals — valuation, document verification, forgery acceptance, appraisal bypass, site verification — all describe something missing or done badly before the money moves. Call this the pre-sanction appraisal stage.

It remains the largest single cluster — but this report goes further, into the sanction decision itself and what happens after disbursement.

Second, two signals large enough to name at **50 cases** describe something different: not a check that was skipped, but a decision that was made against the process. Call this the decision-point governance stage. In Sudhir Kumar Arora's case, a loan-processing officer testified directly to the pressure behind an overdraft sanctioned on grossly inflated collateral: "there was a lot of pressure from Pavan Arya to process the CVPOD loan within a day and not to put many objections." That is not a documentation gap — it is a record of someone who had the authority to slow the loan down, and, under pressure, chose not to use it.

The same Pavan Arya named in that testimony was separately convicted in his own case at the same Corporation Bank centralised processing centre — a **Rs 5 crore** cash-credit facility sanctioned after a CIBIL score of minus one was struck off the file without any reason recorded, and after the loan amount was reduced from **Rs 7 crore** specifically to stay under a higher-scrutiny audit threshold (CBI vs Pavan Arya & Ors., CC No. 61/2019). Two independently adjudicated cases, naming the same individual, from the same processing centre — this is not a single anomalous file.

This governance-stage finding is not particular to this corpus. A 2021 study of **26,501**[68] credit loan applications evaluated by 30 credit officers at a major bank found approval rates dipped measurably around midday and rose again later in the day — officers defaulting to rejection under decision fatigue, for reasons that had nothing to do with the file in front of them (Baer & Schnall, "Quantifying the Cost of Decision Fatigue: Suboptimal Risk Decisions in Finance," Royal Society Open Science, 2021).

If a sanctioning decision can swing on the time of day it was made, an undocumented override — made under pressure, with no reason recorded — is exactly the kind of decision an audit trail exists to catch.

A third, smaller stage shows up only after disbursement: post-sanction monitoring. Nine cases show end-use funds never verified as reaching their stated purpose, and a further nine show ongoing compliance simply lapsing.

Three cases go further: an already-overdue account was actively manipulated — temporary fund transfers, an ad hoc limit increase — specifically to avoid the loan being classified non-performing, a pattern that speaks directly to the asset-classification framework (RBI's Income Recognition and Asset Classification norms) this report is anchored against.

~3 in 10

CASES WHERE THE FAILURE WAS A DECISION MADE AGAINST THE PROCESS, NOT A PRE-SANCTION GAP

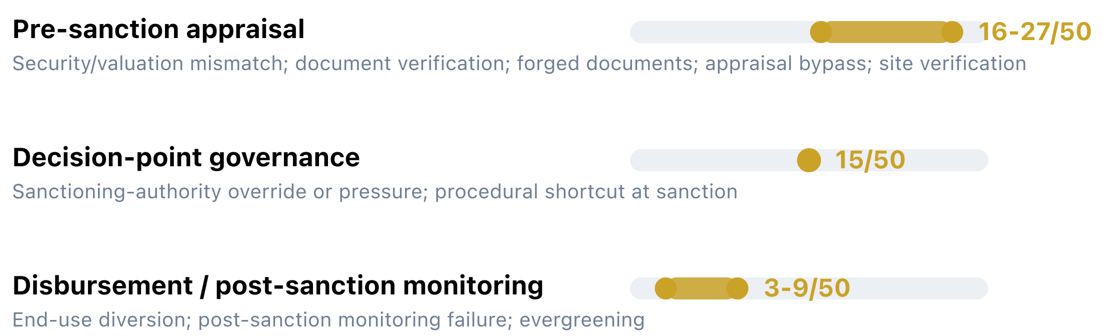
~1 in 5

CASES WHERE THE FAILURE ONLY APPEARED AFTER THE LOAN WAS ALREADY DISBURSED

This three-stage structure matters for what a monitoring system should actually watch. A system built only to catch pre-sanction gaps would still miss the roughly three-in-ten cases where the gap was a decision made against the process, and the roughly one-in-five where the failure only appeared after the loan was already disbursed.

SIGNAL CLUSTERS BY LOAN-LIFECYCLE STAGE

Each stage's signals occur at different rates within the corpus, shown here as the combined case-count range across the signals in that stage — not a single blended rate.



A single case can and often does show signals from more than one stage — the stages describe when in the loan's life the gap occurred, not mutually exclusive case buckets.

> THE POINT
>
> Implication for control design: A monitoring system built only for pre-sanction checks would still miss the governance failures and the post-disbursement drift this report documents.

05 Layer 2 — Cash Credit, half the corpus, splits into three distinct failure patterns of its own

> Cash Credit, now 25 of the 50 court cases, is not one pattern but three: stock and book-debt fraud, collateral and valuation fraud, and a smaller but qualitatively worse cluster sanctioned with essentially no appraisal file at all.

Cash Credit is half the corpus. Reading the **25 cases** together, three distinct patterns emerge.

The first is stock-statement and book-debt fraud (stock statements are the periodic inventory/receivables declarations that set a Cash Credit borrower's drawing power): receivables inflated against the audited balance sheet, suppliers listed as debtors to fake drawing power, stock statements never actually submitted despite being logged as received.

The second is collateral and valuation fraud: forged title deeds, properties overvalued several times over, certified copies never compared against originals.

The third, smaller but more severe, is a set of cases sanctioned with essentially no appraisal process at all — no application, no assessment, no security documents on file, credit extended purely on the officer's own authority. This third pattern is qualitatively different from the first two: it is not that a check was done badly, but that no process was followed at all.

Overdraft (**7 cases**) clusters on limits enhanced without a fresh look at the borrower's finances — one account's limit tripled with, in the court's own words, no financial proposition and no financial report prepared. SSI Term Loan (**3 cases**) clusters on units that turn out not to exist.

Trade and Packing Credit (**10 cases**) clusters on forged trade documents and disbursement that bypasses end-use control — forged Bills of Lading, buyer orders accepted as unauthenticated photocopies, funds routed through the borrower instead of direct to the named supplier. Term Loan (**5 cases**) clusters on missing techno-economic viability studies and vendor due diligence before project-linked disbursement.

One sub-segment remains too thin to profile with confidence: SSI Term Loan sits at **3 cases**. This is the priority gap for further case sourcing if the aim is even coverage across all five sub-segments.

