ICMAI
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CHRONICLE

THE INSTITUTE OF COST ACCOUNTANTS OF INDIA (ICMAI)
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Vision Statement

"The Institute of Cost Accountants of India would be the preferred source of resources and professionals for the financial leadership of enterprise globally."

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After an amendment passed by Parliament of India, the Institute is now renamed as ***"The Institute of Cost Accountants of India"*** from ***"The Institute of Cost and Works Accountants of India"***. This step is aimed towards synergising with the global management accounting bodies, sharing the best practices which will be useful to large number of transnational Indian companies operating from India and abroad to remain competitive. With the current emphasis on management of resources, the specialized knowledge of evaluating operating efficiency and strategic management the professionalws are known as ***"Cost and Management Accountants (CMAs)"***. The Institute is the largest Cost & Management Accounting body in the world, having approximately 5,00,000 students and 1,00,000 members all over the globe. The Institution headquartered at New Delhi operates through four regional councils at Kolkata, Delhi, Mumbai and Chennai and 113 Chapters situated at important cities in the country as well as 11 Overseas Centres. It is under the administrative control of Ministry of Corporate Affairs, Government of India.

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Message from the Chairman's Desk

BFSI Chronicle — 26th Edition | October 2026



Dear Professional Colleagues,

Warm greetings from the **Banking, Financial Services & Insurance Board (BFSIB)**.

As the Indian BFSI ecosystem continues to evolve at a remarkable pace, the role of the financial professional is expanding correspondingly. Banking and insurance are moving beyond conventional models towards greater digitalisation, data-led decision-making, stronger governance, sharper cost discipline and more sophisticated risk management. For the CMA profession, this transformation is creating a wider and more meaningful professional canvas.

The **26th Edition of the BFSI Chronicle** comes at an especially significant juncture for the insurance sector. Recent regulatory developments are placing greater emphasis on the economics of insurance distribution, cost rationalisation, transparency and sustainable business models. In this context, the recent **IRDAI Public Consultation Paper on "Reforms for Recalibrating Economics of Insurance Distribution"**, issued in September 2026, is highly pertinent to professionals dealing with insurance cost structures, expenses of management, commissions and governance. BFSIB is actively disseminating these developments and has invited members to contribute their professional views on the consultation.

It is against this evolving landscape that BFSIB has brought out its new publication, **"INSCOST – Cost Management, Cost Governance, Cost Disclosure & Cost Assurance Framework for the Indian Insurance Sector"**. The first edition of 2026 provides a sector-specific framework covering Life, General, Health, Reinsurance and Public-Sector insurance, with emphasis on cost management, governance, disclosure, assurance, product profitability and operational efficiency. The publication also introduces a **Cost Maturity Model and phased Implementation Roadmap**, creating a structured pathway for insurers to strengthen cost practices according to their scale and readiness.

This development also highlights a wider professional opportunity. The increasing focus on **cost audit, cost management, internal audit, assurance and specialist financial analysis** is opening new avenues for CMAs across the BFSI and wider institutional ecosystem. The Institute's professional opportunity platforms presently reflect engagements ranging from cost audit and internal/concurrent audit to financial advisory and specialised assignments, while the BFSI Board continues to pursue wider recognition of CMAs across banking, insurance and financial services.

The Board's larger endeavour is to ensure that opportunity is matched by capability. BFSIB has continued to strengthen the profession through **certificate courses, regulator-focused webinars, seminars, workshops, technical publications and sector-specific knowledge initiatives**. Our

programmes on Concurrent Audit, Credit Management, Treasury & International Banking, Project Financing, Cost Control Strategies in Banking and FinTech are designed with a clear objective—to make CMAs **industry-ready, market-relevant and capable of contributing at the point where financial decisions are actually made**.

Looking ahead, BFSIB will continue to deepen its engagement with regulators, banks, insurers, NBFCs, financial institutions and academic bodies. We will focus on new knowledge areas, specialised professional training, practical guidance, stronger industry interface and greater opportunities for our members. Our endeavour will remain to position the CMA not merely as a finance professional, but as a **trusted partner in cost efficiency, risk management, governance, regulatory compliance and strategic value creation**.

I encourage all members and readers to make this Chronicle a source of continuous professional learning, remain attentive to regulatory developments and actively participate in the Board's initiatives. The future of BFSI will belong to professionals who can understand complexity, interpret change and convert knowledge into institutional value.

Let us continue to strengthen the CMA's contribution to a **more resilient, transparent and professionally governed BFSI ecosystem**, in support of India's larger journey towards **Viksit Bharat 2047**.

With warm professional regards,

CMA Harshad Shamkant Deshpande

Chairman,

Banking, Financial Services & Insurance Board (BFSIB)

The Institute of Cost Accountants of India

From the Desk of the Department

The Reserve Bank of India's decision to increase the policy repo rate and move towards a tighter monetary policy stance underscores the importance of containing inflationary pressures while safeguarding macroeconomic and financial stability. The global economic environment continues to be characterised by geopolitical tensions, with three ongoing wars adding to uncertainty and disrupting global trade and energy markets. Crude oil prices crossing the US$100-per-barrel mark have intensified cost-push inflationary pressures, with elevated energy and food prices posing challenges for economies worldwide. These developments have implications for India's growth trajectory, inflation outlook and financial markets.

The Indian economy, particularly its capital markets, has also experienced the impact of these external developments. Significant market corrections, with the Sensex hovering around the 72,000 level, coupled with sustained selling by Foreign Institutional Investors (FIIs), have contributed to market volatility and investor uncertainty. However, increased domestic investor participation, particularly by retail investors who continue to invest during market corrections, has provided a measure of resilience and optimism. The growing tendency among domestic investors to identify opportunities during market downturns reflects an evolving investment culture, although prudent assessment of risks remains essential. Meanwhile, the continued decline in IT stocks amid the rapid advancement of Artificial Intelligence (AI) reflects market concerns over the potential disruption of traditional business models. At the same time, AI presents significant opportunities for the banking sector, particularly in credit assessment, transaction monitoring, collections, cybersecurity, customer service and personalised product recommendations based on customer behaviour and risk profiles.

Despite elevated energy costs, currency depreciation against the US dollar and continuing geopolitical uncertainties, India has demonstrated considerable resilience in navigating external challenges. Further structural reforms, supported by prudent fiscal and monetary management, can strengthen the economy's capacity to absorb external shocks. For financial institutions, effective foreign exchange risk management, sound liquidity planning and robust risk assessment frameworks will be essential to maintaining stability in an uncertain global environment.

The banking sector is undergoing a profound technological transformation, with the Reserve Bank of India playing a pivotal role in strengthening the regulatory and operational framework. The expansion of digital banking, neo banking models, cloud-based accounting systems and technology outsourcing has enhanced efficiency and accessibility while introducing new operational, technological and functional risks. Cybersecurity has consequently emerged as a critical priority. The growing adoption of Generative AI presents additional challenges, particularly concerning the potential exposure of confidential customer and institutional information through external AI platforms. The risks associated with deepfakes, synthetic identities, sophisticated cyberattacks and data manipulation further underscore the need to protect the integrity, confidentiality and security of financial information. Banks must therefore establish robust data

governance policies, strengthen cybersecurity infrastructure, implement effective access controls and ensure responsible deployment of emerging technologies.

The Reserve Bank's proposed initiatives to enhance financial data interoperability, provide customers with a more integrated view of their financial assets and strengthen engagement with financial market participants represent important steps towards building a more transparent, efficient and customer-centric financial ecosystem. Such initiatives can improve access to financial information, facilitate informed decision-making and enhance the delivery of financial services. When supported by sound corporate governance, effective internal controls and comprehensive risk management practices, these measures can further strengthen the foundations of financial intermediation.

The commencement of the festive season also brings renewed optimism, as it traditionally stimulates consumption, supports retail activity and strengthens credit demand across various sectors. Increased consumer spending and business activity can provide further impetus to economic growth. Nevertheless, global uncertainties, inflationary pressures and financial market volatility will require continued vigilance from policymakers, regulators and financial institutions. India's strong domestic consumption base, expanding digital infrastructure and ongoing economic reforms provide encouraging foundations for sustaining growth.

The banking sector remains a vital pillar of India's economic development, facilitating investment, supporting enterprises, mobilising savings and enabling inclusive growth. Its long-term contribution will depend on maintaining a careful balance between expanding financial intermediation and safeguarding financial stability. Prudent lending practices, effective credit monitoring, robust governance frameworks and proactive risk management must remain central to banking operations.

As the financial sector enters an era increasingly shaped by Artificial Intelligence, the priority is no longer merely to adopt the technology but to govern and deploy it responsibly. Banks must harness AI to improve operational efficiency, strengthen risk assessment, enhance customer experience and detect emerging threats while ensuring transparency, accountability, data privacy and appropriate human oversight. The future of banking will depend on the sector's ability to combine technological innovation with regulatory discipline and ethical responsibility. The way forward lies in embracing Artificial Intelligence as a strategic enabler while ensuring that its application remains secure, responsible and aligned with the best interests of customers, institutions and the economy at large.

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Resilience in Indian Commercial Banks in the volatile AI era: Expected Credit Loss Approach

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Abstract

Climate change, as per SDG 13, is a genuine concern for the entire ecosystem, but in the context of the nations or the global financial system, climate finance is terribly paralyzing the growth path of the banks and financial institutions. The component of climate risk appears to be prominent when borrowers fail to honor their debt burden, as a victim of macro financial shocks, natural calamities, or in some cases due to dynamism in the taste and preference of the consumers. Climate risk dominates borrowers' ability to repay on time, disrupts the smooth flow of cash, hinders steady business development, and ultimately influences Exposure at default (EAD), probability of default (PD), and Loss given default (LGD). On the other hand, the growth in the sustainable finance gained recognition with an increase in investments in the renewable sector, sustainable energy activities, and green projects. The article examines the connection between expected credit loss (ECL), climate risk, and sustainable finance, with emphasis on governance and the role of Artificial Intelligence (AI). Cases from ING, NatWest, SBI, and ICICI Bank demonstrate various stages of integration. The article attempts to provide a framework in which climate risk is linked with lending decisions, credit decisions, ECL and sustainable finance using AI and effective governance norms.

Keywords: Expected Credit Loss, volatile, Sustainable finance, Governance, Artificial Intelligence.

1. Introduction

Climate change is bringing turbulence in the economy. It is also becoming a potential climate risk, dismantling the business setup, industrial acceleration, economic development, cash flow generation, and overall stability of financial metrics. The common understanding of climate change emanates from excessive carbon footprints, the rise of water levels, floods, droughts, landslides, and so on. Looking at the angle of the economic sector, the inertia in the financial system arises due to the climate change-related risk impacting the business of the borrowers, the cash flow of the business,



the operating cost, and the revenue associated with the business.

There are two main types of risks: physical risk and transition risk. Physical risks take place due to the disastrous effects of natural calamities, but transition risks take place when the transitional effects are visible due to low carbon emissions, the use of energy-efficient appliances, vehicles, and various gadgets. Reserve Bank of India (RBI) recognized these transmission channels and, in its pilot Climate Vulnerability Assessment and Stress Testing exercise, found that climate risk can increase credit loss for the financial entities. Banks and financial institutions are struggling to maintain their Asset Quality intact as per the recent Financial Stability Report (FSR) issued by the RBI. The Indian banking system followed the incurred loss approach under IAS 39 in recognizing the toxic assets and making provisioning norms after they becameI bad. The global financial crisis of 2007-08 left scars in the financial system, bringing to light the problem of "Too little too late. The G20 and global regulators felt the need to implement the IFRS 9, a forward-looking approach in early recognition of their loan losses, to restore the overall resilience in the banking sector. Now, banks are supposed to consider the expected credit loss (ECL) model as a forward-looking approach by analysing the past events, characteristics of the borrowers at every reporting date, to reflect the changes in the assets' credit risk. Further crippled by the increase in investment of the banks in the sustainable projects, green projects, which take time to recover the cost and settle their outstandings, and this also calls for the credit risk of the borrowers in a climate-sensitive scenario.

The article is developed around the central point that though banks are luxuriously stepping into the sustainable funding, but attempt to be made towards the consideration of the magnitude of climate risk in assessing the credit risk and ECL for the financial institutions.

2. Transition from climate risk to ECL

2.1. Physical Risk: A borrower can be adversely

impacted due to the occurrence of climate risk. If an agricultural borrower is beset with the problems of rain, cyclones, or droughts, then the obvious outcomes would be the miserable failure in the repayment process. Similarly, a manufacturer can be victimized due to some volcanic eruptions, fire breakouts, and the consequent damage to their production process, plant, and equipment, which can evoke the state of insolvency.

The transmission mechanism can be represented as follows:

Extreme climate event → Business disruption/ asset damage → Lower cash flows → Higher probability of default → Higher EC.

Additionally, physical risks are also responsible for diluting the worth of the collateral, resulting in the rise in LGDs associated with the default.

2.2. Transition Risk: This risk emerges in a different way. In a carbon-centric firm, there are multiple challenges in connection with carbon costs, environmental regulation, a fall in demand for carbon-intensive products, technological replacement costs, higher financial need, and impairment of existing assets. Below is the pathway of how carbon emissions lead to the evolution of ECL

Carbon regulation → Higher production costs → Lower profitability → Weaker cash flows → Increased PD → Higher ECL.

3. Climate Risk and ECL equation:

The formula to be used by the banks under the ECL model is as follows:

ECL=EAD*PD*LGD

Where ECL=Expected credit loss, EAD=Exposure at default, PD = Probability of default, and LGD=Loss given default. In IFRS-9, the model, a forward loss approach, in contrast with the incurred loss approach, incorporates many macro parameters to estimate the losses with rationality and accuracy. Factors that receive considerable attention when calculating potential risk include movements in macro variables, various scenarios, geopolitical risks, and management judgment. These factors are profusely influenced by the climate-related variables.

Below is the table showing the potential impact on the credit risk due to a change in the climate variables.

Table 1: Impact of climate variables on credit risk

Climate impact	Potential credit-risk effect
Flood destroys the factory	Higher PD
Drought reduces agricultural income	Higher PD
Climate regulation increases costs	Higher PD
Stranded assets reduce collateral value	Higher LGD
Transition investment increases borrowing requirement	Potentially higher EAD
Climate-resilient investment improves cash flows	Potentially lower PD

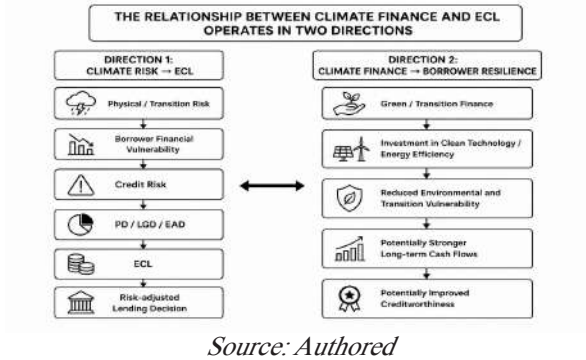
Climate risk does not always require a separate Climate ECL Model; it can be incorporated in the credit risk structure through appropriate risk drivers, possible scenarios, overlays, and model judgment

3. Relation between ECL and climate finance

The two-way relationship between the ECL and climate finance is shown as follows:

Image 1: ECL-Climate Finance Framework





Source: Authored

The second pathway demands interruption. Investment in green finance does not necessarily mean that the credit risk is controlled or eliminated. Sustainable finance and credit risks are two different aspects. RBI emphasized the need for green finance, climate risk integration, and climate data for the purpose of risk modelling and stress testing.

4. Use Cases

ICICI Bank case: The ESG report of the bank revealed an investment of ₹310 billion in a green portfolio as on March 31st, 2025, in addition to the existing environmental targets and initiatives. This highlights a significant proportion of the disbursement of financial resources into the green projects, but it does not indicate that climate-related credit risk is incorporated into ECL. This calls for the need to disclose an important question.

Are banks strengthening sustainable finance allocation and climate-sensitive credit risk assessment?

This distinction is significant because a bank can be a major investor for greenfield projects in the name of sustainable finance, but it should devise a methodology for incorporating climate risk into PD, LGD, and ECL.

ING Climate Transition Risk: The annual report of ING as of 2024 showed that it was not possible for the entity to incorporate the climate risk into the IFRS 9 ECL model separately due to the limitations in the historical and client-level data. And to cover the climate transition risk, the bank introduced a €29 million management adjustment at 31st December 2024; out of this €17 million was related to wholesale banking, and €12 million was related to business banking. The adjustment was reported during stage 2 and focused on the medium to long-term transition risk in high greenhouse gas-emitting sectors. This case throws a key problem associated with risk modeling. Management overlay is used to address the model's limitations.

Climate risk can be economically relevant before sufficient historical data exist to be used in conventional statistical models.

NatWest: Modelling the climate risk into ECL:

The reporting of the 2024 reports stated that the bank used an in-house climate risk macro model to assess the climate risk-related credit. The model incorporated carbon prices associated with any specific climate transition policies into macroeconomic scenarios. The report said that there was a significant contribution from the climate transition policy of £8 million to the total ECL of £3.4 billion at the end of 2024. It examined 46 active and potential transition policies and translated their effects into carbon prices for the equipment sector.

This is a valuable case, because the chain is visible.

Transition policies • sectoral carbon prices • climate macro model • economic effects • credit-risk assessment→ ECL.

The company's 2025 reporting showed a contribution to ECL of £9 million from climate transition policy as of. June 30th, 2025. This case underscores that ECL contribution comes not only from accounting gimmicks but also from systematic sectoral analysis, risk modeling, scenario development, and scientific judgment.

SBI: Emerging integration in Indian Banking

The bank identified in its risk framework both climate change risk management and credit risk management. The climate risks are integrated and reported in a centralized enterprise risk management program. The bank made an ESG assessment for the borrowers for certain projects, and also climate-related risk identification and mitigation. This case points out an important lesson outlined below

Climate-risk assessment→ Borrower engagement→ Transition planning→ Credit decision→ Portfolio transition

This case of SBI shows how climate risk analysis can slowly get into the system of credit risk management. Though the explicit ECL management can't be exclusively done from the climate risk integration, effort has been made towards progress.

5. Emerging Role of AI

The large data set can be effectively controlled by the effects of AI tools, and it can potentially strengthen the relationship between ECL and climate risk.

Table 2: Traditional and climate-sensitive credit risk models

Traditional Credit-Risk Models	Climate-Sensitive Credit-Risk Models
Financial statements	Geographical exposure
Repayment history	Flood and cyclone risk
Leverage	Temperature trends
Liquidity	Rainfall patterns
Collateral	Water stress
Macroeconomic variables	Emissions/ carbon intensity
-	Carbon prices
-	Climate-transition policies
-	Supply-chain vulnerabilities

Source: Authored

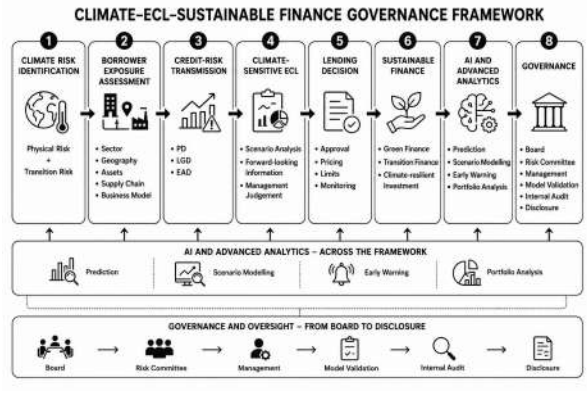
The ideal framework will be as follows:

Financial + Climate + Geospatial + Sectoral Data → AI/ML Analytics → Climate-adjusted PD/LGD/EAD →Climate-sensitive ECL → Credit Pricing & Lending → Sustainable/ Transition Finance.

Proposed Climate ECL Sustainable Finance Governance Framework.

Based on the above discussion, the article proposes an integrated framework. The framework highlights an important principle that sustainable finance should be risk-informed, whereas the climate risk should be credit-informed.

Framework



7. Governance requirements for Boards

A new governance responsibility is created due to the integration of AI, ECL, and climate risk.

- Firstly, the climate risk should be restricted only to sustainability function, rather than being a broad part of enterprise risk management, credit risk, and financial reporting.
- Secondly, the board must understand how climate risk is becoming an inseparable component of credit risk assessment and ECL management. Wherever the management overlays are used, their rationale, evidence, and limitations should be documented.



- Thirdly, AI-enabled credit models require model governance. Boards and other risk committees should seek assurance regarding data quality, data validity, bias associated with data handling, explainability, and occasional recalibration.
- Fourthly, sustainability disclosures and financial risk disclosures must work in tandem. Ideally, there should be no inconsistencies in the reported information. A bank that is reporting substantia sustainable finance should also explicitly mention how climate risk is associated with the portfolio, which is identified, monitored, and incorporated into risk management
- Finally, the board must ensure that corporate governance is maintained in the organization, and also that climate-sensitive risks are duly taken care of and incorporated in the financial reporting. Further, risk governance disclosures and climate-related disclosures are not evaded.

8. Recommendations

The article points out the recommendations as follows:

Integration of climate risk into mainstream risk: Climate risk should not only be an ESG issue, but should also be included in the credit risk structure for better decision-making.

Development of climate-sensitive ECL

methodologies: Banks must consider how the three types of risks, namely physical risk, transition risk, and climate risk, can influence the EAD, LGD, and PD.

Emphasizing scenario analysis: To analyse the possibility of the banks' sustainability in the stressed scenarios, climate-related factors or risks should be translated into more meaningful economic and macroeconomic variables, such as a rise in operating costs, changes in interest rates, fluctuations in currency rates, inflationary trends, and geopolitical factors, as these adversely impact the borrowers' financial conditions, cash flows and asset values.

Connecting the credit risk with sustainable finance: It is important to evaluate the green finance and transition finance not only for the environmental impact, but also for the borrowers' creditworthiness and transition plan credibility.

Establishing strict governance, AI-enabled: AI applications should be supported by validation, explainability, human oversight, data quality controls, and continuous oversight,

Strengthen board-level oversight: Climate risk, ECL, sustainable finance, and AI should be considered as interconnected elements of financial risk governance.

Conclusion

Climate risk is no longer a sustainability concern. It is more of a credit risk and financial risk. For Indian banks, integrating climate risk, sustainable finance, ECL, and AI-supported governance is essential for building a resilient and future-ready banking system.

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INSURANCE Underwriting Lifecycle

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Abstract

Underwriting does not end with the initial assessment of an application. It is a continuing process that generally covers application review, risk assessment, verification, classification, pricing, decision-making, policy issuance, and subsequent monitoring.

Each stage serves a distinct purpose. Information must first be examined and verified, the risk must then be classified, and the premium and terms of coverage must reflect the level of risk involved. After a policy is issued, changes in the insured risk, claims experience, market conditions, and regulatory requirements may require further review.

This article examines these stages across four major areas of insurance: life insurance, general insurance, health insurance, and reinsurance. Although the nature of the risks differs considerably, the underlying principles of assessing, pricing, accepting, and monitoring risk remain broadly comparable.

Introduction

Insurance underwriting is the process through which an insurer examines a proposed risk before deciding whether to provide coverage and, if so, at what price. It involves assessing the information provided by the applicant, identifying the factors that could affect the likelihood or severity of a loss, and determining an appropriate premium.

A sound underwriting process seeks to strike a practical balance between accepting business and protecting the insurer from excessive risk. The quality of underwriting therefore has a direct bearing on both the adequacy of premiums and the insurer's long-term financial stability. A clear understanding of the underwriting lifecycle also helps explain why insurers ask for particular information and how that information ultimately influences coverage decisions.

Application and Initial Review

The underwriting process begins with the submission of an application. The underwriter first checks whether the information supplied

is complete and sufficiently detailed for an initial assessment. At this stage, the objective is not to reach a final decision but to identify anything that may require closer examination.

Missing information, inconsistencies or unusual features in an application can lead to additional questions or documentation. This initial screening helps the underwriter determine how the case should be handled and where more detailed investigation may be necessary.

Risk Assessment

Once the application has passed the initial review, the underwriter examines the factors that could influence the likelihood or potential cost of a claim. The nature of this assessment depends largely on the type of insurance involved.

For personal lines, the review may include matters such as health, driving history and the condition of the insured property. Commercial risks require a broader examination, including the nature of the business, its operations, industry exposures and previous claims experience. Environmental conditions and applicable regulatory requirements may also affect the assessment.

The purpose is to build a realistic picture of the risk rather than rely solely on the information presented in the application.

Verification

Information supplied by an applicant is an important starting point, but underwriters may need to verify it before arriving at a decision. Depending on the nature and size of the risk, this can involve obtaining additional documents, checking records or seeking information from other sources.

For personal insurance, verification may include driving records or relevant health information. Commercial underwriting may require confirmation of business licenses, financial statements and aspects of the company's operations. These checks help identify inconsistencies, reduce the possibility of fraud or misrepresentation, and provide greater confidence in the underwriting decision.

Classification and Pricing Strategy

Following the assessment, the underwriter places the risk into an appropriate category. Personal risks may, for example, be grouped into preferred, standard or higher-risk categories, while commercial risks may be classified according to the characteristics of the industry and the nature of the exposure.

The classification provides the basis for pricing. Premiums are determined with reference to the assessed risk, but the final price may also be influenced by market conditions, competition and the insurer's underwriting strategy.

Decision Making and Policy Issuance

At this stage, the underwriter brings together the findings from the earlier stages and makes the underwriting decision. The application may be accepted as submitted, accepted subject to revised terms, or declined where the risk falls outside the insurer's appetite.

Where changes are required, they may involve adjustments to coverage, exclusions or other policy conditions. Once the terms have been agreed, the insurer issues the policy documentation. Clear communication at this point is important because the insured should understand what is covered, what is excluded and any limits or conditions that apply.

Monitoring and Risk Management

Underwriting continues after a policy has been issued. Risks can change over the life of a policy as a result of personal circumstances,



changes in business operations, claims experience, market conditions or regulatory developments.

Insurers therefore monitor their portfolios and review relevant information when necessary. Claims trends and changes in the underlying risk may lead to adjustments in terms, premiums or future underwriting decisions. In this sense, underwriting is not simply an entry-point decision; it is part of the insurer's continuing approach to risk management.

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LIFE INSURANCE UNDERWRITING LIFECYCLE

The life insurance underwriting lifecycle is the step-by-step process an insurance company uses to evaluate an applicant, assess risk, and decide whether to issue coverage.

1. Application Submission

- You fill out a proposal form with your age, job, lifestyle, and medical history.
- You give the insurer permission to check your background and records.

2. Initial Screening and Data Gathering

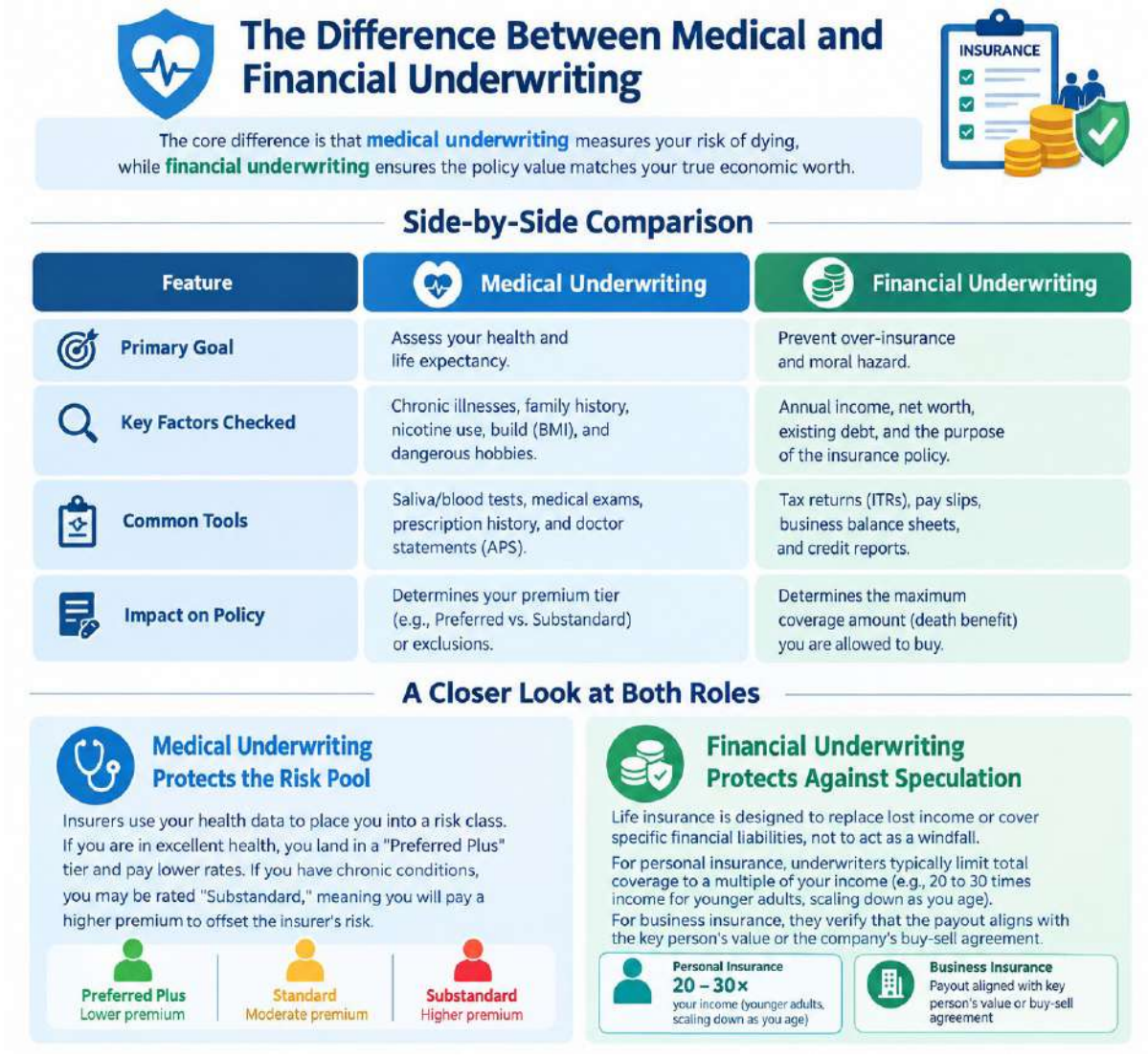
- The insurer runs a preliminary check. Simple cases may use automated Straight Through Processing (STP).
- For deeper reviews, the company pulls data from sources like the Medical Information Bureau (MIB), prescription databases, and motor vehicle reports.
- They may request an Attending Physician's Statement (APS) from your doctor.

3. Medical & Financial Evaluation

- **Medical Underwriting:** You may need a health exam, blood tests, or urine tests.
- **Financial Underwriting:** The insurer reviews your income and debt to make sure the coverage amount makes sense.

4. Risk Classification and Decision

The underwriter places you into a risk category (such as Preferred, Standard, or Substandard).



The final choice is to **approve** the policy as applied for, **modify** it with higher rates or exclusions, or **decline** it.

5. Policy Issuance and Delivery

- If approved, you review the final terms and premium costs.
- You sign the agreement and pay the first premium to activate the coverage.

The difference between medical and financial underwriting

The core difference is that medical underwriting measures your risk of dying, while financial underwriting ensures the policy value matches your true economic worth.

Here is a side-by-side comparison of how these two evaluation processes work:

Feature	Medical Underwriting	Financial Underwriting
Primary Goal	Assess your health and life expectancy	Prevent over-insurance and moral hazard

Feature	Medical Underwriting	Financial Underwriting
Key Factors Checked	Chronic illnesses, family history, nicotine use, build (BMI), and dangerous hobbies.	Annual income, net worth, existing debt, and the purpose of the insurance policy.
Common Tools	Saliva/ blood tests, medical exams, prescription history, and doctor statements (APS).	Tax returns (ITRs), pay slips, business balance sheets, and credit reports.
Impact on Policy	Determines your premium tier (e.g., Preferred vs. Substandard) or exclusions.	Determines the maximum coverage amount (death benefit) you are allowed to buy.

A Closer Look at Both Roles

- Medical Underwriting protects the risk pool. Insurers use your health data to place you into a risk class. If you are in excellent health, you land in a "Preferred Plus" tier and pay lower rates. If you have chronic conditions, you may be rated "Substandard," meaning you will pay a higher premium to offset the insurer's risk.
- Financial Underwriting protects against speculation. Life insurance is designed to replace lost income or cover specific financial liabilities, not to act as a windfall. For personal insurance, underwriters typically limit total coverage to a multiple of your income (e.g., 20 to 30 times income for younger adults, scaling down as you age). For business insurance, they verify that the payout aligns with the key person's value or the company's buy-sell agreement.

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GENERAL INSURANCE UNDER-WRITING LIFECYCLE

The general insurance underwriting lifecycle is the sequential process an insurer uses to evaluate, price, and accept or reject non-life risks (such as property, motor, or liability).

Stages of the Underwriting Lifecycle

- **Application and Submission:** The customer or broker submits an application form along with asset details, loss history, and financial statements.
- **Data Collection and Triage:** The insurer gathers missing fields, loss reports, and third-party inspection data to verify consistency.

Note: *Triage in general insurance is the systematic process of sorting, evaluating, and prioritizing incoming work—such as insurance claims or underwriting submissions—to assign the right resources, urgency level, and workflow.*

Insurance triage ensures that high-priority or complex cases receive immediate attention while routine tasks follow automated paths.

- **Risk Evaluation and Classification:** Underwriters analyse the hazard level and sort the risk into categories like preferred, standard, or high-risk.
- **Pricing and Premium Determination:** Actuarial models and company guidelines are used to calculate an accurate, sustainable price for the coverage.
- **Policy Decisioning:** The underwriter decides whether to approve the policy as requested, modify terms with exclusions or higher deductibles, or decline the risk entirely.
- **Issuance and Monitoring:** Approved policies are issued, followed by ongoing

portfolio tracking, renewals, and claims trend analysis.

HEALTH INSURANCE UNDERWRITING LIFECYCLE

The health insurance underwriting lifecycle is the process, in sequence, insurers use to evaluate risk, classify applicants, set pricing, and manage policies over time.

1. Application and Data Collection

- The process starts when an applicant submits a proposal form detailing their age, lifestyle, habits (like smoking), and medical history.
- Insurers gather extra verification data, such as attending physician statements, previous claims history, or medical database reports, depending on the coverage amount.

2. Risk Evaluation and Classification

- Underwriters analyse the gathered data to gauge future health risks and prevent adverse selection (where only high-risk individuals apply).
- Applicants are sorted into distinct risk categories:
  - **Preferred:** Excellent health and low anticipated claims, earning lower premiums.
  - **Standard:** Average risk levels matching standard pricing.
  - **Substandard:** Higher risk due to pre-existing conditions or dangerous habits.
  - **Declined:** Risk is too high for the insurer to accept.

3. Pricing and Policy Decision

Based on the risk class, the insurer decides whether to approve the policy under standard terms, modify it with a higher premium surcharge (loading), add an exclusion rider for specific conditions, or reject it entirely.

The final decision and pricing terms are communicated to the applicant or broker for acceptance.

4. Policy Issuance and Ongoing Monitoring

Once terms are accepted and the initial premium is paid, the contract goes into effect and the policy is issued.

The underwriting lifecycle extends past issuance through portfolio tracking, claims trend analysis, and renewal reviews to reassess risk over time.

REINSURANCE UNDERWRITING LIFECYCLE

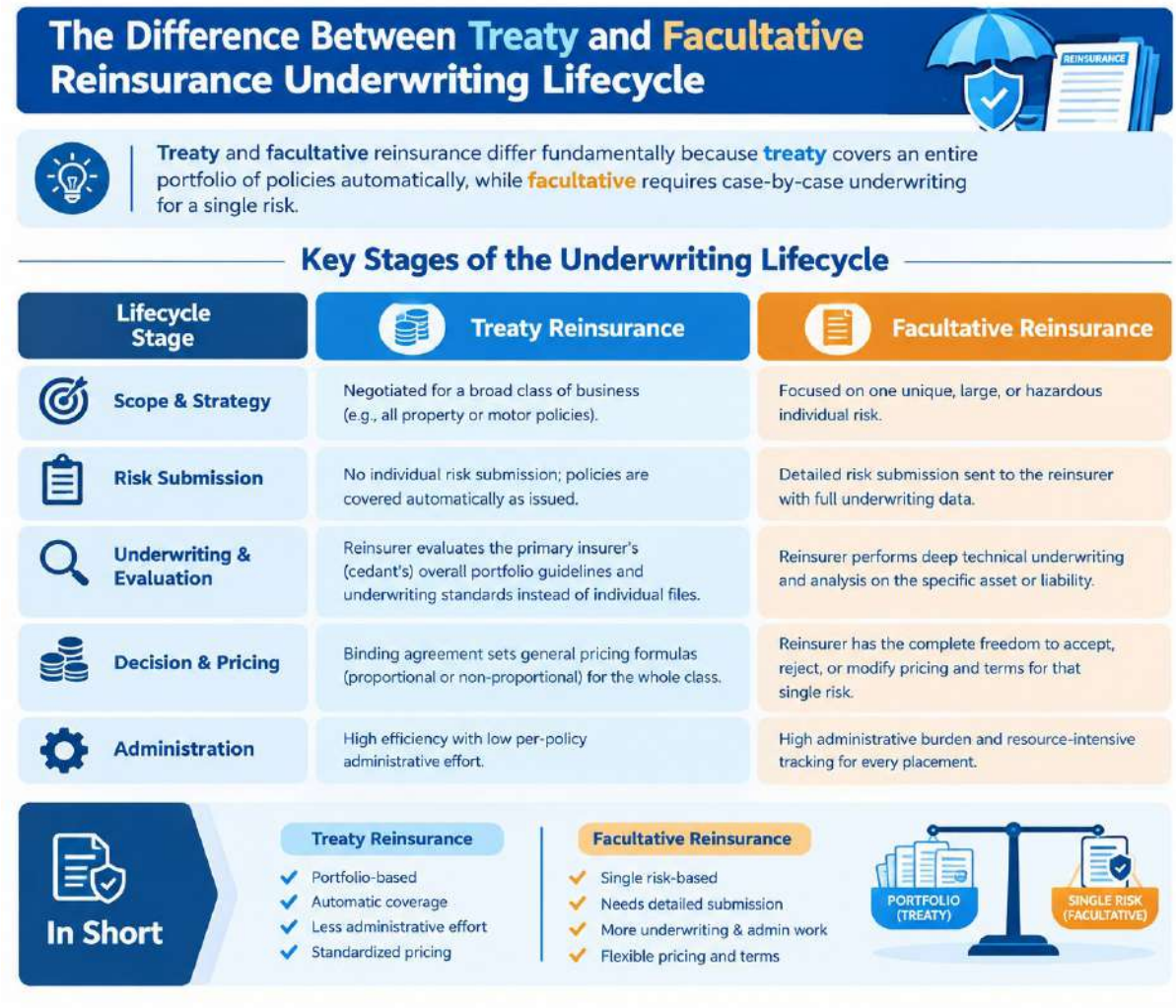
The reinsurance underwriting lifecycle is the end-to-end process where a reinsurer evaluates, prices, accepts, and manages risk transferred from a primary insurance company.

