CHRONICLE

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Banking, Financial Services & Insurance Board (BFSIB)

THE INSTITUTE OF COST ACCOUNTANTS OF INDIA (ICMAI)
(Statutory Body under an Act of Parliament)

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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."

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 Kolkata operates through four regional councils at Kolkata, Delhi, Mumbai and Chennai and 116 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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Chairman's Message

As we bid adieu to 2024 and welcome the new year 2025, I would like to quote the wise words of Albert Einstein, "Learn from yesterday, live for today, and hope for tomorrow." These words resonate deeply with us as we reflect on the past year and look forward to the opportunities and challenges that the new year will bring.

On behalf of the BFSI Board of the Institute of Cost Accountants of India (ICMAI), I wish all our members, students, and stakeholders a very happy and prosperous new year. The BFSI sector in India has undergone significant transformations in recent years, and we are excited to see the impact of these changes on the country's economic framework.

The consolidation of public sector banks, increased penetration of fintech players, and emphasis on green and sustainable banking have all contributed to a more efficient and customer-centric banking sector. The insurance sector has also seen innovative and customer-centric products, including micro-insurance, technology-driven claim settlement processes, and the growing use of blockchain for policy issuance and fraud prevention.

As we look to the future, the BFSI sector in India is poised for transformative growth, driven by a favorable policy environment, increasing digital adoption, and robust economic fundamentals. Key trends that will shape the sector include the enhanced role of Artificial Intelligence (AI) and Machine Learning (ML) in personalized services, expansion of rural penetration through digital banking and micro-insurance products, development of green finance and ESG (Environmental, Social, Governance) investing, and collaborative growth between traditional players and fintechs.

The BFSI Board is committed to supporting the growth and development of the BFSI sector in India. We are organizing a National Seminar on "Enhancing efficiency in Banking and Insurance by Leveraging on Risk and Cost Management" at Mumbai on January 16th and 17th, 2025, where doyens of the Banking and Insurance sector will gather to share their knowledge and expertise. We invite all our members to take advantage of this unique opportunity to learn from the best in the industry.

We are also launching the 2nd batch of our Advance Certificate Course on Fintech, which will provide participants with a comprehensive understanding of Crypto, Insurtech, Investech, and other aspects of Fintech. The course will be taught by heads of Fintech experts from various Banks and Financial Institutions.

In addition to these initiatives, the BFSI Board is releasing several publications, including the Aide Memoire on Infrastructure Financing (Third Edition) and a publication on Climate Financing. These publications will be hosted on the BFSI portal for online purchase.

We are committed to promoting the interests of our members and are regularly sending representations to various Companies for equal opportunity for CMAs in employment, practice, and other professional opportunities. We are also updating our members about opportunities by uploading them on the BFSI portal.

We are planning to have an MoU with the National Institute of Banking Management for mutual benefit and a synergic association with such autonomous and independent bodies for a win-win association. We have several other plans in the pipeline, including international tie-ups and events at various Chapters and Regions, and we hope to carry out our activities as per the terms of reference stated for the BFSI Board.

Once again, I wish all our members, students, and stakeholders a very happy and prosperous new year. Let us work together to make 2025 a year of growth, innovation, and success for the BFSI sector in India.

CMA Chittaranjan Chattopadhyay
Chairman,
Banking, Financial Services and Insurance Board,
The Institute of Cost Accountants of India.

From the Desk of the Department

In the midst of the changeover of political landscape of United States of America and the impending wars in Iran, Syria and tumultuous prolonged war with Russia and Ukraine we have seen few early warning signals in the lowering of the GDP for the FY 24-25 to 5.4 percent which was 8.1 percent a year ago. We have seen a trough in the manufacturing sector and with the inflation which is still looming high due to price rise in the vegetables and fruits. The Reserve Bank of India had taken consideration the high retail inflation has kept the bank rate unchanged and we hope things will change in the last quarter for the financial year 2024-25. Due to geopolitical tensions the growth projection for the fiscal year 2025-26 is lowered by the statistics depicted by the Reserve Bank of India and it is now estimated to 6.6 percent which was earlier predicted to 7. 2 percent depicts a slowdown in the economic growth.

We have seen that in the Lok Sabha had approved the Banking Laws (Amendment) Bill, 2024. The Bill proposed 19 amendments in banking laws, including the Reserve Bank of India Act, Banking Regulation (BR) Act, and Banking Companies (Acquisition and Transfer of Undertakings) Act. The proposed Bill sought will see an improvement in the governance standards, provide consistency in reporting by banks to the RBI, ensure better protection for depositors and investors, improve audit quality in public sector banks and also an increase of the tenure of the directors other than the chairman and whole-time directors in cooperative banks. The individuals can now nominate up to four people for their deposits, safe custody, and safety lockers as per the new amendments. These amendments are now expected to increase the ease of operations for the banks and customers.