SME/CASH-CREDIT INTERNAL CUT (25 CASES)

PATTERN	CASES	DEFINING FAILURE
Collateral / valuation fraud	9	Forged title deeds or grossly overvalued security accepted
Mixed / multi-signal pattern	9	Cases combining identity/credit-history gaps (unverified guarantor ID, ignored adverse rating, no CIBIL pull) with a governance element (authority exceeded, objections overridden) — not reducible to a single most frequent pattern in our case sample
No appraisal at all	5	Sanctioned with no application, assessment, or supporting documents on file
Stock-statement / book-debt fraud	2	Receivables and stock figures inflated or never verified against audited accounts

Exact re-tally of all 25 Cash Credit cases, classified by most frequent failure pattern in our case sample (2026-07). · *Source: ZenLearn Research*

SUB-SEGMENT FAILURE PROFILE

SUB-SEGMENT	CASES	DEFINING FAILURE	CHECK THAT WOULD HAVE CAUGHT IT
Cash Credit	25	See internal cut above	Reconcile stock statements to audited accounts; panel valuer only; verify no-appraisal red flags at branch level
Trade/Packing Credit	10	Forged trade documents; disbursement not controlled to the supplier	Verify Bills of Lading with the issuing shipping line; disburse only direct to supplier
Overdraft	7	Limit enhanced without fresh financial appraisal	Mandatory financial re-appraisal at every enhancement, not a desk memo
Term Loan	5	No techno-economic viability study; no vendor due diligence	Mandatory TEV study through an accredited agency before sanction
SSI Term Loan	3	Unit does not exist, or has no functioning machinery	Independent, geo-tagged site visit; verify Udyam/GST registration at source — flagged as the priority sourcing gap, only **3 cases** so far

THE POINT

Implication for underwriting oversight: Treating Cash Credit as one bucket alongside four much smaller segments would hide that it actually contains three distinct failure patterns worth three distinct fixes.

06 Private sector addendum — why no private bank court cases, and what stress events show instead

> Zero SME borrowers are documented at any of three examined private banks — confirming the 50-case corpus's public-sector concentration is a structural evidence gap, not a search failure, and yielding 9 portfolio-level signals in the process.

0

SME BORROWERS DOCUMENTED ACROSS ALL THREE EXAMINED PRIVATE BANKS

Three private-bank stress events with strong public documentation were examined specifically for SME involvement, to test whether the case corpus's public-sector concentration is a search gap or something structural:

- Yes Bank's 2019-20 collapse
- Axis Bank's 2016 Corporate Watch List
- IndusInd Bank's 2024-25 disclosures

6.6x to Rs48,193cr[62]

YES BANK'S AQR DIVERGENCE, FY16 TO FY17

Yes Bank is the only private-bank collapse with a full enforcement paper trail — an RBI supersession, an ED arrest, CBI chargesheets. Its failures are large-scale and well documented: understated its FY16 GNPA at **Rs 749 crore**[62] against RBI's assessment of **Rs 4,926 crore**[62] — a 6.6x gap that grew to **Rs 48,193 crore**[62] by FY17, the largest single-bank AQR divergence in Indian banking history.

Four mechanisms drove it — fee-for-loan pricing of sub-standard credit, quid pro quo arrangements (Yes Bank bought **Rs 4,735 crore**[63] of DHFL debentures; DHFL then paid **Rs 600 crore**[63] to a company controlled by the promoter's family), continued lending after rating downgrades, and evergreening through an asset reconstruction company. Every named defaulter — Reliance ADAG, Essel, DHFL, IL&FS, Jet Airways — is large corporate or NBFC.

No SME borrower appears in any enforcement filing.

Axis Bank's 2016 Watch List closes the question even more directly, by the bank's own words: the disclosure states plainly that "the Watch List pertains to our Corporate lending book only. Our SME and Retail books are not included." What the disclosure does yield is the best-documented Indian bank early-warning methodology on public record — a two-step process (a rule-based trigger on delinquency, sector and leverage, followed by credit-committee judgment on recovery probability), a vintage-cliff pattern (**79%**[64] of flagged accounts originated in the FY10-12 credit-boom window), and a sector-times-leverage interaction (Iron & Steel and Power names at debt-to-equity above 3 to 4 times).

Axis's own 8-quarter NPA-conversion forecast of **60%**[64] proved broadly accurate.

IndusInd Bank's FY25 disclosures are not an SME underwriting failure. A microfinance portfolio review found **Rs 1,885 crore**[65] misclassified through a specific evergreening technique: a delinquent borrower's loan was kept "standard" by issuing a fresh, larger loan to her spouse under separate KYC, booked as a new disbursement rather than a restructuring of the stressed account.

Vehicle finance, the segment originally hypothesised as IndusInd's SME exposure point, shows no documented underwriting failure.

Across all three institutions, the finding is the same: zero documented SME borrowers. This confirms the corpus gap is structural, not a search gap:

- Private banks recover through SARFAESI, which produces no court record the way a CBI chargesheet or a CAG audit does
- Their internal restructuring decisions are not separately disclosed
- RBI's divergence assessments for private banks — unlike the CAG performance audits this report cites for public-sector guarantee schemes — are not published.

In our coded sample, the 50-case corpus will stay concentrated in public-sector cases until a private-bank SME borrower's own legal challenge produces a public record, or RBI begins publishing enforcement detail with borrower names attached.

THREE PRIVATE-BANK STRESS EVENTS, TESTED FOR SME INVOLVEMENT

INSTITUTION	SME BORROWERS DOCUMENTED	NATURE OF FAILURE
Yes Bank (2019-20)	None — all large corporate/NBFC	Credit underwriting: fee-for-loan, quid pro quo, evergreening
Axis Bank Watch List (FY16-18)	SME explicitly excluded by the bank's own disclosure	Macro/sector model failure, not a process failure
IndusInd Bank (2024-25)	None — MFI and Treasury only; vehicle finance not confirmed	Credit monitoring failure (MFI) + accounting governance failure (Treasury)

THE POINT

Implication for private-bank and NBFC governance: This section adds zero cases and makes zero claims about private-bank SME failures — it closes the question a reader would otherwise be left asking, and confirms the corpus gap is a structural feature of how private-bank recoveries and RBI's private-sector supervision get disclosed, not a gap in this report's search.

07 Layer 3 — The signal codebook: 13 signals across three stages of the loan's life, built directly from what Layer 2 found

> This report's 13 signals are grouped by loan-lifecycle stage — the direct output of fusing where Layer 1 says to look (sub-**Rs 10 lakh**, majority public-sector-originated at **52%**) with what Layer 2 says to look for (which specific check, at which stage).

13

CASE-DERIVED SIGNALS ACROSS THREE LOAN-LIFECYCLE STAGES

This report uses 13 signals grouped into the three stages from Section 4 — organised by when in the loan's life a monitoring system should be watching for them, so a reviewer knows not just what to check but at what point in the process to check it. This is not a separate research exercise from Layers 1 and 2; it is their direct output.

Layer 1 says where the risk concentrates (sub-Rs 10 lakh tickets, public-sector origination); Layer 2 says which specific checks fail there and when. The codebook is what a bank turns into an actual CAM review or EWS rule set.

Pre-sanction stage signals anchor the library — five of them: security or valuation mismatch, document verification not performed, forged documents accepted, financial appraisal bypassed, and site verification skipped — each present in 16 to 27 of the 50 cases.

Decision-point governance stage signals sit just behind them in frequency but describe a different kind of failure — two of them: sanctioning-authority override and procedural shortcuts at sanction, each present in 15 cases.