Stages of the Reinsurance Underwriting Lifecycle

- **Submission and Ingestion:** The primary insurer or broker sends a submission containing exposure data, historical loss records, and desired coverage terms.

Note: *Reinsurance ingestion is the process of intake, validating, and structuring data from primary insurance companies (cedants) into a reinsurer's internal systems. It is the critical first step in underwriting, claims management, and financial reporting.*

Because reinsurance involves massive volumes of unstructured or semi-structured data—often sent via disparate spreadsheets, PDFs, and legacy formats—efficient ingestion is a major operational challenge.



- **Risk Evaluation and Modelling:** Underwriters analyse the data using catastrophe models, actuarial tools, and exposure mapping to measure potential losses and portfolio accumulation.
- **Pricing and Structuring:** The reinsurer determines the appropriate premium rate, attachment points, and treaty limits based on expected loss costs and market conditions.
- **Quote and Negotiation:** Terms, conditions, and pricing are negotiated with the ceding company or broker, moving from a tentative quote to a firm order.
- **Authorization and Binding:** The contract is finalized, signed, and bound, officially transferring a designated portion of the risk to the reinsurer.
- **In-Force Administration and Monitoring:** The reinsurer tracks ongoing premiums, processes periodic bordereaux (reports on premiums and claims), and monitors aggregate exposures.
- **Claims, Renewal, or Expiry:** The lifecycle concludes with claims management and recoveries, followed by a review of treaty performance to decide on contract renewal or run-off.

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The difference between treaty and facultative reinsurance underwriting lifecycle

Treaty and facultative reinsurance differ fundamentally because treaty covers an entire portfolio of policies automatically, while facultative requires case-by-case underwriting for a single risk.

Key Stages of the Underwriting Lifecycle

Lifecycle Stage	Treaty Reinsurance	Facultative Reinsurance
Scope & Strategy	Negotiated for a broad class of business (e.g., all property or motor policies).	Focused on one unique, large, or hazardous individual risk.
Risk Submission	No individual risk submission; policies are covered automatically as issued.	Detailed risk submission sent to the reinsurer with full underwriting data.
Underwriting & Evaluation	Reinsurer evaluates the primary insurer's (cedant's) overall portfolio guidelines and underwriting standards instead of individual files.	Reinsurer performs deep technical underwriting and analysis on the specific asset or liability.
Decision & Pricing	Binding agreement sets general pricing formulas (proportional or non-proportional) for the whole class.	Reinsurer has the complete freedom to accept, reject, or modify pricing and terms for that single risk.
Administration	High efficiency with low per-policy administrative effort.	High administrative burden and resource-intensive tracking for every placement.

Expected Credit Loss Provisioning for Power Sector Exposures:

Why Regulatory Assets, Tariff True-ups and Subsidy Delays Demand a Distinct ECL Lens

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Abstract

Under the Reserve Bank of India's Expected Credit Loss (ECL) framework from 1 April 2027, banks will be required to move from incurred-loss to forward-looking provisioning across all credit exposures, including lending to the power distribution and generation sector. India's distribution companies (DISCOMs) and generation companies (GENCOs) present a credit profile unlike most other borrower classes, in that their overdue positions often arise not from genuine credit deterioration but from delayed state subsidy releases and pending tariff true-up orders, which State Electricity Regulatory Commissions (SERCs) recognise as recoverable "regulatory assets". Applying the standard 30-day Significant Increase in Credit Risk (SICR) presumption mechanically to such exposures may materially overstate provisioning in a sector that is genuinely improving or understate it where real stress is hidden behind a poorly supported rebuttal. This article examines this mismatch, proposes a three-part, regulatory-asset-aware staging overlay for power sector exposures and illustrates its application through a hypothetical DISCOM case.

1. Introduction: Two New Regimes Converge on Power Sector Lending

Announcing the fourth bi-monthly monetary policy on 1 October 2025, RBI Governor Sanjay Malhotra stated that the ECL framework, with prudential floors, would apply to all Scheduled Commercial Banks (excluding Small Finance Banks, Payments Banks and Regional Rural Banks) and All India Financial Institutions with effect from 1 April 2027, with a glide path to 31 March 2031 to smoothen the one-time impact of higher provisioning**[1]**. Subsequently, the RBI issued the final Directions on 27 April 2026 duly incorporating stakeholder feedback on prudential floors, the treatment of purchased/originated credit-impaired assets and the determination of the effective interest rate**[2]**. Under the new regime, every covered lender must classify each exposure into Stage 1, 2 or 3 based on the change in credit risk since origination, applying product-wise minimum provisioning floors,

with 30 days past due (DPD) operating as a rebuttable presumption of Significant Increase in Credit Risk (SICR)**[3]**.

Separately, the RBI (Project Finance) Directions, 2025, effective 1 October 2025, already impose a distinct standard-asset provisioning regime for infrastructure projects under construction including power generation, transmission and distribution projects financed by banks, NBFCs and All India Financial Institutions**[4]**. Power sector lending will therefore sit at the intersection of two new prudential regimes at once: a construction-phase project-finance regime, and an operational-phase ECL regime.

Power-sector loans to State GENCOs, TRANSCOs and DISCOMs form one of the largest infrastructure exposures on Indian bank and specialised-lender like Power Finance Corporation (PFC) or Rural Electrification Corporation Limited (REC) books etc.

2. The Peculiar Cash-Flow Architecture of Power Sector Borrowers

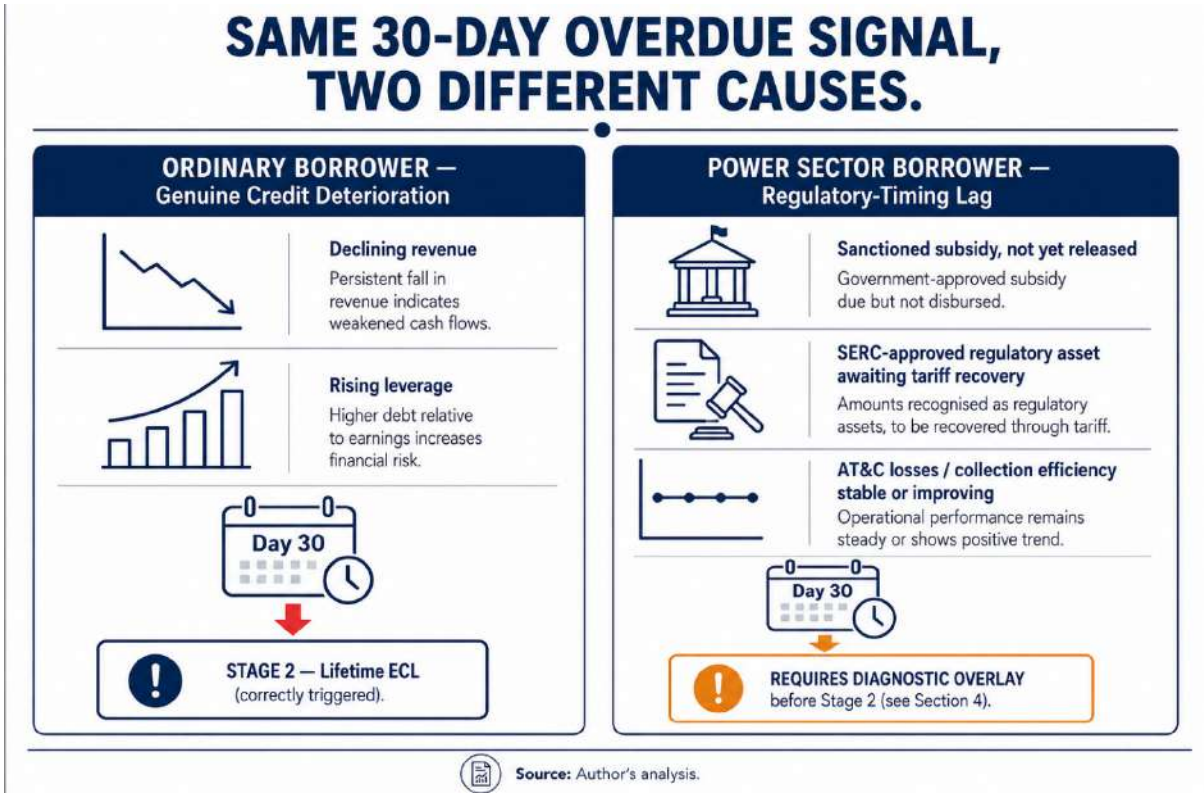
Under the Multi-Year Tariff (MYT) framework applied by electricity regulators, namely the SERCs and the CERC, a utility's full cost of supply is not always recovered in the same tariff year in which it is incurred. Where the regulator defers recovery to a future tariff period pending a true-up order, the shortfall is booked as a "regulatory asset" : an amount the regulator has already recognised as legitimately recoverable, simply not yet billed to consumers. It is therefore fundamentally different from a bad debt as it reflects a timing mismatch created by the regulatory process itself rather than a borrower's inability to pay.

At the national level, the picture shows not only the scale of the sector but also how easily a single provisioning trigger can give the wrong signal. On an accrual basis, the India's power distribution utilities reported a consolidated profit after tax of **₹2,701 crore in FY25[5]** , their first-ever positive accrual PAT against a loss of ₹27,022 crore in FY24. Aggregate Technical and Commercial (AT&C) losses fell to **15.04% in FY25 from 15.97% in FY24[5]**, continuing a longer decline from 22.62% in FY14, while the ACS-ARR gap narrowed from ₹0.78/kWh in FY14 to **₹0.06–0.07/kWh in FY25[6]** on an accrual basis.

Yet the cash-adjusted picture tells a different story. Despite the improved accrual numbers, persistently high receivables and payables indicate that these gains have *"not translated into commensurate cash inflows"***[7]**. According to CRISIL Ratings, DISCOMs' operating losses on an ACS–ARR basis are projected to narrow to ₹8,000–10,000 crore in FY26, down from ₹12,000–15,000 crore in FY25 although the agency notes that their "dependence on state subsidies continues with a high overall debt burden"[8]. This combination of improving losses and continued reliance on the subsidies lies at the heart of the ECL mismatch. A DISCOM's overdue position with a lender or a GENCO's receivable from a DISCOM for the power already supplied, often depends on when a state government releases an already-sanctioned subsidy or when a regulator issues a pending true-up order. It is not necessarily a reflection of the utility's underlying ability/ willingness to pay.

3. Why Standard SICR Triggers Misclassify Power Sector Exposures

As per the ECL Directions, an exposure overdue beyond the 30 days period carries a rebuttable presumption of SICR, shifting provisioning from a 12-month to a lifetime basis with a



proposed Stage 2 floor of approximately 5% for most asset categories[3]. If we apply this presumption to a power-sector exposure whose overdue status originates in a subsidy-release lag rather than credit deterioration, produces one of two failure modes. First, it can inflate provisioning without any corresponding change in the actual recoverability, distorting a lender's profitability and capital planning during what is, on the sector's own operating metrics, an improving credit cycle. Second, if lenders begin rebutting the SICR presumption too liberally to avoid this provisioning drag then the genuine stress can be masked in utilities that are not protected by any pending regulatory order since not every state honours its subsidy commitments on schedule and not every claimed "pending true-up" is genuinely likely to be approved as claimed.

For infrastructure loans under construction, The RBI's own project-finance regime already distinguishes this genuine "credit event" from a routine implementation delay [4]. The same distinction needs to be applied for operational power-sector exposures within ECL model governance to bring uniformity across banking sector.

4. A Proposed Regulatory-Asset-Aware Staging Overlay

Before accepting the 30-DPD SICR presumption for a power-sector borrower, this article proposes that lenders may apply a three-part diagnostic overlay provided below:

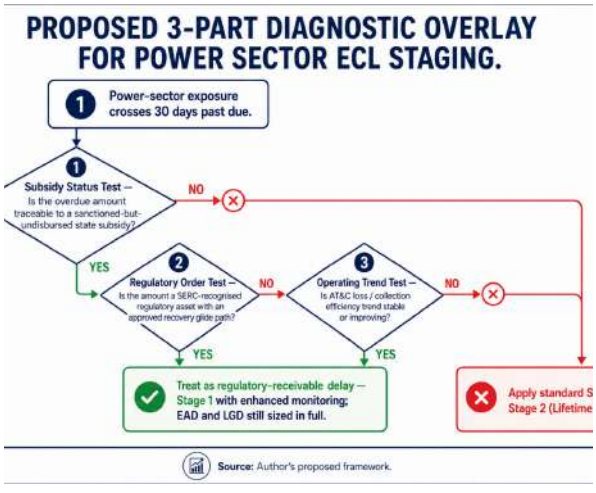
(i) Subsidy Status Test — Is the overdue amount traceable to a State Government subsidy that has been budgeted & sanctioned but not yet disbursed, verifiable against the state's own subsidy accrual and release schedule?

(ii) Regulatory Order Test — Is the amount recognised as a regulatory asset under a ERC-approved tariff or true-up order, with a defined

glide path for future recovery under the applicable MYT Regulations Framework?

(iii) Operating Trend Test — Is the borrower's underlying collection & billing efficiency trend as reported in the Ministry of Power/PFC Integrated Rating exercise stable/improving, indicating operational health independent of the subsidy/tariff lag[5]?

If all the three tests are satisfied then the overdue position should be treated as a regulatory-receivable delay and staging should be assessed net of the regulator-recognised recovery rather than on a mechanical DPD count while Exposure at Default and Loss Given Default continue to reflect the exposure in full, so that lenders do not understate the genuine risk. If any test fails then the standard staging should apply without any power-sector concession. This staging overlay preserves the risk-sensitivity that the ECL is designed to deliver without penalising a utility for a regulatory-process lag as it does not itself control.



5. Illustrative Case: XYZ DISCOM (Hypothetical)

Let us Consider a hypothetical state-owned distribution utility, "XYZ DISCOM," with a term loan of ₹500 crore which has taken from a consortium of banks. The loan account is overdue by 45 days. So, under a mechanical reading of the SICR presumption, this case would move to Stage 2 which requires lifetime ECL at the proposed 5% floor amounting to a provision of roughly ₹25 crore.

Applying the aforesaid three-part overlay changes the picture. The ₹40 crore shortfall behind the overdue instalment traces to a sanctioned-but-undisbursed state agriculture-sector subsidy for the preceding two quarters (So, the Subsidy Status Test is passed). The State Electricity Regulatory Commission has approved a regulatory asset of ₹310 crore for recovery over the next three tariff cycles as part of the MYT true-up (So, the Regulatory Order Test is passed). XYZ DISCOM's AT&C losses and collection efficiency have improved for three consecutive years and the same is being consistent with the sector-wide FY25 trend[5] (So, the Operating Trend Test is passed). Hence, under the proposed overlay, the lender would recognise Stage 1 (12-month ECL) with an enhanced monitoring flag rather than a mechanical Stage 2 classification while still sizing LGD and EAD conservatively, given the sector's overall debt burden[8]. By contrast, a fictitious "PQR DISCOM" whose overdue is not linked to any pending subsidy or approved true-up, and whose AT&C losses have deteriorated, would fail all three tests and attract full Stage 2/3 treatment without concession.

6. Implications for Lenders and for CMAs

Banks and specialised power-sector lenders such as PFC and REC need power-sector-specific ECL model documentation, distinct from generic infrastructure or project-finance models, given that the RBI has itself kept the

Project Finance Directions and the ECL Directions as parallel but distinct regimes. Cost and Management Accountants, given their working knowledge of tariff regulation, regulatory-asset accounting and cost audit, are well placed to validate the Subsidy Status and Regulatory Order tests as part of the independent model-validation function that the ECL Directions require of every lender's governance framework. With Scheduled Commercial Banks' gross non-performing asset ratio at a multi-decade low of 2.1% as of September 2025[9], the ECL transition is arriving at a moment of relative sector-wide comfort, precisely the right time to build power-sector-specific staging discipline before the framework goes live, rather than after a future stress episode exposes the gap.

7. Conclusion

In a nut shell, the Power-sector lending's dependence on regulatory assets, tariff true-ups and subsidy timing proves that a mechanical application of ECL's standard SICR triggers will misclassify a meaningful share of exposures in either direction. So, a regulatory-asset-aware staging overlay validated by CMAs and calibrated against each state's tariff-order & subsidy-release track record, would let banks capture the genuine risk-sensitivity that the ECL is designed to deliver, without penalising an already-improving sector for a regulatory lag that it does not control. As the Reserve Bank's glide path runs through March 2031, there is a real window for the BFSI Board of ICMAI, PFC/REC and individual lenders to build this sector-specific discipline into their ECL models before the framework becomes fully binding.

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Regulation of Artificial Intelligence: A perspective

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Abstract

Artificial Intelligence (AI) and Generative AI (GenAI) are growing at spectacular pace. AI has proved its enormous potential to impart greater momentum to economic growth, boost productivity and address social challenges. Its impact permeates beyond individual businesses to the broader economy and society. However, existing risks viz., model risk, data quality, privacy, operational and conduct risks etc., are getting significantly amplified and transformed as a sequel to the rapid adoption of AI while Generative AI tends to engender distinctive manifestations of risk particularly hallucinations, anthropomorphism, posing of explainability challenges and generation of imprecise / ambiguous contents, having ramified implications. Effective management and mitigation of these risks call for specific and focused regulatory oversight. It is essential to ensure that AI advances and is deployed in a safe, fair, transparent and responsible manner. This article examines the various facets of regulation that need to be established to manage the significant risks associated with AI while enabling its potential to be harnessed for the benefit of business and society.

1. Introduction

Artificial Intelligence (AI) has been growing at spectacular pace over the last decade. The focus of traditional AI is largely on data scrutiny, pattern recognition, prediction and decision support. In contrast Generative AI is proficient in generating new content—viz., text, images, software code, audio and video—based on patterns learned from large datasets.

The steady maturation of large language models (LLMs) has significantly contributed to the expansion of scope of practical applications of AI. Diminishing computing expenses, the expansion of cloud infrastructure, the advent of specialised AI chips and wider access to vast datasets have all contributed to its swift acceptance.

Businesses have been gradually integrating AI into customer service, fraud detection, credit assessment, risk management, compliance, marketing, software development and process mechanization. Generative AI is the emerging star by virtue of its ability to enable employees

to interact with technology through natural language and to mechanize tasks which hitherto needed significant human efforts. In the next phase there might be entry of AI agents proficient in planning and execution of multi-step tasks with limited human intervention.

These happenings have potential to create new opportunities for banks and financial institutions but not without incremental risks. While use of AI can improve productivity, customer experience, credit decisions and fraud detection, it also escalates concerns about model risk, data privacy, cybersecurity, bias, explainability, hallucinations, accountability and regulatory compliance.

The rapid implementation of AI mostly amplifies and reconfigures the existing risks viz., model risk, data quality, privacy, operational and conduct risks—rather than creating entirely new species of risk. However, use of Generative AI brings in distinctive manifestations of these risks, notably hallucinations, anthropomorphism, explainability challenges and the generation of inaccurate or misleading content. While Anthropomorphism is not by itself a risk unique to GenAI, GenAI tend to make it noticeably more pronounced as the conversational systems can appear human-like, potentially leading users to place undue trust in their outputs.

The conventional technology or business controls would not suffice for management and control of these risks. Effective management and mitigation of these risks call for specific and focused regulatory oversight to ensure that AI develops and is deployed in a safe, fair, transparent and accountable manner.

As the existing regulatory systems in place have proven capabilities to appropriately take care of many of these risks most financial authorities have not prescribed AI-specific regulations for financial institutions. However, several areas require further regulatory thoughts, viz., governance, expertise and skills, model risk management, data governance, non-traditional players in the financial sector, emerging business models and third-party AI service providers.

2. Potential Risks Induced by AI

i. Data Confidentiality and Safety

Use of AI systems involve processing of large volumes of personal and sensitive data producing risks of unauthorised use, surveillance and data leak.

ii. Algorithmic Bias and Discrimination

AI models may inherit , perpetuate or amplify biases that persist in their training data. These may lead to discriminatory and unfair outcomes in domains like lending, employment, insurance and public services.

iii. Lack of Explainability

Decisions or recommendations emanating from Complex AI models may be difficult to appreciate or contest, particularly in the areas wherein those decisions substantially affect individuals.

iv. Hallucination and Misinformation

Generative AI has potential to produce convincing but erroneous information, generating risks for consumers, businesses, public institutions and financial markets.

v. Cybersecurity Risks

While AI can fortify cyber defences it can also ease perpetration of more sophisticated fraud, phishing, malware and other cyberattacks.

vi. Concentration

A relatively small number of vendors now engaged in providing advanced AI models, computing infrastructure and cloud services is giving rise to market concentration. This concentration has the potential to create

additional systemic, operational and competition risks.

vii. Financial Risks: Systemic

Extensive use of AI in credit appraisal, trading, risk management and other financial decision-making has the potential to engender correlated errors and magnify market volatility.

viii. Customer Safety

Customers may not always be aware as to when they are interfacing with AI or can comprehend how their data is being used. AI-generated financial or commercial advice may also turn out to be detrimental for the customers.

ix. Employment and Inequality

Automation may disproportionately and adversly impact certain professions and groups, potentially widening income and wealth inequalities.

3. AI Needs Regulation

AI systems can impact decisions which have substantial impact for individuals. In the domains viz., lending, insurance, recruitment and healthcare, biased or improperly designed algorithms might discriminate against particular individuals or groups. Requirements relating to required fairness, testing, validation and accountability may be ensured but putting in place appropriate regulation can establish

Substantial privacy and data-protection risks are also created by AI. Generative AI systems are generally subjected to training and operated using huge volumes of data. Without suitable protections, private information may be gathered and processed or disclosed without satisfactory consent or protection. Regulatory requirements can set out clear norms for legal use of data, security and individual rights.

The absence of required transparency and explainability of sophisticated AI models poses another major challenge. Users may find it difficult to appreciate as to why an AI system arrived at a particular decision/conclusion. This is would pose problems particularly when mechanized decisions tend to affect access to credit, employment or essential services. Regulation should therefore require appropriate levels of transparency, documentation and human oversight.

Generative AI entails added risks through misinformation, deepfakes and AI-generated fraud. Highly realistic synthetic content can weaken public trust, ease perpetration of financial scams and alter information environments. Apposite requirements relating to disclosure and accountability can help mitigate these risks.

AI can also generate significant cybersecurity and systemic risks. The same technology which reinforces cyber defence could facilitate perpetration of sophisticated attacks, automated fraud and social engineering. In financial markets, extensive dependency on similar AI models could trigger correlated mistakes and magnify market unsteadiness.

Regulation is needed to address concentration and competition risks. Advanced AI development needs large computing power, data and investment, potentially tending to give a smaller number of technology companies significant market power. Regulatory oversight can encourage competition, interoperability and fair access to critical AI infrastructure.

However, regulation should not stifle innovation. Excessively prescriptive rules could increase cost of compliance , dampen investment rendering it more difficult for smaller firms to compete. The proper tactic need therefore be risk-based and balanced regulation, with stricter requirements for high-

risk applications and a lighter-touch approach for low-risk uses.

AI regulation should aim at balancing innovation and responsibility. It should ensure that individuals remain accountable for consequential decisions, that risks are identified and managed throughout the AI lifecycle, and that individuals have fitting rights to information, reasonable safety and recompense. Appropriately designed regulation can enhance public confidence in AI while letting society to realise its extensive economic and social potential.

4. Global Regulatory Approaches

The quick advance of Artificial Intelligence, particularly Generative AI, has induced governments and international organisations to set out appropriate regulatory regimes. There is general agreement among nations as to the need for safe, responsible and trustworthy AI. However, jurisdictions have their own regulatory philosophy, institutional arrangements and varying degree of intervention. Three broad approaches have emerged: comprehensive risk-based regulation, sectoral regulation and principles-based governance.

European Union

Through promulgation of the EU AI Act the European Union (EU) has implemented a comprehensive regulatory framework the core philosophy of which is risk-based. Higher the risk posed by an AI system to health, safety or fundamental rights, the stricter would be the regulatory requirements.

AI applications are categorised according to the inherent potential harm they might pose. Some practices are forbidden, while high-risk AI systems are subjected to detailed regulatory requirements relating to risk management, data quality, documentation, transparency, human oversight, accuracy and cybersecurity.

The EU framework proscribes certain uses involving harmful manipulation, including exploiting individual vulnerabilities or using personalised persuasion to distort autonomous decision-making. It also limits certain uses involving deepfakes or impersonation, social scoring ,certain forms of predictive policing, certain forms of biometric categorisation and emotion recognition in workplaces and educational institutions.EU AI Act, distinguishes Generative AI systems from General-Purpose AI (GPAI) @ models. The Act imposes specific obligations primarily on providers of GPAI models, while certain transparency obligations apply to AI systems that generate content. The EU approach pursues to defend fundamental rights while engendering a harmonised regulatory environment for innovation.

United States

The approach of US has mostly been a more decentralised and sector-specific. Instead of relying mainly on a single all-inclusive federal AI law, regulatory responsibilities are dispersed among existing agencies and legal frameworks.

The thrust of U.S. approach is visibly on innovation, existing laws, sectoral regulation, voluntary standards and state legislation. AI deployed for credit appraisals, fraud discovery, customer profiling and financial services is generally governed through prevailing financial regulation, consumer-protection, fair-lending and privacy frameworks instead of a single AI statute.

The U.S. tactic is featured by innovation-oriented, sector-specific and technology-neutral regulation, reinforced by voluntary risk-management standards viz., the National Institute of Standards and Technology Artificial

Intelligence Risk Management Framework (NIST AI RMF), prevailing federal laws and a emerging , though fragmented, body of state AI legislation.

Agencies like the Federal Trade Commission, financial regulators and other sectoral authorities address risks associated with AI within their individual mandates. Although this approach puts greater importance on innovation and regulatory elasticity, concerns persist regarding regulatory fragmentation.

China

China has a more state-controlled approach, with emphasis on nurturing of innovation promotion but with strong regulatory control. Its framework includes rules governing algorithmic recommendation services, deep synthesis and generative AI.

Deep synthesis refers to the use of AI and other digital technologies to generate, manipulate or combine content—such as images, video, audio, text or virtual environments—in ways that can make the resulting content appear authentic or realistic.

China's framework has particular emphasis on information security, content control, data governance and accountability of AI service providers.

India

India has so far opted for an innovation-oriented and largely principles-based approach. Instead of instantly accepting all-encompassing AI-specific law, India has been evolving governance mechanisms through existing legislation, digital regulations, sectoral regulators and policy initiatives.

The DPDP framework, along with the directions and initiatives regarding responsible AI, provide the elements of the emerging regulatory architecture. For sectors viz., banking and financial services, prevailing regulatory stipulations pertaining to outsourcing, cybersecurity, consumer protection, model risk and operational resilience remain predominantly important.

International Initiatives

At the international level, organisations viz., the OECD, UNESCO, G20 and the Financial Stability Board have evolved principles and recommendations encouraging responsible, human-centric and accountable AI. These initiatives have emphasis on broader international consistency while recognising persistence of differences among national legal systems.

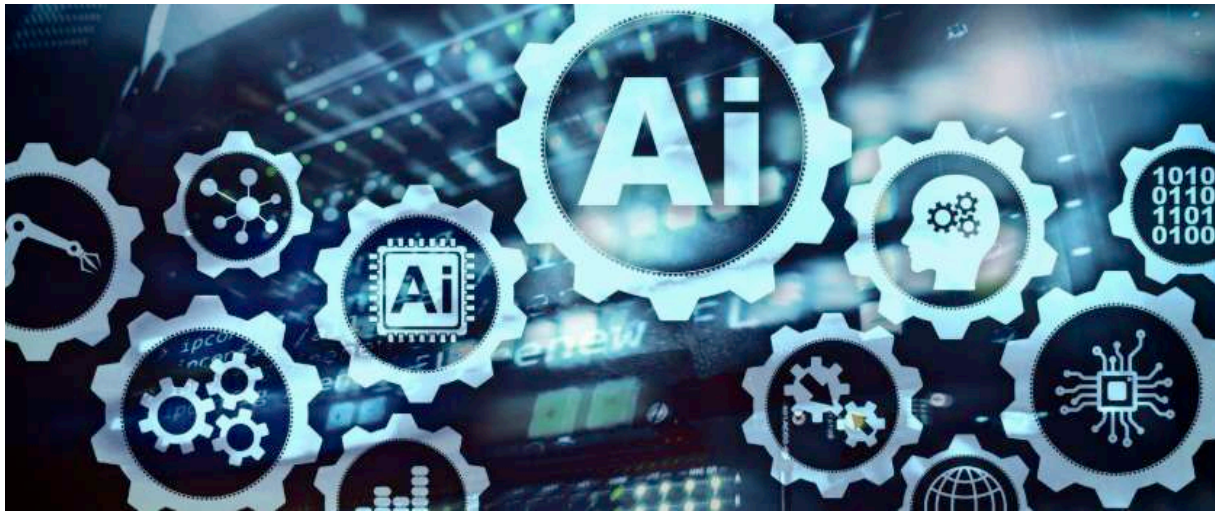
Notwithstanding the persisting differences in regulatory approaches, several common principles have since emerged viz., risk-based supervision, transparency, accountability, privacy protection, fairness, cybersecurity, human oversight and mechanisms for redress. General-purpose AI, incidence of cross-border risks and the concentration of computing and technological capabilities are also receiving increasing attention.

The future regulatory scenario would be multi-layered and not based on a single global AI law. While international principles may provide some common standards, national governments and sectoral regulators may prescribe specific requirements based on prevailing local conditions and the risks entailed in particular applications.

The central task would be to strike an appropriate balance between innovation, competition, individual rights and systemic stability.

5. AI Regulation in Banking and Financial Services

Artificial Intelligence, including Generative AI,



has been fast modernizing banking and financial services. Banks are using AI for credit appraisal, fraud surveillance , customer service, AML monitoring, risk management, trading, cybersecurity and operational efficiency.

Generative AI is further expanding scopes by enabling automated document analysis, coding, customer communication and knowledge management. Banks perform critical economic functions and manage large volume of financial and personal data of sensitive nature. Therefore their use of AI necessitates robust regulatory oversight.

A dominant regulatory concern is model risk. AI models can yield imprecise, inconsistent or biased results, particularly when they are trained on incomplete or poor-quality data. In lending, for example, an AI system could unfairly reject applicants or assign inappropriate risk scores.

Banking regulators therefore stipulate that institutions should undertake suitable model validation, testing and monitoring process and carry out periodic review. Accountability for AI-driven decisions should ultimately rest with the regulated entity not transferable to the concerned external technology provider.

Fairness and non-discrimination are important alike. Credit decisions, insurance pricing and customer profiling can entail adverse consequences on individuals. AI models may unintentionally reproduce historical discrimination embedded in training data. Banks should therefore subject the models to test for discriminatory results and put in place appropriate controls for detecting and correcting biases. Customers should have right to access to meaningful explanations and there should be appropriate mechanisms for challenging consequential decisions.

Data governance and privacy constitute another major regulatory area. Banks are privy to very sensitive information about customers' identities, transactions, income and financial behaviour. AI systems should therefore operate within clear requirements concerning data collection, purpose limitation, access controls, retention, security and sharing with third parties.

In order to avoid any possible inadvertent disclosure/exposure of confidential customer information use of customer data for training Generative AI models need be subjected to scrupulous scrutiny.Generative AI might entail incremental risks through hallucinations and unreliable outputs. An AI chatbot may furnish

unsuitable financial information. An AI system used by employees may generate an imprecise legal compliance or risk assessment. Banks need therefore differentiate between low-risk proficiency applications and high-impact uses. Human review must be made compulsory wherein AI output potentially might significantly affect customers, financial decisions, regulatory reporting or risk management.

Cybersecurity and fraud add another important dimension. While AI might enable early detection of frauds, offenders too have access and ability to use AI to generate sophisticated phishing messages, deepfakes, synthetic identities and automated attacks.

Banks therefore need put in place stringent controls around authentication, transaction monitoring, cyber resilience and the detection of AI-enabled fraud. Regulators should also monitor the adequacy of cybersecurity requirements as AI capabilities evolve.

Third-party dependence and dominance are on significant rise. In the milieu banks may be left with little choice but to rely on a relatively small number of technology companies for cloud computing, foundation models, AI platforms and data infrastructure. This creates outsourcing, concentration and operational-resilience risks. Regulatory oversight should therefore be sharply focused on standard of vendor due diligence, contractual safeguards in place, adequacy of available audit rights, data location, robustness of business continuity plans, exit arrangements and the ability of banks to continue operating if an AI provider becomes unavailable.

Banks should not treat AI merely as an IT issue instead integrate AI risks into their existing governance and enterprise-risk-management frameworks.

The key elements of strong governance framework include a precisely defined AI inventory, cataloguing of AI applications according to entailed risk, board and senior-management oversight, independent model validation framework, data-quality controls, continuous monitoring, human-intervention mechanisms and documented accountability.

Banks should set out clear rules governing the use of AI tools that are openly available to the general public (including public Generative AI tools) by employees, particularly where confidential customer or institutional information could be uploaded.

Regulation may appropriately avoid putting in conditionalities restricting beneficial innovation and preferably pursue a proportionate, technology-neutral and risk-based approach. Low-risk applications, viz., internal productivity tools, may not be subjected to the rigor of same regulatory burden as applicable to AI used for credit decisions, market activities or customer eligibility.

To summarise, AI regulation in banking should pursue three objectives: customers' protection, strengthening of financial stability and facilitation of responsible innovation. Effective regulation should ensure adherence to the principles of safety, fairness, transparency and accountability that tend to reinforce public confidence in the financial system.

6. Challenges and the Way Forward

The quick implementation of AI and Generative AI in banking and financial services afford considerable opportunities for enhancement of efficiency, innovation and financial inclusion. However, simultaneously it poses more complex regulatory and governance challenges than those generally arising in conventional information technology.

The principal challenge is to develop a regulatory framework that protects customers' interests and strengthens financial stability without unnecessarily stifling innovation.

Key Challenges

a. Rapid Technological Evolution

AI technology has been evolving so fast that conventional regulatory frameworks are finding it difficult to keep pace with the dynamic learning curve . Generative AI, foundation models and autonomous AI agents are evolving continuously, making detailed technology-specific regulation difficult to sustain. Regulation must therefore be sufficiently flexible and technology-neutral.

b. Lack of Explainability

Many classy AI models work as "black boxes", rendering it difficult to comprehend as to how a particular outcome was reached. This poses challenges for banks when decisions affect credit, pricing, or customer access to financial services.

c. Data Quality, Privacy and Governance

AI systems are mostly data dependent. Input of poor-quality, incomplete or biased data can yield untrustworthy results. Besides, financial institutions are privy to sensitive personal and transactional information. Ensuring lawful data use, privacy and security is therefore fundamental.

d. Bias and Discrimination

AI models can replicate historical biases inherent in training data. In banking, this could give rise to unfair credit decisions or unfitting customer profiling. Regulators need wherewithal to test models for discriminatory outcomes.

e. Model and Systemic Risk

AI models may perform poorly or even fail when they operate amidst conditions materially different from those existed during their training. The risk may get amplified when several financial institutions use similar models or third-party foundation models.

A common model error or failure can therefore simultaneously impact several institutions, resulting in correlated losses and potentially amplify financial instability and systemic risk.

f. Third-Party and Concentration Risks

Banks increasingly depend on a small number of entities having competency to provide cloud services, AI platforms and act as foundation-model developers. Concentration of critical AI competency among few agencies may potentially create operational, cybersecurity and financial-stability risks.

g. AI-Enabled Fraud and Cyber Threats

Generative AI can make phishing, identity theft, deepfakes and social engineering considerably more innovatory and pioneering. Financial regulators must therefore ensure that AI adoption is adequately reinforced by stronger cyber-resilience measures.