The Reserve Bank of India has also come up with the revised guidelines with the Digital Public Infrastructure (DPI) Security required for the safety of the online data privacy and online transactions safety mechanism. These guidelines will ensure strengthening of various protocols for the customer verification, end to end encryption and various protection from any unauthorized access to data. The digital banking will get a push with such user trust in the banking system. The government's objective of less cash economy and push towards financial inclusion will be thereby enabled with stricter control of the digital architecture. Artificial Intelligence is also playing a vital role in detection and prevention of frauds.

With the recent announcement by Hon'ble Prime Minister of India covering the benefit of the insurance through the launching of the Ayushman Bharat scheme which has now been extended to the senior persons above the age of 70 who will now be covered under the ambit of insurance and are now protected to an amount of Rs. 5 lakh. The scheme is for all citizens irrespective of their income earned by them and it augurs well for the social protection of the citizens of the country. IRDAI has the objective to fulfil the Insurance for All by 2047 and all the products and activities of the Government of India are observed in order to fructify such a goal to enable the objective of financial inclusion.

The capital markets have seen a fillip in the December, 2024 and the sensex is hovering now at 80,000 plus level with positive factors like stability in the governance of United States and stable earnings in the 2nd quarter by the India Inc.

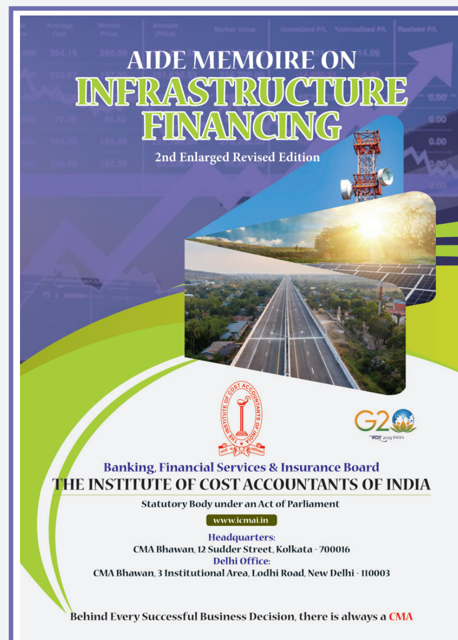
The Securities and Exchange Board of India (SEBI) has announced that the top 500 stocks will be eligible for the T+0 settlement cycle starting from January 31, 2025. The T+0 settlement cycle is a mechanism that allows investors to receive shares in their account on the same day of the trade. We also have seen that the monthly mutual fund SIP inflows crossing the Rs 25,000 crore mark for the second consecutive month at Rs 25,320 crore in November, 2024 compared to Rs 25,323 crore in October,2024 and it augurs a very positive outlook for the retail investors.

Aide Memoire on INFRASTRUCTURE FINANCING

(2nd Enlarged Revised Edition)

Infrastructure is the backbone of any economy. It is a well recognised fact that Infrastructure has a multiplier effect on the holistic development and rapid sustainable growth.

A Robust Infrastructure Finance mechanism therefore assumes utmost importance in the entire Eco system.