Post-sanction stage signals, including cross-cutting ones, are smaller but real — six of them:

- End-use diversion
- Post-sanction monitoring failure
- CGTMSE-scheme misuse
- Evergreening
- Connected-party lending
- Limit circumvention via multiple accounts

The last three of these rest on 1 to 3 cases each and are reported as documented occurrences, not rates.

SIGNAL DEFINITIONS — PRE-SANCTION APPRAISAL STAGE

SIGNAL	CONFIDENCE TIER	WHAT A MONITORING SYSTEM SHOULD TEST
Security/valuation mismatch	Primary — anchor signal	Does the collateral valuation match an independent, panel-valuer assessment dated before sanction?
Document verification not performed	Primary — anchor signal	Was every borrower-supplied ID, certificate or statement checked directly against the body that issued it?
Forged/fabricated document accepted	Primary — anchor signal	Was any submitted document cross-checked for authenticity against an independent record?

SIGNAL DEFINITIONS — PRE-SANCTION APPRAISAL STAGE (CONTINUED)

SIGNAL	CONFIDENCE TIER	WHAT A MONITORING SYSTEM SHOULD TEST
Financial/credit appraisal bypassed	Primary — anchor signal	Was a fresh appraisal or credit bureau report obtained at this specific sanction or enhancement?
Site verification bypassed or falsified	Secondary — well evidenced	Was an independent, dated site visit conducted by someone other than the relationship officer?
Limit circumvention via multiple accounts	Documented, not rate-validated	Does the borrower hold other accounts, at this or related branches, that combined exceed the intended exposure limit?
Connected-party / related-borrower lending	Documented, not rate-validated	Are related-party or family relationships between co-borrowers checked against lending norms?

SIGNAL DEFINITIONS — DECISION-POINT, POST-SANCTION AND CROSS-CUTTING STAGES

SIGNAL	CONFIDENCE TIER	WHAT A MONITORING SYSTEM SHOULD TEST
Sanctioning-authority override or pressure	Primary — anchor signal	If terms were changed from a branch recommendation or advisory cap, is the reason documented and auditable?
Procedural shortcut at sanction	Primary — anchor signal	Does the file contain a complete application, assessment and supporting documents, processed within the normal cycle time?
End-use diversion not controlled	Documented, not rate-validated	Was disbursement routed directly to the named supplier or purpose?
Post-sanction monitoring failure	Documented, not rate-validated	Is there a timestamped record of periodic compliance checks after disbursement?
CGTMSE-scheme-specific misuse	Documented, not rate-validated	Where CGTMSE-guaranteed, were the scheme's asset-creation and guarantee conditions independently verified?
Evergreening / NPA-classification masking	Documented, not rate-validated	Are fund movements on a stressed account reviewed for patterns that defer, rather than resolve, an overdue classification?

Case-level frequencies for these signals are in Section 3's table and are not repeated here. · *Source: ZenLearn Research*

THE POINT

Implication for CAM review design: A signal earns its place — and its lifecycle stage — by showing up in the cases, not by sounding plausible in advance, and every signal here traces back to what Layer 1 said to look for.

08 Layer 3 — Catching these court cases needs a fix at each stage, not just a better pre-sanction checklist

> A pre-sanction checklist rewrite alone would still miss three in ten of these court cases — the ones where the failure was a decision made against the process, or a lapse after the money had already moved.

For the **pre-sanction stage**, four checks map directly to the most frequent signals in our case sample:

- Source-verify every borrower document against the body that issued it, rather than accepting the borrower's copy
- Make independent, geo-tagged site verification mandatory at sanction and at every enhancement
- Restrict valuation to a panel valuer dated before sanction, with a second opinion above a defined ticket size
- Require a fresh financial appraisal — not a limit-enhancement memo — at every enhancement, plus a techno-economic viability study for project-linked term loans

For the **decision-point governance stage**, the fix is different in kind: a documented, auditable trail for any deviation from a branch recommendation, an advisory cap, or a colleague's dissent, with the reason recorded at the time of the decision, not reconstructed afterward.

Sudhir Arora's case shows exactly what this would catch — a processing officer's testimony about pressure to skip objections is only discoverable after the fact today; an audit trail requirement would make that pressure visible at the point it was applied, not years later in a courtroom.

For the **post-sanction stage**, the fix is a monitoring discipline distinct from appraisal:

- Mandatory end-use verification against the sanctioned purpose
- Periodic compliance checks with a defined escalation path
- An evergreening-detection rule: any fund movement or ad hoc enhancement on an account already showing overdue signs should trigger an asset-classification review under RBI's own IRACP framework, not a workaround

Because Layer 1 showed this risk concentrates in majority public-sector-originated (**52%**), sub-**Rs 10 lakh** lending specifically, these three fixes are most urgent exactly there, not spread evenly across a bank's whole SME book.

FIXES MAPPED TO LIFECYCLE STAGE AND SIGNAL

STAGE	FIX	SIGNAL IT ADDRESSES	CASE EXAMPLE
Pre-sanction	Source-verify documents directly with the issuer	Document verification (27/50)	Chawla — forged CA-firm audit reports and ITRs never checked with the tax department
Pre-sanction	Independent site verification at sanction and every enhancement	Site verification (16/50)	SC Pathak — 'factory' was a 25x12 ft shop with no machinery

FIXES MAPPED TO LIFECYCLE STAGE AND SIGNAL (CONTINUED)

STAGE	FIX	SIGNAL IT ADDRESSES	CASE EXAMPLE
Pre-sanction	Panel-valuer-only valuation, pre-dated, second opinion above threshold	Security/valuation mismatch (27/50)	Sudhir Arora — collateral overvalued 2.4-3.6x against later independent valuations
Decision-point governance	Documented, auditable trail for any override of recommendation/dissent	Sanctioning-authority override (15/50)	Sudhir Arora — officer testimony of direct pressure to bypass objections
Post-sanction	Mandatory end-use verification against sanctioned purpose	End-use diversion (9/50)	Rani Ramesh — funds disbursed in cash specifically to bypass CGTMSE end-use controls
Post-sanction	Evergreening-detection rule tied to IRACP asset-classification review	Evergreening (3/50)	Nagpal — 23 manipulative fund transfers to defer NPA slippage

THE POINT

Implication for sanctioning governance: This is the product's actionable core, spanning three stages instead of one — a pre-sanction checklist, a governance audit trail, and a post-sanction monitoring rule.

09 Layer 3 — Where does your own SME book sit against this pattern — banks and NBFCs alike?

> The most frequent failure patterns in this report's case sample translate into five direct questions a credit risk officer at a bank or an NBFC should be able to answer from memory in under a minute.

The pages that follow put this report's findings to work: a short self-assessment spanning all three lifecycle stages, named leading indicators for ongoing monitoring, a four-level maturity ladder, an illustrative cost-of-inaction calculation anchored to Layer 1's system-wide rates, and a one-page note that can go straight into a board pack.

Each stage's fix in Section 8 also has a natural owner inside a bank, not a new team — the gap is enforcement in most cases, not a missing function.