The Way Forward

Ideally the regulatory framework need be built on risk-based pillars. AI applications should be classified according to the potential harm they might cause. High-risk applications, viz., credit assessment, financial advice, fraud decisions and critical risk-management functions, should be subjected to significantly stronger regulatory requirements compared to that may be made applicable to low-risk productivity applications.

Second, AI governance should form an integral part of bank governance. Boards and senior management should have definitive

responsibility for AI-related risks. Banks should build an inventory of AI systems, identify their risk levels and establish clear ownership and accountability for each.

Third, human oversight must remain essential. AI should support, not substitute , human responsibilities in substantial financial decisions. Customers should have access to appropriate explanations, review mechanisms and avenues for redress.



Fourth, regulators should reinforce and render rigorous the requirements for model validation, testing and continuous monitoring. AI models should not be considered as permanently validated only because of their satisfactory performance whenever used. Their performances, biases, accuracy and stability should be reviewed periodically.

Fifth, third-party AI providers should receive greater attention. Regulatory framework should address the issues and challenges involved in outsourcing, data security, auditability, business continuity, concentration risk and exit arrangements. Banks must inculcate sufficient competence to understand and control the AI systems they may be depending upon.

Finally, regulators themselves need to develop SupTech and RegTech capabilities to supervise AI effectively. Regulatory authorities should invest in AI expertise, data infrastructure and supervisory tools while encouraging controlled experimentation through regulatory sandboxes and structured industry dialogue.

7. Conclusion

The deployment of AI technologies in the financial sector has immense potential to usher in a transformative era for financial service sector, affording significant opportunities for innovation, efficiency and customer-centricity. However, as with any pioneering technology, AI also poses complex challenges for risk management.

The risks arising from the use of AI include, but are not limited to, operational, information-security, privacy and cybersecurity risks, information and communication technology (ICT) risks, third-party risks arising from external dependencies; and risks inherent in AI models, including hallucinations. The development and manifestation of these risks could have substantial reputational and financial consequences.

AI has the potential to emerge as an important driver of innovation and enhanced productivity. However, its benefits cannot be reckoned in isolation from the risks it engenders. The rapid pace of technological development, inadequate explainability of complex models, data-quality issues, privacy concerns, algorithmic biases and the likelihood of yielding inaccurate or misleading outputs pose significant challenges for financial institutions and regulators. These risks become principally important when AI is deployed for important activities viz., credit assessment, financial advice, fraud detection, investment decisions and risk management.

The increasing dependence of banks on external technology providers also brings in third-party and concentration risks. If a limited number of cloud-service providers, foundation-

model developers or AI platforms become critical to the financial system, disruption or failure at one provider could have ripple effect propagating beyond individual institutions.

Malicious use of Generative AI can potentially intensify perpetration of fraud, identity theft, deepfakes, phishing and cyberattacks. Ideally, therefore, AI governance must be dove tailed into the comprehensive framework of financial stability and operational resilience.

The apposite regulatory response may be risk-based, proportionate, technology-neutral and adaptable. Robust institutional governance will be equally important. Boards and senior management must shoulder clear responsibility for AI-induced risks, supported by independent validation, continuous monitoring and effective internal controls. Human accountability should not be eschewed merely because a decision has been assisted or generated by an AI system. Customers should have appropriate rights to information, review and redress where AI materially affects them.

Finally, regulators must build up adequate in house AI expertise and supervisory technology (SupTech). Regulatory sandboxes, industry consultation and international cooperation can help authorities understand emerging technologies while avoiding premature or excessively restrictive regulation.

The objective should be to regulate AI risks and enable percolation of its benefits for common good. The ultimate test of AI regulation will be its efficacy in building trust, strengthening financial stability and ensuring consumer protection while creating healthy and conducive environment for nurturing beneficial innovation.

@ General-purpose AI (GPAI) models are AI models capable of performing a broad range of tasks and being integrated into a variety of downstream AI systems and applications, rather than being designed for a single, specific purpose. Large language models and other foundation models can fall within this category. Given their wide range of potential applications and their ability to underpin multiple downstream systems, the EU AI Act establishes specific obligations for providers of GPAI models, with additional requirements for models presenting systemic risks.

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Climate-related Financial Risk Disclosures in Banks

(Emerging Framework for Strengthening Financial Stability)

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Abstract

Climate change is emerging as a significant financial risk for banks and other regulated entities because physical events, technological changes, regulatory developments and changing market preferences can affect borrowers, investments, assets and financial performance. The Reserve Bank of India's Draft Disclosure Framework on Climate-related Financial Risks, 2024 seeks to establish consistent and comparable disclosures covering governance, strategy, risk management, and metrics and targets. The framework is intended to improve transparency, facilitate early assessment of climate-related risks and opportunities, strengthen market discipline and support informed allocation of capital.

Climate change is no longer merely an environmental or social concern; it has increasingly become a financial stability issue. Banks are particularly exposed because their loan portfolios and investments are connected with economic activities that may be affected by climate-related developments. The RBI Draft Disclosure Framework recognises climate-related financial risks as potential risks arising from climate change or efforts to mitigate climate change and their associated economic and financial consequences. It also recognises that regulated entities have an important role in financing the transition towards an environmentally sustainable economy.

The financial consequences of climate change can arise through both direct and indirect channels. Extreme weather events may damage physical assets of borrowers, disrupt business operations and weaken repayment capacity. At the same time, the transition towards a low-carbon economy can create risks for businesses dependent on carbon-intensive technologies, products or processes. Consequently, climate considerations can influence credit risk, market risk, liquidity risk, operational risk, strategic risk, reputational risk and other categories of financial risk.

Need for Structured Climate-related Disclosures:

A major objective of the RBI framework is to address the problem of inadequate, inconsistent and incomparable information relating to climate-related financial risks. In the absence of reliable information, banks and other financial institutions may misprice assets and allocate capital inefficiently. The framework therefore seeks to provide users of financial statements, including customers, depositors, investors and regulators, with structured information about climate-related risks and the manner in which such risks are being addressed.

Climate-related disclosures can also strengthen market discipline. Investors and other stakeholders increasingly require information about an institution's exposure to climate risks, its resilience and its preparedness for the transition towards a more sustainable economy. Transparent disclosures can therefore complement conventional financial reporting and risk disclosures.

Applicability of the Framework

The proposed framework covers Scheduled Commercial Banks, excluding Local Area Banks, Payments Banks and Regional Rural Banks; Tier-IV Primary Urban Co-operative Banks; All-India Financial Institutions such as EXIM Bank, NABARD, NaBFID, NHB and SIDBI; and Top and Upper Layer NBFCs. The disclosures are to be made on a standalone basis rather than on a consolidated basis, while foreign banks are required to provide disclosures relating specifically to their operations in India.

The scope demonstrates that climate-related financial risk is being viewed as an issue extending beyond conventional commercial banking. Large financial institutions and systemically significant NBFCs can transmit



climate-related risks through lending, investment and other financial activities. Their disclosures therefore have implications for the broader financial system.

Understanding Physical and Transition Risks

The framework distinguishes between physical risks and transition risks. Physical risks arise from increasing severity and frequency of climate-related weather events such as floods, heatwaves, landslides, storms and wildfires. They also include chronic changes such as variations in precipitation, rising sea levels and changes in average temperatures, together with indirect effects such as water shortages and degradation of soil and marine ecosystems.

Transition risks arise from the adjustment towards a low-carbon economy. Changes in climate-related policies and regulations, emergence of new technologies and changes in customer preferences and behaviour can affect the viability and profitability of existing business models.

For banks, the distinction is important because the two risks can affect financial portfolios differently. Physical risks may directly impair collateral and the cash flows of borrowers, whereas transition risks may affect industries whose products, technologies or processes become less competitive in a changing economic environment.

Four Pillars of Climate-related Disclosure:

The RBI framework is structured around four thematic pillars: **Governance, Strategy, Risk Management, and Metrics and Targets**. These pillars are intended to provide a comprehensive picture of how a regulated entity identifies, manages and communicates its climate-related financial risks and opportunities.

Governance: Board and Senior Management Responsibility

Governance constitutes the foundation of effective climate-risk management. Banks are expected to disclose their governance processes, controls and procedures for identifying, assessing, managing, mitigating, monitoring and overseeing climate-related financial risks and opportunities. Particular emphasis is placed on the Board's oversight and the role of senior management.

The detailed governance disclosures include the structure responsible for climate-related oversight, allocation of responsibilities, availability or development of appropriate competencies and skills, frequency of reporting to the Board or responsible body, and the role of management. The framework also envisages disclosure of whether climate-related issues are considered while reviewing strategy, business plans, budgets, capital expenditure, acquisitions, divestitures and risk-management policies.

This approach makes climate risk a governance responsibility rather than merely an environmental reporting exercise.

Strategy and Climate Resilience:

The Strategy pillar requires regulated entities to explain how climate-related financial risks and opportunities may affect their business strategy and financial planning. Institutions are expected to identify relevant climate-related issues over short-, medium- and long-term horizons and explain their potential effects on the business model.

Enhanced disclosures extend to the effect of climate-related issues on financial position and financial performance, resilience of the business model, uncertainties affecting resilience, availability of financial resources, investments in mitigation and adaptation, changes in resource allocation and transition planning.

For banks, this requires climate considerations to move into mainstream strategic planning. Lending to sectors vulnerable to climate change, financing of renewable energy, green infrastructure and adaptation projects, and the changing risk profile of borrowers may all influence future portfolio strategies.

Scenario Analysis and Climate Resilience

Scenario analysis is an important element of the proposed framework. It is intended to challenge conventional business-as-usual assumptions by examining alternative future circumstances that could materially affect an institution.

The framework envisages disclosure of the scenarios used, their sources, the range of scenarios considered, whether they address physical or transition risks, alignment with India's Nationally Determined Contribution, relevant time horizons and assumptions concerning national and State-level climate policies and macroeconomic variables. Material climate-related risks may also need to be incorporated into Internal Capital and Liquidity Adequacy Assessment Processes, where appropriate.

Scenario analysis can therefore become an

important tool for assessing whether a bank has sufficient capital, liquidity and strategic flexibility to withstand different climate-related developments.

Integration with Overall Risk Management

Climate risk should not operate as a separate risk-management silo. The Risk Management pillar requires disclosure of the processes used to identify, assess, prioritise and monitor climate-related financial risks and opportunities and the extent to which these processes are integrated into the overall risk-management framework.

The framework specifically addresses credit risk, market risk, liquidity risk and operational risk. For example, banks are expected to explain whether their credit-risk systems consider material climate-related financial risks and how climate-risk drivers affect credit-risk profiles. Similar consideration is required for market positions, liquidity profiles and operational risk.

The framework also connects climate risk with the three lines of defence and internal controls. This reinforces the principle that climate-related financial risks should be identified, measured and mitigated through the institution's established risk-management and control architecture.

Metrics, Targets and Greenhouse Gas Emissions

The fourth pillar focuses on measurable indicators and targets. Regulated entities are expected to disclose climate-related targets, metrics used by management to measure progress and performance against those targets. The framework covers Scope 1, Scope 2 and, where data and methodologies permit, Scope 3 greenhouse gas emissions.



The enhanced disclosure requirements go further by requiring information on absolute gross greenhouse gas emissions and financed emissions. Financed emissions represent the portion of the emissions of an investee or counterparty attributable to loans and investments made by a regulated entity.

For banks, financed emissions are particularly significant because the environmental impact of their financial activities may substantially exceed the emissions arising from their own offices and operations. The framework therefore requires disclosures concerning financed emissions by industry and asset class, gross exposure, the percentage of exposure covered by the calculation and the methodology used for attribution.

Disclosure of Vulnerable Assets and Climate Opportunities

The proposed framework does not focus exclusively on risks. It also recognises climate-related opportunities. Regulated entities are expected to disclose the amount and percentage of assets vulnerable to physical and transition risks, as well as the amount and percentage of assets aligned with climate-related opportunities. They are also expected to disclose capital deployed towards climate-related risks and opportunities.

This provides an opportunity for banks to demonstrate how their lending and investment

portfolios support climate adaptation, mitigation and the transition towards a sustainable economy.

Implementation Timeline and Validation

The framework provides a phased glide path. For Scheduled Commercial Banks, All-India Financial Institutions and Top and Upper Layer NBFCs, disclosures relating to Governance, Strategy and Risk Management are envisaged from FY 2025-26, while Metrics and Targets disclosures are envisaged from FY 2027-28. For Tier-IV UCBs, the corresponding periods are FY 2026-27 and FY 2028-29.

The disclosures are also expected to be supported by appropriate internal control assessments and reviewed by the Board of Directors or a Board Committee. They are to form part of the regulated entity's financial results/statements available on its website.

Implications for Bankers

The proposed framework represents a shift from viewing climate change primarily as an environmental matter towards recognising it as a component of financial risk management. Banks will need reliable climate-related data, sector-wise exposure information, appropriate methodologies, scenario-analysis capabilities and internal expertise. Credit appraisal and portfolio monitoring may increasingly need to consider the physical vulnerability and transition sensitivity of borrowers and their assets.

The quality of disclosure will ultimately depend upon the quality of underlying data and internal controls. The framework itself recognises that regulated entities may face limitations relating to skills, capabilities, data availability and resources in calculating financed emissions and permits disclosure of reasons where information cannot be provided.

Consequently, banks should progressively develop appropriate systems, governance structures, analytical capabilities and professional competencies rather than treating climate disclosure as a year-end reporting activity. Climate-risk information should increasingly become part of strategic decision-making, credit risk assessment, capital planning and portfolio management.

Conclusion

The RBI's Draft Disclosure Framework on Climate-related Financial Risks, 2024 represents an important step towards embedding climate considerations within India's financial-risk architecture. Its four-pillar approach of Governance, Strategy, Risk Management, and Metrics and Targets provides a structured basis for improving transparency, resilience and market discipline. For banks, the central challenge is to convert climate-related information into meaningful risk intelligence and integrate it into lending, investment, capital, liquidity and strategic decisions. Effective implementation can strengthen the resilience of individual institutions while contributing to the stability of the Indian financial system and supporting an orderly transition towards a more sustainable economy.

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RBI Guidelines on Mis-Selling

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Abstract

Mis-selling of financial products has emerged as a significant concern for customer protection and trust in the banking and financial services sector. The article examines the RBI's guidelines on mis-selling, focusing on unsuitable product sales, forced bundling, inadequate disclosures and the absence of explicit customer consent. It highlights key regulatory requirements, including itemised consent, transparent incentives, third-party accountability, post-sale feedback, prohibition of digital dark patterns and full refunds in established cases of mis-selling. The article underscores the importance of responsible selling practices, stronger institutional accountability and enhanced customer protection in promoting trust and transparency across the financial system.

Keywords: RBI Guidelines, Mis-Selling, Customer Protection, Banking Regulation, Financial Consumer Rights, Transparency, Regulatory Compliance.

Very recently i.e. on 15th June 2026 RBI has issued guidelines regarding the mis-selling of financial products by banks and NBFCs. It was felt necessary because of persistent and significant rise in customer grievances. In the FY 2025-26 RBI Ombudsman received 29.6 lakh customer complaints which were against the Banks and NBFCs.

Most of these complaints were due to following reasons

Unsuitable Products: Selling financial products (e.g., insurance, mutual funds, or loans) that do not match the customer's age, risk profile, income level, or financial needs.

Forced / Compulsory Bundling: Compelling a customer to purchase a third-party product (such as a specific life or health insurance policy, ULIP) as a mandatory condition to approve another service, like a home or personal loan.

Incomplete or Misleading Disclosures: Concealing key product charges, exit conditions, or risks, or falsely representing non-guaranteed returns as "guaranteed".



Lack of Explicit Consent: Enrolling a customer in a secondary product or service without clear, itemized authorization.

To systematically counter the above practices, the above-mentioned guidelines put in place stricter compliance frame work effective from 1st January 2027.Accordingly Core Regulatory Requirements for Banks & NBFCs are as under.

Itemized Consent: Lenders cannot club multiple products into a single consent form. Every insurance, mutual fund, or loan product or any add on product requires a separate application, individual consent or OTP approval. Consent for multiple products cannot be clubbed.

Forced selling& Funding: Lender cannot force customer to buy insurance or any other third-party products as mandatory pre-condition for loan approval or bank account setup. Where insurance is required as genuine risk mitigant for credit, the customer must be given choice to get it from any eligible provider of his choice. Banks/NBFCs cannot fund purchase of third-party products from loan proceeds without explicit consent of the customer

Incentive Restructuring: Banks/NBFCs are prohibited from structuring commission or bonus incentives for employees, agents, or third-party intermediaries in a way that encourages aggressive or unsuitable selling. Employees are prohibited from receiving direct or indirect incentives from third party such as insurance companies or asset management companies.

Third-Party Accountability: Banks/NBFCs will be directly accountable for marketing, advertising, and selling practices, even if they outsource to Direct Selling Agents (DSAs), digital partners, or social media influencers.

Transparency: Banks/NBFCs must display the list of Direct Selling Agents (DSAs)/Direct Marketing Agents on website.

Mandatory Post-Sale Feedback: Banks must proactively gather independent customer feedback within 30 days of a sale to ensure the consumer understood the product's risks and features.

Prohibition of Dark Patterns: Digital interface must maintain default opt-in settings as "No" with distinct check boxes for individual products.

Mandatory Full Refund: Where mis-selling is established banks/NBFCs are required to cancel the transaction and refund the full amount along with financial loss if any.

These new RBI Guidelines on mis-selling are in tune with best global practices and are addressing root cause of mis-selling. In essence, RBI's tightening of regulations is a comprehensive and proactive measure to protect customers and maintain trust in financial system.

Everything Is Cash — Everything Else Is Trash _*Why Good Businesses Become NPAs*

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Abstract

A profitable business can become a Non-Performing Asset (NPA) when cash flows fail to meet financial obligations, highlighting the critical distinction between profitability and liquidity. The article examines how overtrading, working-capital mismatches, excessive debt, delayed receivables and inadequate financial monitoring can push otherwise viable businesses into distress. It emphasises the importance of cash-flow analysis, early warning signals and timely intervention in credit management. The article also distinguishes genuine business failure from temporary liquidity stress, advocating sustainable restructuring and disciplined lending to protect lenders' interests while preserving viable enterprises.

Keywords: Non-Performing Assets (NPAs), Cash Flow Management, Working Capital, Credit Risk, Early Warning Signals, Loan Restructuring, Banking.

There is an old saying in the world of business and finance:

"Everything is Cash. Everything else is Trash."At first hearing, it sounds rather brutal. Surely a business is much more than cash. It has factories, machinery, land, inventory, receivables, brands, goodwill, intellectual property and, above all, people. These are valuable assets, and no serious businessman or banker would suggest otherwise.

Yet the saying contains a deeper truth. A machine has value because it produces something that can eventually be sold. Inventory has value because it can be converted into sales. Receivables have value because customers are expected to pay. Even goodwill has value because it is expected to generate business in the future. Ultimately, almost everything in business is a promise of cash. And when that promise fails to materialise at the right time, a perfectly respectable business can find itself standing at the door of a Non-Performing Asset.

That is perhaps one of the great paradoxes of finance: a business can be profitable and yet run out of money; it can own substantial assets and yet be unable to meet an installment; it can have a healthy order book and yet struggle to pay its suppliers. The reason is simple. Profit is not cash.

The Business That Looked Healthy:

Consider a hypothetical manufacturing

company that has been in business for many years. Its products have a market, its promoters understand the industry, its factory is productive and its financial statements show reasonable profits. Then sales begin to grow rapidly. The promoter is delighted. The bank is pleased. Everyone sees growth as a sign of strength. Turnover rises from Rs.50 crore to Rs.75 crore. Orders are plentiful. Production increases. More raw materials is purchased. More finished goods are held. Customers are offered longer credit to win and retain business. The income statement continues to look healthy. But something has quietly changed. The company's money is no longer in the bank. It is sitting in warehouses and in customers' hands. The company has made sales, but it has not collected the money. It has earned profit, but it has not received the cash. Meanwhile, wages have to be paid, electricity bills arrive, suppliers want their money and the bank expects interest. The promoter begins borrowing more. What started as growth gradually becomes a working-capital problem. This is where the difference between profit and liquidity becomes painfully real.

When Growth Becomes a Problem:

We instinctively associate growth with health. But growth consumes cash. Every additional rupee of sales may require additional raw material, additional inventory, additional transportation, additional manpower and, most importantly, additional financing of receivables. The irony is that a company can become financially weaker while becoming commercially larger. This is the familiar problem of overtrading. A business may have more customers, more orders and more sales than ever before, yet find itself short of working capital because its resources have not grown at the same pace as its operations. In such circumstances, the business starts borrowing from tomorrow to pay for today. Suppliers are paid a little later. Customers are chased a little harder. Bank limits are stretched. Ad-hoc facilities are requested. Promoter funds are introduced. For a while, the arrangement may survive. But cash-flow problems have a habit of becoming larger than the original problem. A delay of thirty days becomes sixty. Sixty becomes ninety. Interest accumulates. Suppliers become uncomfortable. Production begins to suffer. The business that once appeared healthy now begins to look distressed.

The Balance Sheet Does Not Tell the Whole Story:

Financial statements remain indispensable to a banker. They tell us about profitability, net worth, leverage, assets and liabilities. But numbers must be read with imagination. A balance sheet may show Rs.20 crore of receivables. That sounds like an asset. But the banker must ask: When will the money be collected? The inventory may be worth Rs.15 crore. Again, it is an asset. But how quickly will it move? Is it saleable at its book value? Is some of it obsolete or slow-moving? A factory may be worth Rs.50 crore. But can it generate enough cash to service the debt attached to it? The quality of an asset is not determined merely by its existence. Its real value lies in its ability to produce cash when required. This is why experienced financial analysts do not merely ask how much a company owns. They ask how quickly its assets can turn into cash, how much cash the operations generate and whether that cash is sufficient to meet the obligations falling due. A rupee expected after six months and a rupee available today may have the same face value, but they do not have the same economic usefulness.

The Banker's Dilemma:

The problem becomes even more complex from

the banker's perspective. When a loan is sanctioned, the banker is not merely financing a factory or a stock of goods. The banker is financing an expected stream of future cash flows. Collateral provides comfort and protection. But collateral does not normally repay the loan. The factory does not walk into the bank and pay the installment. The inventory does not write a cheque. The land does not transfer interest every month. The business must generate the cash. That is why a sound credit decision must begin with the business's capacity to generate sustainable cash rather than with collateral alone. When an account first shows signs of stress, the most important question is not simply, "How much is overdue?"The deeper question is:"Why has the cash stopped flowing?"Is the business fundamentally unviable? Has the market disappeared? Has the promoter made a serious financial mistake? Has there been diversion of funds? Or is the business fundamentally sound but caught in a temporary liquidity crisis? The answer determines whether the account requires recovery, restructuring, additional support or some other form of resolution.

Not Every NPA Is a Bad Business

An NPA classification tells us something important about the loan, but it does not tell the whole story about the borrower. There are cases where the cause is clearly within the borrower's control—diversion of funds, willful default, fraudulent transactions, reckless expansion or serious financial indiscipline. Such conduct cannot be rationalized as mere business failure. But there are also businesses that have been damaged by circumstances they did not create. A major customer may suddenly become insolvent. Commodity prices may rise dramatically. Government policy may change. An export market may disappear. A project may be delayed. A natural calamity may interrupt operations. The pandemic gave the world a powerful reminder of this reality. Businesses that had operated successfully for years suddenly found their revenues disappearing while salaries, rent, interest and other fixed commitments continued. Therefore, an NPA should be treated as a financial event requiring investigation, not automatically as a moral judgment on the borrower. *The distinction between a bad borrower, a bad business and a good business facing temporary stress is fundamental to intelligent credit management.*

The Silent Danger of Working-Capital Mismatch:

Many financial problems begin innocently. A promoter invests money in a new building or machinery. The bank provides working capital for operations. Business expands. Gradually, however, the working-capital funds may begin supporting long-term requirements. The cash-credit account becomes a source of finance for something that should ideally have been funded through long-term resources. The consequences are rarely immediate. But the business begins each day with less liquidity than it needs. Soon, suppliers are effectively financing the business. Receivables stretch. Inventory accumulates. Bank turnover weakens. The company has not necessarily become a bad business. Its financial structure has become unhealthy. And once the structure becomes unhealthy, even a good business can begin consuming its own strength.

Debt: The Friend That Can Become the Master:

Debt is not the enemy of business. Used wisely, debt allows a company to grow, invest and create value much faster than would otherwise be possible. The problem arises when debt grows faster than the ability of the business to service it. Interest is particularly unforgiving.

It does not wait for the business cycle to improve. It does not wait for the customer to pay. It continues to accumulate. A company may survive a temporary fall in sales. It may survive a delay in receivables. But prolonged high financial costs can gradually consume the cash generated by operations. This is why leverage must always be viewed in relation to cash-generating capacity. *Debt should be the servant of the business. The moment the business becomes the servant of its debt, financial distress is not far away.*

The Warning Bell Usually Rings Quietly:

Businesses rarely become NPAs overnight. The warning signs usually appear much earlier, but they are often subtle. Receivables begin to age. Inventory starts accumulating. Margins narrow. Bank turnover declines. Suppliers complain about delayed payments. Statutory dues begin to stretch. Ad-hoc borrowing becomes frequent. Projected sales are repeatedly revised downward. *Each sign, considered individually, may be explainable. Together, they tell a story.* The difficulty is that human beings, including experienced professionals, tend to explain away the first signs of trouble. A temporary delay is called temporary. A fall in sales is attributed to the market. Higher inventory is justified by expected orders. Sometimes those explanations are correct. But sometimes they merely postpone recognition of a problem that is already developing. The real value of early warning systems is therefore not in predicting an NPA with mathematical precision. It is in giving the banker and borrower enough time to ask the right questions while solutions are still available.

The Difference Between Stress and Failure:

Perhaps the most important question in a stressed account is also the simplest. Is the business still viable? If the answer is no, continuing to finance it merely postpones the inevitable and may increase the eventual loss to all stakeholders. But if the answer is yes, the situation deserves a different approach. A viable business may sometimes require restructuring of debt, additional promoter contribution, rationalization of working capital, disposal of non-core assets, improved collection of receivables or a change in repayment structure. But restructuring should never become an exercise in cosmetic accounting. Extending a repayment period does not make an unviable business viable. Capitalizing interest does not create cash. Increasing the borrowing limit does not solve a fundamentally weak business model. A genuine resolution must address the cause of the stress and establish that the business can generate enough future cash to support sustainable debt.

The Human Side of Financial Distress:

Behind every balance sheet is a human story. There is a promoter who may have spent decades building a business. There are employees whose livelihoods depend on it. There are suppliers waiting for payment. There are customers depending on supplies. There are shareholders, lenders and, ultimately, depositors whose money forms part of the financial ecosystem. When a business fails, the consequences travel far beyond the borrower and the bank. That is why the objective of credit resolution should not be merely to recover the maximum possible amount after failure. Where a viable enterprise can be preserved, preserving the enterprise may sometimes create greater value than dismantling it. At the same time, preservation cannot mean indulgence. The interests of depositors, shareholders and the banking system demand financial discipline.

Genuine misconduct must be dealt with firmly. Unviable businesses must not be kept alive indefinitely. The art lies in knowing the difference.

Perhaps We Should Follow the Cash:

The old saying now begins to sound less cynical. Everything is Cash. Everything else is Trash—until it turns into Cash. The factory is valuable because it can generate cash. The inventory is valuable because it can become cash. The receivable is valuable because it is expected to become cash. The order book is valuable because it promises future cash. The profit is valuable because, ultimately, it should translate into cash. Even goodwill is valuable only because it is expected to support future cash generation. Cash is therefore more than another line in the balance sheet. It is the bloodstream of the business. When the bloodstream slows, the business may still look healthy from outside. The factory may still be standing. The employees may still be working. Orders may still be coming in. But somewhere beneath the surface, the financial system may already be under stress.

The Real Challenge for Banking:

Perhaps the real challenge before modern banking is not simply to reduce the number of NPAs.It is to identify which NPAs could have been prevented. That requires a change in perspective. Instead of looking at a borrower only after repayment has failed, the banker must understand the business continuously. Instead of looking only at profit, attention must be paid to cash flow. Instead of looking only at collateral, the lender must examine repayment capacity. And instead of asking only, "What went wrong?", the more constructive question is:"When did it begin to go wrong, and could we have acted then?"The borrower has an equally important responsibility. Transparency, financial discipline, proper utilization of funds and timely communication with the lender are not optional courtesies. They are essential elements of a sustainable banking relationship. The life of a loan does not begin with default. It begins with the first rupee disbursed.

Conclusion:

Good businesses do not always become NPAs because they were bad businesses.

- Some fail because they were poorly managed.
- Some because they borrowed beyond their capacity.
- Some because of financial misconduct.
- Some because their business model became obsolete

…But some become NPAs because cash stopped flowing at the precise moment when cash was needed most. That is the paradox we must understand. A business may have assets but no liquidity, sales but no collections, profits but no cash, orders but no working capital and growth but no financial capacity to sustain that growth. And when the cash finally runs out, the distinction between a healthy business and a distressed one can become frighteningly small.

So perhaps the oldest lesson remains the most relevant one: *Everything is Cash. Everything else is Trash—until it turns into Cash.* A good banker learns to follow the cash. A good entrepreneur learns to protect the cash. And a good credit system learns to recognize, before it is too late, when the cash has merely stopped flowing—and when it has disappeared for good.**Because an NPA is not always the death of a business. Sometimes, it is simply the moment when everyone finally notices that the business has run out of oxygen…..

Source:Google

The Convergence Pillar: How Agentic AI, Tokenisation, and Quantum Computing Intersect

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Abstract

The convergence of emerging technologies is creating new possibilities for the Banking, Financial Services and Insurance (BFSI) sector. Agentic Artificial Intelligence (AI) enables autonomous execution of authorised workflows, tokenisation facilitates the digital representation and programmable transfer of assets, and quantum computing may eventually enhance selected computational processes while transforming the landscape of cryptographic security. The article examines how these three technologies could intersect to reshape financial infrastructure, with potential applications in treasury management, asset management, trade finance and insurance operations. It explores how AI agents can coordinate processes involving tokenised assets, while advanced computational techniques may support complex optimisation and risk analysis as the technology matures. The article also highlights critical challenges relating to cybersecurity, delegated authority, accountability, auditability and post-quantum cryptographic readiness. It proposes a convergence-architecture approach emphasising adaptable systems, robust data governance, granular access controls and human oversight to enable responsible technological adoption while safeguarding trust, resilience and regulatory compliance.

Keywords: Agentic AI, Tokenisation, Quantum Computing, BFSI, Convergence Architecture, Cybersecurity, Post-Quantum Cryptography.

The financial-services industry has rarely been short of new technologies. Artificial intelligence, blockchain, cloud computing, advanced analytics and automation have each promised to reshape banking at different points in the last decade. What is becoming more interesting now, however, is not the arrival of another technology in isolation. It is the possibility of several emerging technologies beginning to reinforce one another.

Three developments deserve particular attention: **Agentic AI, tokenisation and quantum computing**.

Individually, they address very different problems. Agentic AI introduces systems

capable of pursuing goals, planning tasks and interacting with digital environments with greater autonomy. Tokenisation provides a mechanism for representing assets, rights and value digitally and making them programmable. Quantum computing, although still at an early stage of commercial maturity, introduces a fundamentally different computational model that could eventually influence optimisation, simulation and cryptography.

Their convergence could create a new technology pillar for Banking, Financial Services and Insurance (BFSI): one in which **intelligence becomes increasingly autonomous, value becomes programmable and computation becomes more powerful and fundamentally different**.

This convergence is not an overnight transformation. Each technology is at a different level of maturity. Yet understanding how they may intersect can help financial institutions make better architectural, security and governance decisions today.

Agentic AI: From Assistance to Action

Generative AI demonstrated that machines could produce useful text, code and analytical outputs through natural-language interaction. Agentic AI extends this idea by moving from simply generating an answer toward pursuing an objective.

An AI agent can potentially break a goal into smaller tasks, select appropriate tools, retrieve information, execute permitted actions, evaluate the result and determine the next step. In financial services, this distinction is important.

Consider a corporate customer asking a bank to optimise short-term liquidity. A conventional chatbot may explain available products. An agentic system could, within clearly defined permissions, analyse balances, identify upcoming obligations, assess liquidity requirements, compare eligible products, prepare recommendations and initiate approved workflows.

Similarly, agents could support fraud investigation by collecting relevant transaction information, identifying behavioural anomalies, retrieving related cases and preparing an investigation summary for an analyst. In lending, they could coordinate information collection, document checks and policy validation before presenting the case to an authorised decision-maker.

This does not mean that banks should hand unrestricted decision-making authority to AI. Financial decisions operate within regulatory, ethical and risk boundaries. The more autonomous a system becomes, the more important controls such as identity, permissions, audit trails, explainability, human approval and exception handling become.

The real value of Agentic AI in BFSI may therefore lie in **controlled autonomy**—allowing machines to perform increasingly complex workflows while keeping accountability firmly defined.

Tokenisation: Making Value Programmable

While Agentic AI changes how decisions and actions may be orchestrated, tokenisation changes how assets and rights can be represented.

Tokenisation converts rights associated with an asset into a digital representation that can potentially be issued, transferred, verified or programmed on an appropriate digital infrastructure. Depending on the legal and technological framework, tokenised assets could represent securities, deposits, bonds,

funds, commodities or other financial and real-world assets.

For financial institutions, the important idea is not simply putting an asset on a blockchain. It is the possibility of creating a **programmable financial instrument**.

Rules can potentially be embedded into transactions. Ownership and transaction histories may become easier to verify within a shared infrastructure. Settlement processes could become more automated, while fractionalisation may make certain assets accessible in smaller units.

Imagine a tokenised bond whose ownership and transfer conditions are represented digitally. Corporate actions, coupon-related processes and settlement instructions could potentially be automated through programmable infrastructure.

Now introduce an AI agent.

An authorised treasury agent could continuously monitor liquidity, risk limits and market conditions. When predefined conditions are met, it might recommend transactions involving eligible tokenised instruments or initiate a workflow requiring human approval.

This illustrates the first important intersection:

Agentic AI provides programmable intelligence, while tokenisation provides programmable value.

Connecting the two could transform financial automation from merely moving information between systems to coordinating actions involving digitally represented assets.

Quantum Computing: A Different Computational Frontier

Quantum computing occupies a different position in this convergence because its large-scale commercial application remains comparatively immature.

Classical computers represent information using bits. Quantum computers use quantum bits, or qubits, which exploit quantum-mechanical properties. For certain categories of problems, sufficiently capable quantum computers could eventually offer advantages that are difficult to achieve with classical approaches.

Financial institutions are therefore exploring potential applications in areas such as portfolio optimisation, risk analysis, derivative pricing, scenario modelling and fraud-related analytics. However, many proposed applications remain experimental, and it would be premature to assume that quantum computers will replace classical computing across financial workloads.

In the near and medium term, hybrid approaches combining classical systems, AI and emerging quantum capabilities may prove more realistic.

For BFSI institutions, however, quantum computing creates another issue that requires attention much earlier: **cryptographic risk**.

Much of modern digital finance depends on public-key cryptography for secure communications, authentication and digital signatures. Future cryptographically relevant quantum computers could threaten some widely used cryptographic schemes.

This makes post-quantum cryptography and crypto-agility important considerations even before powerful quantum computers become commercially widespread.

For tokenised financial infrastructure, the issue becomes particularly significant. A tokenised ecosystem relies heavily on cryptographic identities, signatures and transaction integrity. Such systems may need to remain secure for many years.

The intersection between quantum computing

and tokenisation is therefore both an opportunity and a security challenge.

When All Three Technologies Meet

The most interesting scenario emerges when Agentic AI, tokenisation and quantum technologies are considered together.

Think of the convergence as three capabilities:

Agentic AI — programmable intelligence

Tokenisation — programmable value

Quantum computing — advanced computation and a new security paradigm

Together, they could support financial ecosystems in which intelligent agents analyse complex environments, interact with digital assets and use increasingly sophisticated computational resources to support decisions.

Consider institutional asset management in a future tokenised market.

A portfolio-management agent could monitor market information, investment mandates, liquidity requirements and risk limits. Tokenised assets could provide a digital mechanism for ownership and settlement. Advanced optimisation systems—potentially including quantum or quantum-inspired techniques where genuine computational advantage exists—could evaluate large combinations of portfolio choices.

The AI agent would not necessarily make an uncontrolled investment decision. Instead, it could orchestrate the process: gather information, invoke analytical tools, compare alternatives, enforce predefined constraints and route significant actions for approval.

Another example is trade finance.

Trade finance involves multiple parties, documents, compliance requirements and payment conditions. Tokenisation could digitally represent assets, obligations or financial instruments. AI agents could coordinate document validation, sanctions screening, transaction monitoring and workflow management. Advanced optimisation could eventually support liquidity allocation or network-level decision problems.

Insurance offers another possibility. Tokenised representations could support new forms of digitally administered assets or contracts. Agents could monitor relevant data, identify events requiring review and coordinate claims workflows. Quantum techniques could potentially contribute to selected modelling and optimisation tasks as the technology matures.

The point is not that every BFSI process needs all three technologies. Rather, their capabilities may increasingly become components of a common digital-finance architecture.

The Trust Layer Becomes Critical

Greater technological capability also produces greater responsibility.

An autonomous agent with no authority over financial assets presents one level of risk. An autonomous agent capable of initiating transactions involving programmable assets presents a much higher level.

Identity and access management therefore become fundamental. Financial institutions must know not only **who a customer is**, but potentially **which agent is acting, on whose behalf, with what authority and within which limits**.

This could introduce concepts such as agent identity, delegated authority and machine-level transaction permissions into mainstream financial governance.

Every important action may need to answer several questions:

Who authorised the agent?

What information did it use?

Which tools did it invoke?

What transaction did it initiate?

Which policy permitted the action?

Was human approval required?

Can the complete decision path be audited?

Traditional model governance may consequently need to expand toward **agent governance**.

Cybersecurity architecture must evolve as well. Tokenised infrastructure increases dependence on cryptographic controls, while quantum advances create a long-term challenge for some existing cryptographic mechanisms. Financial institutions should therefore consider crypto-agility—the ability to replace cryptographic algorithms without rebuilding entire systems—as part of long-term architecture planning.

From Technology Silos to Convergence Architecture

Banks have traditionally adopted technologies through separate programmes. AI may sit with analytics teams, distributed-ledger initiatives with innovation teams, cybersecurity with information-security functions and quantum experimentation with research groups.

Convergence challenges this siloed approach.

A tokenisation programme designed without considering AI-driven transactions may require redesign later. An Agentic AI programme developed without machine identity and transaction-level permissions may struggle when agents begin interacting with financial assets. A long-lived digital-asset infrastructure designed without crypto-agility may accumulate future security risk.

Financial institutions therefore need to think in terms of **convergence architecture**.

That does not mean making large speculative investments in technologies that have yet to mature. Instead, it means building adaptable foundations: API-driven systems, strong data governance, granular identity and permissions, auditable AI workflows, modular architecture and cryptographic agility.

These capabilities have value today even if the full three-way convergence takes years to materialise.

What Should BFSI Institutions Do Today?

The practical starting point is experimentation combined with disciplined governance.

Agentic AI can initially be deployed in controlled environments where agents assist employees, collect information or orchestrate low-risk processes without independently executing high-impact financial decisions.

Tokenisation pilots should focus on use cases where digital representation and programmability solve genuine problems rather than adopting distributed technology simply because it is available.

Quantum initiatives should distinguish clearly between experimentation and production readiness. Institutions can identify computational problems worth researching while simultaneously assessing cryptographic dependencies and developing migration plans for post-quantum security.

Most importantly, these initiatives should increasingly communicate with one another.

Architecture teams need to ask how AI agents may eventually interact with tokenised assets. Security teams need to consider how cryptographic changes affect those assets. Risk teams need governance models capable of handling systems that act rather than merely predict.

The Next Financial Infrastructure

The future of financial services is unlikely to be determined by a single breakthrough technology.

Agentic AI may change **who—or what—performs financial workflows**. Tokenisation may change **how value and ownership are represented and exchanged**. Quantum computing may eventually change **how certain difficult computational problems are approached**, while forcing institutions to reconsider long-term cryptographic security.

Their intersection creates something more important than three independent innovation programmes.

It creates a potential new convergence pillar for digital finance.

The transition will be gradual, and many technological, regulatory and commercial questions remain unresolved. Human accountability, particularly for consequential financial decisions, cannot simply disappear because systems become more autonomous.

The institutions that benefit most may therefore not be those that adopt every emerging technology first. They may be those that build architectures capable of connecting new forms of intelligence, value and computation safely as each becomes commercially useful.

For BFSI, that is the real promise of convergence: not technology replacing banking, but a financial infrastructure becoming progressively more **intelligent, programmable, secure and interconnected**.

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Indian Banking at the Crossroads: Building a New Playbook for the AI Era

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Abstract

Artificial Intelligence (AI) is emerging as a transformative force in the Indian banking sector, influencing credit assessment, fraud detection, customer service, risk management, regulatory compliance, and financial inclusion. Building upon India's digital public infrastructure, including Aadhaar, UPI, DigiLocker and the Account Aggregator framework, AI offers opportunities to enhance decision-making, improve operational productivity and extend formal financial services to underserved segments. The article examines how AI can enable more comprehensive credit evaluation, strengthen real-time fraud detection, streamline banking operations and support proactive risk management. It also highlights critical challenges associated with algorithmic bias, limited explainability, data privacy, cybersecurity vulnerabilities and concentration risks arising from dependence on common technology providers. Emphasising the importance of institutional accountability, the article advocates board-level AI governance, robust data management, human oversight and a proportionate regulatory approach. It underscores that successful AI adoption in Indian banking must extend beyond technological efficiency to deliver measurable outcomes, customer confidence and financial stability while ensuring that innovation remains aligned with ethical principles and responsible banking practices.

Keywords: Artificial Intelligence, Indian Banking, Financial Inclusion, Risk Management, AI Governance, Cybersecurity, Data Privacy, Digital Banking.

Artificial intelligence is moving from the margins of banking into its centre. For years, technology transformed the way customers accessed banks: branches gave way to ATMs, internet banking and mobile applications, while digital payments fundamentally changed the way money moved. The next transformation is likely to be deeper. It will affect not merely how banking services are delivered, but how banks make decisions.

Artificial intelligence can influence almost every important function of a bank—credit assessment, fraud detection, customer service,

compliance, risk management, operations and financial inclusion. It can analyse enormous quantities of information, identify patterns that may not be visible to human analysts and respond at a speed that conventional processes cannot match.

For India, the stakes are particularly high. The country has already created a remarkable digital financial infrastructure. The next challenge is to use that infrastructure to make the financial system more intelligent without making it less accountable.

This was an important theme in Reserve Bank of India Governor Sanjay Malhotra's inaugural address at FIBAC 2026. His argument was not simply that Indian banks should adopt artificial intelligence. Rather, he presented AI as a fundamental change in the way banking itself needs to be understood. Technology, in this view, is not an isolated project for the IT department. It is becoming a strategic issue involving boards, management, risk officers, employees, customers and regulators.

The question facing Indian banks is therefore no longer whether AI will arrive. It is whether they will shape its development or allow the technology to shape the industry without sufficient preparation.

From digital transactions to intelligent decisions

India's banking transformation over the past decade provides the foundation for this next phase.

Digital public infrastructure such as Aadhaar, UPI, DigiLocker and ONDC has created an ecosystem in which financial and commercial activity can increasingly take place digitally. Account Aggregator and the Unified Lending Interface are extending this architecture into areas where information and credit decisions matter.

The significance of AI lies in what it can do on top of this infrastructure.

Digital technology made transactions faster. AI has the potential to make financial decisions faster and more sophisticated.

Consider lending. A traditional credit assessment often depends heavily on a borrower's established financial history. That approach works reasonably well for customers with regular salaries, long credit histories and formally documented businesses. But India has millions of potential borrowers who do not fit that profile.

A small entrepreneur may operate a viable business without maintaining extensive formal accounts. A gig worker may have fluctuating but healthy income. A new-to-credit customer may have no conventional borrowing history at all.

AI could potentially analyse a much wider range of information—such as cash flows, GST filings, utility payments and digital activity—to create a more comprehensive assessment of creditworthiness.

The importance of this development goes beyond convenience. It could expand the boundaries of formal credit.

If banks can assess customers more accurately rather than simply more quickly, people who were previously considered difficult to evaluate may become part of the formal financial system.

The Opportunity for Financial Inclusion

Financial inclusion has always involved more than opening bank accounts. It also requires meaningful access to useful financial products at an appropriate cost.

This is where AI could have a particularly important role.

India's population is extraordinarily diverse in terms of language, geography, occupation and financial experience. Conventional banking interfaces and processes can create barriers for customers who are unfamiliar with formal finance or uncomfortable with digital technology.

AI-enabled voice interfaces in Indian languages could make banking more accessible. Personalised systems could potentially help customers understand financial products. Predictive models could identify borrowers showing signs of financial stress and allow banks to intervene earlier rather than waiting until repayment problems become severe.

The potential impact is significant.

Imagine a banking system in which a customer does not need to understand complex financial terminology to access basic advice. Imagine a small business receiving a credit assessment based not merely on historical borrowing but on the broader economic activity of the enterprise. Imagine a lender identifying early warning signs in a borrower's finances and offering restructuring or counselling before the account turns into a serious problem.

AI cannot solve financial exclusion by itself. But used responsibly, it could make the financial system more responsive to people who have historically been poorly served by conventional models.

A new productivity equation

The other major opportunity is productivity.

Banking involves enormous quantities of repetitive work. Documents must be processed, transactions reconciled, reports prepared, records reviewed and regulatory information submitted. Employees spend considerable time performing activities that are necessary but do not always require complex judgement.

AI could automate or assist with many of these functions. Document processing, reconciliation, internal audit sampling, transaction reporting and preparation of regulatory returns are among the areas where AI-assisted systems could reduce manual effort and operational errors.

But the productivity argument should not be reduced to the simple idea of replacing employees with machines.

The more important opportunity may be to increase the productivity of human workers.

A relationship manager who has instant access to relevant customer information can spend more time engaging with customers. A credit officer who receives AI-generated risk signals can devote greater attention to complex cases. A fraud investigator can focus on genuinely suspicious transactions rather than manually screening thousands of ordinary ones.

The ideal model is therefore not humans versus machines. It is humans working with machines.

That distinction will also matter for employment and skills. Banks will need employees who understand data, technology and AI systems, while retaining the judgement and interpersonal skills that machines cannot easily reproduce.

The New Fraud Battlefield

The rapid digitisation of banking has also transformed financial crime.

Fraudsters can exploit digital channels extremely quickly. Traditional rules-based systems remain important, but they may be less effective against criminals who constantly change their methods.

Machine-learning systems offer a different approach. By examining transaction patterns and identifying anomalies in real time, AI can potentially detect suspicious behaviour before a loss has occurred.



This creates a technological contest in which banks and fraudsters are continuously adapting to one another.

But the irony is that AI can strengthen both sides of the contest.

Banks may use AI to detect unusual transactions, while criminals may use increasingly sophisticated techniques to evade detection. AI systems themselves can also become targets through data poisoning, model manipulation and adversarial attacks designed to produce incorrect outputs.

Cybersecurity will therefore have to evolve alongside AI adoption.

The security question will no longer be limited to whether a bank's network is protected. Banks will also need to ask whether their data is trustworthy, whether their models can be manipulated and whether an attacker can deliberately cause an AI system to make a wrong decision.

When Efficiency Creates New Risks

The greatest danger in the AI transition may be the assumption that technology automatically reduces risk.

AI can reduce some forms of risk while creating entirely new ones.

One of the clearest examples is the "black box" problem. Some sophisticated AI models can produce decisions without providing an explanation that is easily understood by the people affected by those decisions. In banking, this is particularly problematic.

If an AI system recommends rejecting a loan application, the customer should not be left with the explanation that the computer produced that outcome. Banks, auditors and regulators need to understand the reasoning sufficiently to assess whether the system is functioning appropriately.

Explainability is therefore not simply a technical preference. It is connected to accountability.

A second problem is bias.

Historical lending data can contain historical biases. If an AI model learns from that information without adequate controls, it can reproduce patterns that disadvantage particular geographies, occupations or communities. A model may appear objective because it uses mathematical calculations, while still producing

unfair outcomes.

For financial institutions, fairness must consequently be treated as part of the design of an AI system, rather than as a compliance exercise after deployment.

The Systemic Risk of Common Technology

There is another issue that deserves attention: concentration.

Large banks may have the resources to develop sophisticated internal systems. Smaller banks are more likely to depend on external technology providers. This is understandable, but widespread dependence on a small number of vendors can create a new form of systemic risk.

If many institutions rely on the same underlying model, platform or technology provider, a serious defect could affect multiple banks simultaneously. Similarly, if banks use highly similar AI models for trading and risk decisions, they may respond to market stress in similar ways, potentially amplifying instability.

This changes the way regulators and boards need to think about outsourcing.

A technology service may be external, but the responsibility for its consequences remains internal.

Banks therefore need appropriate contractual safeguards, audit rights, mechanisms for understanding models and a credible ability to replace a provider when necessary.

Data: the fuel and the responsibility

AI depends heavily on data, and banking institutions possess some of the most sensitive information about individuals and businesses.

This creates an obvious tension.

More data can potentially improve a model, but collecting more information also increases privacy and security risks. Banks may be tempted to retain information for longer periods or use it for purposes beyond those originally communicated to customers.

Responsible AI therefore requires disciplined data governance.

The RBI's message is that compliance with the Digital Personal Data Protection Act should be regarded as a minimum standard rather than the complete definition of responsible behaviour.

Customers need to know that the convenience created by AI does not come at the cost of losing control over their personal information.

The algorithm cannot become the scapegoat

Perhaps the most important principle for the future of banking is the preservation of human accountability.

An algorithm cannot sit before a customer, answer questions from an auditor or appear before a regulator. A bank can.

That is why responsibility for a decision must remain with the institution even when AI has played a major role in producing it.

The idea that "the model decided" cannot become an acceptable substitute for accountability. Human beings must be able to understand important decisions, intervene when necessary and override a system where its output could cause significant harm.

This does not mean that every AI decision should be manually reviewed. That would defeat much of the purpose of automation.

It means that banks need to identify where human oversight is essential and design their systems accordingly.



Ai Governance Must Move to The Boardroom

One consequence follows directly from all of this: AI cannot remain an IT issue.

The technology may be developed by engineers, but its consequences are felt across the institution.

A board must understand what AI systems the bank uses. Risk managers must understand model risks. Compliance teams must consider explainability and fairness. Cybersecurity teams must protect models and data. Human-resource departments must prepare employees for changing roles.

The RBI has encouraged banks to maintain an inventory of their AI systems, establish board-approved governance arrangements, develop the ability to explain important AI-driven decisions and regularly test systems for weaknesses.

This suggests that the successful bank of the future will need a new organisational capability: the ability to govern intelligent systems.

Regulation must evolve with technology

The regulator faces a similar challenge.

Technology changes faster than conventional regulatory cycles. A highly prescriptive framework can become outdated quickly, while an absence of rules can leave customers and institutions exposed.

The RBI's stated approach is therefore principles-based and proportionate. The risks faced by a large institution developing proprietary AI systems will not necessarily be identical to those faced by a smaller bank using a vendor's product.

This approach also recognises an important reality: regulators themselves need to learn.

The RBI has indicated that it intends to engage with the industry as AI develops and to use tools such as the regulatory sandbox to allow innovative applications to be tested in a controlled environment.

That kind of regulatory flexibility will be important if India wants to encourage innovation without compromising financial stability.

The banks that will win

The temptation in any technological revolution is to measure success by adoption.

How many AI systems has a bank deployed? How much has it invested? How quickly has it automated its processes?

These questions matter, but they are not sufficient.

The more important question is whether the technology is actually improving outcomes.

An AI system that approves loans faster but increases defaults is not progress. A fraud model that blocks legitimate customers is not necessarily successful. An automated customer-service system that reduces staffing costs but frustrates customers may ultimately destroy value.

The best banks will therefore be selective.

They will identify the problems where AI can create genuine value, develop the necessary data and talent, test systems carefully and establish accountability before scaling them.

Trust as the Ultimate Banking Asset

At the end of the AI transformation lies a very old idea: trust.

Banking has always depended on trust. Customers trust banks with their money. Businesses trust them to provide credit. Regulators trust them to manage risk responsibly.

AI does not change that foundation. If anything, it makes trust more important.

Customers may accept automated decisions when they believe the system is fair, secure and accountable. They may reject them when decisions appear arbitrary or impossible to understand.

The competitive advantage in the AI era will therefore not necessarily belong to the bank with the most advanced technology. It may belong to the institution that combines technological capability with transparency, security, human judgement and customer confidence.

India has already demonstrated that it can transform the architecture of financial services at remarkable speed. The next transformation is more complex because it involves the intelligence behind financial decisions.

AI can help India expand credit, improve banking productivity, strengthen fraud prevention and reach customers who have traditionally remained underserved. But those gains will depend on how responsibly the technology is deployed.

The future should not be imagined as a choice between human banking and machine banking. It is more likely to be a partnership in which machines process enormous quantities of information and identify patterns, while humans retain responsibility for judgement, ethics and accountability.

That is ultimately the new playbook for Indian banking.

The banks that succeed will not simply be the first to embrace artificial intelligence. They will be the institutions capable of understanding its power, recognising its limitations and deploying it in a manner that strengthens rather than weakens the relationship between banks and their customers.

In the AI era, technology may become more intelligent. But the banking system must remain responsible.

And in the final analysis, trust—not technology—will remain the true capital of banking.

Gift City -A World Class Global Finance and IT Hub

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Abstract

Gujarat International Finance Tec-City (GIFT City), India's first International Financial Services Centre (IFSC), represents a strategic initiative to strengthen India's position in the global financial ecosystem through the concept of "Onshoring the Offshore". By enabling international banking, capital markets, fund management, insurance and other authorised financial services within India, GIFT City seeks to retain India-related financial activities domestically while attracting foreign investment and facilitating cross-border transactions. The article examines the objectives, institutional framework and strategic significance of GIFT City, with particular emphasis on the unified regulatory mechanism established under the International Financial Services Centres Authority (IFSCA), foreign currency transactions, tax incentives and world-class business infrastructure. It also explores GIFT City's emerging role as a two-way gateway for international investments, providing opportunities for global financial institutions, Indian enterprises, Non-Resident Indians and eligible resident investors. Highlighting the development of a diversified financial services ecosystem, the article discusses how GIFT City can enhance ease of doing business, promote financial innovation, generate employment and strengthen India's competitiveness with established international financial centres. The article underscores GIFT City's potential to connect India more effectively with global capital markets and establish the country as a preferred destination for international financial services.

Keywords: GIFT City, International Financial Services Centre (IFSC), IFSCA, Onshoring the Offshore, Cross-Border Finance, Foreign Investment, Global Financial Hub, Financial Services.

Gift City is India's First International Financial Services Center (IFSC). Basic purpose of creating Gift City was "Onshoring the Offshore", because years together most of the high-value financial activity involving India happened outside the countries like Singapore, Dubai, London. The purpose of the Gift City is to happen these high value financial activities in India by providing a platform for global and Indian institutions to conduct international banking, capital markets, and fund management within India and acting as a gateway for foreign investment to flow into India more efficiently. In short to create globally competitive hub for cross-border finance. Gift City has world-class regulatory framework governed by a single unified regulator, the **IFSCA** (International Financial Services Centres Authority).

Besides this some other considerations were also there while creating Gift City same are as following

Global Financial Hub: Provide a plug-and-play, world-class business district where global and domestic banks, insurance companies, capital market players, and fintech's can operate easily.

Foreign Currency Transactions: another important purpose was to enable corporate houses and financial institutions to make cross-border transactions in foreign currencies under Indian jurisdiction.

Single-Window Regulation: Single window regulation brought in place in the form of International Financial Services Centres Authority (IFSCA), through which multiple regulators powers such as RBI, SEBI, IRDAI, and PFRDA are regulated in unified manners to ensure ease of doing business.

Tax and Cost Efficiency: 100%Tax holiday for any 20 consecutive years chosen by the eligible unit within a total window of 25 years from commencement. Post-Holiday Tax Rate: After the 20-year tax holiday expires, business income is taxed at a flat concessional rate of 15%. Eligible activities are any units carrying out authorized financial services, such as banking, fund management, insurance, capital markets, fintech, aircraft leasing, and ship leasing (not general non-financial businesses in non-IFSC zones zero Goods and Services Tax (GST) on SEZ operations, and waived stamp duties.

Smart Infrastructure: To provide underground utility tunnels, an automated district cooling system, automated waste collection, power supply from two different grids for 99.9% uptime and minimal outage. Potable water from any tap, sewage treatment plant, rain water harvesting and data centre ready buildings with high speed connectivity. Transport and connectivity, 7500 planned residential units by 2030with medical facilities, hospitability and & lifestyle.

Role and significance of Gift City in the Indian Financial sector

Gift City is game changer for India's presence in global finance since several important finance functions are being conducted with ease.

1. **Onshoring the Offshore:** Earlier most of the India related financial trading, offshore derivative instruments and foreign currency loans were handled by financial hubs like Singapore, London, Dubai, or Mauritius. Gift City now provides globally competitive onshore alternative under the Indian law, allowing Indian institutions to retain control over financial flows, capital and data.
2. **Two-way Investment Gateway:** Both inbound and outbound fund transfer is



Image Source: Ahmedabad Mirror

now easy than earlier, such as FIIs, NRIs and global funds can invest in Indian capital market and debt market without getting entangled in domestic regulatory issues. At the same time Indian resident investors can take benefit of LRS (liberalised remittance scheme) for investing global markets in shares, mutual fund and foreign currency denominated assets directly from Gift city.

3. **Diversified financial Ecosystem:** GIFT City has moved beyond concept to become a significant financial hub, scale as of early 2026 more than 1150 IFSCA registered entities ,37 banks with over $110 billion banking assets ,349 funds and monthly exchange turnover exceeding $100 billion and projected 136000 + jobs by 2030.
4. GIFT City (Gujarat International Finance Tec-City) serves as an International Financial Services Centre (IFSC), allowing both Non-Resident Indians (NRIs) and Resident Indians to invest globally and domestically using foreign currencies (primarily USD) under a separate regulatory framework governed by the IFSCA

In short, we can say Gift City is a financial hub connecting India's economy with global economy by offering infrastructure of international standard, tax incentives, simplified compliance and unified regulation under IFSCA enabling to keep India's financial dealings within its borders while competing with established players like Singapore, Mauritius, London or Dubai.

From Policy Renewal to Lifetime Protection: Determinants of Customer Consistency in the Indian Health Insurance Sector

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Abstract

The Indian health insurance sector has witnessed substantial growth over the past decade, supported by rising healthcare expenditure, increasing health awareness, expanding digitalisation, regulatory reforms and growing recognition of insurance as an essential component of household financial security. However, the expansion of health insurance coverage does not necessarily imply that policyholders will maintain continuous insurance protection over the long term. An important but relatively under-explored issue is customer consistency, which refers to the ability and willingness of policyholders to maintain uninterrupted health insurance coverage, renew their policies regularly, continue their relationship with an insurer, and preserve the benefits accumulated through policy tenure. Unlike conventional concepts of customer satisfaction and retention, customer consistency represents a longitudinal perspective on the relationship between policyholders and insurers.

This paper conceptualises customer consistency as a multidimensional construct influenced by affordability, perceived value, claim experience, service quality, transparency, trust, digital convenience, hospital accessibility, grievance redressal and continuity benefits. The study argues that health insurance differs fundamentally from many other financial services because the value of the product is often realised during periods of illness, hospitalisation or financial vulnerability. Consequently, the claim experience becomes a critical moment in determining whether a customer develops long-term confidence in the insurer. The paper further examines the importance of regulatory mechanisms such as renewal rights, portability, migration, grace periods and continuity provisions in supporting sustained insurance relationships. A conceptual Customer Consistency Model for Indian Health Insurance is proposed, linking product characteristics, service experience, relational factors, technological convenience and regulatory protection with perceived value, trust and long-term customer consistency. The paper argues that Indian health insurers need to move from a transaction-oriented approach centred on policy acquisition towards a relationship-oriented approach focused on lifetime customer protection. Customer consistency should therefore be viewed not merely as an indicator of insurer retention

but as an important measure of the sustainability, reliability and social value of the Indian health insurance system.

Keywords: health insurance, medical insurance, customer consistency, policy renewal, customer retention, insurance persistency, trust, service quality, India, policyholder behaviour.

1. Introduction

Healthcare expenditure has become an increasingly important financial concern for Indian households. Rising hospitalisation costs, medical inflation, technological developments in healthcare, changing disease patterns and increasing life expectancy have enhanced the need for mechanisms that protect individuals and families against unexpected medical expenditure. Health insurance has consequently evolved from being viewed primarily as a supplementary financial product to becoming an important component of household financial planning. The Indian health insurance industry has expanded in terms of products, distribution channels, insurers, digital platforms and customer reach. Nevertheless, the growth of the market should not be evaluated exclusively through the number of policies issued or the amount of premium collected. A more fundamental question concerns whether individuals continue to maintain adequate health insurance protection throughout their lives.

This issue introduces the concept of customer consistency. In the context of health insurance, customer consistency represents the extent to which a policyholder maintains an ongoing relationship with health insurance through regular renewal, uninterrupted coverage, continued premium payment, preservation of accumulated benefits, willingness to remain with the insurer and readiness to increase or modify coverage as personal circumstances change. The concept is broader than customer retention because an individual may technically renew a policy while remaining dissatisfied, underinsured or disengaged. Similarly, a customer may change insurers through portability while maintaining continuous health insurance protection. Customer consistency therefore needs to be understood from both the perspective of the customer and the insurer.

The distinction is particularly important because health insurance is inherently a long-term protection mechanism. A customer may purchase a policy at a young age and continue requiring protection for several decades. During this period, income, family size, health status, medical requirements and financial priorities can change considerably. The insurance product and the relationship with the insurer must therefore adapt to these changing circumstances. An insurer that focuses only on annual policy renewal may overlook the deeper issue of whether customers remain adequately protected and whether they continue to perceive the insurer as trustworthy and valuable.

The Indian regulatory environment increasingly recognises the importance of continuity in health insurance. Regulatory provisions relating to renewal, portability, migration, grace periods and continuity benefits provide policyholders with mechanisms for maintaining protection over time. Portability, for example, enables policyholders to move to another insurer while retaining eligible continuity credits relating to waiting periods and pre-existing diseases. Migration similarly provides customers with an opportunity to move between products offered by the same insurer while preserving applicable continuity benefits. These

mechanisms have changed the traditional meaning of customer loyalty. A customer may not remain with the same company throughout life, but may nevertheless remain continuously insured. Consequently, the ultimate objective should not simply be to prevent customers from switching but to ensure that customers continue to enjoy meaningful and adequate health protection.

Against this background, the present study develops a conceptual understanding of customer consistency in the Indian health insurance sector. It identifies the major factors that influence customer consistency and proposes a framework that integrates economic, service, relational, technological and regulatory dimensions. The study contributes to the literature by shifting attention from short-term customer satisfaction and annual renewal towards the broader concept of lifetime insurance continuity.

2. Customer Consistency as an Emerging Concept in Health Insurance

Customer consistency is closely associated with concepts such as customer satisfaction, customer loyalty, customer retention and policy persistency, but it is conceptually broader than each of these constructs. Customer satisfaction generally represents a customer's evaluation of a particular service experience. Customer loyalty refers to preference for a particular insurer or brand, while customer retention focuses on the ability of the organisation to maintain customers over time. Policy persistency is concerned with the continuation of an insurance policy across successive periods. Customer consistency combines elements of all these concepts but places particular emphasis on the continuity of the customer-insurer relationship and the continuity of financial protection.

This distinction is particularly relevant in health insurance because customers do not necessarily interact with insurers frequently. A customer may pay premiums for several years without making a claim and may therefore have limited direct experience of the insurer's core service. The relationship may change dramatically when a medical emergency occurs. At that moment, the customer evaluates whether the insurer actually delivers the protection that was promised at the time of purchase. The claim experience can therefore transform an apparently passive insurance relationship into an intensely personal service experience.

Customer consistency should consequently be understood as a multidimensional construct involving behavioural, attitudinal and relational dimensions. Behaviourally, it can be reflected in continuous renewal and maintenance of active coverage. Attitudinally, it can be reflected in willingness to remain with the insurer and recommend the insurer to others. Relationally, it is associated with trust, perceived fairness and confidence that the insurer will continue to provide support when required. The concept therefore extends beyond the question of whether a customer renews a policy and asks why the customer continues to maintain insurance and whether the relationship remains sustainable.

3. The Indian Health Insurance Context

The Indian health insurance market operates within a rapidly changing healthcare and financial environment. Increasing awareness of healthcare risks has encouraged individuals to purchase private health insurance, while government-sponsored programmes have expanded health protection among economically vulnerable populations. At the same time, the

market has become increasingly competitive, with public-sector general insurers, private insurers, stand-alone health insurers, banks, brokers, agents and digital platforms participating in distribution and customer acquisition.

Competition has increased the range of available products, but it has also made customer decision-making more complicated. Consumers are confronted with multiple products offering different combinations of sum insured, deductibles, co-payments, waiting periods, restoration benefits, cumulative bonuses, network hospitals and exclusions. The availability of choice is beneficial only when customers possess sufficient information to make appropriate decisions. If customers purchase policies without understanding their conditions, dissatisfaction may emerge at the time of claim.

Regulation has therefore become an important component of customer consistency. IRDAI's health insurance framework has progressively strengthened policyholder protection and transparency. Provisions concerning renewal, portability, migration, grace periods, disclosures and continuity benefits create an institutional foundation for long-term insurance relationships. The regulatory emphasis on customer information and clearer disclosure is particularly relevant because a customer's understanding of policy conditions directly influences expectations about future claims.

The concept of customer consistency must therefore be located within the broader transformation of India's insurance sector. The customer is no longer simply the recipient of a policy document. Increasingly, the customer expects digital access, transparent information, quick claims assistance, accessible hospitals, responsive customer service and personalised communication. The insurer's challenge is to integrate these expectations into a sustainable business model without compromising risk management.

4. Affordability and Customer Consistency

Affordability is one of the most fundamental determinants of health insurance continuity. A customer may recognise the importance of insurance but still discontinue a policy if the premium becomes financially burdensome. This issue becomes particularly important as customers age because health risks and healthcare expenditure generally increase over time, while income may not increase at the same rate.

The affordability challenge becomes more complex when customers experience changes in family structure. Marriage, childbirth, children's education, home loans, retirement planning and other financial commitments can influence the amount that a household is able to allocate to insurance. An insurance policy that was affordable when initially purchased may become difficult to maintain several years later.

Consequently, insurers need to distinguish between price reduction and affordability. Simply offering a cheaper policy may reduce protection and create underinsurance. A more sustainable approach involves providing customers with flexible product structures that allow coverage to be adjusted according to changing financial circumstances without destroying accumulated continuity benefits. The ability to migrate to a more appropriate product within the same insurer can be particularly valuable in this context.

Affordability therefore affects customer consistency through perceived value. When customers believe that the protection obtained is proportionate to the premium paid, they are

more likely to continue. When premium increases are perceived as excessive or unexplained, the customer may reassess the value of the relationship. Premium communication is consequently as important as premium pricing.

5. Claim Experience and Customer Consistency

The claim represents the most important test of an insurer's promise. At the time of purchasing a health insurance policy, the customer is primarily purchasing a promise of future financial protection. The actual value of that promise becomes visible when the customer or a family member requires medical treatment.

The claim experience can influence customer consistency through several channels. The speed of pre-authorisation, communication regarding claim requirements, cashless hospital coordination, clarity regarding deductions, reimbursement processing and the behaviour of customer-service personnel can determine the customer's perception of fairness and reliability. Even where a claim is technically processed according to policy conditions, inadequate communication may create dissatisfaction.

For this reason, claims should not be regarded solely as cost centres. They represent critical relationship-building opportunities. An insurer that handles a difficult medical situation with empathy, clarity and efficiency can strengthen customer trust. Conversely, a poorly handled claim can undermine years of relationship building.

The importance of the claim experience is especially significant in health insurance because the customer is often emotionally vulnerable at the time of interaction. The individual may be dealing with illness, uncertainty and financial pressure. A purely procedural approach can therefore appear insensitive. Customer consistency requires a combination of operational efficiency and human support.

6. Transparency, Product Understanding and Customer Consistency

Health insurance products are characterised by technical terminology and contractual conditions that may not be easily understood by ordinary consumers. Terms such as waiting periods, pre-existing diseases, co-payment, deductibles, sub-limits, room-rent restrictions, exclusions and non-medical expenses can significantly affect the actual amount payable during a claim.

A major source of customer dissatisfaction occurs when the customer's expectations differ from the contractual terms. A policyholder who believes that a particular treatment is fully covered may experience a significant loss of trust when deductions occur during settlement. The problem is therefore not necessarily the existence of exclusions but inadequate understanding of those exclusions before purchase.

Transparency should consequently be viewed as a strategic mechanism for improving customer consistency. Customers who understand what their policy covers are more likely to develop realistic expectations. Realistic expectations reduce the possibility of severe dissatisfaction during claims. The introduction and strengthening of standardised customer information disclosures can contribute to this objective by helping policyholders understand major policy conditions.

The principle is simple: transparency at the point of sale reduces conflict at the point of claim. Insurers that invest in customer education

may therefore achieve stronger long-term relationships even if their products are not always the cheapest in the market.

7. Trust and Customer Consistency

Trust is arguably the central relational determinant of customer consistency in health insurance. Insurance involves a significant temporal gap between payment and benefit realisation. The customer pays a premium today in anticipation of a potential medical event in the future. The insurer must therefore be trusted to honour its contractual obligations when the customer requires assistance.

Trust has several dimensions. Customers must believe that the insurer is financially and operationally capable of fulfilling its obligations. They must also believe that the insurer will treat claims fairly and communicate honestly. In addition, customers increasingly require confidence that their personal and health information will be protected in digital environments.

Trust is strengthened when insurers demonstrate consistency between what is promised and what is delivered. Transparent policy explanations, predictable claims procedures, accessible customer support and effective grievance mechanisms can reinforce this trust. Conversely, mis-selling, unexpected exclusions, unexplained deductions or repeated service failures can weaken it.

The relationship between trust and customer consistency is therefore likely to be cumulative. A single positive experience may not create lifetime loyalty, but repeated positive interactions can gradually establish confidence. Similarly, one severe negative experience, particularly during a medical emergency, can have disproportionate effects on the relationship.

8. Digitalisation and Customer Consistency

Digitalisation has transformed the manner in which customers interact with health insurers. Policy purchase, premium payment, renewal, claim tracking, hospital search, document submission and customer communication can increasingly be undertaken through digital platforms. Digital convenience reduces the effort associated with maintaining a policy and can therefore support renewal consistency.

Digital technology also creates opportunities for personalised engagement. Insurers can use customer data to identify renewal patterns, understand coverage gaps and communicate relevant information. Artificial intelligence and predictive analytics may eventually enable insurers to identify customers who are at risk of discontinuing their policies and offer appropriate interventions before the renewal date.

However, digitalisation also creates a potential paradox. Routine transactions can be efficiently automated, but complicated health claims often require empathy, explanation and human judgement. Customers may become frustrated when an automated chatbot or digital workflow cannot address a complex problem. The most effective model is therefore unlikely to be either completely digital or completely traditional. Instead, insurers need a hybrid model in which digital systems handle routine transactions while trained human personnel remain available for high-emotion and high-complexity interactions.

Digitalisation should consequently be evaluated not simply in terms of technological sophistication but in terms of whether it improves customer confidence and reduces friction throughout the insurance lifecycle.

9. Hospital Networks and Customer Consistency

The hospital network constitutes an important component of the health-insurance customer experience. For many customers, the insurer becomes visible primarily through its interaction with hospitals. The availability of cashless treatment, geographic accessibility of network hospitals, quality of medical institutions and coordination between hospitals and insurers can influence perceptions of service quality.

A policy with attractive features may nevertheless generate dissatisfaction if the customer cannot easily access an appropriate network hospital. This is particularly important outside major metropolitan areas, where customers may have fewer healthcare choices. Insurers therefore need to evaluate network adequacy from the customer's perspective rather than simply counting the number of hospitals on the network.

Hospital accessibility also becomes increasingly important as customers age. A younger customer may tolerate inconvenience in accessing healthcare facilities, whereas older customers may place much greater importance on proximity, cashless availability and coordinated assistance. Customer consistency therefore requires insurers to consider the changing needs of customers across the insurance lifecycle.

10. Premium Revision and Long-Term Customer Relationships

Premium revision represents one of the most sensitive issues in health insurance. Insurers must price products according to risk and changing healthcare costs, while customers seek predictable and affordable premiums. This creates a structural tension between actuarial sustainability and customer affordability.

The problem becomes particularly visible when premiums rise significantly as customers become older. From the insurer's perspective, increasing age may correspond with higher expected claims. From the customer's perspective, however, the premium increase can be perceived as a penalty for remaining loyal.

This tension demonstrates why communication is critical. Customers are more likely to accept necessary price adjustments when insurers clearly explain the reasons for change and demonstrate the corresponding protection provided. Insurers should also consider product redesign, flexible coverage levels and other mechanisms that enable customers to remain insured without unnecessarily compromising protection.

Customer consistency therefore depends not on maintaining an artificially constant premium but on maintaining a perception of fairness between price and value.

11. Mis-Selling and Its Impact on Customer Consistency

Mis-selling represents a significant threat to sustainable customer relationships. When a policy is sold through exaggerated promises, incomplete disclosure or inappropriate product recommendations, the immediate result may be successful customer acquisition. However, the long-term consequences can include dissatisfaction, complaints, policy discontinuation and reputational damage.

Health insurance is particularly vulnerable to expectation gaps because customers may not fully understand complex contractual provisions at the time of purchase. If an intermediary presents a product as providing comprehensive protection while failing to explain important exclusions or waiting periods, the customer

may interpret subsequent claim deductions as evidence of insurer dishonesty.