Layer 1 covers both banks and NBFCs (NBFC-sector GNPA of **3.4%**[58], end-Sep-2024) — but the sub-**Rs 10 lakh** delinquency finding is bank-sourced, since SIDBI-CIBIL publishes that specific figure for banks only. NBFCs should still treat it as relevant to their own book: SIDBI-CIBIL's data separately shows NBFCs diverging upward in this segment even as their whole-sector GNPA looks healthy.

None of the pages that follow invent a number. The self-diagnostic questions and the leading indicators restate this report's own case-sample signals as operational questions and measurable rates. The cost-of-inaction table applies two figures already used elsewhere in this report — the CGTMSE early-mortality rate (**6,976**[57] of **12,10,061** guaranteed accounts, roughly **0.58%**) and the sub-**Rs 10 lakh** delinquency trend (**2.0%**[56] to **4.1%**[56]) — as two different, clearly labelled lenses on the same book-size exposure.

WHO OWNS EACH STAGE'S FIX

STAGE	OWNER	WHY
Pre-sanction verification (document, valuation, site)	The credit/appraisal function	Already performs these checks — the gap is enforcement, not a missing function
Decision-point governance (the override-justification trail)	The sanctioning authority itself — branch manager, zonal office, or credit committee	Only whoever holds the power to override can be asked to document why they used it
Post-sanction monitoring (end-use verification, the evergreening-detection rule)	Credit monitoring or the risk function	Internal audit validates the trail afterward, rather than performing the checks itself

LEADING INDICATORS TO TRACK MONTHLY

INDICATOR	WHAT IT MEASURES	DERIVED FROM
Document-source-verification completion rate	Share of SME sanctions where borrower documents were checked directly against the issuing authority	Document verification not performed (27/50)
Valuation-timing compliance rate	Share of collateral valuations dated before sanction, from a panel-approved valuer	Security/valuation mismatch (27/50)
Override-justification documentation rate	Share of sanctioning-decision deviations with a documented, auditable reason on file	Sanctioning-authority override (15/50)
End-use verification completion rate	Share of disbursements verified as reaching their sanctioned purpose	End-use diversion not controlled (9/50)
Overdue-account fund-movement flag rate	Share of overdue accounts screened for evergreening-pattern fund movements	Evergreening (3/50)

Each indicator restates a Section 3/7 signal as an ongoing rate a bank or NBFC can compute from its own sanction and monitoring records. · *Source: ZenLearn Research*

10 What this report does not yet claim

> 50 verified court cases support a strong pattern within this report's own sample, but this is a hand-selected set of adjudicated cases, not a random sample of the whole market — the system-wide-rate claims belong to Layer 1's own cited sources, not to this report's case sample.

The two evidence layers in this report make different kinds of claims, and they should not be conflated. Layer 1's figures (delinquency, GNPA trends, PSU origination share) are system-wide, drawn directly from RBI and SIDBI-CIBIL's own published data, and can be read as system-wide rates.

Layer 2's figures (27/50, 25/50, and so on) are case-level frequencies within this report's own hand-selected sample of 50 adjudicated defaults — strong enough to say these patterns recur, not strong enough to say they represent a system-wide default rate.

Sub-segment sample sizes within Layer 2 remain uneven. Cash Credit (25) and Trade/Packing-Credit (10) are large enough to support their own within-segment cuts, as Section 5 does for Cash Credit. Overdraft (7) and Term Loan (5) are moderate. SSI Term Loan, at **3 cases**, is the thinnest sub-segment and the clearest priority for further case sourcing.

Finally, this report is intentionally scoped to SME, SSI, Cash Credit, Overdraft, Trade/Packing-Credit and Term Loan lending only. It makes no claim about Personal Loans, Auto Loans, Home Loans, Agricultural credit, Gold Loans or any other retail or credit product — those sit outside this corpus and are addressed, where covered, in separate reports built on their own case evidence.

A pattern with precedent — before this corpus, and outside India too.

This failure mode is not new to Indian banking, and it is not unique to Indian SME lending internationally either.

The **Punjab National Bank fraud** shows the domestic precedent, before this report's own corpus and at a very different scale. Employees at a single Mumbai branch issued unauthorised Letters of Undertaking over SWIFT for years without recording them in the bank's core banking system — a reconciliation control that existed on paper but was not enforced in practice.

The fraud reached **Rs 14,356.84 crore**[67] before detection in February 2018. The Reserve Bank of India's own assessment was direct: the fraud was "a case of operational risk arising on account of delinquent behaviour by one or more employees of the bank and failure of internal controls" (RBI press release, **16 February 2018**).

The mechanism is structurally the same one this report's own corpus documents at the SME level — a verification control that existed in policy but was not enforced in practice, unchecked for years by the bank's own supervisory processes — just scaled to a single large corporate exposure instead of many small ones.

The **US Small Business Administration's** own Inspector General found that of the **$1.2**[56] trillion disbursed under the COVID-era Paycheck Protection Program and Economic Injury Disaster Loan programs, over **$200 billion**[57] — roughly **17%** of all funds — went to potentially fraudulent actors, because, in the audit's own words, "in the rush to swiftly disburse... funds, SBA calibrated its internal controls [and] weakened or removed the controls necessary to prevent fraudsters from easily gaining access to these programs" (SBA Office of Inspector General, Report 23-09, **27 June 2023**).

The **UK's Bounce Back Loan Scheme** shows the same pattern at smaller scale. Of the 1.5 million loans, worth **GBP 47 billion**, issued to UK small businesses from May 2020, the UK government's own National Audit Office estimated roughly **11%** (**GBP 4.9 billion**) as fraudulent as of March 2021 — the scheme ran with no credit checks by design, and duplicate-application checks were not implemented until June 2020, by which point **61%** of the loan value had already gone out the door (National Audit Office, "The Bounce Back Loan Scheme: an update," Session 2021-22, **3 December 2021**).

The mechanism is the same one Sections 2 and 3 document: verification and governance controls that existed in policy but were not enforced in practice, in four different settings — one in India before this report's own corpus, and three at different scales and speeds abroad.

THE POINT

Implication for how this evidence should be used: The size of a claim in this report always matches the size and layer of evidence behind it — a reader can tell at a glance which findings are system-wide rates, which are within-sample patterns, and which are single documented occurrences.

11 Decision-point governance has external validation too — credit decisions vary by the clock, not just the file

> A study of **26,501**[68] real credit decisions found approval rates dip measurably around midday and recover later in the day — evidence that judgment inconsistency in lending decisions is a general, documented phenomenon, not something unique to this report's own case corpus.

Section 4 showed that in 15 of 50 cases, a sanctioning officer or committee member overrode a branch recommendation, an advisory cap, or a colleague's dissent, with no reason recorded on file — governance failures made under pressure. A separate line of evidence shows a related but distinct failure: credit decisions drift even with no pressure at all.