Customer consistency therefore begins before the policy is issued. Ethical selling is not simply a regulatory requirement; it is a strategic investment in long-term customer value. A correctly informed customer may be less likely to purchase the cheapest policy but more likely to maintain the policy because expectations and actual benefits are aligned.

12. Regulatory Continuity and Customer Consistency

Regulation plays a distinctive role in supporting customer consistency because health insurance involves long-term vulnerability. Policyholders need confidence that their accumulated benefits will not be unnecessarily lost when their circumstances change.

Renewal provisions provide the foundation for continued coverage. Grace periods provide additional protection against accidental discontinuity caused by delayed payment, subject to applicable regulatory and policy conditions. Portability gives customers the freedom to change insurers while preserving eligible continuity credits, while migration enables movement between products within the same insurer.

These provisions create an important balance between customer choice and continuity. Customers are not forced to remain with an insurer simply because they have accumulated waiting-period benefits. Instead, they can exercise choice while preserving certain elements of their insurance history.

The 60-month moratorium framework is another important component of long-term policyholder confidence. The underlying principle is that sustained continuous coverage should eventually provide customers with greater certainty regarding contestability, subject to the applicable regulatory provisions and fraud-related exceptions.

Regulation can therefore be viewed not merely as a compliance mechanism but as an institutional foundation for customer trust.

13. The Proposed Customer Consistency Model for Indian Health Insurance

Based on the preceding discussion, this study proposes a Customer Consistency Model for Indian Health Insurance. The model conceptualises customer consistency as the outcome of five interconnected dimensions: economic value, service experience, relational trust, technological convenience and regulatory continuity.

The economic dimension includes premium affordability, perceived value and adequacy of coverage. The service dimension incorporates claims experience, hospital accessibility, customer support and grievance redressal. The relational dimension includes trust, transparency, fairness and confidence in the insurer. The technological dimension includes digital convenience, communication and personalisation. The regulatory dimension includes renewal protection, portability, migration and continuity benefits.

These factors are expected to influence customer satisfaction and perceived value, which subsequently strengthen customer trust. Trust then becomes a major mechanism through which customers develop renewal intention and long-term consistency.

The proposed relationship can be expressed conceptually as:

Economic Value + Service Experience + Transparency + Digital Convenience + Regulatory Continuity → Perceived Value

and Satisfaction → Trust → Customer Consistency → Continuous Protection and Lifetime Relationship

Customer consistency is therefore not treated as a single behavioural outcome. It represents a broader state in which the customer remains insured, perceives continuing value, trusts the insurer and is willing to maintain or adapt the relationship over time.

14. Theoretical Foundation

The proposed framework draws primarily upon Relationship Marketing Theory, Expectation-Confirmation Theory, Trust Theory and Customer Lifetime Value Theory.

Relationship Marketing Theory provides a useful foundation because health insurance relationships are inherently long term. Morgan and Hunt's commitment-trust framework suggests that trust and commitment are central mechanisms through which sustainable relationships are developed. In health insurance, these constructs become particularly important because customers depend upon the insurer during uncertain future events.

Expectation-Confirmation Theory helps explain the importance of transparency and claims experience. Customers enter an insurance relationship with expectations about coverage, service and claim settlement. Satisfaction depends partly on the extent to which actual experiences confirm or disconfirm these expectations. Mis-selling and unclear communication can therefore create negative disconfirmation, whereas transparent communication can establish realistic expectations.

Trust Theory explains why customers may continue with an insurer even when competitors offer lower prices. Insurance is a high-trust service because customers cannot fully evaluate the future quality of the service at the time of purchase. Trust therefore reduces uncertainty and encourages continued relationships.

Customer Lifetime Value Theory provides the strategic perspective. An insurer should not evaluate a policyholder solely according to the premium generated in a single year. The long-term value of a customer includes future premiums, cross-selling opportunities, referrals and relationship benefits, while also accounting for acquisition and servicing costs and claims. Customer consistency is therefore closely related to sustainable customer lifetime value.

15. Research Propositions

The conceptual framework developed in this study leads to several research propositions. Premium affordability is expected to have a positive influence on customer consistency because customers are more likely to maintain coverage when the perceived cost is manageable relative to the protection obtained. Perceived adequacy of coverage is also expected to positively influence consistency because customers who believe that their insurance sufficiently addresses their health risks are more likely to renew.

Claim experience is expected to positively influence customer trust, particularly when claims are processed efficiently, fairly and transparently. Transparency is expected to improve both satisfaction and trust because clear understanding of policy conditions reduces expectation gaps. Digital convenience is expected to positively influence renewal behaviour by reducing the transaction costs associated with policy maintenance.

Accessibility of network hospitals is expected to influence customer perceptions of service value because the practical usefulness of health insurance depends partly on the availability of healthcare providers. Effective grievance



redressal is expected to strengthen customer confidence because customers are more likely to maintain relationships when they believe that problems can be resolved fairly.

Trust is expected to have a strong positive influence on customer consistency. Customer satisfaction is expected to mediate the relationship between service quality and consistency, while trust is expected to mediate the relationship between claim experience and long-term renewal behaviour. Finally, regulatory continuity mechanisms are expected to strengthen the relationship between trust and customer consistency by reducing the perceived risk associated with maintaining long-term health insurance.

16. Managerial Implications

The findings of the conceptual analysis have important implications for Indian health insurers. The first implication is the need to move from a policy-acquisition mindset towards a lifetime customer-value perspective. Sales targets are important for growth, but long-term sustainability depends on whether customers remain insured and adequately protected.

Insurers should therefore develop internal measures that capture customer continuity rather than relying solely on annual renewal rates. A Customer Continuity Score could incorporate renewal history, premium payment consistency, claims satisfaction, digital engagement, complaints, trust indicators and adequacy of coverage. Such a score could help insurers identify customers at risk of discontinuation.

Artificial intelligence can also play an important role in predictive renewal management. Customer behaviour, payment history, policy tenure, changes in premium, claim experience and engagement patterns could be analysed to identify customers who may be considering discontinuation. Instead of using such analytics merely to push another sales message, insurers could use them to offer genuinely useful interventions such as coverage restructuring, payment flexibility or product migration.

The second managerial implication concerns claims. Insurers should treat claims as strategic relationship events rather than simply financial transactions. The quality of communication during a medical emergency can have a greater influence on customer trust than several years of routine service.

The third implication concerns product design. Customers should have pathways through which their insurance can evolve with changing

financial and medical needs. Younger customers, families, middle-aged customers and senior citizens have different risk profiles and affordability constraints. A flexible product architecture can therefore strengthen customer consistency.

Finally, insurers should integrate technology with human assistance. Routine renewals and information requests can be automated, but complex claims and emotionally sensitive situations should remain supported by trained personnel. The objective should be technologically efficient but human-centred insurance.

17. Policy Implications

From a policy perspective, customer consistency should become an important dimension of health-insurance development in India. Increasing the number of insured individuals is valuable, but continuous and adequate protection is even more important. A customer who purchases insurance for one year and then becomes uninsured may remain statistically classified as someone who has participated in the insurance market, while still being financially vulnerable to future medical expenditure.

Greater consumer education is therefore essential. Policyholders should be encouraged to understand the long-term implications of waiting periods, continuity benefits, portability and policy renewal. Regulatory efforts towards standardised disclosure can contribute to this objective.

Policyholders should also be able to compare products on dimensions that are meaningful to long-term customers, including claims service, network accessibility, grievance performance and premium changes. Greater transparency could reduce information asymmetry and encourage competition based on service quality rather than aggressive selling alone.

Protection of older customers is particularly important. As health risks increase with age, the possibility of policy discontinuation due to affordability becomes more consequential. Sustainable mechanisms for maintaining health insurance among ageing populations should therefore remain an important policy objective.

18. Future Research Directions

The conceptual model proposed in this paper can be empirically tested using primary data collected from Indian health-insurance policyholders. A structured questionnaire could measure affordability, perceived value, service quality, claim experience, transparency, trust, digital convenience, hospital accessibility, grievance experience and renewal intention.

Structural Equation Modelling could be used to test the relationships between the independent variables, mediating variables and customer consistency. Multi-group analysis could further examine whether determinants differ according to age, income, urban or rural location, type of insurer, policy tenure and previous claim experience.

A longitudinal study would be particularly valuable. Customers with one or two years of policy tenure could be compared with customers having five or more years and those having more than ten years of continuous coverage. Such research could establish whether the importance of trust, accumulated benefits and claim experience increases as the customer relationship matures.

Future research could also examine customer consistency from the perspective of senior citizens, rural households and digitally less-connected consumers. These groups may experience different barriers to maintaining continuous health insurance.

Another promising research direction is the relationship between customer consistency and preventive healthcare. If insurers increasingly provide wellness programmes, health-risk monitoring and preventive services, future research could investigate whether such engagement strengthens customer relationships and reduces the probability of policy discontinuation.

19. Conclusion

The Indian health insurance sector is moving from a period characterised primarily by market expansion towards a more mature phase in which the quality and sustainability of customer relationships will become increasingly important. In this environment, customer consistency provides a useful conceptual lens for understanding whether policyholders remain continuously protected, perceive value in their insurance, trust their insurers and maintain adequate coverage as their circumstances change. The concept goes beyond conventional customer satisfaction and retention because it recognises that health insurance is fundamentally a long-term protection relationship rather than an annual financial transaction. Affordability, product adequacy, claim experience, transparency, service quality, hospital accessibility, digital convenience, grievance redressal and regulatory continuity collectively influence the customer's decision to maintain insurance. Among these factors, trust occupies a central position because the value of health insurance is often realised during periods of illness and financial vulnerability. The future competitiveness of Indian health insurers will therefore depend not simply on acquiring more customers but on developing relationships that customers are willing and financially able to sustain throughout their lives. The strategic objective should be to move from policy renewal to lifetime protection, from customer retention to customer confidence, and from transactional insurance to sustainable customer relationships. In this broader sense, customer consistency becomes not only a measure of insurer performance but also an indicator of the effectiveness and social sustainability of India's health-insurance system.

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Who Will Be India's Largest Employer After AI Adoption?

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Abstract

The growing adoption of Artificial Intelligence (AI) is reshaping the employment landscape, raising critical questions about the future of work and India's capacity to generate employment at scale. While large corporations are positioned to lead AI investment and productivity enhancement, startups to drive innovation, and the government to provide essential public services, the article examines the potential of small businesses, micro-enterprises, Micro, Small and Medium Enterprises (MSMEs), and self-employed entrepreneurs to emerge as the principal drivers of employment in the AI era. Drawing upon the employment potential of India's small-enterprise ecosystem, it explores how AI-enabled productivity improvements can support business expansion, market access and workforce absorption. The article also highlights challenges relating to access to finance, affordable technology, digital infrastructure and skill development that may constrain MSME growth. Emphasising inclusive AI adoption, continuous reskilling and supportive government policies, the article argues that the future of employment will depend not merely on technological advancement but on the ability to convert productivity gains into sustainable livelihood opportunities and broad-based economic growth.

Keywords: Artificial Intelligence, Employment Generation, MSMEs, Future of Work, Digital Transformation, Skill Development, Inclusive Growth, Entrepreneurship.

For many Indian families, employment offers dignity, security, and hope. It enables education, supports care for ageing parents, and fosters a better future. The rise of artificial intelligence brings both opportunities and challenges.

As machines take over tasks once performed by humans, India faces a critical question: who will employ the millions entering the workforce in the coming decades? Which sectors- large corporations, startups, government, or MSMEs- are best positioned to drive future employment?

The answer may be surprising. While global technology companies and AI startups attract significant attention, India's largest employment opportunities are likely to come from its network of small enterprises, local businesses, and entrepreneurs.

After AI adoption, the combined ecosystem of small businesses, micro-enterprises, MSMEs, and self-employed entrepreneurs is best positioned to become the largest employer.

Artificial intelligence is often seen as a threat to jobs because it performs repetitive, predictable, and rule-based tasks more efficiently and at lower cost. However, AI is unlikely to eliminate work. Instead, it will change the nature of work, reduce demand for some roles, create new jobs, and increase the value of human skills such as judgment, creativity, empathy, and relationship management.

Small businesses face significant challenges, including limited access to capital, technology, and skill shortages, that hinder their full potential.

Large companies will drive AI investment and productivity, startups will create high-value jobs, and the government will remain a key employer and facilitator. However, broad-based job growth is more likely to come from millions of small enterprises than from a handful of large corporations.

Government data indicate that employment reported by enterprises registered on the Udyam Registration Portal and the Udyam Assist Platform exceeded 20.5 crore as of July 2025. The Ministry of MSME also reports that the sector contributes approximately 30% of India's GDP and over 45% of its exports. These figures underscore the scale and employment potential of India's small-enterprise ecosystem.

Large companies will primarily adopt advanced AI across sectors including banking, information technology, insurance, telecommunications, manufacturing, logistics, and retail. They have the capital, data, technology infrastructure, and management expertise to deploy AI at scale.

However, these advantages may also constrain future employment growth. Well-defined processes, standardised data, and structured jobs in large companies make routine work easier to automate. Tasks such as data entry, basic customer support, document processing, reconciliation, software testing, compliance reporting, and routine analysis may increasingly be handled by AI systems. As a result, large companies will achieve higher output with fewer employees.

Infosys co-founder Nandan Nilekani has observed that large, highly structured companies may be more exposed to job losses. In contrast, small enterprises may generate more employment due to their diverse and less standardised activities.

Large companies will continue to create important jobs in areas such as AI engineering, cybersecurity, data governance, model validation, product management, relationship management, and complex decision-making. While their contributions to productivity, exports, tax revenues, and high-skilled employment will remain significant, their share of total job creation is limited.

Small businesses possess qualities that may make them more resilient in the AI era. For example, a retailer, a small manufacturer, a regional logistics operator, a healthcare clinic, and a local financial intermediary each use different processes. This diversity makes complete automation more challenging.

Small enterprises use AI to enhance productivity rather than replace their workforce. For

example, a small retailer may use AI for inventory forecasting and digital marketing but still require employees for procurement, delivery, customer service, and relationship management.

Similarly, a small manufacturer may use AI for quality control but still need workers for machine operation, maintenance, and supervision.

Affordable cloud services, digital payments, language technologies, and online platforms now enable small firms to access capabilities that were once exclusive to large corporations.

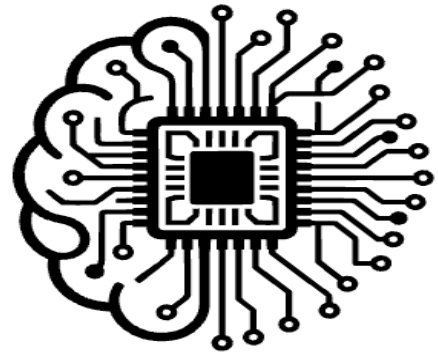
If AI enables a small business to serve more customers, enter new markets, or increase production, it may lead to additional hiring rather than job cuts.

The World Economic Forum has emphasised the need to accelerate AI adoption among Indian MSMEs while addressing barriers such as awareness, affordability, skills, and implementation capacity.

Startups will play a prominent role in the AI economy, but they are unlikely to become the largest employers in the near term. Their primary contribution is innovation, not workforce size.

Startups also face high failure rates, uncertain funding, and pressure to scale despite small teams. Their capital efficiency enables them to generate substantial revenue with fewer employees. As a result, startups may create new capabilities and high-quality jobs without becoming India's largest employer.

The government will remain essential but is unlikely to become India's largest direct employer as AI adoption rises. Fiscal constraints, administrative reforms, and digitalisation may limit growth in traditional government jobs. AI may help public



departments deliver more services with fewer routine administrative staff.

The government will also remain a major employer in essential human-centric services, including teaching, healthcare, policing, social welfare, and public administration. These areas require trust, empathy, physical presence, and ethical judgment, which machines cannot provide.

The government's primary role will be as an employment enabler, regulator, and social stabiliser rather than the largest source of new direct jobs. The employment challenge involves scale, inclusion, and geographic spread. Small enterprises are best placed to absorb millions of workers and translate AI-driven productivity gains into broader employment.

The central policy objective should not be to resist AI, but to ensure it is affordable and accessible to MSMEs and to provide workers with ongoing reskilling opportunities.

By aligning AI adoption with strong MSME growth, human-centred public services, and inclusive skilling, the nation can transform AI from a perceived job destroyer into a catalyst for national productivity. An integrated approach would enable millions of small enterprises to expand and position them as the primary engine of employment, thereby meeting India's large-scale workforce needs in the age of artificial intelligence.

AI-POWERED MONEY MULE DEFENSE

(Graph Intelligence, MuleHunter.ai and Agentic Fraud Operations in Banking)

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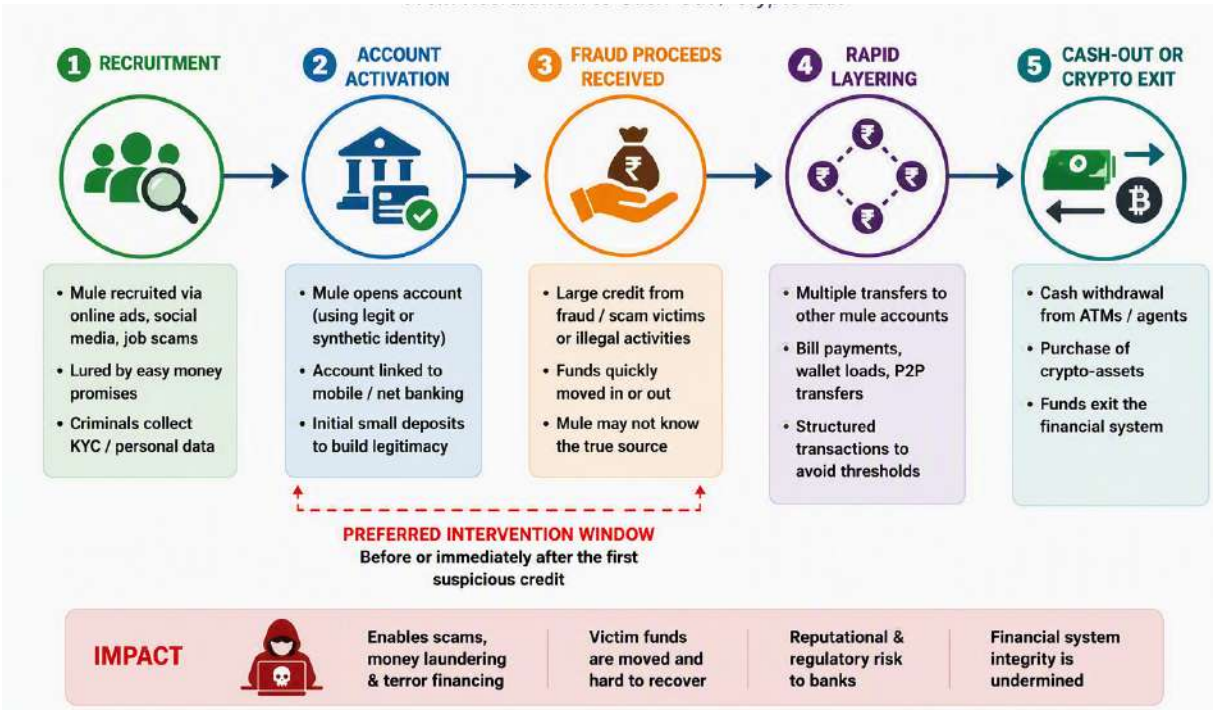
Abstract

The growing sophistication of cyber-enabled financial fraud has made money mule detection a critical priority for the Banking, Financial Services and Insurance (BFSI) sector. Money mule accounts facilitate the movement, layering and rapid transfer of illicit funds across banking and payment channels, posing significant challenges to conventional rule-based fraud monitoring systems. The article examines an AI-powered framework for money mule defence integrating machine learning, graph analytics, behavioural indicators, explainable case reasoning and controlled automation. It highlights the role of MuleHunter.ai, network intelligence and real-time transaction monitoring in identifying suspicious account relationships, detecting emerging fraud patterns and reducing false positives. The article further explores a layered architecture incorporating risk scoring, evidence-based investigation, policy validation and proportionate intervention, supported by privacy safeguards, auditability and human oversight. Emphasising the importance of accountable AI adoption, it outlines a practical implementation roadmap and performance measures covering detection effectiveness, investigation efficiency, financial losses prevented and customer impact. The article advocates a human-AI operating model based on bounded autonomy, enabling banks to disrupt fraudulent networks proactively while protecting legitimate customers and strengthening financial integrity.

Keywords: Money Mule Detection, Artificial Intelligence, Graph Analytics, MuleHunter.ai, Banking Fraud, Anti-Money Laundering (AML), Agentic AI, Explainable AI, Cybersecurity.

Introduction

The next frontier of banking AI is not merely a more conversational chatbot. It is the capability to identify and disrupt the financial infrastructure that enables cyber fraud. Money mule accounts receive, split and rapidly transfer stolen funds across banks and payment channels. Since these accounts may belong to otherwise genuine customers, static rules often generate excessive false positives while failing to recognize new network patterns.



This article reframes autonomous banking AI around a sharper 2026 priority: AI-powered money mule defence..The approach combines machine learning, graph analytics, behavioral signals, explainable case reasoning and controlled automation. The objective is not unrestricted autonomy, but faster evidence-led intervention supported by privacy, auditability and accountable human oversight.

The 2026 Context

The Reserve Bank of India reported in May 2026 that the scope and coverage of MuleHunter. ai had been expanded. RBIH describes MuleHunter.ai as an AI and machine-learning system intended to identify mule accounts proactively, reduce false positives and integrate with fraud-risk or AML platforms. Its documented approach includes supervised ensemble learning and deployment within bank infrastructure.

FATF's February 2026 work on cyber-enabled fraud highlights the growing impact of digitally accelerated fraud and laundering. The banking response must therefore join financial intelligence, real-time monitoring, network analytics and rapid but proportionate intervention.

Core idea: detect the network, not only the transaction, and intervene at the earliest defensible point.

1. How Mule Networks Operate

A mule network is a laundering pathway rather than a single suspicious account. Recruitment may begin through fake employment, investment, commission or social-media offers. The account is tested with small transfers, activated for higher-value credits and used to disperse funds through new beneficiaries, cash withdrawals, wallets or virtual assets. Some participants are complicit, while others are deceived or coerced. This distinction is essential for investigation and fair customer treatment.

Typical money-mule lifecycle.

Recruitment→Account activation→Fraud

proceeds received→Rapid layering→Cash-out or crypto exit

Signals That Become Stronger in Combination

Account behaviour: A newly active or previously quiet account receives unrelated credits followed by rapid outward transfers or cash withdrawal.

Network relationships: Multiple accounts share devices, IP addresses, contact details, beneficiaries, merchants or cash-out points.

Transaction velocity: Funds move through several hops within minutes, with balances repeatedly returning close to zero.

Customer inconsistency: Activity cannot reasonably be reconciled with the customer's profile, occupation, geography or historical behaviour.

Recruitment indicators: Complaints and digital evidence point to job scams, impersonation, investment fraud or account-rental offers.

From Rules to Graph Intelligence

Rules remain valuable for clear policy breaches, but criminals can vary amounts, timing and channels. Supervised models rank accounts by similarity to confirmed cases, while anomaly models detect unexpected behaviour. Graph analytics represents accounts, devices, beneficiaries and sessions as connected entities, exposing shared infrastructure, circular movement, fan-in and fan-out patterns, and recruiter-controlled clusters.

2. A Governed AI Architecture for Banks

An effective platform should operate as a layered decision system. It ingests authorized data, computes reproducible features, evaluates account and network risk, assembles evidence and routes each case to an action appropriate to its severity. Generative AI may help summarise cases and retrieve procedures, but it should not invent facts or independently approve irreversible customer actions.

Customer, KYC, device and payment data→Feature store and graph intelligence→Rules, ML and anomaly models

Grounded case reasoning and policy checks→Step-up check, hold, review or report

Figure 2. Privacy-preserving, explainable and human-governed mule-detection architecture.

Specialized AI Components

Detection component: Scores transactions and accounts using rules, supervised models and anomaly detection.

Graph component: Identifies hidden relationships, suspicious clusters and high-risk pathways across entities.

Case component: Builds a factual timeline, identifies contributing signals and retrieves approved internal procedures through RAG.

Decision orchestrator: Applies thresholds, policy constraints and segregation of duties before a hold, review or escalation.

Learning loop: Uses investigation outcomes and confirmed cases to monitor precision, drift and emerging typologies.

Privacy, Security and Explainability

The platform should minimize data use, tokenize direct identifiers where feasible, encrypt data and enforce least-privilege access. Every feature, recommendation and human decision should be logged. Outputs should include reason codes, confidence, relevant links and counter-evidence rather than only a risk

score. LLM retrieval must be restricted to approved repositories, and generated narratives should be validated against source records.

3. Implementation Roadmap and Future Outlook

A Practical 90-Day Pilot

Phase	Focus	Deliverable
Discover	Map typologies, labels, data quality and existing rules	Risk taxonomy and baseline
Build	Create features, graph links and champion models	Offline model comparison
Validate	Back-test, assess false positives and test explanations	Controlled pilot approval
Operate	Run shadow mode, calibrate thresholds and monitor drift	Measured production rollout

Success Measures

A pilot should be judged on operational and customer outcomes, not accuracy alone. Measures should include precision among reviewed alerts, recall on confirmed cases, reduction in false positives, time from suspicious credit to intervention, investigator handling time, value protected, discovery of connected networks, explanation completeness and customer-impact exceptions.

The Human-AI Operating Model

The mature bank will use hybrid intelligence. AI continuously ranks risk, maps networks and assembles evidence. Investigators challenge that evidence, distinguish victims from willing participants, choose proportionate actions and return outcomes to the learning loop. Compliance teams define policy boundaries, model-risk teams independently validate performance, cybersecurity teams protect orchestration and data layers, and governance forums review drift, bias, overrides and adverse outcomes.

Agentic workflows may automate low-risk steps such as data collection, duplicate-case consolidation and notification drafting. Actions that restrict access to funds, close accounts or trigger regulatory reporting require stronger controls, full audit trails and defined accountability. The guiding principle is bounded autonomy: the system may move quickly, but only within explicit permissions.

Conclusion

Money mule defence is a strong test of whether banking AI can deliver value without sacrificing trust. The most effective 2026 architecture combines MuleHunter.ai-style machine learning, graph intelligence, real-time monitoring, grounded case reasoning and human-governed intervention. By connecting fraud, AML, cyber, complaints and customer-service signals, banks can progress from isolated alerts to network disruption while protecting legitimate customers through transparent, proportionate and reviewable decisions.

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Consolidation of Master Directions by RBI for Handling the Credit Portfolio in Banks

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Abstract

The Reserve Bank of India's consolidation of Master Directions in November 2025 marks a significant step towards simplifying regulatory compliance and improving clarity for banks. The article examines the RBI (Commercial Banks – Credit Facilities) Directions, 2025, focusing on the integrated framework governing credit products, project finance and infrastructure financing. It highlights key prudential requirements relating to credit appraisal, project viability, disbursement, monitoring, risk mitigation and interlinkages with other regulatory directions. The article underscores how consolidated guidelines can strengthen credit governance, facilitate comprehensive compliance and support sustainable infrastructure development, contributing to India's economic growth.

Keywords: RBI Master Directions, Credit Portfolio, Project Finance, Infrastructure Financing, Prudential Norms, Credit Risk Management.

Background

The Reserve Bank of India, as the financial sector regulator of the economy, is playing a pragmatic role in maintaining financial stability while ensuring orderly growth and the protection of depositors' and borrowers' interests. The economy has seen progressive deregulation of bank credit, and now Prudential Norms primarily serve as regulatory safeguards for guidance to the regulated entities.

The RBI has issued several Master Directions over the years as the financial system evolved, and the RBI has endeavoured to optimise its regulatory framework. The RBI has taken a significant step toward a fundamental reorganization of the regulatory instructions administered by its Department of Regulation. By way 0f a comprehensive exercise, the RBI has undertaken the consolidation of instructions contained in approx. 3,500 directions, circulars, and guidelines across 11 types of regulated entities. In November 2025, the RBI issued 244 Master Directions, consolidating the

instructions on an as-is-where-is basis. This consolidation exercise is expected to enhance clarity, improve access, and reduce the compliance burden for the Regulated Entities, keeping in mind the objective of ease of doing business.

Here, we broadly discuss the relevant Master Directions relating to the Credit Portfolio of Banks, with specific reference to 'Project Finance and Infrastructure Financing'.

Consolidation of Applicable Master Directions Relating to Credit Portfolio. ;-

The main Master Directortions for Banks relating to various Credit Facilities are covered by the following:

Reserve Bank of India (Commercial Banks - Credit Facilities) Directions 2025 dated 28 November 2025.

These MASTER DIRECTI0NS provide comprehensive directions to the regulated entities on the design and delivery of Credit-related products and services. The guidelines cover a wide range of credit facilities, inter alia, as mentioned under:

1. Digital Lending Guidelines
2. Lending against Gold and Silver Collateral
3. Gold Metal Loans (GML) - For Jewellery Manufacturers
4. Microfinance
5. Project Finance
6. Credit Facilities to the Real Estate Sector
7. Infrastructure Financing
8. Discounting/Rediscounting of Bills
9. Acquisition Finance
10. Credit Facilities to Overseas Joint Ventures (JV)/Wholly Owned Subsidiaries Abroad and Overseas Step-down Subsidiaries of Indian Companies
11. Loans Against Financial Assets
12. Finance to Non-Banking Financial Companies (NBFCs)
13. Export Credit
14. Non-Fund-Based (NFB) Credit Facilities
15. Miscellaneous Provisions

The relevant aspects related to the various categories of facilities mentioned above have been dealt with in a detailed manner. This guide is to guide banks on the steps involved in the design of each product/service, with clear definitions, the mechanism of delivery, and the specific safeguards to be adhered to to protect the interests of the stakeholders.

Inter-linkage with other Mater Directortions.

In order to ensure consistency, clarity, and a commonality of approach, the reference to the other applicable Master Directions issued by RBI has been given at the relevant points to facilitate easy understanding as a ready reckoner. This is also to ensure comprehensive compliance by the regulated entities without missing the finer points involved in the specific guidelines.

As an illustration, the Other Master Directions closely related to the Credit Facilities Portfolio of the Banks as covered in the above-mentioned circular are, inter alia, as under:

1. Reserve Bank of India (Commercial Banks - Resolution of Stressed Assets) Directions 2025
2. Reserve Bank of India (Commercial Banks - Income Recognition, Asset Classification, and Provisioning) Directions 2025
3. Reserve Bank of India (Commercial Banks - Prudential Norms on Capital Adequacy Directions 2025)
4. Reserve Bank of India (Commercial Banks - Credit Risk Management) Directtions 2025
5. Reserve Bank of India (Commercial Banks



- Interest Rate on Advances) Directions 2025

6. Reserve Bank of India (Commercial Banks - Concentration Risk Management) Directions 2025
7. Reserve Bank of India (Commercial Banks - Securitisation Transactions) Directions 2025
8. Reserve Bank of India (Commercial Banks - Transfer and Distribution of Credit Risk) Directions 2025
9. Reserve Bank of India (Commercial Banks -Managing Risks in Outsourcing) Directions 2025
10. Reserve Bank of India (Commercial Banks Responsible Business Conduct) Directions 2025
11. Reserve Bank of India (Commercial Banks - Know Your Customer) Directions 2025
12. Reserve Bank of India (Commercial Banks - credit Cards and Debit Cards : issuance and conduct) Directions 2025
13. Reserve Bank of India (Commercial Banks - Financial Statements: Presentation and Disclosures Directions 2025
14. Master Directions - External Commercial Borrowings, Trade Credits, and Structured Obligations..
15. Reserve Bank of India (Commercial Banks - Resource Raising Norms) Directions 2025
16. Reserve Bank of India (Non- Banking Financial Companies - Registeration, Exemptions ,and Framework for Scale Based Regulation) Directions 2025
17. Reserve Bank of India Commercial Banks - (Classification Valuation and Operation of Investment Portfolio) Directions 2025
18. Reserve Bank of India (Trade Relief Measures) Directions 2025
19. Master Directions - Lending to Micro Small and Medium Enterprises (MSME) sector

As we can see from above,the handling of credit portfolio by Banks is not merely restricted to the designing and delivery of Credit- products and services, but is strategically linked to other Master Directortions applicable in effective Day to-day operations of Bank in all subjects related to the credit portfolio. Therefore, a

comprehensive understanding of the related Master Directortions is an essential pre-requisite for ensuring proper compliance.

Master Directions on Project Finance and Infrastructure Financing: Salient Features

The RBI has consolidated and provided a detailed set of guidelines in one place with respect to various aspects of project finance and infrastructure financing, starting with the basic definitions, the prudential norms for sanctioning , disbursement, and monitoring, taking into account the complex nature of the project structure, the long gestation period involved, and the specific skills required for appraisal.

Project

In the context of of these Directions Project means a venture undertaken through capital expenditure (involving current and future outlay of funds) for creation / expansion / upgradation of tangible assets and / or facilities in the expectation of stream of cash flow benefits extending far into the future. Projects usually have the characteristics of a long gestation period, irreversibility and substantial capital outlays.

Project Finance

The method of funding a project in which the revenues to be generated by the funded project serve as the primary security for the loan, and also as a source of repayment. Project finance may take the form of financing the construction of a new capital installation (greenfield), or financing an improvement/ enhancement in the existing installation (brownfield).

For the purpose of these Directions, an exposure shall qualify as a project finance exposure only if the following conditions are satisfied:

a. The pre-dominant source of repayment as envisaged at the time of financial closure (i.e., at least 51 per cent) must be from cash flows arising from the project that is being financed.

b. All the lenders have a common agreement with the debtor.

Explanation

A common agreement may have different loan terms (except original / extended / actual DCCO as specified in paragraph76 of these Directions) for each of the lender provided the same has been agreed upon by the debtor and all the lender(s) to the project.

Phases of Projects

For the purpose of application of prudential guidelines contained in these discussions,rojects shall be broadly divided into three phases namely:

1. Design phase – This is the first phase which starts with the genesis of the project and includes, inter-alia, designing, planning, obtaining all applicable clearances / approvals till its financial closure.
2. Construction phase – This is the second phase which begins after the financial closure and ends on the day before the actual DCCO.
3. Operational Phase – This is the last phase which starts with commencement of commercial operation by the project on the day of the actual DCCO and

Prudential Conditions Related to Sanction

The credit policy of a bank shall incorporate suitable clauses for sanction of project finance exposures, taking into account inter alia the provisions as under :

For all projects financed by the bank, it shall be ensured that:

a. Financial closure has been achieved and



original DCCO is clearly spelt out and documented prior to disbursement of funds.

b. The project specific disbursement schedule vis-à-vis stage of completion of the project is included in the loan agreement. The post DCCO repayment schedule has been realistically designed to factor in the initial cash flows.Provided that, the original or revised repayment tenor, including the moratorium period, if any, shall not exceed 85 per cent of the economic life of a project.

For a given project, original / extended / actual DCCO, as the case may be, shall be same across all lenders to the project.

In under-construction projects where the aggregate exposure of the lenders is up to ₹1,500 crore, no individual bank shall have an exposure which is less than 10 per cent of the aggregate exposure. For projects where aggregate exposure of all lenders is more than ₹1,500 crore, the exposure floor for an individual bank shall be 5 per cent or ₹150 crore, whichever is higher.

Provided that, the above minimum exposure requirements shall not apply post- actual DCCO and banks may freely acquire from or sell exposures to other lenders, in compliance with guidelines contained in the applicable RBI Master Directions . Prior to actual DCCO, banks may acquire from or sell exposures to other lenders under a syndication arrangement as specified under the applicable RBI Master Directions provided the share of individual bank is in adherence to the above limits.

Prudential Conditions Related to Disbursement and Monitoring

A bank shall ensure availability of sufficient land / right of way for all projects before

disbursement of funds, subject to the following minimum requirements:

1. For infrastructure projects under PPP model – 50 per cent
2. For all other projects (non-PPP infrastructure, and non-infrastructure including CRE & CRE-RH) – 75 per cent
3. For transmission line projects – as decided by the bank

In case of infrastructure projects under PPP model, disbursement of funds shall begin only after declaration of the Appointed Date or its equivalent, for the project. However, in cases where non-fund based credit facilities may be mandated by the concession granting authority as a pre-requisite for declaration of appointed date, the bank may sanction such credit facilities, in adherence with the instructions on non-fund based facilities as prescribed in these Directions.

The bank shall ensure that disbursal is proportionate to the stages of completion of the

project as also to the progress in equity infusion and other sources of finance, agreed as part of financial closure and receipt of remaining applicable clearances. The lender's independent engineer (LIE) / architect shall certify the stages of completion of the project.

Criteria for Financing

The bank shall finance technically feasible, financially viable and bankable infrastructure projects undertaken by both public sector and private sector undertakings subject to the following conditions:

1. The bank shall have the requisite expertise for appraising technical feasibility, financial viability, and bankability of projects, with particular reference to risk analysis and sensitivity analysis.
2. In respect of projects undertaken by public sector units, term loans shall be sanctioned only for corporate entities (i.e. public sector undertakings registered under the Companies Act or a corporation established under a relevant statute). Further, such term loans shall not be in lieu of or to substitute budgetary resources envisaged for the project. The term loan could supplement the budgetary resources if such supplementing was contemplated in the project design.
3. While such public sector units may include Special Purpose Vehicles (SPVs) registered under the Companies Act set up for financing infrastructure projects, it shall be ensured by the bank that these loans / investments are not used for financing the budget of the State Governments.
4. Whether such financing is done by way of extending loans or investing in bonds, the bank shall undertake due diligence on the viability and bankability of such projects to ensure that revenue stream from the project is sufficient to take care of the debt servicing obligations and that the repayment / servicing of debt is not out of budgetary resources.
5. In the case of financing SPVs, banks and financial institutions shall ensure that the funding proposals are for specific monitorable projects.
6. The bank may also lend to SPVs in the private sector registered under the Companies Act for directly undertaking infrastructure projects that are financially viable and not for acting as mere financial intermediaries. The bank shall ensure that the bankruptcy or financial difficulties of the parent / sponsors shall not affect the financial health of the SPV

Types of Financing by Banks

In order to meet the financial requirements of infrastructure projects, the bank shall extend credit facilities by way of working capital finance, term loans, and project loans.

subscription to bonds and debentures / preference shares / equity shares acquired as a part of the project finance package, which is treated as a "deemed advance," and any other form of funded or non-funded facility.

In addition the banks can also lend by way of Take - out Financing as per the guidelines included in Master Directions on Transfer and Distribution of Credit Risk .

Appraisal and creation of adequate Administrative Arrangement

Lot of emphasis has been laid on robust appraisal with the requisite risk assessment and suitable risk mitigation in order to protect the interest of the lenders and adequate Administrative Arrangement are required to be ensured by the Banks

In respect of financing of infrastructure projects undertaken by government-owned entities, the bank shall undertake due diligence on the viability of the projects. The bank shall ensure

that the individual components of financing and returns on the project are well defined and assessed. State Government guarantees shall not be taken as a substitute for satisfactory credit appraisal, and such appraisal requirements shall not be diluted on the basis of any reported arrangement with the Reserve Bank or any bank for regular standing instructions or periodic payment instructions for servicing the loans/bonds.

Infrastructure projects are often financed through Special Purpose Vehicles. Financing of these projects shall, therefore, call for distinct appraisal methodology on the part of lending agencies. Identification of various project risks, evaluation of risk mitigation through appraisal of project contracts and evaluation of creditworthiness of the contracting entities and their abilities to fulfil conactual obligations shall be an integral of the appraisal exercise. In this connection, the bank shall consider constituting appropriate screening committees / special cells for the appraisal of credit proposals and the monitoring of the progress / performance of the projects.

The master directions also contain guidelines relating to Financing of Promoter's equity under specific terms and conditions in an existing company engaged in implementing or operating an Infrastructure project in India.In addition the guidelines for lending to InVITS have also been included in the Master Directions.

Taking into account the large size of the projects,joint financing by banks/ financial institutions under consortium or syndication arrangement may be involved.In such cases,the participating bank shall ,for the purpose of their own assessment ,refer to the appraisal report prepared by the lead bank or financial institutions or have the project apprised jointly.

Timely and adequate availability of credit is the prerequisite for successful implementation of infrastructure projects.l implementation of infrastructure projects. The bank shall, therefore, clearly delineate the procedure for approval of loan proposals and institute a suitable monitoring mechanism for reviewing applications Multiplicity of appraisals by every institution involved in financing, leading to delays, has to be avoided, and the bank shall be prepared to broadly accept technical parameters laid down by leading public financial institutions. Also, setting up a mechanism for an ongoing monitoring of the project implementation will ensure that the credit disbursed is utilised for the purpose for which it was sanctioned.for the purpose for which it was sanctioned.

Prudential Requirements

For prudential credit exposure limits and for assignment of risk weight for capital adequacy purposes, the bank shall be guided by the respective Master Directions of RBI as applicable.

Conclusion

The RBI has taken a very judicious and pragmatic step of consolidation of the applicable Master Directions for the regulated entities. This will not only bring in greater clarity but also will facilitate better compliance in a comprehensive and integrated manner.The sections on Master Directions on Project Finance and Infrastructure Financing provide detailed guidelines to the bankers for proper appraisal and robust mechanism of risk assessment and suitable mitigation specifically required for Infrastructure projects.This will in turn help in greater contribution towards infrastructure development, which is the backbone for economic growth towards our journey for a VIKSIT BHARAT.

Love Thyself... Love Your Money

Ms. Kumkum Mohapatra
Homemaker & Freelancer



Abstract

In an increasingly digital banking environment, cyber fraud poses a growing threat to individuals' hard-earned savings and financial security. The article examines common fraud techniques involving phishing, impersonation, fraudulent investment offers and the psychological manipulation of customers through fear, greed and urgency. It highlights practical safeguards, including protecting confidential banking credentials, verifying suspicious communications, using secure digital practices and promoting cyber awareness within families. It also outlines immediate response measures following suspected fraud, emphasising prompt reporting to the bank, the national cybercrime helpline (1930) and the National Cyber Crime Reporting Portal. The article underscores that financial security begins with vigilance, informed behaviour and personal responsibility.

Keywords: Cyber Fraud, Financial Security, Digital Banking, Cyber Awareness, Phishing, Fraud Prevention, Customer Protection.

"Love thyself" is a timeless piece of wisdom. Most of us associate it with physical health, emotional well-being, or self-respect. Yet, in today's increasingly digital world, there is another equally important dimension to self-love—protecting our hard-earned money.

Every rupee in our bank account is a reflection of years of education, hard work, sacrifices, and prudent financial decisions. It pays for our children's education, supports our parents in old age, funds our dreams, and provides security during difficult times. Losing these savings to an avoidable cyber fraud is not merely a financial setback; it is an emotional blow that can take years to recover from.

Ironically, while we protect our homes with locks, install CCTV cameras, insure our vehicles, and safeguard our valuables, many of us leave our bank accounts vulnerable to strangers who need nothing more than a convincing voice over a telephone.

Modern fraudsters no longer operate from dark alleys. They reach us through mobile phones,

emails, text messages, social media platforms, and instant messaging applications. Their greatest weapon is neither technology nor hacking skills—it is human psychology. They know that fear clouds judgment, greed weakens caution, and urgency discourages verification.

Almost everyone has received an unsolicited call claiming to be from a bank, the Income Tax Department, a courier company, the electricity board, or even a law enforcement agency. Sometimes the caller announces exciting news—that a lottery has been won, reward points are about to expire, or an investment opportunity promises extraordinary returns. At other times, the tone changes completely. The caller warns that the bank account will be frozen, the KYC has expired, a parcel has been intercepted, or a legal action is imminent unless immediate action is taken.

These conversations differ in their stories but share a common objective—to make the recipient react emotionally rather than think rationally.

Once anxiety or excitement takes over, the fraudster gradually asks for confidential information or persuades the victim to click a link, install an application, share a One-Time Password (OTP), disclose a UPI PIN, or scan a QR code. Many people unknowingly comply because the conversation sounds authentic and the caller appears knowledgeable.

The uncomfortable truth is that cybercriminals succeed not because people lack intelligence but because they exploit moments of distraction, trust, panic, or temptation. Even educated professionals, experienced businessmen, and retired bankers have fallen victim to sophisticated scams. Fraud is no longer a question of intelligence; it is a question of vigilance.

Perhaps the strongest temptation in financial fraud is the promise of easy money. Human beings naturally wish to improve their financial position, and fraudsters understand this better than anyone. Offers of guaranteed high returns, instant loan approvals without documentation, unbelievable discounts, prize money, miracle investments, cryptocurrency schemes, and work-from-home opportunities often appear attractive precisely because they appeal to our hopes rather than our judgment.

History repeatedly teaches us that genuine wealth is built through patience, discipline, and informed decision-making—not through miraculous shortcuts. Whenever an offer promises extraordinary rewards with little effort or no risk, caution should replace excitement.

Equally dangerous are scams built on fear. A message threatening immediate suspension of a bank account, cancellation of a PAN or Aadhaar, disconnection of electricity, or initiation of criminal proceedings is carefully designed to prevent logical thinking. The victim feels compelled to act instantly, forgetting that legitimate institutions follow established procedures and do not seek confidential banking information over unsolicited phone calls.

Financial security, therefore, depends less on sophisticated technology and more on developing sensible habits. Every customer should remember that banks never ask for passwords, ATM PINs, CVV numbers, internet banking credentials, UPI PINs, or OTPs over telephone calls, text messages, emails, or social media. These credentials are as personal as the keys to one's home. Sharing them, even with someone claiming to be a bank official, is equivalent to handing over unrestricted access to one's finances.

It is equally important to verify every unexpected communication independently. If



someone claiming to represent a bank or government department requests urgent action, disconnect the call politely and contact the institution using its officially published customer care number. A few minutes spent verifying information can prevent years of financial hardship.

Technology itself is neither friend nor enemy; its safe-use depends upon the user. Keeping mobile phones updated, downloading applications only from official sources, enabling transaction alerts, reviewing account statements regularly, and setting reasonable transaction limits provide additional layers of protection. More importantly, every family should discuss cyber safety openly. Elderly parents, who may be less familiar with digital technology, often become easy targets, while young adults may underestimate the sophistication of modern scams. Financial awareness should become as routine as teaching road safety or basic hygiene.

Despite every precaution, mistakes can occur. What distinguishes a manageable incident from a devastating loss is the speed of response. The moment an unauthorized transaction is noticed, the customer should immediately inform the bank so that cards, internet banking, or UPI services can be blocked. The incident should be reported without delay to the national cybercrime helpline (1930) and through the National Cyber Crime Reporting Portal. Every message, transaction reference, phone number, screenshot, and email connected with the fraud should be preserved, as prompt reporting often increases the possibility of freezing the funds before they are withdrawn or dispersed.

The responsibility of combating cyber fraud does not rest solely with banks, regulators, or law enforcement agencies. It belongs equally to every citizen. Cybersecurity begins not with sophisticated software but with informed behaviour. Every suspicious call questioned, every fraudulent link ignored, and every OTP kept confidential weakens the ecosystem that allows financial criminals to thrive.

Ultimately, loving oneself means valuing the fruits of one's labour. Our savings are more

than figures displayed on a banking application—they represent years of commitment, sacrifice, aspirations, and responsibility towards those who depend upon us. Protecting them is not an act of fear; it is an act of wisdom.Before responding to any unexpected phone call, message, or tempting financial offer, pause for a moment and ask a simple question: Would I hand the keys of my home to a stranger merely because he sounded convincing? If the answer is no, then neither should we hand over the digital keys to our bank accounts.

In an age where cybercriminals are becoming smarter by the day, the greatest defence remains an alert mind guided by patience, verification, and common sense. Loving ourselves includes protecting our health, our dignity, our relationships, and the wealth we have earned with honesty and perseverance.

What to do if prevention fails …&…If the Worst Happens… Act Immediately

Even the most cautious individuals can sometimes become victims of sophisticated cyber fraud. There is no need to panic or feel embarrassed. What matters most is acting without delay, as the chances of recovering the money are highest when the incident is reported immediately.

If you suspect that you have shared confidential banking information or notice an unauthorized transaction:

- Call the National Cyber Crime Helpline – 1930 immediately. This toll-free helpline is available to assist victims of cyber financial fraud and facilitate prompt action to freeze fraudulent transactions.
- Report the incident on the National Cyber Crime Reporting Portal: https://cybercrime.gov.in. Lodge your complaint as soon as possible and retain the acknowledgment for future reference.
- Inform your bank immediately. Contact your bank's customer care or visit the nearest branch and request that your debit card, credit card, internet banking, and UPI services be blocked, if necessary.
- Preserve all evidence, including screenshots, SMS messages, emails, WhatsApp chats, phone numbers, transaction IDs, and bank statements. These may prove crucial during investigation.
- File a police complaint if advised by the bank or cybercrime authorities, particularly when a substantial amount is involved.

Remember, every minute counts. Reporting a cyber fraud within the first few hours significantly improves the likelihood of intercepting or freezing the fraudulent transfer before the money disappears through multiple accounts.

The best defence against cybercrime is awareness, but the best response after becoming a victim is speed. Love thyself. Protect your money. Because financial security is one of the greatest expressions of self-respect.

Source:google

WEBINARS

Organized By The BFSIB

7th July 2026

Webinar on

"Infrastructure Financing in Downstream Oil Sector"



CMA Kazi Mohammed Riyazuddin, Practising Cost Accountant

The webinar on **"Infrastructure Financing in Downstream Oil Sector"** provided an insightful examination of the financial, operational and strategic dimensions of financing large-scale downstream oil infrastructure in India. The session highlighted the significance of the downstream petroleum sector for **energy security, industrial development and economic growth**, while emphasising that financing such capital-intensive projects extends beyond arranging funds. Effective infrastructure financing requires sound project appraisal, appropriate capital structuring, disciplined cost management, comprehensive risk assessment and regulatory compliance to establish and sustain project bankability.

The technical session was delivered by **CMA Kazi Mohammed Riyazuddin, Practising Cost Accountant**, who explained the structure of the petroleum value chain comprising **upstream, midstream and downstream activities**, with particular focus on refining, transportation, storage and distribution. He highlighted the complexity of refinery projects, where technical feasibility must be integrated with financial, legal, environmental, logistical and socio-economic considerations. Key stages such as **site selection, feasibility studies, project conception, statutory approvals and stakeholder coordination** were discussed as critical determinants of project viability and execution.

A major focus of the webinar was the concept of **bankability**, which represents the confidence of lenders and investors in a project's ability to generate predictable cash flows and meet its financial obligations. The speaker explained that robust assumptions relating to demand, product pricing, operating costs and project timelines, supported by appropriate contractual arrangements and risk allocation, are essential for securing financing. Government support through land availability, infrastructure development, regulatory facilitation, fiscal measures and viability gap support can further strengthen project viability and reduce execution risks.

The session also examined **capital structuring and financing sources** for large infrastructure projects. The appropriate balance between equity and debt, together with consortium lending, bonds, internal accruals, export credit agencies and international financing, was discussed in the context of managing cost of capital, financial risk and currency exposure. Financial indicators such as **Debt-Equity Ratio, Debt Service Coverage Ratio (DSCR), Loan Life Coverage Ratio (LLCR), Internal Rate of Return (IRR) and Weighted Average Cost of Capital (WACC)** were highlighted as important tools for evaluating project returns, debt-servicing capacity and overall financial resilience. Sensitivity analysis was also emphasised for assessing the impact of changes in prices, margins, costs and project delays.

The webinar strongly highlighted the strategic role of **Cost and Management Accountants in infrastructure financing**. CMAs can contribute across the project lifecycle through project appraisal, cost estimation and control, financial modelling, cash-flow monitoring, procurement analysis, treasury, risk assessment, audit and governance. Their ability to identify cost leakages, evaluate financial assumptions and monitor project performance can materially strengthen capital efficiency and support informed decisions by promoters and financiers.

The session concluded that successful infrastructure financing in the downstream oil sector is fundamentally about creating **confidence among promoters, lenders, government, contractors and other stakeholders**. The conversion of a technically feasible refinery project into a bankable investment requires coherent risk allocation, disciplined cost management, sound financial structuring and effective stakeholder coordination. The webinar therefore reinforced the importance of CMAs as strategic professionals in developing financially sustainable infrastructure projects that contribute to **India's energy security and long-term economic development**.

1st August 2026

Webinar on

"Ind AS 115 – Opportunities for CMAs"



CMA Ramsankar Mishra, Chief Manager (F), Mangalore Refinery and Petrochemicals Ltd. (MRPL)

The webinar on "Ind AS 115 – Opportunities for CMAs" provided a comprehensive understanding of the principles of revenue recognition under Indian Accounting Standard (Ind AS) 115 – Revenue from Contracts with Customers, while highlighting the growing professional opportunities available to Cost and Management Accountants. The session emphasised that revenue recognition is no longer a routine accounting exercise, but a complex function requiring detailed understanding of contractual terms, commercial arrangements, pricing structures and performance obligations. The discussion positioned CMAs as important professionals in ensuring accurate revenue measurement, financial transparency and effective business decision-making.

The technical session was delivered by **CMA Ram Shankar Mishra, Chief Manager (Finance), Mangalore Refinery and Petrochemicals Ltd. (MRPL)**, who explained the **five-step model of Ind AS 115**. The framework involves identifying the contract with a customer, identifying the performance obligations, determining the transaction price, allocating that price to the respective performance obligations and recognising revenue when, or as, those obligations are satisfied. The structured approach ensures that revenue recognition reflects the underlying

economic substance of contractual arrangements rather than merely the timing of invoicing or collection.

The webinar further examined several practical areas that require significant professional judgement. These included **contract combination and modification, variable consideration, discounts, rebates, penalties, returns, non-cash consideration and significant financing components**. The speaker highlighted the importance of carefully assessing the terms of contracts and determining the appropriate basis for allocating transaction prices among distinct goods or services, particularly where multiple performance obligations exist. Accurate estimation of variable consideration was identified as essential to minimise the risk of revenue overstatement and subsequent revenue reversals.

The session also highlighted the relevance of **Cost Accounting Standard 24 (CS 24) on Revenue**, drawing attention to the importance of maintaining consistency between financial reporting and cost information. The ability to analyse contracts from both a financial and cost perspective gives CMAs a distinctive advantage in assessing profitability, pricing decisions, contract economics and business performance. The discussion reinforced that proper revenue recognition contributes not only to regulatory compliance but also to **credible financial reporting, investor confidence, business valuation and management decision-making**.

A significant focus was placed on the expanding role of CMAs as **strategic advisors and trusted business partners**. Their expertise in cost analysis, financial modelling, pricing, contract evaluation, internal controls and management reporting enables them to support organisations in implementing Ind AS 115 effectively. CMAs can also contribute to ERP and process controls, audit support, revenue assurance, contract monitoring and identification of potential areas of financial misstatement.

The webinar concluded that Ind AS 115 creates a significant professional opportunity for CMAs to move beyond conventional accounting responsibilities and contribute to **contract analysis, revenue assurance, financial reporting, pricing strategy, cost management, compliance and corporate governance**. A strong understanding of the standard can therefore enhance the CMA's ability to provide meaningful financial and strategic insights while strengthening transparency, consistency and value creation across businesses.

13th August 2026

Webinar on

"Opportunities for CMAs in ECL"



CMA (Dr.) Nabanita Ghosh, Associate Professor, Christ University



CMA Harshad Shamkant Deshpande, Chairman, BFSI Board, ICMAI

The webinar on **"Opportunities for CMAs in ECL"** provided a comprehensive understanding of the Expected Credit Loss (ECL) framework and its growing importance in banking, financial reporting and credit risk management. The session highlighted that ECL is not merely a regulatory provisioning requirement but a significant shift towards **forward-looking, proactive and data-driven assessment of credit risk**. In his opening remarks, **CMA Harshad Shamkant Deshpande, Chairman of BFSIB** emphasised the strategic relevance of ECL for Cost and Management Accountants and the increasing demand for professionals who can integrate financial analysis, risk assessment, forecasting and management judgement.

The technical session was delivered by **CMA (Dr.) Nabanita Ghosh, Associate Professor, Christ University**, who explained the evolution, objectives and practical application of the ECL framework. She elaborated on its three key quantitative components: **Probability of Default (PD), Loss Given Default (LGD) and Exposure at Default (EAD)**. PD measures the likelihood of a borrower defaulting, LGD estimates the proportion of exposure that may not be recovered, and EAD represents the amount outstanding at the time of default. The interaction of these parameters forms the foundation for calculating expected credit losses and assessing the adequacy of provisions.

The webinar also focused on the importance of using historical data, current credit conditions and **forward-looking macroeconomic information** in ECL estimation. Factors such as economic growth, inflation, unemployment, interest rates and industry performance can significantly influence borrower behaviour and portfolio risk. Institutions must therefore develop appropriate

scenarios and stress-testing mechanisms to evaluate the possible impact of changing economic conditions. The session further discussed the difficulty of incorporating uncertain risks, including geopolitical developments, regulatory changes and sector-specific pressures, into credit-risk models.

Another important area covered was **portfolio segmentation**. Corporate, MSME and retail borrowers have different risk profiles, repayment patterns, collateral structures and recovery prospects. Proper segmentation enables financial institutions to adopt differentiated approaches to credit pricing, provisioning, monitoring and portfolio management. CMAs can contribute significantly in this area through financial analysis, cost assessment, borrower evaluation and risk-adjusted decision-making.

The speaker also highlighted the importance of **management overlays and professional judgement**. Although models provide valuable quantitative outputs, they may not fully capture emerging risks, data limitations or unusual market conditions. Management overlays may therefore be required, but such adjustments must be evidence-based, transparent, properly documented and subject to effective governance. This creates an important opportunity for CMAs to combine technical analysis with practical business understanding.

The webinar further examined the role of **governance, audit, model validation, documentation and management accountability** in ensuring reliable ECL estimates. Artificial intelligence and machine-learning tools can improve predictive analysis, process large datasets and support scenario modelling. However, technology cannot replace human judgement, particularly in complex borrower assessments and uncertain economic environments.

The webinar concluded that ECL offers substantial professional opportunities for CMAs to move beyond traditional accounting and reporting functions and contribute to **credit strategy, risk mitigation, financial modelling, portfolio management, cost-of-credit analysis, governance and assurance**. By developing expertise in ECL, CMAs can play a vital role in strengthening financial institutions' resilience and supporting informed strategic decision-making within the evolving BFSI sector.

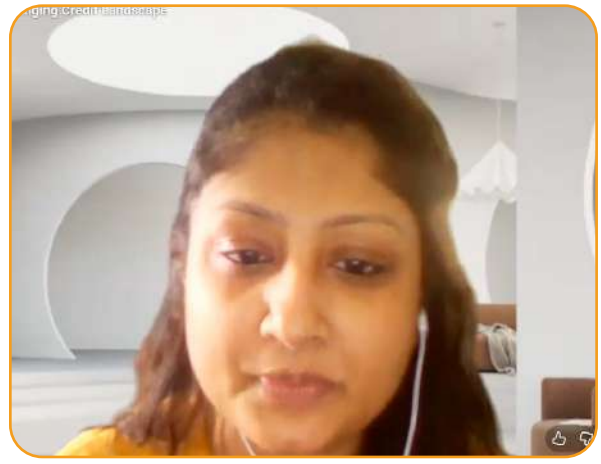
26th August 2026

Webinar on

"Expected Credit Loss and Changing Credit Landscape"



CMA Mohan Vasant Tanksale, Chairman, BSFI Sector Skill Council of India



Ms. R. Sumitra, Credit Management Specialist

The webinar on **"Expected Credit Loss and the Changing Credit Landscape"** organised by **BFSI board,** provided a practical perspective on the transformation of credit risk management following the Reserve Bank of India's introduction of the **Expected Credit Loss (ECL) framework**. The session examined how banks are required to move from reactive provisioning based on historical defaults towards a **forward looking, probability based assessment of expected losses**, with implications extending across credit appraisal, portfolio management, loan pricing, governance and regulatory reporting.

Ms. R. Sumitra, a credit management specialist, explained the ECL framework through the three-stage credit lifecycle. **Stage 1** exposures attract 12-month ECL, **Stage 2** exposures with a **Significant Increase in Credit Risk (SICR)** require lifetime ECL, while **Stage 3** represents credit-impaired exposures requiring lifetime loss recognition. The session highlighted the core calculation **ECL = PD × LGD × EAD**, integrating probability of default, loss severity and exposure at default, along with forward-looking macroeconomic and borrower-specific information.

A major emphasis was placed on **SICR as the critical trigger** for timely provisioning and early intervention. The speaker explained that rating downgrades, repayment delays, covenant breaches, sectoral stress and adverse economic conditions can signal deterioration well before an account becomes an NPA. Consequently, effective ECL implementation requires **granular data, real-time monitoring, early-warning systems and integrated technology architecture**, rather than reliance solely on conventional core banking data.

The discussion also examined the implications for **MSME lending and collaborative lending models**, where limited financial data, informal borrowing, sectoral volatility and fragmented information create challenges in estimating credit losses accurately. The ECL regime is expected to influence **borrower selection, collateral requirements, risk-based pricing, portfolio diversification and product design**, while encouraging greater use of alternative data and technology-enabled credit assessment.

The session underscored that ECL is fundamentally an **enterprise-wide governance transformation**, requiring coordinated participation from the Board, credit, risk, finance, IT, audit and economic teams. For **Cost & Management Accountants**, the changing landscape creates significant value-adding opportunities in **credit analytics, data governance, risk modelling, cost-of-credit analysis, loan pricing, scenario planning, internal controls and management reporting**. Their ability to connect financial performance with risk drivers places them in a strong position to support banks in embedding forward-looking credit governance.

The webinar concluded that ECL represents more than a provisioning methodology—it is a **fundamental shift towards predictive, data-driven and resilient credit management**. Successful implementation will depend on strong data quality, technology integration, governance discipline and continuous professional capability building, enabling Indian banks to recognise risk earlier, strengthen balance sheets and build a more resilient credit ecosystem.

23rd September 2026

Webinar on

"Bank Account Portability: The Right to Switch and the Future of Customer-Centric Banking"



CMA Harshad Shamkant Deshpande, Chairman, BFSI Board, ICMAI

The webinar on **"Bank Account Portability: The Right to Switch and the Future of Customer-Centric Banking"** examined the concept of bank account portability as an emerging approach to empowering customers and improving service delivery within India's banking ecosystem. The session highlighted the need to move towards a **customer-centric banking model** that enables customers to switch their principal banking relationship between banks with minimal procedural difficulties, drawing parallels with mobile number portability in the telecommunications sector. The discussion emphasised the potential of portability to enhance customer convenience, promote competition and improve operational efficiency across the banking industry.

The technical session was delivered by **CMA (Dr.) P. Siva Rama Prasad**, who explained how frequent job changes, relocation and the use of multiple salary accounts contribute to the proliferation of dormant and inoperative bank accounts. Maintaining such accounts increases administrative and operational costs and may create additional vulnerabilities to cyber fraud, including the misuse of accounts for illicit transactions. Bank account portability was discussed as a possible mechanism for reducing unnecessary account proliferation while allowing customers to retain greater control over their primary banking relationships. The concept, however, does

not imply restricting customers from maintaining multiple accounts for legitimate purposes.

A significant part of the webinar focused on **open banking and the role of Account Aggregators** in enabling secure, consent-based sharing of financial information. The speaker discussed how interoperable digital platforms and application programming interfaces (APIs) can facilitate the transfer of relevant financial data and support services such as credit assessment and loan processing. The session also highlighted the importance of **Central KYC (CKYC), artificial intelligence, machine learning, blockchain and cloud computing** in strengthening identity verification, fraud detection, data exchange and operational efficiency. These technological enablers can help reduce repetitive documentation and support a more integrated financial services ecosystem.

The webinar further examined the regulatory, technological and operational considerations associated with implementing bank-to-bank portability. These include secure customer authentication, data privacy, KYC and anti-money-laundering compliance, transfer of standing instructions and payment mandates, continuity of linked services, accurate reconciliation and effective grievance redressal. The discussion underscored the importance of **uniform regulatory standards, robust cybersecurity safeguards, explicit customer consent and clear institutional responsibilities** to ensure that portability protects customers without compromising the safety and integrity of banking operations. Legacy technology systems, coordination among banks and the management of competitive concerns were also identified as important implementation challenges.

The session highlighted that bank account portability could strengthen customer choice, encourage banks to improve service quality and pricing, reduce avoidable operational expenditure and support financial inclusion. For Cost and Management Accountants (CMAs), the evolving framework presents opportunities in **cost-benefit analysis, operational efficiency assessment, risk management, internal controls, compliance, technology investment evaluation and performance monitoring**. Their expertise can help banking institutions assess the financial implications of portability initiatives while ensuring effective governance and resource utilisation.

The webinar concluded that **bank account portability represents an important step towards a more seamless, competitive and customer-oriented banking ecosystem**. Its successful implementation would depend on technological interoperability, regulatory clarity, strong data protection and coordinated execution across financial institutions. The discussion reinforced the importance of balancing customer empowerment with risk management and operational resilience in shaping the future of banking in India.

28th September 2026

Webinar on

"Banking on the CMA"



CMA Kalpesh Mody, Company Secretary & Chief Compliance Officer, STCI Primary Dealer Limited



CMA Harshad Shamkant Deshpande, Chairman, BFSI Board, ICMAI

The webinar on **"Banking on the CMA"** explored the emerging professional opportunities for Cost and Management Accountants (CMAs) across the Banking, Financial Services and Insurance (BFSI) sector. The session highlighted how regulatory reforms, digital transformation, increasing governance expectations and evolving risk-management requirements are expanding the role of CMAs beyond traditional accounting and cost management. It emphasised the importance of combining financial expertise with technological awareness, regulatory understanding and evidence-based assurance to address the evolving needs of financial institutions.

The technical session was delivered by **CMA Kalpesh Mody**, an experienced Governance, Risk and Compliance (GRC) professional with over two decades of experience in the BFSI sector. He discussed emerging opportunities arising from regulatory developments, including proposals relating to cost audits in the insurance sector, which could strengthen transparency in commission structures, distribution costs and operational efficiency. The discussion underscored the potential contribution of CMAs towards improving cost competitiveness, supporting regulatory compliance and advancing the objective of making financial protection more accessible and affordable.

A significant focus of the webinar was the **transformation of financial markets through technology and digital innovation**. The speaker highlighted developments in tokenised bonds and Wholesale Central Bank Digital Currency (W-CBDC), explaining how distributed ledger technology can facilitate faster securities transactions and settlement. The discussion also examined the evolution of regulatory and technological frameworks, from internal efficiency and conventional regulatory reporting to **AI-enabled compliance, continuous monitoring and**

evidence-backed assurance. These developments are creating opportunities for CMAs to contribute to technology governance, risk assessment, regulatory validation and financial control systems.

The session further examined the complexity of the multi-regulator environment encompassing RBI, SEBI, IRDAI, PFRDA and other regulatory and statutory authorities. The growing emphasis on cybersecurity, information technology governance, data protection and board-level accountability requires financial institutions to demonstrate not merely the existence of controls but also their effective operation. The speaker highlighted the importance of reliable documentation, continuous monitoring and professional accountability in meeting these expectations.

Another important aspect was the changing cost structure of technology-driven banking. Automation, cloud services, software subscriptions and digital platforms are reshaping the classification and allocation of costs. The speaker highlighted the need for CMAs to identify hidden or unallocated costs, evaluate operating leverage and improve cost transparency. Emerging opportunities include **technology cost management, Expected Credit Loss (ECL) modelling, risk-based internal audit, fraud-risk management, cybersecurity assurance, sustainability assurance and strategic advisory services**.

The webinar concluded that CMAs are well positioned to become strategic partners in the BFSI sector by integrating financial analysis, cost optimisation, risk management, technology and governance. It reinforced the need for continuous professional development and specialised expertise to meet emerging industry expectations. **By moving from conventional compliance and reporting towards evidence-based assurance and strategic decision support, CMAs can strengthen their professional contribution to the resilience, transparency and sustainable growth of the financial services ecosystem.**

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Behind every successful business decision, there is always a CMA

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About The Institute

The Institute of Cost Accountants of India (ICMAI) is a statutory body set up under an Act of Parliament in the year 1959. The Institute as a part of its obligation, regulates the profession of Cost and Management Accountancy, enrols students for its courses, provides coaching facilities to the students, organizes professional development programmes for the members and undertakes research programmes in the field of Cost and Management Accountancy. The Institute pursues the vision of cost competitiveness, cost management, efficient use of resources and structured approach to cost accounting as the key drivers of the profession. In today's world, the profession of conventional accounting and auditing has taken a back seat and cost and management accountants increasingly contributing towards the management of scarce resources like funds, land and apply strategic decisions. This has opened up further scope and tremendous opportunities for cost accountants in India and abroad.

International Affiliation

The Institute is a founder member of International Federation of Accountants (IFAC), Confederation of Asian and Pacific Accountants (CAPA) and South Asian Federation of Accountants (SAFA). The Institute is also an Associate Member of ASEAN Federation of Accountants (AFA) and member in the Council of International Integrated Reporting Council (IIRC), UK.

Institute's Network

Institute's headquarters is situated at New Delhi with another office at Kolkata. The Institute operates through four Regional Councils at Kolkata, Chennai, Delhi and Mumbai as well as through 112 Chapters situated in India, 11 Overseas Centres abroad, 2 Centres of Excellence, 61 CMA Support Centres and 401 Recognized Oral Coaching Centres.

Institute's Strength

The Institute is the largest Cost & Management Accounting body in the World, having a large base of about 1,00,000 CMAs either in practice or in employment and around 5,00,000 students pursuing the CMA Course.

Vision Statement

"The Institute of Cost Accountants of India would be the preferred source of resources and professionals for the financial leadership of enterprises globally."

Mission Statement

"The Cost and Management Accountant professionals would ethically drive enterprises globally by creating value to stakeholders in the socio-economic context through competencies drawn from the integration of strategy, management and accounting."

Course Objective

The Banking, Financial Services and Insurance Board is pleased to offer **"Advance Certificate Course on FinTech".** It is pertinent to mention that there is a significant demand for FinTech-qualified individuals in GIFT City, Gandhinagar, and Ahmedabad. India's inaugural International Financial Services Centre (IFSC) at GIFT City offers Indian corporates expanded access to Global Financial Markets. Entities Established within the IFSC also enjoy numerous Tax Benefits. IFSCs play a Crucial Role in Fostering the development of "Fintech Hubs". Given the substantial number of Indian Professionals Working in "FinTech Abroad", India has the Potential to Emerge as a Prominent "Fintech Hub".

This Advanced Certificate Course on **FinTech** covers the following Learning Objectives:

- Foundations of Fintech.
- Deep Dive into Blockchain.
- Fintech Innovation in Banking.
- Fintech Transforming Wealth Management.
- Fintech Revolutionising Insurance.
- Exploring New Frontiers of Fintech.

Online Admission Link:
https://eicmai.in/advscc/DelegatesApplicationForm.aspx

CPE Credit: 10 hours
for members of The Institute of Cost Accountants of India

Course Eligibility

CMAs, Bankers (including Payment Banks, Small Finance Banks, Regional Rural Banks, Co-operative Banks, NBFCs., Scheduled Commercial Banks (Private Sectors, Public Sector and Foreign Banks), CMA Final Students, Graduates, IT Professionals.

Course Duration

a. Classroom Learning of 2 hours per day in the Weekend through online mode
b. 50 hours online Coaching
c. 3 months' course
d. Online Examination for 100 marks

Course Fees

Course Fees (including learning kit) of Rs. 10,000/- plus GST of 18%

Examination

Rs. 750 plus GST per attempt

2 **Behind every successful business decision, there is always a CMA**

Detailed Course Content

1: Introduction to Fintech

- Cloud Computing and APIs.
- Opensource Architecture.
- Blockchain Technology and DApps.
- Business Intelligence: AI & ML.
- Cyber Security.
- Generative AI.

2: Technology Innovation & Fintech Evolution

- Understanding Financial Crisis.
- The building blocks of Blockchain.
- Public versus private blockchain.
- Understanding Smart Contracts.
- Web 2.0 versus Web.
- Decentralized finance.

3: Blockchain

- Fintech and Disruption in Banking.
- Banking as a Service Model.
- Loan Apps and P-2-P lending.
- Open Banking Architecture.
- Case Study.

4: Fintech and Banking

- Robo-advising: The Digital Financial advisor
- Goal Based Investing
- Disintermediation of Asset Management
- Digital transformation of Wealth Management
- Case Study

5: Fintech and Asset Management

- Usage based Insurance and Microinsurance
- Machine Underwriting and Smart Contracts
- Probabilistic to Deterministic Models
- Insuring the uninsured
- Case Study

6: Fintech and Insurance

- Global Payment Ecosystem
- Payment and Digital Wallets
- Programmable Payments
- B2B and B2C Payment services
- Case Study

7: Fintech and Payments

- iCOs, Bitcoin, and beyond
- Cyrpto as an asset class
- Crypto Trading Strategies
- Non-Fungible Tokens
- Case Study

Behind every successful business decision, there is always a CMA



Contact for further queries

CMA Dibbendu Roy, Additional Director & HoD at bfsi.hod@icmai.in, bfsi@icmai.in

ICMAI
भारतीय लागत लेखाकार संस्थान
THE INSTITUTE OF COST ACCOUNTANTS OF INDIA
Statutory Body under an Act of Parliament
(Under the jurisdiction of Ministry of Corporate Affairs)

Headquarters:
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Kolkata Office:
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THE INSTITUTE OF
COST ACCOUNTANTS OF INDIA
Statutory Body under an Act of Parliament
(Under the jurisdiction of Ministry of Corporate Affairs)
Brochure
Certificate Course on
Cost Control Strategies in the Banking Sector
Banking, Financial Services and Insurance Board
Behind every successful business decision, there is always a CMA

About The Institute

The Institute of Cost Accountants of India is a statutory body set up under an Act of Parliament in the year 1959. The Institute as a part of its obligation, regulates the profession of Cost and Management Accountancy, enrolls students for its courses, provides coaching facilities to the students, organises professional development programmes for the members and undertakes research programmes in the field of Cost and Management Accountancy. The Institute pursues the vision of cost competitiveness, cost management, efficient use of resources and structured approach to cost accounting as the key drivers of the profession. In today's world, the profession of conventional accounting and auditing has taken a back seat and cost and management accountants are increasingly contributing toward the management of scarce resources and apply strategic decisions. This has opened up further scope and tremendous opportunities for cost accountants in India and abroad.