26,501[68]

CREDIT LOAN APPLICATIONS STUDIED, 30 OFFICERS, ONE BANK, ONE MONTH (2021)

$509,023

MODELLED ADDITIONAL MONTHLY REVENUE AT THE EARLY-MORNING APPROVAL RATE — THE PAPER'S OWN ESTIMATE

Baer and Schnall (2021) tracked 26,501[68] credit loan applications evaluated by 30 credit officers at a major bank over one month. Approval rates were highest early in the day, dipped measurably around midday, and recovered again in the afternoon — officers defaulting to rejection under decision fatigue, for reasons that had nothing to do with the file in front of them.

Modelling the bank's own decisions at the early-morning approval rate throughout the day implied roughly $509,023 in additional monthly revenue for that one bank alone — the paper's own sensitivity estimate, not a figure this report derives.

The two findings point at the same governance gap from different directions. This report's own corpus shows decisions overridden under direct, documented pressure — Sudhir Kumar Arora's case, where a loan-processing officer testified to "a lot of pressure from Pavan Arya to process the CVPOD loan within a day and not to put many objections," and the separate, independently adjudicated case where Pavan Arya's own sanction struck off an adverse CIBIL score without recording why.

Baer and Schnall's study shows the same category of failure occurs even absent any pressure, purely as a function of when in the day a decision happens to be made.

Neither failure mode is visible in a bank's own records today, for the same reason: nothing requires a sanctioning decision to carry a timestamped, auditable reason when it departs from a recommendation. Section 8's override-justification trail is the fix for both — a record made at the moment of the decision, whether the deviation came from pressure, fatigue, or a reason that was never examined.

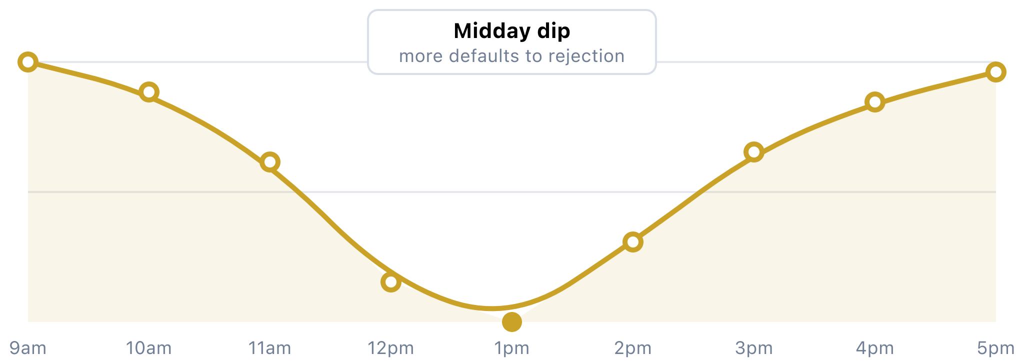
30
CREDIT OFFICERS, ONE MAJOR BANK

1 month
OBSERVATION WINDOW

The chart below traces the study's own reported pattern across the working day.

APPROVAL RATE ACROSS THE WORKING DAY — ILLUSTRATIVE PATTERN

Baer & Schnall (2021) did not publish an hour-by-hour table of exact rates in the sources reviewed for this report. The values below trace the reported SHAPE only — high near the start and end of the day, a measurable dip around midday — not exact published figures.



Illustrative index (9am = 100), not the study's own published rate. Source: Baer & Schnall, "Quantifying the Cost of Decision Fatigue: Suboptimal Risk Decisions in Finance," Royal Society Open Science, 2021.

THE POINT

Implication for monitoring-system design: an override-justification trail catches a decision made under pressure and a decision made under fatigue the same way — because it does not need to know WHY a decision departed from the norm, only THAT it did, and when.

SD Self-Diagnostic

5 questions, sixty seconds

> Five yes/no questions spanning all three lifecycle stages this report documents. Answer from memory — if you have to check, that is itself informative.

01	For your last ten sub-**Rs 10 lakh** MSME sanctions, was every borrower-supplied document checked directly with the issuing authority, and every valuation dated before sanction from a panel-approved valuer?	Y / N
02	If a sanctioning officer changed terms from a branch recommendation or overrode an advisory cap in the last year, is there a documented reason on file for every instance?	Y / N
03	Is an independent site visit mandatory before every limit enhancement, not only at first sanction?	Y / N
04	Do you verify disbursed funds actually reached their sanctioned purpose, rather than assuming end-use from the loan documents alone?	Y / N
05	Could you produce, for any SME account gone bad this year, a record of which pre-sanction, decision-point, and post-sanction checks were completed?	Y / N

> **Scoring.** Two or more 'no' answers puts this report's pattern — not a hypothetical one — inside your own SME book.

MM Maturity Model

where you are — and how to move up

> Most banks and NBFCs sit at Level 1–2. Find your row, read the evidence an inspector would actually get at that level, then the single move that advances you.

LVL	STAGE	WHAT AN INSPECTOR GETS	MOVE UP BY
1	**Training-completion dashboards** Officers are trained on CAM procedure and the training is logged, but no record shows whether any check, at any stage, was performed on any file.	Attendance records only — nothing an inspector could tie to a specific account.	**Log which checks were completed on every SME file before building a dashboard.**
2	**Periodic knowledge testing** Officers are periodically tested on procedure, but day-to-day files aren't sampled for whether the tested knowledge was applied at any stage.	Test scores, not file-level evidence checks were performed.	**Route a quarterly file sample through an independent reviewer covering all three stages.**
3	**Scenario-sampled judgment** A sample of files is periodically reviewed against the pre-sanction signals, but decision-point and post-sanction stages are rarely sampled.	Point-in-time audit findings; gaps between samples unmeasured.	**Extend sampling to override-justification and post-sanction verification, not just pre-sanction.**
4	**Continuous judgment system** Every sanction, enhancement, and post-sanction review is checked against the full signal set at the time it happens, with a timestamped record.	Account-level, inspection-defensible evidence, on demand.	**Re-validate the signal set against new case law periodically.**

SB Scope Boundary

what this measures — and what it is not

> This report measures what specific checks were missing or overridden across the loan's life in verified SME/trade-finance court cases, cross-referenced against system-wide MSME stress data — it does not score borrowers, predict default probability, or replace a bank's existing scorecard, bureau check, regulatory compliance process or internal audit function.

TOOL / ENGINE	WHAT IT DOES	WHY THIS LAYER IS DISTINCT
Credit bureau score (e.g. CIBIL)	Estimates a borrower's repayment probability from credit history	Does not tell you which specific sanction-stage document was never verified, or whether the sanctioning decision itself was overridden — this report's signals do
Internal credit scorecard	Weights financial ratios and qualitative inputs into a sanction decision	Assumes the inputs it scores were themselves verified and the decision itself was made cleanly; this report's case evidence shows both assumptions fail in a large share of the corpus
RBI's asset-classification and fraud-risk-management framework	Sets the timelines for classifying a loan non-performing (IRACP norms) and requires banks to maintain fraud-risk-management and monitoring processes	Governs when a loan must be classified NPA and that a monitoring process must exist — it does not name which specific check a bank's own process is missing at which stage of the loan's life; this report's signal set names that check and that stage directly
Internal audit / periodic credit review	Samples a subset of sanction files against the bank's own written CAM policy	Checks compliance with one institution's own policy in isolation; this report's signal set is drawn from a cross-institution, court-verified pattern spanning 50 cases plus system-wide bureau data, which a single bank's internal sample cannot see on its own
This report's signal set	Names the specific check missing at each of three loan-lifecycle stages, ranked by how often it recurs, targeted at the segment system-wide data flags as highest-risk	Not a probability model — a description of where verification, governance, or monitoring actually broke down, drawn from system-wide and case evidence together

CI The Cost of Getting It Wrong

the financial impact, sized

> A low/base/high provisioning-drag sensitivity on an SME book, using three of this report's own cited rates against RBI's own IRACP provisioning norms — not a prediction for any specific institution.

LOSS DRIVER	THE NUMBER	WHAT MOVES IT
Low — CGTMSE early-mortality rate, at the lightest provisioning tier	0.58% x 15%	Sub-standard-secured provisioning (RBI's IRACP norms) applied to the illustrative share of guarantee-eligible sanctions failing within 90 days of sanction
Base — sub-Rs 10 lakh delinquency trend, at the same provisioning tier	4.1%[56] x 15%	Sub-standard-secured provisioning applied to the March-2024 cohort's delinquency rate — the higher end of the two-year doubling this report documents
High — CGFMU scheme's own NPA rate, at a deeper provisioning tier	10.8%[55] x 25%	Doubtful-asset (up to 1 year, secured) provisioning applied to the CGFMU scheme's own NPA rate for this ticket band — roughly three times the system-wide MSME GNPA

Formula & Methodology

`Illustrative provisioning drag = (SME book value in the relevant ticket band) x (failure/delinquency rate, 0.58% to 10.8% depending on scenario) x (RBI's IRACP provisioning percentage for the resulting asset-classification stage, 15% to 25%)`

- Book value is institution-specific and supplied by the reader; the rate and the provisioning percentage in each scenario are both cited, not invented

ASSUMPTIONS

- All three rates (0.58% CGTMSE early-mortality, 4.1%[56] sub-Rs 10 lakh delinquency, 10.8%[55] CGFMU NPA) are published figures already cited elsewhere in this report; none is blended or averaged across scenarios
- The provisioning percentages (15% sub-standard-secured, 25% doubtful-up-to-1-year-secured) are RBI's own IRACP norms
- This is a provisioning-drag lens, not a loss-given-default estimate — no LGD or recovery rate is assumed

> Institution-specific input required to complete any of the three scenarios: the bank or NBFC's own SME/sub-Rs 10 lakh ticket book value. Supplied by the reader at the point of use.

BB Board Briefing

lift-and-drop for the board pack

SITUATION

System-wide data (RBI FSR, SIDBI-CIBIL) shows sub-Rs 10 lakh MSME delinquency doubling in two years (2.0%[56] to 4.1%[56]), concentrated in public-sector bank origination (52% share).

50 verified, court-documented SME and trade-finance defaults corroborate this concentration directly and show the same four to five checks missing in half or more of the files, plus a governance finding: in 15 of 50 cases, someone with authority to stop the loan overrode an objection or a cap instead.

No public disclosure allows an external observer to confirm which of these checks any given bank or NBFC has closed.

IMPLICATION

If these checks are not independently verifiable in your own SME sanction files today, this report's pattern is a live exposure, not a historical curiosity — and it is most urgent exactly in the segment system-wide data already flags: sub-Rs 10 lakh tickets.

The checks are specific and operational, spanning three stages of the loan's life, with five named indicators to track them.

Question for management. Can we produce, for any SME account that goes bad this year, a record showing whether each of the checks in this report was completed at the relevant stage?

Recommended next step. Sample a set of recent sub-Rs 10 lakh SME sanction files against the check list in Section 8 and report the pass rate — using the leading indicators in Section 9 — before the next credit committee review.

CL Closing

System-wide data, read on its own, already points at where MSME credit is failing: the smallest tickets, originated mostly by public-sector banks. Fifty verified court cases confirm it directly and add what the system-wide data alone cannot — the specific checks that failed, and at which of three stages of the loan's life they failed.

Pre-sanction appraisal is where most of the volume sits. Decision-point governance is where the sharpest single finding sits: in 15 of **50 cases**, someone with the authority to stop the loan chose not to, and there is rarely a record of why.

Post-sanction monitoring is smaller but regulatorily live, tying directly into IRACP asset-classification exposure.

Section 8 turns each stage into a specific fix, and Section 9 turns those fixes into indicators a credit risk officer — at a bank or an NBFC — can put on a monthly dashboard rather than reconstruct after the fact. The open question this report leaves for the reader is the one only their own files can answer: which of these checks, at which stage, would your own SME book pass today?

This report establishes the empirical evidence and the operational signal framework. The output is a reusable signal library — thirteen signals, each anchored to a stage of the loan's life and a measurable rate — that can be embedded into underwriting reviews, scenario-based capability assessments, file reviews, or automated monitoring, rather than read once and set aside.

How these findings should influence a specific institution's underwriting governance, control design, and portfolio oversight depends on its own operating model, and is considered separately in the accompanying Decision Brief.

RS **Research Series**

This brief is part of ZenLearn Research's structured stream on judgment risk in Indian regulated financial institutions. Briefs are listed in expected order of release.

01 THIS BRIEF · FINANCIAL COMPLIANCE

SME Underwriting: The 13 Signals Banks Miss Before a Default

The present brief in the series.

02 PUBLISHED · FINANCIAL COMPLIANCE

Visible at Sanction

Origination-stage structural weakness in 50 adjudicated large-credit cases — the signal that separated failures from matched survivors, legible in the file at sanction.

03 PUBLISHED · CYBERSECURITY

From Regulation to Balance Sheet

Why India's 2026 reimbursement shift turns digital-fraud adjudication into a high-exposure control function — and how existing operating models fail.

04 PUBLISHED · FINANCIAL COMPLIANCE

Credit-Underwriting Safeguards

The unobserved credit-judgment gap in banking decisions — why pre-loss underwriting evidence belongs on the CRO's dashboard.

05 PUBLISHED · FINANCIAL COMPLIANCE

FY25 RBI Enforcement Analysis: Patterns across 353 penalised entities

Quantitative analysis of Rs 54.78 cr in FY25 RBI penalties — breakdown by entity type, the NBFCs barred from new lending, and the FY25 CoR cancellations.

06 PUBLISHED · FINANCIAL COMPLIANCE

Building Judgment-Ready Credit Teams: Credit-officer judgment failures in India's NBFCs

Maps ten recurring credit-officer judgment errors to RBI enforcement actions, FSR observations and credit-bureau data.

07 WORKING PAPER · CORPORATE GOVERNANCE

The Judgment Quotient (JQ) Framework: Measuring decision quality in regulated institutions

Academic working paper, co-authored with faculty at IIM Mumbai, in preparation for a peer-reviewed banking-regulation journal.