After an amendment passed by Parliament of India, the Institute is now renamed as ***"The Institute of Cost Accountants of India"*** from ***"The Institute of Cost and Works Accountants of India"***. This step is aimed towards synergising with the global management accounting bodies, sharing the best practices which will be useful to large number of transnational Indian companies operating from India and abroad to remain competitive. With the current emphasis on management of resources, the specialized knowledge of evaluating operating efficiency and strategic management the professionals are known as ***"Cost and Management Accountants (CMAs)"***. The Institute is the largest Cost & Management Accounting body in the world, having approximately 5,00,000 students and 1,00,000 members all over the globe. The Institution headquartered at New Delhi operates through four regional councils at Kolkata, Delhi, Mumbai and Chennai and 112 Chapters situated at important cities in the country as well as 11 Overseas Centres. It is under the administrative control of Ministry of Corporate Affairs, Government of India.

Mission Statement



"The CMA professionals would ethically drive enterprise globally by creating value to stakeholders in the socio-economic context through competencies drawn from the integration of strategy, management and accounting"

Vision Statement



"The Institute of Cost Accountants of India would be the preferred source of resources and professionals for the financial leadership of enterprise globally."

Course Objective:

The Banking, Financial Services and Insurance Board is pleased to offer ***"Certificate Course on Cost Control Strategies in the Banking Sector"***. The BFSI Board has developed a structured 30 hours Certificate Course covering major cost drivers, cost allocation, activity-based costing, transfer pricing, digital vs. branch cost comparison, regulatory cost (CRR/SLR/PSL/ECL), branch profitability, workforce optimisation, and RBI-aligned cost transformation strategies. The Course is designed for CMAs with the objective of strengthening analytical capability, cost diagnostics, and profitability enhancement across the banking sector.

This Certificate Course on Cost Control Strategies in the Banking Sector covers the following Learning Objectives:

- Understand major Cost Drivers in Commercial Banks.
- Develop Analytical Tools for measuring and Controlling Costs.
- Implement Cost Allocation, ABC, Marginal Costing, Transfer Pricing.
- RBI-Aligned Cost Analysis for Banking Operations.
- Build Strategies to Improve Profitability, Reduce Inefficiencies, and Optimise Resources / Productivity.

Course Eligibility:

CMAs

Course Duration:

Classroom Learning of 2 hours per day in the Weekend through online mode

30 hours online Coaching

2 months course

Online Examination for 100 marks

Course Fees:

Course Fees (including learning kit) of Rs. 3,000/- plus GST of 18%

Examination Fees:

Rs. 750/- plus GST per attempt

CPE Credit: 10 hours
for members of The Institute of Cost Accountants of India

Online Admission Link:
https://eicmai.in/advscc/DelegatesApplicationForm.aspx

2

Detailed Course Content:

Day-1 :

- Overview of Indian Commercial Banking System (PSBs, Private Banks, SFBs).
- Introduction & Cost Structure of Indian Banks.
- Major Cost Heads: Interest Cost, Personnel, Operating Expenses, Credit Cost.
- Distinction: Controllable vs Non-controllable Costs.

Day-2 :

- Understanding Bank Financial Statements from a Cost Lens.
- Cost Elements in P&L, Balance Sheet Analytics.
- Cost of Funds, Operating Cost, Credit Provisioning
- Understanding CIR (Cost-to-Income Ratio), NIM, ROA, ROE

Day-3 :

- RBI Compliance Cost: CRR, SLR, Priority Sector Lending, Regulatory Reporting.
- Cost of NPA/ Stressed Asset Management.
- Impact of Compliance with ECL, IRACP Norms.
- Competitive Cost Challenges for PSBs vs Private Banks

Day-4 :

- Direct / Indirect Costs in Banks.
- Fixed vs Variable Costs.
- Treasury-related Costs, Branch Operation Costs, Technology Cost (Including Alternate Delivery Channels Cost).
- Overhead Absorption in Banking Context.

Day-5

- Activity Based Costing (ABC) Principles Applied to Banking Operations.
- Identifying Activities: Cash, ATM, NEFT/RTGS/IMPS, Loan Processing, CASA, Digital channels.
- Cost Drivers & Cost Pools.
- Case Study: ABC Model for Loan Processing

Day-6 :

- Multilevel Cost Allocation.
- Branch-level Profitability.
- Transfer Pricing (FTP) Basics.
- Shared Service Centre Costing.
- Allocate Overhead to Branches using Templates.

Day-7 :

- Costing of Products: Term Loans, Working Capital, CASA, Debit / Credit Cards, Digital Products.
- Return on Risk-Adjusted Capital (RAROC) vs Traditional Profitability
- Customer Lifetime Value (CLV)
- Case Study: Profitability Analysis of a Hypothetical Branch.

Day-8

- Digital Transactions vs Branch Transactions: Comparative Cost.
- ATM vs Branch vs Digital Delivery Cost.
- FinTech Partnerships.
- Enterprise IT Cost Control Strategies.
- Practical: Compute Cost Savings through Migration to Digital Channels.

Day-9 :

- Staff Cost Optimization.
- Productivity Metrics: Business Per Employee, Profit Per Employee / Branch.
- Workforce Planning & Automation.
- Performance-Linked Cost Management.

Day-10 :

- Marginal Costing in Credit Pricing.
- Break-even Analysis for Branches / Products.
- Pricing of Loans / Retail Products on Marginal Cost Basis.
- Exercise: Compute Break-Even for a Small Branch.

Day-11 :

- Internal Pricing of Funds; Liquidity Premium.
- FTP impact on NIM, Profitability of Branches.
- FTP in PSBs vs Private Banks.
- Practice: FTP-Based Profitability Computation.

Day-12 :

- ECL vs Incurred Loss: Cost Impact.
- Credit Risk Cost Modelling.
- Pricing Loans Considering PD/LGD/EAD.
- Case study: Credit Risk Cost on SME Lending.

Day-13 :

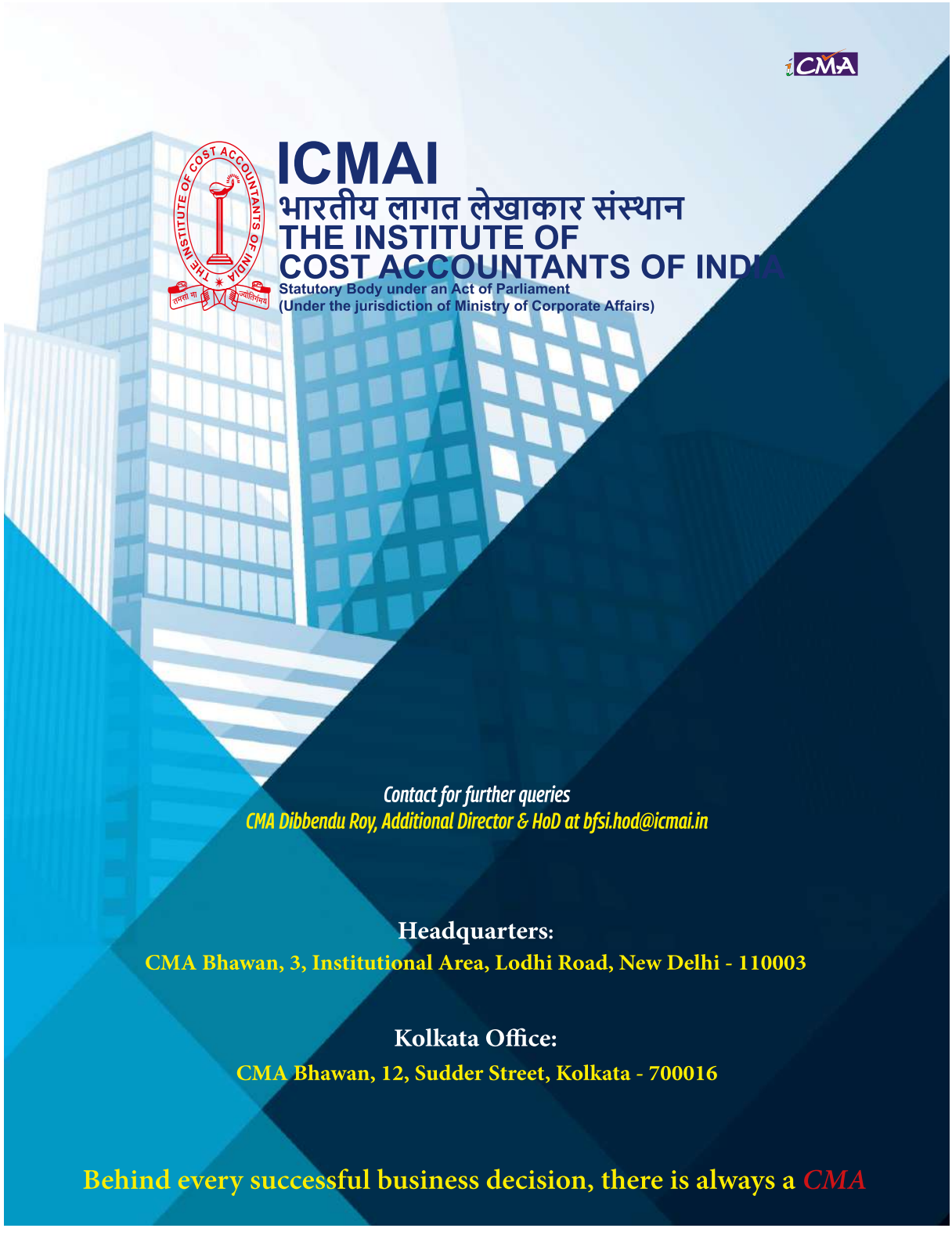
- ALM Implications for Cost Control.
- Fraud-related Cost Exposures.
- Audit Findings impacting Cost Efficiency.
- Cost Leakages in Procurement, Outsourcing, Branch Ops.

Day-14 :

- Vendor Evaluation.
- Outsourcing: Cost Analysis, Risk, RBI Outsourcing Guidelines.
- Technology Procurement Lifecycle
- Branch Rationalisation.
- CASA Enhancement for Cost Reduction.

Day-15 :

- Capital Productivity & ROA Improvement.
- Digital-First Cost Transformation Strategy
- Branch Budgeting.
- Efficiency Metrics: Cost Per Account, Cost Per Transaction.
- Cost Control SOPs.
- Energy & Resource Cost Management
- Predictive Analytics for Cost Forecasting.
- KPI Design.


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BANK
KEEPING
MONEY
ACCOUNTING ISOMETRIC
Brochure
Certificate Course on
Project Financing
Banking, Financial Services and Insurance Board
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About The Institute

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Mission Statement



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Vision Statement



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Course Objective:

The Banking, Financial Services and Insurance Board of ICMAI offers the ***Certificate Course on Project Financing*** in recognition of the increasing scale, complexity and strategic importance of infrastructure and project-led development in India. Project financing today extends well beyond conventional lending, encompassing specialised appraisal techniques, risk allocation structures, legal and regulatory frameworks, and long-gestation funding models unique to infrastructure sectors.

This course provides a focused and practical understanding of project finance, with emphasis on

- *infrastructure projects,*
- *covering credit appraisal,*
- *risk assessment,*
- *funding mechanisms,*
- *contractual structures and project management principles.*

Designed by experienced practitioners, it integrates conceptual foundations with real-life case studies and interactive learning to ensure strong application orientation.

With infrastructure development central to national priorities, the programme equips professionals with the skills required to evaluate, structure and manage large-scale projects effectively. Through this initiative, ICMAI continues its commitment to strengthening sector-specific capabilities and enabling professionals to contribute meaningfully to sustainable economic growth.

Course Eligibility:

CMAs, Bankers (all categories), NBFCs, AIFIs, CMA Final Students, Graduates, Infrastructure professionals, Developers and all other stakeholders.

Course Duration:

a. Classroom Learning of 2 hours per day in the Weekend through online mode
b. 30 hours online Coaching
c. 2 months course
d. Online Examination for 100 marks

Course Fees:

Course Fees (including learning kit) of Rs. 5,000/- plus GST of 18%

Examination Fees:

Rs. 750/- plus GST per attempt

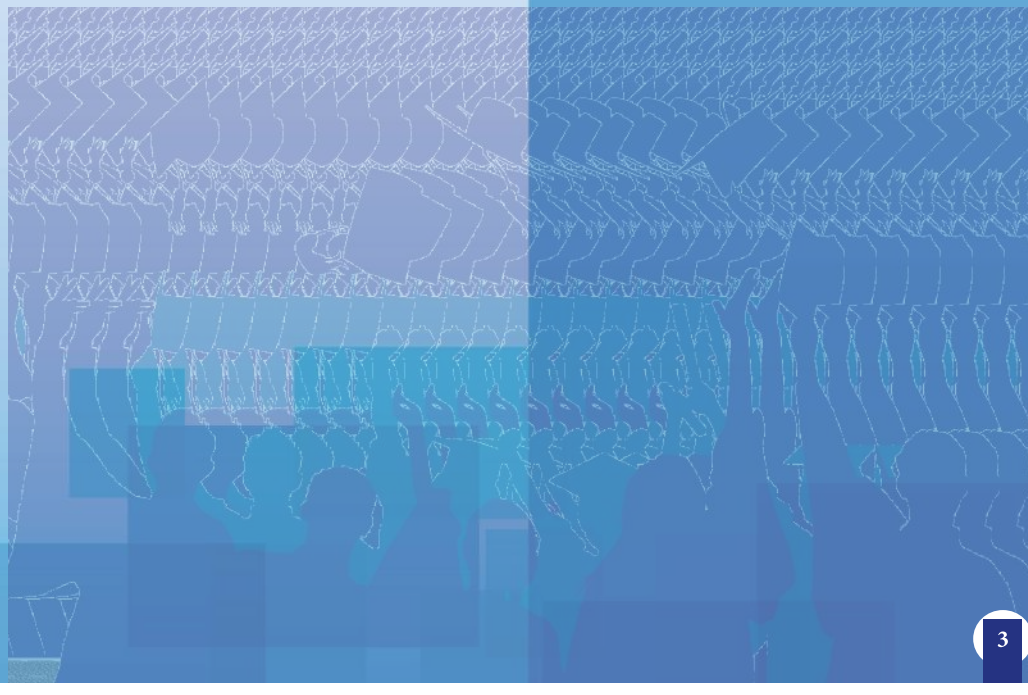
CPE Credit: 10 hours
for members of The Institute of Cost Accountants of India

Online Admission Link:
https://eicmai.in/advscc/DelegatesApplicationForm.aspx

2

Detailed Course Content:

- Fundamentals of Infrastructure Financing
- Infrastructure Project Models
- Credit Appraisal Process and Feasibility Studies
- Financial Appraisal
- Key Performance Indicators
- Risk Management Framework in Infrastructure Financing
- Regulatory norms and various regulations that govern Infrastructure Financing
- Documentation, Monitoring and Performance audit of infra projects
- Case Studies on various sub-Sectors
- Alternate sources of Finance
- ESG and Sustainable Finance
- Professional opportunities and interlinkages with other areas viability, project planning and implementation
- Financial Closure, Preventive Vigilance and Documentation




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Banking, Financial Services & Insurance Board

CERTIFICATE COURSE ON CONCURRENT AUDIT OF BANKS

BROCHURE





ICMA

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Certificate Course on Concurrent Audit of Banks

About The Institute

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The Institute has since been continuously contributing to the growth of the industrial and economic climate of the country. The Institute is the only recognised statutory professional organisation and licensing body in India specialising exclusively in Cost and Management Accountancy.

International Affiliation

The Institute of Cost Accountants of India is Founder member of International Federation of Accountants (IFAC), Confederation of Asian & Pacific Accountants (CAPA) & South Asian Federation of Accountants (SAFA). The Institute, being the only institution from India, is a member of the Accounting Bodies Network (ABN) of The Prince's Accounting for Sustainability (A4S) Project, UK and International Valuation Standards Council (IVSC), UK.

Institute's Strength

The Institute is the largest Cost & Management Accounting body in the World, having a large base of about 1,00,000 CMAs either in practice or in employment and around 5,00,000 students pursuing the CMA Course.

Institute's Network

Institute's headquarters is situated at New Delhi with another office at Kolkata. The Institute operates through four Regional Councils at Kolkata, Chennai, Delhi and Mumbai as well as through 112 Chapters situated in India, 11 Overseas Centres abroad, 2 Centres of Excellence, 61 CMA Support Centres and 401 Recognized Oral Coaching Centres.

Vision Statement

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Mission Statement

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Course Objective

The Banking, Financial Services and Insurance Board is pleased to offer **Certificate Course** on **"Concurrent Audit of Banks"** to enable participants to understand the intricacies of Concurrent Audit of Banks.

This course aims to impart in-depth knowledge on concurrent audit of banks and to help the participants to acquire with the knowledge/skills to undertake related assignments/Special Audits of the Banks like:

- Income Leakage Audit
- KYC/AML Audit
- Treasury Department Audit
- Staff Accountability Exercise in respect of Failed/NPA Advances at incipient Stage
- To supplement the effort of the Banks in carrying out Internal Audit of the Transactions and other Verifications and Compliance with the Systems and Procedures laid down by the Banks and RBI

Online Admission Link:
https://eicmai.in/advscc/DelegatesApplicationForm.aspx

CPE Credit: 10 hours
for members of The Institute of Cost Accountants of India

Course Eligibility

FCMA/ACMA/those who have qualified Final CMA examination, Bank Officer or Ex-Bank Officer.

Course Duration

a) Classroom Learning of 3 hours per day in the Weekend through online mode
b) 30 Hours on-line Coaching
c) 2 months course
d) Online Examination for 100 marks

Course Fees

Course Fees (including learning kit) of Rs. 5,000/- plus GST of 18 %.

Special Discount for Corporates
For number of employees 5-10, discount is 15%. For number of employees more than 10, discount is 20%

Examination

Rs. 750 plus GST per attempt.

Certificate Course on Concurrent Audit of Banks

Detailed Course Content (Syllabus-2024)

1. **Types of Audits in Banks Sector.**
   - 1.1 Risk Focused Internal Audit (RFIA).
   - 1.2 Credit Audit / Stock & Book Debts Audit /Statutory Audit.
   - 1.3 Concurrent Audit / e-Concurrent Audit etc.
2. **Role of Concurrent Auditor.**
   - 2.1 Verification of Deposit, Advance Accounts.
   - 2.2 Verification of Locker System, Cash Department Procedures, Alternative Delivery Channels etc.
   - 2.3 Unit Inspection, End-use of Funds, Staff Accounts etc.
3. **Credit, Market and Operational Risks.**
   - 3.1 Credit Risk Areas.
   - 3.2 Market Risk Areas.
   - 3.3 Operational Risk Areas.
4. **Loans and Advances.**
   - 4.1 Demand Loans.
   - 4.2 Term Loans.
   - 4.3 Overdrafts, Working Capital Loans and Working Capital Term Loans.
   - 4.4 Home Loans, Car Loans, Personal Loans, Mortgage Loans, Education Loans etc.
5. **Credit Process: Pre-sanction, Sanction & Post-sanction.**
   - 5.1 KYC, Verification of Application / Project Report, CIBIL, CIC Reports.
   - 5.2 Appraisal, Projections etc.
   - 5.3 Verification of Proposal, Sanction and Submission of Control Forms.
   - 5.4 Documentation, Types of Charges, Equitable Mortgage, Disbursement, etc.
6. **Pre-shipment and Post-shipment Finance.**
   - 6.1 UCPDC Guidelines – FEDAI Guidelines – FEMA Guidelines.
   - 6.2 Pre-shipment packing credit Advance.
   - 6.3 Discounting of Export Bills / Import Bills payment etc.
7. **Common Serious Lapses in Sanction, Follow-up & Documentation.**
   - 7.1 Delegation of Powers.
   - 7.2 Take-over Norms.
   - 7.3 Wrong Documentation.
   - 7.4 Stock Statements, Insurance for both Primary and Collateral Security, Monitoring of SMA-0 to SMA-2 Accounts.
8. **Legal and Regulatory Frame.**
   - 8.1 RBI Act and Banking Regulation Act.
   - 8.2 Limitation Act.
   - 8.3 Registration Act.
   - 8.4 Indian Stamp Act.
   - 8.5 Limitation Act.
   - 8.6 SARFEASI Act and CERSAI etc.
   - 8.7 KYC/AML Guidelines.
9. **IRAC Provisioning Norms.**
   - 9.1 Classification of Advances.
   - 9.2 Provision requirements.
10. **Non-fund-based Business**
    - 10.1 Types of Bank Guarantees.
    - 10.2 Types of Letters of Credits.
    - 10.3 Margins, Collateral Security, Standard formats of BGs / LCs, Commission on BGs / LCs.
11. **Operational Risk Management – ORM-I**
    - 11.1 Job Rotation–Staff Attendance-Branch Documents–Security Forms.
    - 11.2 Security Systems (Fir-Extinguisher, Smoke Detectors, Gun Licences etc.), Currency Chest Fitness Certificate–Disaster Recovery Management– Business Continuity Plan etc.
    - 11.3 Safe Deposit Lockers, Safe Deposit Articles, Deceased Claims Settlement etc.
12. **Operational Risk Management – ORM-II**
    - 12.1 Complaints–Banking Ombudsman–Customer Forums.
    - 12.2 Branch Duplicate Keys–Reconciliation of Office Accounts–Parking Accounts–Recovery of Service Charges–Income Leakages etc.
    - 12.3 Display of Import Notice Boards–Cheque Truncation System–Complaints and Suggestion Box–Police Beat–ATM Cash Replenishment Outsourcing Agencies (Service Level Agreements).
13. **Forex Transactions.**
    - 13.1 Opening of NRE / NRO / FCNR / RFC accounts.
    - 13.2 Purchase & Sale of Foreign Currency Cheques / Currency / Export & Import Bills–Forex Rates.
    - 13.3 Submission of R-Returns to RBI.
    - 13.4 Verification of SWIFT Message Inward / Outward Remittances.
    - 13.5 Nostro, Vostro and Loro Accounts etc.
14. **Detection, Classification & Reporting of Frauds**
    - 14.1 Classification of Frauds–Internal & External Frauds.
    - 14.2 Provisions / Recovery Efforts of Frauds.
    - 14.3 Disciplinary action initiation / Reporting of Frauds to RBI through On-line.
15. **Tools for Concurrent Audit of Banks**
    - 15.1 Bank Systems and Procedures / Standard Operating Procedures.
    - 15.2 Current Chest Guidelines of RBI.
    - 15.3 Delegation of Financial Powers.
    - 15.4 Service Charges etc.
16. **Audit in CBS Environment.**
    - 16.1 Core Banking System-Major functionalities.
    - 16.2 Reports Generated by CBS like Exceptional Reports, Suspicious Transactions Reports etc.
    - 16.3 Treasury Management Solutions-Front, Mid and Back-office Reports etc.
17. **ESG Lending Audit.**
    - 17.1 Overview of Sustainability-linked Loans.
    - 17.2 Principles of Sustainability-linked Loans.
    - 17.3 Value Statements of Social and Environment Audit.
18. **Expected Credit Loss Provisions.**
    - 18.1 Expected Credit Loss (ECL) Framework.
    - 18.2 Verification of Stage-1, Stage-2 and Stage-3 Loan Portfolio by Auditors.
    - 18.3 Implementation of Regulatory Guidelines on ECL.

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Certificate Course on Concurrent Audit of Banks



Contact for further queries

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BROCHURE

CERTIFICATE COURSE ON CREDIT MANAGEMENT IN BANKS

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Certificate Course on Credit Management in Banks

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Course Objective

The world is increasingly getting inter-connected and complex. Bank Credit mechanism has also undergone phenomenal changes in recent years. Few years ago, Credit meant only Cash Credit, Overdraft and Term Loan. Today quasi credit facilities like Letters of Credit, Bank Guarantees, Co-acceptances, Buyer's Credit and Supplier's Credit etc. are gaining predominance. Keeping in view of importance of Credit Management by banks, The Institute of Cost Accountants of India offers the **Certificate Course** on **Credit Management (CCCM).**

Professionals dealing with Finance or Financial Institutions in one way or other need to possess knowledge of 'Credit Management' guidelines of Financial Institutions like Banks, so that they can provide Value Additive Services to their clients like recommending to the banks the business proposals of entrepreneurs, performing preliminary credit appraisal on behalf of the banks and collate additional supporting information required by the banks/credit institutions etc.

In addition to the above, this course is also useful to the professionals who are dealing with:

- ✓ Various assignments like Forensic Audit, Stock and Book Debts Auditor (As recognized by IBA)
- ✓ Issuance of Compliance Certificate for Banks by practicing professionals in areas like Consortium and Multiple Lending by Banks (RBI Guidelines)
- ✓ Acting as Agencies for Specialized Monitoring (As recognized by IBA)
- ✓ Assignments like 'Concurrent Audit' of Banks and 'Credit Audit' of the Banks.

The Course provides a holistic insight into the various dimensions in Bank Credit Management.

Online Admission Link:
https://eicmai.in/advscc/DelegatesApplicationForm.aspx

CPE Credit: 10 hours
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Course Eligibility

FCMA/ACMA/those who have qualified Final CMA examination, Final year Students of the CMA Course/Any Graduate.

Course Duration

a) Classroom Learning of 3 hours per day in the Weekend through online mode
b) 50 Hours on-line Coaching.
c) 2 months course
d) Online Examination for 100 marks

Course Fees

Course Fees (including learning kit) of Rs. 6,000/- plus GST of 18%. Final year Students of the CMA course for an amount of Rs. 4,500 plus GST of 18%.

Special Discount for Corporates
For number of employees 5-10, discount is 15%. For number of employees more than 10, discount is 20%

Examination

Rs. 750 plus GST per attempt.

Certificate Course on Credit Management in Banks

Detailed Course Content (Syllabus-2024)

1. Introduction & Overview of Credit (Module 1)

a. **Principles of Lending:** Safety, Liquidity, Profitability, Purpose of the Loan, Diversification Risk.
b. **Credit. Policy:** Importance, Contents, Exposure Norms.
c. **Types of Borrowers:** Individuals, Proprietorship Firms, Partnership Firms, Private & Pubic Limited Companies, Limited
Liability Partnerships (LLP).
d. **Types of Credit Facilities:** Various Types of Credit Facilities-Cash Credit, Overdrafts, Demand Loan, Term Loans,
Bills Discounting.
e. **Credit Delivery:** Sole Banking Arrangement, Multiple Banking Arrangement, Consortium Lending, Syndication.
f. Environmental Appraisal:
Physical Risks: Flood Risk – Drought / Water Scarcity Risk – Storms Risk – Extreme Heat Risk – Wildfires Risk – Other Risks.
Transition Risks: Emissions / Intensity Risk (Scope 1 & 2) - Emission / Intensity Risk (Scope 3) – ESG – Indicators / Rating (Third Party).
g. **Credit Appraisal:** Validation of proposal, Dimensions of Credit Appraisals, Credit Risk, Credit Worthiness of Borrower, Purpose of Loan, Source of Repayment, Cash Flow, Collaterals, Guidelines on CERSAI.
h. **Project / Term Loan Appraisal:** Technical Appraisal, Commercial / Market Appraisal, Managerial Appraisal, Financial Appraisal, Economic Appraisal, Project Cost & Means of Finance, Cost of Production & Profitability, Sensitivity Analysis, Break-even Analysis, Capital Budgeting-Pay Back Period Method, Time Value Money, Net Present Value, Internal Rate of Return, Life of the Project.
i. **Credit Rating:** Objective of Rating, Internal & External Rating, Model Credit Rating, Measurement of Risk, Methodology of Rating, Internal & External Comparison, Model Rating Formats.
j. **Documentation:** Meaning, Importance, Types of documents, Requisites of documentation, stamping of different documents, Mode and time of Stamping, Remedy for un-stamped / under stamped documents, Documents of which registration is compulsory, Time limit of registration, Consequence of non-registration, Execution, Mode of Execution by different executants, Period of Limitation, Law of Limitation to Guarantor, Extension of period of limitation.
k. **Types of Charges:** Purpose, Various types of charges, Types of Security, Mode of charge, Lien, Negative Lien, Set Off, Assignment, Pledge, Right of Banker as a Pledgee, Duties as a Pledgee, Mode of Charges, Hypothecation, Mortgage - different types of mortgages, Difference between Simple and Equitable Mortgage.

2. Analysis of Financial Statements (Module 2)

a. **Analysis of Financial Statements:** Classification of Assets & Liabilities, Current Assets, Fixed Assets, Non-current Assets, Intangible & Fictitious Assets, Liabilities-Current Liabilities, Medium & Term Liabilities, Capital & Reserve.
b. Analysis of Profit & Loss Account, Auditor's Note.
c. **Ratio Analysis:** Classification of Ratios, Liquidity Ratios, Leverage Ratios, Activity Ratios, Profitability Ratios, Interpretation of important Financial Ratios, Fund Flow Statements and Cash Flow Statements.

Certificate Course on Credit Management in Banks

3. Working Capital Management (Module 3)

a. **Working Capital Assessment:** Concept of Working Capital, Gross Working Capital, Net Working Capital, Working Capital Gap, Components of Working Capital, Source of Working Capital, Operating / Working Cycle, Various Methods of Assessment of Working Capital, Computation of Working Capital - Turnover Method, MPBF Method, Cash Budget System, Analysis of CMA Data.
b. **Quasi Credit Facilities:** Advantages of Non-Fund Facilities, Various types of NFB Facilities, Various types Letter of Credits, Assessment of LC limits, Bills Purchase / Discounting under LC.
c. **Various types of Bank Guarantees:** Performance Guarantee, Financial Guarantees, Deferred Payment Guarantees, Types of Performance and Financial Guarantees, Assessment of Bank Guarantees Limit, Period of Claim under Guarantee.

4. Other Credits (Module 4)

a. **Export Finance:** Pre-Shipment Finance-Export Packing Credit in Rupees, Pre-Shipment Credit in Foreign Currency (PCFC), Post Shipment Rupee Export Finance, Purchase / Discount of Export Bills, Negotiation of Export Bills, ECGC Coverage in Export / Import Finance.

5. Monitoring, Supervision, Follow-up & Management of Impaired Assets (Module 5)

a. **Credit Monitoring, Supervision, Follow-Up:** Credit Monitoring-Check-list, Monitoring by using Various Statements, QIS Formats / Guidelines, Supervision & Follow Up Loans.
b. **Expected Credit Loss (ECL):** Introduction & Evolution of Provisioning of Banks in India- Incurred Loss Approach Vs. Expected Credit Loss Approach- Loan Loss Provisioning based on ECL -IFRS 9-Calculation of ECL on Retail / Commercial Advances Examples.
c. **Management of Impaired Assets:** Income Recognition and Assets Classification, Guidelines, Provisioning Norms for NPA, Wilful Defaulters, Compromise, Legal Action, Lok Adalat, Debt Recovery Tribunal, SARFAESI Act, 2002, IBC-2016, Loans Write-Off.

Contact for further queries

CMA Dibbendu Roy, Additional Director & HoD at bfsi.hod@icmai.in, bfsi@icmai.in

ICMAI
भारतीय लागत लेखाकार संस्थान
THE INSTITUTE OF COST ACCOUNTANTS OF INDIA
Statutory Body under an Act of Parliament
(Under the jurisdiction of Ministry of Corporate Affairs)

Headquarters:
CMA Bhawan, 3, Institutional Area, Lodhi Road, New Delhi - 110003

Kolkata Office:
CMA Bhawan, 12, Sudder Street, Kolkata - 700016

Behind Every Successful Business Decision, there is always a CMA

Banking, Financial Services & Insurance Board

CERTIFICATE COURSE ON

TREASURY, FOREIGN EXCHANGE AND INTERNATIONAL BANKING



BROCHURE

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Certificate Course on Treasury, Foreign Exchange and International Banking

About The Institute

The Institute of Cost Accountants of India was first established in **1944** as a registered company under the Companies Act with the objects of promoting, regulating and developing the profession of Cost Accountancy. On **28th May, 1959,** the Institute was established by a special **Act of Parliament,** namely, the **Cost and Works Accountants Act, 1959** as a statutory professional body for the regulation of the profession of Cost and Management accountancy. The Institute is under the administrative control of **Ministry of Corporate Affairs, Government of India.**

The Institute has since been continuously contributing to the growth of the industrial and economic climate of the country. The Institute is the only recognised statutory professional organisation and licensing body in India specialising exclusively in Cost and Management Accountancy.

International Affiliation

The Institute of Cost Accountants of India is Founder member of International Federation of Accountants (IFAC), Confederation of Asian & Pacific Accountants (CAPA) & South Asian Federation of Accountants (SAFA). The Institute, being the only institution from India, is a member of the Accounting Bodies Network (ABN) of The Prince's Accounting for Sustainability (A4S) Project, UK and International Valuation Standards Council (IVSC), UK.

Institute's Strength

The Institute is the largest Cost & Management Accounting body in the World, having a large base of about 1,00,000 CMAs either in practice or in employment and around 5,00,000 students pursuing the CMA Course.

Institute's Network

Institute's headquarters is situated at New Delhi with another office at Kolkata. The Institute operates through four Regional Councils at Kolkata, Chennai, Delhi and Mumbai as well as through 112 Chapters situated in India, 11 Overseas Centres abroad, 2 Centres of Excellence, 61 CMA Support Centres and 401 Recognized Oral Coaching Centres.

Vision Statement

"The Institute of Cost Accountants of India would be the preferred source of resources and professionals for the financial leadership of enterprises globally."

Mission Statement

"The Cost and Management Accountant professionals would ethically drive enterprises globally by creating value to stakeholders in the socio-economic context through competencies drawn from the integration of strategy, management and accounting."

Course Objectives

Treasury Management is an essential function of a Bank or any Entity dealing with Large volume of funds. With the increased Globalization of Markets, it has become essential to have an in-depth knowledge of the functioning of the Domestic Money and Debt Markets as also the Foreign Exchange Markets for effective management of funds. On account of several Policy measures undertaken by Reserve Bank of India (RBI) and other Regulatory Authorities, different segment of financial markets (Money, Securities, Foreign Exchange and Derivatives Markets) have witnessed significant growth and development in terms of new financial instruments, number of players, volume of business, etc.

In the light of such developments, treasury functions in Banks, FIs and Corporates have grown manifold and therefore have become challenging to manage. Therefore, it has become indispensable for Banks, Financial Institutions and Corporates to make their newly inducted treasury officers well versed with various segment of the financial market, different products and operations, so that they not only serve their clients better, but also manage the risks inherent in Treasury.

Practicing CMAs who dealing with their Clients are in one way or other linked to Finance and Financial related Issues. Hence, they should possess Good knowledge of 'Treasury Operations', so that they can provide Value Addition Services to their Clients. Treasury Operations of Banks and Commercial Organizations are more are less with difference of Regulatory Compliance. Even in small business entities, Treasury Operations helps a lot to minimize the Cost of Borrowings and Maximize the Yield on Investments etc.

In addition to the above, this course is also useful to CMAs who are: -

- Empanelled with Banks for Treasury Audit and Forex Audit.
- For Forensic Audit of Treasury Operations / Forex Operations in Banking Industry
- In Credit Audit, if the Bank Sanctions Loans to Clients like Pre-shipment and Post Shipment Packing Credit Advance, this course is also useful.
- And also, useful to take up the Assignments like 'Concurrent Audit in Treasury Department' of Banks, Commercial entities etc.

The Course provides a holistic insight into the various dimensions in Bank Treasury and Forex Operations.

Online Admission Link:
https://eicmai.in/advscc/DelegatesApplicationForm.aspx

CPE Credit: 10 hours
for members of The Institute of Cost Accountants of India

Course Eligibility

FCMA/ACMA/those who have qualified Final CMA examination, Final year Students of the CMA Course/Any Graduate.

Course Duration

a) Classroom Learning of 3 hours per day in the Weekend through online mode
b) 50 Hours on-line Coaching.
c) 2 months course
d) Online Examination for 100 marks

Course Fees

Course Fees (including learning kit) of Rs. 6,000/- plus GST of 18%. Final year Students of the CMA course for an amount of Rs. 4,500 plus GST of 18%.

Special Discount for Corporates
For number of employees 5-10, discount is 15%. For number of employees more than 10, discount is 20%

Examination

Rs. 750 plus GST per attempt.