08 FORTHCOMING · CYBERSECURITY

Frontline Digital Fraud Triage

How first-line analysts triage suspected-fraud alerts under the clock — where escalation discipline breaks, and what a measured, defensible triage decision looks like.

09 FORTHCOMING · CORPORATE GOVERNANCE

Board Adjudication Governance

What a board should see about the quality of contested-claim and fraud-classification decisions — the governance layer above the adjudication file.

10 FORTHCOMING · FINANCIAL COMPLIANCE

Collections-Conduct Resilience

Decision quality and conduct risk in collections — where commercial pressure erodes protocol discipline, and how to evidence fair-practice adherence.

11 FORTHCOMING · CORPORATE GOVERNANCE

Committee Inspection Readiness

Making the Special Committee for Fraud and the Audit Committee inspection-ready — the decision-quality evidence an RBSA inspector actually asks for.

12 FORTHCOMING · CYBERSECURITY

Silent Risk Absorption

The losses banks quietly absorb rather than adjudicate — sizing the unmeasured write-off and the decisions behind it.

RF Sources & References

each source tagged primary or secondary

Governing instruments · circulars · regulations · rules

01 PRIMARY RBI Master Circular — Prudential Norms on Income Recognition, Asset Classification and Provisioning pertaining to Advances (IRACP norms)
https://rbi.org.in/Scripts/BS_ViewMasCirculardetails.aspx?id=12472

Supporting sources & data

02 PRIMARY W.P.(C) 2846/2017, W.P.(C) 3910/2017, W.P.(C) 3915/2017; 1 February 2021
https://indiankanoon.org/doc/90876133/

03 PRIMARY CBI Case No. 38/11, 3 May 2013 (sentencing 10 May 2013)
https://indiankanoon.org/doc/48464929/

04 PRIMARY RC No. 2(E)/1996, 8 Aug 2018
https://indiankanoon.org/doc/53996001/

05 PRIMARY CBI No. 27/2019, 7 Sep 2024
https://indiankanoon.org/doc/55482390/

06 PRIMARY Criminal Appeal No. 208/2011, 12 February 2025
https://indiankanoon.org/doc/139374899/

07 PRIMARY Spl.C.C.No.180/2013, KABC010000011995, 21 November 2024
https://indiankanoon.org/doc/147853648/

08 PRIMARY CRL.APPL.NO.(SH)8/2010, 10/2010, 12/2010, 13/2010, 14/2010; 2013
https://indiankanoon.org/doc/48995721/

09 PRIMARY CC No. 80/2019, RC No. 12(E)/2011, 3 June 2024
https://indiankanoon.org/doc/79385245/

10 PRIMARY Civil Misc. Writ Petition No. 11446 of 2009, 11 May 2012
https://indiankanoon.org/doc/149998930/

11 PRIMARY Special (Corruption) Case No. 61/2002, 27 April 2015
https://indiankanoon.org/doc/172103464/

12 PRIMARY CC No. 03/2012, RC No. 219/2011/E0003/EO-I/New Delhi, 19 January 2015
https://indiankanoon.org/doc/160988782/

13 PRIMARY RC No. 06(E)/2003/EOW-I/CBI/ND, 4 December 2018
https://indiankanoon.org/doc/64850089/

14 PRIMARY W.P.(C) 625/2016, 5 April 2021
https://indiankanoon.org/doc/107509623/

15 PRIMARY CBI No. 342/2019; CNR DLCT11-001391-2019
https://indiankanoon.org/doc/71464644/

16 PRIMARY W.P.No.21680 of 2010; 8 January 2014
https://indiankanoon.org/doc/68594258/

17 PRIMARY WP No. 19387 of 2013; 31 October 2019
https://indiankanoon.org/doc/68913789/

18 PRIMARY W.P. No. 28443 (W) of 2016; 7 March 2019
https://indiankanoon.org/doc/89270700/

19 PRIMARY C/SCA/20248/2005; 22 April 2016
https://indiankanoon.org/doc/36215166/

20 PRIMARY 112(2004)DLT822
https://indiankanoon.org/doc/460560/

21 PRIMARY ILR 2005 KAR 3449
https://indiankanoon.org/doc/792852/

22 PRIMARY W.P.(C) 8732/2019; 4 July 2022
https://indiankanoon.org/doc/136544353/

23 PRIMARY WRIT-A No. 30055 of 2005; 30 September 2010
https://indiankanoon.org/doc/70232954/

24 PRIMARY Special C.C. No. 5/2010; 5 November 2015
https://indiankanoon.org/doc/39479036/

25 PRIMARY Criminal Appeal Nos. 715, 742, 750, 756 of 2013; 78 of 2014; 5 December 2017
https://indiankanoon.org/doc/177809866/

26 PRIMARY AIRONLINE 2020 DEL 514; 24 February 2020
https://indiankanoon.org/doc/114991721/

27 PRIMARY CBI No. 21/2009; FIR RC-1(E)/2000/EOW-I/CBI; 23 July 2015
https://indiankanoon.org/doc/12003278/

28 PRIMARY CC No. 18/03; 11 December 2012
https://indiankanoon.org/doc/103653148/

29 PRIMARY CC No. 16/16; RC No. 072-2008-E-0004; 2017
https://indiankanoon.org/doc/84113088/

30 PRIMARY CC No. 04/12; RC No. DAI-2002-A-0039; 2013
https://indiankanoon.org/doc/163364954/

31 PRIMARY Spl. CC No. 183/2000; 17 February 2018
https://indiankanoon.org/doc/115114514/

32 PRIMARY AIRONLINE 2021 DEL 430; W.P.(C) 7401/2017
https://indiankanoon.org/doc/26640423/

33 PRIMARY Service Bench No. 22613 of 2016; 26 July 2017
https://indiankanoon.org/doc/95400015/

34 PRIMARY CC No. 07/2016 (old 18/2013), 21 Mar 2018
https://indiankanoon.org/doc/23586452/

35 PRIMARY Special Case No. 482/2017, 18 Mar 2024
https://indiankanoon.org/doc/166224678/

36 PRIMARY Writ-A No. 1088 of 2011, 3 Mar 2016
https://indiankanoon.org/doc/108469716/

37 PRIMARY Crl Appeal Nos. 621/664/688/704 of 2011, 14 Sep 2023
https://indiankanoon.org/doc/81631938/

38 PRIMARY Corruption Case No. 42/04, 24 Sep 2009
https://indiankanoon.org/doc/90904741/

39 PRIMARY Spl. C.C. No. 24/2016, 7 Feb 2022
https://indiankanoon.org/doc/25896102/

40 PRIMARY CBI Case No. 40/11; RC No. 071/2009(E)/0001, judgment 3 Nov 2015
https://indiankanoon.org/doc/171861087/

41 PRIMARY 24 Jan 2025
https://indiankanoon.org/doc/122702346/

42 PRIMARY AIR 2015 SC 3657, 28 Aug 2015
https://indiankanoon.org/doc/63704382/

43 PRIMARY 28 Sep 2010
https://indiankanoon.org/doc/147952745/

44 PRIMARY 31 August 2016
https://indiankanoon.org/doc/49476559/

45 PRIMARY 19 March 2024
https://indiankanoon.org/doc/146092683/

46 PRIMARY 2017
https://indiankanoon.org/doc/42439911/

47 PRIMARY 2025
https://indiankanoon.org/doc/55154205/

48 PRIMARY 24 December 2025
https://indiankanoon.org/doc/29805721/

49 PRIMARY 23 February 2024
https://indiankanoon.org/doc/106717354/

50 PRIMARY 2024
https://indiankanoon.org/doc/102655254/

51 PRIMARY CC No. 61/2019; RC No. 13/(A)/2015, 7 December 2019
https://indiankanoon.org/doc/186615496/

52 attributed ZenLearn's own case-level analysis of this report's 50-case verified corpus (each case individually cited in this report's references) · 2026-07