Syllabus

SECTION - 1

a. Introduction to the Money Market:

- ✓ Economic Function-Definition-Classification of Intermediaries
- ✓ Types of Markets-Participants-Nature of Domestic Market
- ✓ Repurchase Agreements

b. Capital Markets:

- ✓ Economic Function
- ✓ Classification of Instruments-by Issuer and Types
- ✓ Principles of Valuation

c. Foreign Exchange Markets:

- ✓ Introduction-Definitions-Direct and Indirect Quotations: Cross Rates, Factors affecting Exchange Rates
- ✓ Relationship with Market Operations-Financing Spot Operations Interest Arbitrage-Forward-Forward Business
- ✓ Forward Transactions-Factors affecting / influencing forward rates
- ✓ Premiums: Discounts, Forward Cross Rates
- ✓ Swap Transactions
- ✓ Outright Deals

d. External Markets:

- ✓ External Commercial Borrowings
- ✓ GDRs / ADRs

e. Derivatives Markets:

- ✓ Introduction – Definition and Characteristics of FUTURES, SWAPS and OPTIONS
- ✓ Elementary Hedge Applications

SECTION - 2

a. Scope and Function of Treasury Management:

- ✓ Objectives of Treasury
- ✓ Structure and Organisation
- ✓ Responsibilities of Treasury Manager

b. Cost Centre / Profit Centre:

- ✓ Financial Planning and Control
- ✓ Capital Budgeting
- ✓ Risk Analysis

c. Liquidity Management:

- ✓ Objectives
- ✓ Sources of Liquidity
- ✓ Maturity Concerns: Projected Cash Flow and Core Sources Contingency Plans
- ✓ Short term and Long-term Liquidity
- ✓ Maturity Ladder Limits
- ✓ Internal Control – The Need and Importance – Financial and Operational risks – Internal vs External Control Segregation of Duties among Front and Back Offices – Management Information – Netting

d. Treasury's Role in International Banking:

- ✓ Changing Global Scenario and Treasury Functions
- ✓ Treasury Structure- Front and Back Office
- ✓ Control of Dealing Operations – Trading Limits – Trading and Operational Policy – Moral and Ethical aspects
- ✓ Confirmations

e. Revaluation Mark to Market and Profit Calculations:

- ✓ Supervision and Exchange Control Departments
- ✓ RBI requirements
- ✓ Recent Developments in the Central Bank's Policy Framework

f. ESG Investments Trading:

- ✓ What is ESG Investing?
- ✓ How does ESG investing work?
- ✓ Why it is important to consider the environment while investing?
- ✓ How important it is to consider socially aware companies while investing?
- ✓ How important role does a company's corporate governance place for investors?
- ✓ Issuance requirements of Green Bonds.

SECTION - 3

a. Introduction:

- ✓ Meaning of Risk in Banking Operations-Financial and Non-Financial Risks
- ✓ Risk Process
- ✓ Key Risks in Relation to Treasury Management – Interest Rate Risk, Currency Risk, Liquidity Risk, Credit Risk and Operational Risk

Certificate Course on Treasury, Foreign Exchange and International Banking

Syllabus

b. Measurement and Control of Risk:

- ✓ Identifying Measures and Controlling Risk Statistical Methods
- ✓ Risk Exposure Analysis
- ✓ Risk Management Policies
- ✓ Fixation and Delegation of Limits
- ✓ Different Limits- Open Position / Asset Position Limits/ Deal Size/Individual Dealers/Stop Loss Limits

c. Assets Liability Management:

- ✓ Components of Assets and Liabilities History of AL Management
- ✓ Organisational and Functions of ALCO
- ✓ Management and Interest rate Exposure / Liquidity
- ✓ Risk Adjusted Return on Capital
- ✓ Capital Adequacy Concerns

d. Hedging the Risk:

- ✓ Forward, Futures and Options Market
- ✓ Mechanics of Futures
- ✓ Foreign Currency Futures Market
- ✓ Options Market- Options Strategies
- ✓ Hedging Strategies and Arbitrage
- ✓ Call Options and Put Options

Contact for further queries



CMA Dibbendu Roy, Additional Director & HoD at bfsi.hod@icmai.in, bfsi@icmai.in

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Behind every successful business decision, there is always a *CMA*

SNAPSHOTS





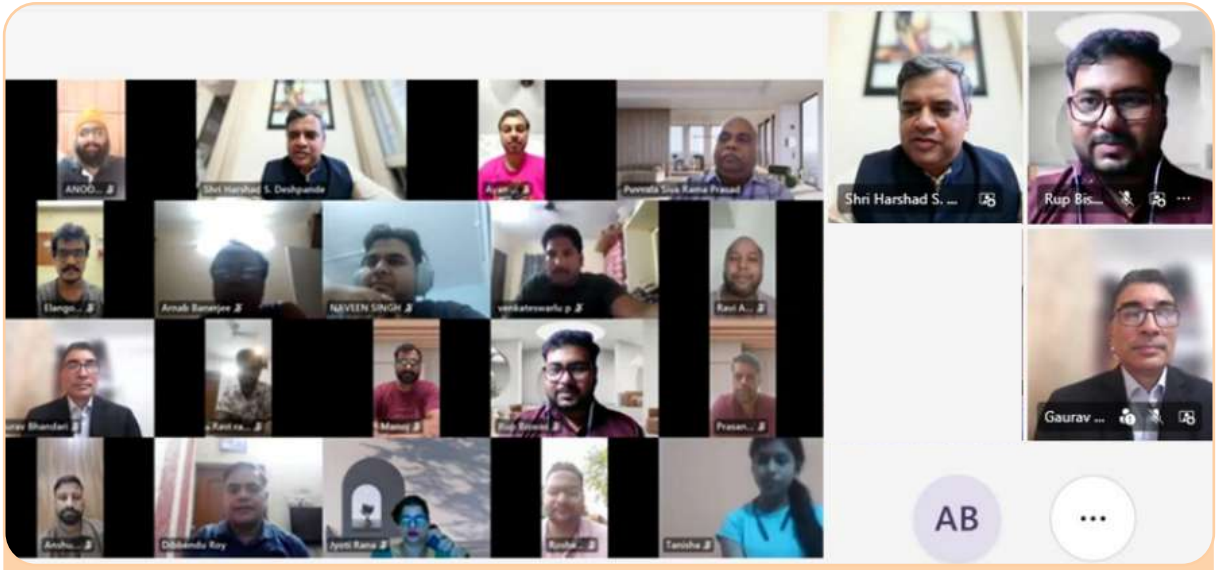
CMA Chittaranjan Chattopadhyay, President of ICMAI, felicitating the Bank of India at the 4th Emerging Asia Banking Conclave, New Delhi held on July 24, 2026 organised by Indian Chamber of Commerce. (R to L)



CMA Chittaranjan Chattopadhyay, President of ICMAI, felicitating the ICICI Bank at the 4th Emerging Asia Banking Conclave, New Delhi held on July 24, 2026 organised by Indian Chamber of Commerce. (R to L)



CMA Chittaranjan Chattopadhyay, President, ICMAI is being felicitated by Shri Manish Kumar, IA & AS, Director General, Regional Capacity Building and Knowledge Centre, Indian Audit & Accounts Department at Kolkata on the inaugural session on the All India Training Programme on "Audit of Infrastructure and Transport Projects: Cost, Contract and Performance Perspectives" organized by RCBKI, IA & ADwith ICMAI-MARF on 3rd August,2026 at Kolkata. (R to L)



Certificate Course on Credit Management in Banks (13th Batch) Inaugurated by CMA Gaurav Bhandari, Chief General Manager, India Exim Bank held on 9th August, 2026.



Certificate Course on Cost Control Strategies in the Banking Sector (1st Batch) Inaugurated by CMA Lalit Wadhwa, Advisor (Cost), Ministry of Health & Family Welfare, with additional role of Secretary General (In charge) for the Indian Red Cross Society, Government of India held on 16th August, 2026.



Press Release of "Expected Credit Loss (ECL) Framework – A Practical Handbook for Indian Banks and Handbook on Restructuring of Bank Loans" on 18th August, 2026 at New Delhi for the hands of CMA Chittaranjan Chattopadhyay, President, ICMAI (centre), CMA Manoj Kumar Anand, Vice President, ICMAI (2nd from right), CMA (Dr.) Ramjass Yadav, BFSI Board Member, ICMAI (2nd from left), CMA Punit Jain, Director, NIBSCOM (extreme right), CMA (Dr.) P. Siva Rama Prasad, Former AGM, SBI (extreme left) and CMA Harshad S Deshpande, Chairman, BFSI Board, ICMAI (online), CMA Mohan Vasant Tanksale, Chairman, BSFI Sector Skill Council of India, Member - BFSI Board, ICMAI (online).



CMA Chittaranjan Chattopadhyay, President, ICMAI (centre) with Dr. Vijaya Bhaskar Kolur, Professor, ABBS School of Management (right), Dr. Madhumita Chatterji, Director, ABBS School of Management (left) on 22nd August, 2026.



Press Release of "INSCOST - Cost Management, Cost Governance, Cost Disclosure & Cost Assurance Framework for the Indian Insurance Sector" on 1st October, 2026 at New Delhi at the hands of CMA Lalit Wadhwa, Advisor (Cost), Ministry of Health & Family Welfare, with additional role of Secretary General (In charge) for the Indian Red Cross Society, Government of India (2nd from right), CMA Chittaranjan Chattopadhyay, President, ICMAI (centre), CMA Manoj Kumar Anand, Vice President, ICMAI (3rd from left), CMA Rajendra Singh Bhati, Central Council Member, ICMAI (2nd from left), CMA (Dr.) Ashok Jain, BFSI Board Member, ICMAI (3rd from right), CMA Shambhu Nath Roy, Author & Professional Trainer (extreme right) and CMA (Dr.) P. Siva Rama Prasad, Former AGM, SBI (extreme left).



CMA Harshad S Deshpande, Chairman, BFSI Board, ICMAI felicitating CMA Chittaranjan Chattopadhyay, President, ICMAI, at the 22nd BFSIB meeting held at Mumbai on 5th October 2026. (R to L)



CMA Harshad S Deshpande, Chairman, BFSI Board, ICMAI felicitating CMA Sudipto Roy, BFSI Board Member of ICMAI, at the 22nd BFSIB meeting held at Mumbai on 5th October 2026. (R to L)



CMA Harshad S Deshpande, Chairman, BFSI Board, ICMAI felicitating CMA (Dr.) Ashok Jain, BFSI Board Member of ICMAI, at the 22nd BFSIB meeting held at Mumbai on 5th October 2026. (R to L)



22nd BFSI Board Meeting held on 5th October, 2026 at WIRC Office, Mumbai.



Certificate award ceremony organised by Siva Sivani Institute of Management, participated by CMA (Dr.) K Ch A V S N Murthy, Council Member and member of BFSIB, ICMAI and other office barres of Hyderabad Chapter, ICMAI to pass outs of Advance Certificate Course on FinTech held at Hyderabad on 9th October 2026.

ACTIVITIES

of the BFSI Board

A. Webinars

i. Nationalisation of Banks in India (1969–2026): From Branch Banking to Virtual Banking – Advancing Financial Inclusion, Digital Literacy and Last-Mile Banking Towards Viksit Bharat 2047 on 19th July, 2026

The Board organized the webinar on 19th July 2026 which was a commemorative webinar to mark Bank Nationalisation Day. It also marked the event for the Banking Month organized by the Board. CMA Chittaranjan Chattopadhyay, Chairman, BFSIB, ICMAI delivered the welcome address. The 25th issue of the BFSI Chronicle and 6th Annual issue was released at the event.

There was a panel discussion comprising of Shri NDSV Nageswara Rao, Chief General Manager, State Bank of India, CMA Uday Sankar Majumder, Chief General Manager & Group Chief Risk Officer, Canara Bank and CMA Balbir Singh, General Manager, Punjab National Bank and Head of SLBC West Bengal respectively and it was moderated by CMA Chittaranjan Chattopadhyay. After the panel discussion, CMA (Dr.) P. Siva Rama Prasad, Former Assistant General Manager, State Bank of India did a presentation on the topic.

The webinar reaffirmed that Indian banking has evolved from a branch-based system into a nationwide digital network serving millions through UPI, Business Correspondents and AI-driven services. Financial inclusion today means not just opening accounts, but ensuring access to credit, insurance, pensions, digital payments and financial literacy.

ii. Opportunities for CMAs in ECL on 13th August, 2026

The Board organized a Webinar on 13th August 2026 on the topic of "Opportunities for CMAs in ECL". CMA (Dr.) Nabanita Ghosh, Associate Professor, Christ University was the Speaker.

iii. Expected Credit Loss and Changing Credit Landscape on 26th August, 2026

The Board organized a Webinar on 26th August 2026 on the topic "Expected Credit Loss and Changing Credit Landscape". Ms. R Sumitra, Credit Management Specialist was the Speaker.

iv. Corporate Governance Regulations for the Insurance Sector on 19th and 20th September, 2026

The Board organized a Webinar in two-part series on 19th and 20th September 2026 on the topic "Corporate Governance Regulations for the Insurance Sector". CMA Delzad Dinyar Tanaz Jivaasha was the Speaker.

v. Bank Account Portability: The Right to Switch and the Future of Customer-Centric Banking on 23rd September, 2026

The Board organized a Webinar on 23rd September 2026 on the topic " Bank Account Portability: The Right to Switch and the Future of Customer-Centric Banking". CMA (Dr.) P Siva Rama Prasad, Former AGM, State Bank of India was the Speaker.

vi. Banking on the CMA on 28th September, 2026

The Board organized a Webinar on 28th September 2026 on the topic "Banking on the CMA". CMA Kalpesh Mody, Chief Compliance Officer (CCO), STCI Primary Dealer Limited was the Speaker.

B. Release of BFSIB publications

i. Expected Credit Loss (ECL) Framework-A Practical Handbook for Indian Banks" and "Handbook on Restructuring of Bank Loans

The Institute released handbooks on "Expected Credit Loss (ECL) Framework-A Practical Handbook for Indian Banks" and "Handbook on Restructuring of Bank Loans" were released in a Press Conference organized at ICMAI, HQ Office on 18.08.2026 in presence of the renowned dignitaries CMA (Dr.) P. Siva Rama Prasad, Former AGM, SBI and resource person along with CMA(Dr.) Ramjass Yadav, Former Executive Director, Bank of Baroda and Member BFSI Board, CMA Harshad Shamkant Deshpande, Chairman, BFSIB and CMA Mohan V. Tanksale, Member of BFSI Board and Chairman, BFSI Skills Council who were present in an online forum. The publications' objective is to provide comprehensive, practical and easy-to-understand guidance on two critical areas of modern banking. The ECL Handbook is particularly significant in view of the RBI's directive for Indian banks to implement the Expected Credit Loss framework with effect from 1st April 2027. It is expected to be particularly useful to bankers in understanding the transition from the existing approach to ECL-based assessment and to operating and controlling staff involved in its implementation.

The Handbook on Restructuring of Bank Loans provides practical guidance on identifying financial stress and evaluating viable restructuring proposals, covering regulatory requirements, early warning signals, verification and appraisal, Techno-Economic Viability (TEV) studies, financial projections, operating cost analysis, PPIRP resolution plans, digital footprint analysis, case studies and standard documentation formats. The publications will be valuable reference material for bankers, credit and risk professionals, Practising CMAs, auditors, financial advisors, insolvency professionals, consultants and academicians. For CMAs in practice, the books provide practical knowledge and create opportunities in credit risk management, ECL modelling, financial analysis, restructuring, financial modelling, banking advisory and risk assessment. The publications are uploaded in the BFSIB portal as per the following links-

https://dwpivt501gtb6.cloudfront.net/upload/bfsi/Expected_Credit_Loss_ECL_Framework_20260822223243.pdf and

https://dwpivt501gtb6.cloudfront.net/upload/bfsi/HAND_BOOK_RESTRUCTURING_BANK_LOANS_20082026_20260822223501.pdf

ii. INSCOST – Cost Management, Cost Governance, Cost Disclosure and Cost Assurance Framework for the Indian Insurance Sector

On 1st October 2026, the Institute of Cost Accountants of India released, through a Press Meet, its comprehensive publication titled "INSCOST – Cost Management, Cost Governance, Cost Disclosure and Cost Assurance Framework for the Indian Insurance Sector." The publication is

a sector-specific and comprehensive framework for the Indian Insurance Sector, designed to provide a structured and layered approach to the discipline of cost and its application across the insurance value chain. It encompasses wide-ranging dimensions including Cost Records, Cost Management, Cost Governance, Cost Disclosure and Cost Assurance, and further advances into the areas of Strategic Cost Management and Product Profitability. The publication seeks to provide an integrated perspective on the role of cost information in strengthening financial discipline, improving operational efficiency, enhancing governance and supporting informed strategic decision-making within the insurance sector. Its layered framework brings together the various dimensions of cost management and assurance, thereby providing a comprehensive reference for professionals and stakeholders associated with the insurance industry. The INSCOST publication will be uploaded on the BFSI Portal for the benefit of members. Members are encouraged to access the publication and read, assimilate and comprehend its comprehensive framework and sector-specific applications. The publication is intended to serve as a valuable reference for Cost Accountants and other professionals engaged with the insurance sector and its evolving regulatory, financial and strategic requirements.

The online link for the publication is as follows:

https://drive.google.com/file/d/1xZ0wnDii-XlqPoKLYFxsFH7S_vGL2ogu/view

C. Certificate Courses

i.Certificate Course on Credit Management in Banks (13th Batch)

The 13th batch started from 9th August 2026. Certificate Course on Credit Management in Banks (13th Batch). CMA Gaurav Bhandari, Chief General Manager, India Exim Bank attended the inaugural session as the Chief Guest along with CMA Harshad Shamkant Deshpande, Chairman, BFSIB.

ii.Certificate Course on Cost Control Strategies in the Banking Sector (1st Batch)

The 1st batch started from 16th August 2026. CMA Lalit Wadhwa, Advisor (Cost), Ministry of Health & Family Welfare with Additional Charge of Secretary General in Indian Red Cross Society & St John Ambulance was the Chief Guest for the inaugural ceremony. CMA Harshad Shamkant Deshpande, Chairman, BFSIB along with the CMA Chittaranjan Chattopadhyay, President, ICMAI attended the inaugural session and delivered the Presidential Message.

The admission for the Certificate Course on Concurrent Audit of Banks (15th Batch), Certificate Course on Treasury, FEMA and International Banking (12th Batch) and Certificate Course on Project Financing of Banks (2nd Batch) have started and we request all the professionals to enrol the session. The link for admission is as follows-

https://eicmai.in/OCMAC/BFSI/BFSI.aspx/

D. Comments on the IRDAI Public Consultation Paper

The Insurance Regulatory and Development Authority of India (IRDAI) has issued a Public

Consultation Paper on 23rd September, 2026 "Reforms for Recalibrating Economics of Insurance Distribution" with the objective of improving policyholder outcomes, affordability, transparency, competition, operational efficiency and sustainable growth of the insurance sector. The proposed reforms cover simplification of the distribution architecture, Expenses of Management (EoM), distribution commissions, transparency in pricing, safeguards against mis-selling and compulsory bundling, digital distribution and Market Infrastructure Institutions. The consultation has significant relevance for the Cost and Management Accounting profession, particularly in relation to cost rationalisation, EoM management, commission structures, cost transparency and cost audit. Costing can help establish the actual cost of insurance distribution across products, lines of business, channels, activities and geographies, while cost audit can provide independent assurance on the completeness, classification, allocation, reconciliation and reasonableness of such costs and remuneration. The CMA profession can therefore contribute meaningfully towards developing a transparent and sustainable cost framework for insurance distribution, ensuring that distribution expenditure is aligned with efficiency, service quality and policyholder value.

Members are requested to respond by 18th October, 2026 to bfsi@icmai.in for us to consolidate and send the representation by 31st October, 2026 (extended). The link for the consultation paper is as follows:

https://dwpivt501gtb6.cloudfront.net/upload/bfsi/Consultation%20paper%20on%20Distribution%20Reforms%20Part%201%20&%202_2026.pdf

E. Opportunities for CMAs

i. CMA firms are eligible to apply as Concurrent Auditors for 3 HO verticals at SIDBI.

ii. CMA firms are eligible to apply for empanelment as Stock Auditors in Indian Bank.

iii. CMAs are eligible to apply for the recruitment of specialist officers (Manager-Credit in Grade/Scale-II & Senior Manager-Credit in Grade/Scale-III) in Nainital Bank.

iv. CMAs are eligible to apply for the Manager positions at Cosmos Co-operative Bank

v. CMAs are eligible to apply for the recruitment of Officer Grade 'A' (Assistant Manager) 2026 at the Pension Fund Regulatory and Development Authority (PFRDA).

vi. CMAs are eligible to apply for the recruitment of specialist officers (Manager-Credit & Senior Manager-Credit) in Indian Overseas Bank.

vii. CMAs are eligible to apply for the recruitment of Senior Associate- Credit Risk Management (On Contract) & Senior Associate- Credit Monitoring & Recovery (On Contract) at IFCI Ltd.

viii. CMA Firms are eligible to apply for the concurrent audit of SIDBI in Government Product Vertical of SIDBI New Delhi, The last date for application is 13.10. 2026.

ix. CMAs are eligible to apply for the recruitment of Audit Consultant (AC) at SIDBI. The last date for application is 14.10.2026.

F. Restoration of Email to members for BFSI Daily News Digest

The Board restored the email services to members for circulation of the BFSI Daily News Digest

from 11th August, 2026.

G. 4th ICC Emerging Asia Banking Conclave and Awards

The Board participated as silver partner for the 4th ICC Emerging Asia Banking Conclave and Awards on 24th July, 2026 at Le Meridien, New Delhi. CMA Chittaranjan Chattopadhyay, President, ICMAI was present to award the winners at the valedictory session.

H. Joint Online Event on ECL with NIBSCOM

NIBSCOM and ICMAI are jointly organizing an online capsule programme on ECL Framework and its impact on Indian Banks on 28th July,2026. CMA (Dr.) P. Siva Rama Prasad, Former Assistant General Manager, State Bank of India did a presentation on the topic.

FINANCIAL SNIPPETS



Economy

Sr	News Item / Headline
1	India's GST collections expanded at the fastest pace in 13 months in June, with gross revenues rising 13.9 percent year-on-year to Rs 1.95 lakh crore, driven largely by import-related GST revenue growth.
2	Japan significantly expanded its economic footprint in India, committing investments worth nearly Rs 1 lakh crore spread across manufacturing, semiconductors, AI, green energy, and digital infrastructure alongside 120 MoUs.
3	The recent West Asia conflict prompted the government to begin work on creating India's first strategic natural gas storage system, marking a significant expansion of energy security planning.
4	The Centre prepared a major district-level export promotion initiative targeting about 500 districts in the first phase to widen India's export base and support MSMEs.
5	The International Monetary Fund (IMF) updated its World Economic Outlook, projecting India's FY27 growth at 6.4 percent while highlighting strong momentum in private consumption and services.
6	The World Bank's Board of Executive Directors approved an $890 million financing package for India's rooftop solar programme to support the PM Surya Ghar: Muft Bijli Yojana.
7	India's merchandise trade deficit widened to $30.43 billion in June 2026 as imports rose at a faster pace than exports, driven by higher crude, petroleum, and fertilizer import bills.
8	India and Britain's comprehensive trade pact took effect, cutting tariffs on thousands of goods and widening access for services firms and professionals in both markets.
9	Production growth of nine core infrastructure sectors rose to a five-month high of 5 per cent in June, evaluated under the new base year 2022-23 which now incorporates iron ore.
10	The Ministry of Heavy Industries and government agencies reported that manufacturing PMI slipped to a 5-year low in July at 53.5, even as demand resilience sustained overall output expansion.

Banking

Sr	News Item / Headline
1	Banks geared up to expand their presence in M&A financing as the Reserve Bank of India's new framework allowing lenders to fund acquisitions officially came into effect.
2	The RBI's revamped Integrated Ombudsman Scheme came into effect, introducing a unified framework for resolving customer complaints against banks, NBFCs, PPI issuers, and credit information companies.
3	CRISIL reported that gold loans emerged as the largest securitised asset class in the April-June quarter, overtaking vehicle loans and accounting for 31 per cent of overall securitisation volume.
4	HDFC Bank reported an 80 percent rise in whistleblower complaints and corresponding disciplinary actions during FY26, alongside executive transitions.

Sr	News Item / Headline
5	The RBI proposed easing the approval process for institutional investors (mutual funds, insurance companies, and pension funds) looking to acquire shares in commercial banks through a one-time approval mechanism.
6	The RBI issued a consolidated circular on Special Rupee Vostro Accounts (SRVAs), rationalizing instructions to streamline cross-border trade settlements in rupees.
7	The RBI announced that special concessional swap measures attracted $20.72 billion in forex inflows, predominantly driven by Foreign Currency Non-Resident [FCNR(B)] deposits.
8	The Finance Ministry took steps to repeal the zero-MDR amendment on UPI payments by introducing the Taxation and Other Laws (Amendment) Bill, paving the way for sustainable infrastructure funding.
9	The RBI released its latest Upper Layer NBFC list, adding four state-owned lenders (REC, PFC, IRFC, and HUDCO) while retaining Tata Sons.
10	Jio Financial Services and Bank of America formed a joint venture, with BofA agreeing to invest up to Rs 18,268 crore for a 49.9% stake in Jio Credit.

Financial Services

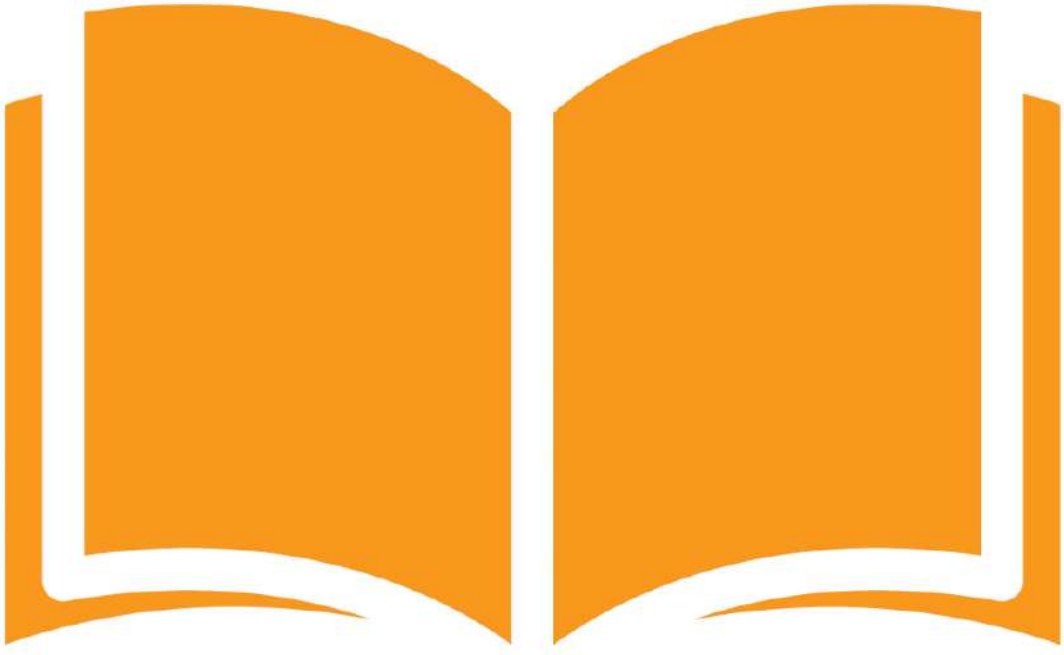
Sr	News Item / Headline
1	NPCI announced a strategic partnership with HSBC India to enable real-time foreign exchange (FX) settlement for cross-border UPI payments across nine live countries.
2	SEBI decided to shift the payment of registration and related fees by Foreign Portfolio Investors (FPIs) and Foreign Venture Capital Investors (FVCIs) from US dollars to Indian rupees.
3	Insurance companies and the National Pension System (NPS) emerged as key domestic liquidity drivers, pumping a record Rs 88,852 crore into Indian equities in H1 2026 despite heavy FII selling.
4	SEBI allowed depositories to utilize up to 5% of annual investment income generated from Investor Protection Funds (IPF) for administrative and statutory expenses, mandating a 95% plough-back.
5	Mutual fund assets under control (AUC) surpassed Foreign Portfolio Investors (FPIs) for the first time, driven by steady monthly SIP inflows exceeding Rs 30,000 crore.
6	Monthly systematic investment plan (SIP) contributions climbed to a record Rs 31,781 crore in June, supported by an improved SIP stoppage ratio of 91%.
7	PFRDA launched ‘NPS PRIDE-Disha’, a digital decision-support tool enabling NPS subscribers to compare historical fund performance using SIP-style return calculations.
8	SEBI imposed a penalty of Rs 1 crore on Central Depository Services (CDSL) for cybersecurity lapses and operational disruptions following a 2022 malware attack.
9	SEBI proposed a regulatory framework allowing Real Estate Investment Trusts (REITs) and publicly listed InvITs to issue foreign currency-denominated Depository Receipts overseas.

Sr	News Item / Headline
10	SEBI proposed widening foreign portfolio investor (FPI) participation in exchange-traded commodity derivatives, including permission to trade physically settled non-agricultural commodity contracts.

Insurance

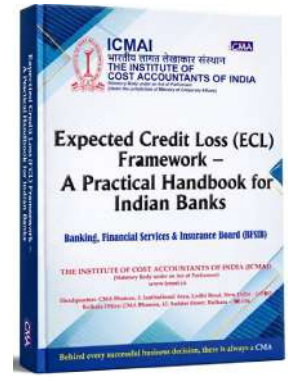
Sr	News Item / Headline
1	The insurance regulator IRDAI advanced plans to overhaul distributor commissions, proposing payments spread over a policy's life to curb mis-selling and lower distribution costs.
2	Life Insurance Corporation of India (LIC) reported policyholder payouts nearing Rs 5 lakh crore in FY26, marking a 19% year-on-year increase driven primarily by maturity claims.
3	ICICI Prudential Life Insurance announced a potential rebranding to drop the 'Prudential' brand as UK promoter Prudential Corporation Holdings applied to reclassify its status from a 'promoter' to an 'investor'.
4	The Reserve Bank of India highlighted a sharp rise in commission payouts by private life and general insurers, warning of heightened mis-selling risks and structural divergence from public peers.
5	IRDAI implemented a requirement for state-run insurers to account for wage costs annually and evaluate provisions quarterly to soften financial impacts of periodic wage negotiations.
6	UK insurer Aviva Plc prepared to fully own its Indian life insurance venture by buying out its partner Dabur Invest Corp, marking the first deal under liberalized foreign ownership policies.
7	Leading private and public sector banks earned more than Rs 20,000 crore in brokerage and commission from selling insurance policies in FY26, with the top four private lenders capturing nearly 80%.
8	IRDAI mandated that every insurance policy sold effective January 2027 must be explicitly tagged to the individual intermediary or salesperson responsible to curb mis-selling.
9	The government successfully executed an Offer for Sale (OFS) of a 6.54% stake in LIC, raising Rs 31,552 crore and increasing public shareholding to 10 percent.
10	Life Insurance Corporation of India (LIC) reported a 23 percent increase in net profit to Rs 13,492 crore for the first quarter ended June 30, driven by higher new business premiums and renewals.

NEW ARRIVALS



Expected Credit Loss (Ecl) Framework – A Practical Handbook For Indian Banks

The Expected Credit Loss (ECL) Framework – A Practical Handbook for Indian Banks, First Edition (August 2026), published by the Banking, Financial Services and Insurance Board (BFSIB) of ICMAI, provides structured, practitioner-oriented guidance on the transition from the incurred loss model to forward-looking ECL provisioning. It brings together regulatory requirements, accounting principles under Ind AS 109, quantitative modelling, data and systems architecture, audit and disclosure within a single, cohesive narrative, in anticipation of the Reserve Bank of India's ECL regime taking effect from 1 April 2027.



Salient Features

- Synopsis and explanation of the RBI (Commercial Banks – Asset Classification, Provisioning and Income Recognition) Directions, 2026, issued on 27 April 2026.
- Detailed treatment of Probability of Default, Loss Given Default and Exposure at Default, the three-stage model, Significant Increase in Credit Risk (SICR) and forward-looking macroeconomic scenarios.
- Segment-wise PD modelling across thirteen portfolios, from retail, MSME, agriculture and microfinance to corporate, export, import, consortium lending, bank guarantees, letters of credit and deferred payment guarantees, supported by EAD and LGD modelling and illustrative data transcription sheets.
- Case studies and an audit checklist to support practical application.

Scope & Coverage

- Model design, validation and governance; data requirements; IT systems and automation.
- Accounting treatment, audit of the ECL framework, and disclosure requirements.
- Impact on profitability and capital, integration with Basel III/IV, and the transition strategy from IRAC to ECL.
- The role of professionals in the ECL ecosystem and the future of credit risk modelling in India.

Why this Handbook is Essential

- Offers banks and professionals timely, implementation-focused guidance ahead of the regulatory effective date.
- Strengthens preparedness in data quality, model risk management and system readiness.
- Reinforces the contribution of CMAs to credit risk, model validation, audit and financial reporting.

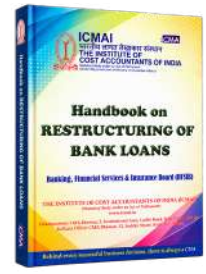
Target Readers

Banking professionals in credit risk and finance, Boards and senior management, auditors, risk managers, CMAs, actuaries and data scientists, regulators, consultants, academicians and students.

A practical guide to anticipating credit losses—promoting resilient provisioning, sound governance and informed decision-making.

Handbook on Restructuring of Bank Loans

The Handbook on Restructuring of Bank Loans, First Edition (August 2026), published by the Banking, Financial Services and Insurance Board (BFSIB) of ICMAI, is a practical reference for professionals engaged in credit appraisal, restructuring, resolution and financial advisory. Anchored in the RBI's prudential framework for resolution of stressed assets, it traces the complete restructuring process, from early identification of financial stress to viability assessment, resolution design and post-restructuring monitoring.



Salient Features

- Regulatory framework for retail, MSME, agricultural and corporate borrowers, covering SMA-based early recognition, Board-approved policies, Independent Credit Evaluation and Inter-Creditor Agreements.
- Early Warning Signals, independent verification through GST, income tax and CRILC data, and comparison with SARFAESI, Asset Reconstruction Companies and the Insolvency and Bankruptcy Code, 2016.
- Techno-Economic Viability (TEV) studies, sustainable debt assessment and restructuring tools such as moratorium, WCTL, FITL, additional finance and promoter contribution.
- Evaluation of sales projections and operating costs, supported by illustrative case studies from the pharmaceutical, steel, automobile components and textile sectors, and a detailed end-to-end restructuring case study.
- Preparation of Base Resolution Plans under the Pre-Packaged Insolvency Resolution Process (PPIRP) for MSMEs, and Digital Footprint Analysis as a modern due diligence and monitoring tool.

Scope & Coverage

- Step-by-step restructuring process, documentation, asset classification and post-restructuring monitoring.
- Implications of the ECL framework effective from 1 April 2027.
- Standard formats and annexures for TEV, security and legal due diligence, consortium arrangements, resolution plans and forensic verification.

Why this Handbook is Essential

- Bridges regulatory requirements and practical implementation through ready-to-use formats and worked illustrations.
- Promotes evidence-based, viability-driven restructuring, discouraging evergreening and strengthening recovery prospects.
- Highlights the expanding role of CMAs in viability assessment, financial modelling, cost evaluation and resolution advisory.

Target Readers

Bankers and financial institutions, CMAs, insolvency professionals, TEV consultants, corporate finance teams, resolution professionals, academicians, researchers and students.

A practical, regulation-aligned guide to sustainable loan restructuring—preserving viable enterprises, protecting lenders and advancing financial stability.

Inscost – Cost Management, Cost Governance, Cost Disclosure & Cost Assurance Framework For The Indian Insurance Sector

INSCOST, the First Edition (2026) published by ICMAI, provides sector-specific guidance to strengthen cost discipline, transparency, governance and assurance in Indian insurance. It adapts ICMAI's Cost Accounting Standards, Cost Auditing Standards and Generally Accepted Cost Accounting Principles to the economics of insurance and aligns them with IRDAI's regulatory architecture. It links cost information to operational efficiency, strategic decisions and product profitability.



Salient Features

- Layered architecture: Universal Guidelines for all insurers, supplemented by dedicated guidance for Life, General, Health, Reinsurance and Public-Sector insurers.
- Integrated coverage of cost records, cost management, cost governance, cost disclosure and cost assurance, extending to strategic cost management and product profitability.
- Practical guidance on cost allocation, Expenses of Management (EoM), claims and distribution costs, bancassurance and government-sponsored schemes.
- A Cost Maturity Model and phased Implementation Roadmap to help insurers strengthen practices in line with their size and readiness.

Scope & Coverage

- Cost classification, cost records, allocation and reporting across insurance operations.
- Cost analytics and product profitability to support pricing, performance assessment and management decisions.
- Expenses of Management, commission and distribution structures, claims-related costs and bancassurance.
- Guidance tailored to the operating characteristics of life, general, health, reinsurance and public-sector insurers.
- Context for evolving regulation, including IRDAI's 23 September 2026 consultation on recalibrating insurance distribution economics, EoM, commissions, cost transparency and cost audit.

Why this Framework is Essential

- Provides a common, sector-specific reference for consistent cost governance and assurance across insurance entities.
- Helps Boards and management improve visibility over cost drivers, resource utilisation, operational efficiency and policyholder value.
- Supports preparedness for evolving regulatory expectations and strengthens the contribution of CMAs to strategic cost management and cost assurance.
- Advances the wider national priorities of "Insurance for All by 2047" and Viksit Bharat through sustainable and accountable insurance operations.

Target Readers

Boards, life, general, health, reinsurance and public-sector insurers, finance and costing teams, auditors, risk and compliance professionals, actuaries, regulators, policymakers, CMAs, consultants and researchers.

A practical, sector-specific framework for cost discipline, transparent disclosure and credible assurance—supporting efficiency, governance and policyholder value.

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Notes

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