53 attributed ZenLearn's own case-level analysis of this report's 50-case verified corpus (each case individually cited in this report's references); the CGTMSE early-mortality figure is separately sourced to CAG Report No. 10 of 2020 · 2026-07

54 attributed ZenLearn's own case-level analysis of this report's 50-case verified corpus (each case individually cited in this report's references), cross-referenced against SIDBI-CIBIL MSME Pulse, May 2025 (cited separately) · 2026-07

55 PRIMARY RBI Financial Stability Report, June 2025 · 2025-06

56 PRIMARY SIDBI-CIBIL MSME Pulse, May 2025 · 2025-05
https://www.sidbi.in/head/uploads/msmepluse_documents/MSME%20Pulse_Report_May_2025_Digital_Version_compressed.pdf

57 PRIMARY CAG Report No. 10 of 2020, Chapter IV (CGTMSE performance audit) · 2020
https://cag.gov.in/en/audit-report

58 PRIMARY RBI Report on Trend and Progress of Banking in India 2023-24, Ch. VI (NBFCs) · 2024-12
https://www.fidcindia.org.in/wp-content/uploads/2024/12/RBI-NBFCs-REPORT-ON-TRENDS-2023-24-26-12-24.pdf

59 PRIMARY Shriram Finance Annual Report FY2024-25, Note 91.03 (Sectoral Exposure) · 2025

60 PRIMARY Bank of Maharashtra Annual Report FY2025-26 · 2026

61 PRIMARY UGRO Capital Q2FY26 Investor Presentation, 'Product wise GNPA' / ticket size table · 2025-10

62 attributed BW Businessworld — CBI chargesheet report, Sep 2025 (RBI AQR findings, media-confirmed) · 2025-09
https://www.businessworld.in/article/cbi-charges-rana-kapoor-anil-ambani-in-rs-5-000-cr-yes-bank-fraud-case-577542

63 attributed Lawful Legal — Yes Bank fraud case, ED/CBI vs Rana Kapoor, case summary · 2025-07
https://lawfullegal.in/yes-bank-fraud-case-ed-cbi-vs-rana-kapoor/

64 PRIMARY Axis Bank Corporate Lending Watch List disclosure, Apr 2016 (Axis Bank's own investor disclosure) · 2016-04
https://www.axis.bank.in/docs/default-source/shareholders/financial-results-and-other-information/investor-presentations/2015---2016/corporate-lending-watch.pdf

65 attributed BusinessToday — IndusInd Bank microfinance loan audit, Rs 6,000 cr improper lending, Jun 2025 · 2025-06
https://www.businesstoday.in/markets/stocks/story/indusind-bank-microfinance-loan-audit-rs-6000-crore-improper-lending-481553-2025-06-24

66 PRIMARY RBI press release, 16 February 2018 — statement on the Punjab National Bank fraud · 2018-02
https://www.rbi.org.in/commonman/English/Scripts/PressReleases.aspx?Id=2604

67 attributed Business Standard — Punjab National Bank fraud, Rs 14,356.84 crore · 2018-05
https://www.business-standard.com/about/what-is-pnb-scam

68 PRIMARY Baer & Schnall, "Quantifying the Cost of Decision Fatigue: Suboptimal Risk Decisions in Finance," Royal Society Open Science · 2021-05
https://royalsocietypublishing.org/doi/10.1098/rsos.201059

About ZenLearn

ZenLearn is a prevention-intelligence platform for Indian BFSI institutions. Rather than monitoring what has already happened, it analyses an institution's own decision artefacts — sanctioned credit files, approval rationales, committee records, exceptions, and frontline decision patterns — for structural signatures that historically precede institutional losses. The result is board-grade evidence that enables Chief Risk Officers to identify hidden vulnerabilities before they crystallise into NPAs, regulatory observations, fraud events, or governance failures.

Two complementary instruments on the platform are:

Origination Diagnostic retrospectively examines sanctioned credit files to identify structural fragilities associated with future credit deterioration, policy deviations, documentation weaknesses, and unsupported underwriting judgments. It operates entirely on exported files, requires no integration with core banking systems, and produces a board-ready findings report.

Judgment Instrumentation prospectively measures decision quality as it is being exercised. Delivered within Microsoft Teams or Slack, it captures frontline and committee responses to realistic scenarios in under ninety seconds, creating timestamped, tamper-evident evidence that supports internal governance, inspection readiness, and audit defensibility without introducing another enterprise application.

Together, these instruments address a gap that conventional risk systems leave untouched. Existing platforms measure exposures, controls, transactions, and outcomes. ZenLearn measures the quality of the decisions from which those outcomes emerge, giving institutions an earlier and more actionable layer of risk visibility.

The underlying measurement framework, Judgment Quotient (JQ), is a rigorous, evidence-based methodology for quantifying institutional decision quality. As the framework matures, it will provide a common language for measuring judgment risk across credit, compliance, operational risk, and governance.

Delivery evidence. ZenLearn's judgment-measurement construct has been delivered in production: a DRA certification pilot with a Blackstone-backed ARC cohort recorded an 80–90% pass rate and a 4.6/5 participant NPS.

To go further. To commission a Judgment Risk Map pilot on a sample of your contested-claims adjudications, or to request the underlying primary-source pack behind this report, write to rohit@zenlearn.ai. A personalised response is sent within 24 hours.

Prepared by **Rohit Kumar · ZenLearn Research**

Founder, ZenLearn Research · MBA, IIM Mumbai

Former Head of Business, Eko India

ex-CFO: Blackstone IARC, Pristyn Care, GE A&C SE Asia · Engine development, Tata Nano programme

Window: Layer 1: RBI Financial Stability Report, June 2025, and SIDBI-CIBIL MSME Pulse, May 2025 (system-wide data).
Layer 2: 50 verified SME/Trade-Packing-Credit court and disciplinary cases, reconciled as of July 2026; CAG Report No. 10 of 2020 (CGTMSE audit, as of 30 Sep 2018 guarantee book).
Private-bank addendum: three stress events (Yes Bank 2019-20, Axis Bank Watch List FY16-18, IndusInd Bank 2024-25), July 2025.

Contact: rohit@zenlearn.ai · zenlearn.ai/research · Proprietary & Confidential