Synopsis - Salient Features of the book

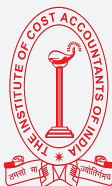
- A one stop, single reference point, in the niche area of Infrastructure Finance.
- The book covers the basic theoretical concepts as also the real nitty gritty of processes & procedures and nuances involved in Infrastructure Finance with all the relevant topics which include the following:-
  - Definition of Infrastructure sector-Harmonised master list of infrastructure sub -sectors, as notified by Department of Economic Affairs, Ministry of Finance, Definition under Companies Act 2013 and under Income Tax Act 1961.
  - Elements of Financing Infrastructure.
  - Types of Public Private Partnership (PPP) models.
  - Formation of the Special Purpose Vehicle (SPV) and Key project documents/structure for Infrastructure Finance.
  - Financing mechanism consortium/syndication.
  - Credit appraisal process-covering management appraisal, economic appraisal, marketing appraisal, technical appraisal and Financial appraisal.
  - In depth analysis of cost of project and means of finance with specific reference to Infrastructure projects, including interest during construction (IDC), Debt Service Reserve Account (DSRA) etc.
  - Key performance indicators including financial indicators and non financial indicators. This includes detailed discussion on all financial ratios for long term funding like DSCR, IRR, BEP and concepts like ESG compliances.
  - Detailed discussion on the intricacies involved in appraisal and sanction, including various aspects of concession agreement, Power Purchase agreement, Escrow agreement, Fuel supply agreement Inter creditors agreement etc
  - Assessment of various Risks involved in infrastructure finance like sponsor risk , construction risk,market risk, financial risk etc and mitigation thereof.
  - Detailed Case studies on the following projects
    - Road sector -Hybrid annuity (HAM)model -New Project
    - Road sector- Toll Operate Transfer (TOT) model-Funding against existing project as a part of Asset Monetization Plan.
    - Renewable Energy sector - Solar Power Plant-New Project.
  - Case studies on Credit Risk Mitigation
    - Waste to Energy Project
    - Water supply management project.
    - Railway station Redevelopment project.
  - Project monitoring and performance audit of infra projects
  - Restructuring, management of weak accounts and NPA accounts.
  - Infrastructure thrust by Government of India- National Infrastructure pipeline , National Monetization Pipeline, NABFID and Atmanirbhar Bharat
  - Alternate sources of funding including InvITs, IDFs, Securitisation, Credit, Enhancement etc
  - ESG risks and mitigation measures, sustainable finance, energy transition and BRSR
  - Urban infrastructure - the way forward
  - Methodology for pricing of loans
  - Preventive vigilance
- Ethused by the overwhelming response and positive feedback to first edition of the book, the second enlarged and revised edition covers additional contemporary topics on
- 'ESG and Sustainable Finance' and
- 'Urban Infrastructure', besides additional sections on other relevant issues of infrastructure.

BOOK IS NOW AVAILABLE

Members & Students of the Institute of Cost Accountants of India are eligible for 20% discount on the book price

Online purchase can be made as per the following link:

https://eicmai.in/booksale_bfsi/Home.aspx



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Behind Every Successful Business Decision, there is always a CMA

Book Review

Banking Beyond Borders

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Former CMD of Central Bank of India &
CEO of Indian Banks Association

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Bank of Maharashtra, HO, Pune

Published by: IndiePress, Bangalore-560 029

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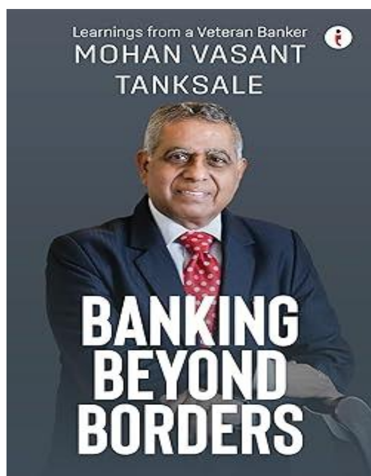


"Banking Beyond Borders" constitutes a compelling literary work that imparts valuable insights from an Esteemed Veteran in the Banking Sector.

I had the privilege of engaging with the Book Titled "Banking Beyond Borders," and I found the experience to be profoundly enriching, particularly in light of my Professional background in Banking. The exploration of such Book serves to inspire Bankers to enact positive contributions to Society via their engagement in the Banking Profession.

The Book comprises Twelve Distinct Chapters, each presenting engaging Content; throughout the reading process, Banking Professionals will acquire valuable insights through the shared experiences of Shri Mohan, which articulate pertinent Banking Knowledge that is readily accessible to Banking Practitioners in the Field.

Upon initiating the Reading, a compelling interest is cultivated, motivating readers to progress to subsequent Chapters with anticipation regarding the Salient Points elucidated in the narratives of a

seasoned Banking Professional who has held Senior Positions within Public Sector Banks and the Indian Banks Association. I will delineate a few of these noteworthy aspects here.

Shri Mohan Vasant Tanksale elucidated his active participation and contributions to the Financial Sector during his tenure as Chairman and Managing Director of the Central Bank of India, as well as his role as CEO of the Indian Banks Association. These experiences are encapsulated in the chapter titled "Looking Back at the Future."

The Transformation brought about by Digital Advancements in the Banking System, transitioning from Traditional Branch Banking to Mobile Banking (A Bank in Your Hand), is examined in the Chapter entitled "Financial and Digital Inclusion Now and the Future," which discusses aspects such as the acceleration of Payment Systems and the simplification of the Lending Process.

Within the chapter regarding the Hand of Technology, Shri Mohan addresses topics such as the Loan Automation System, customer engagement in the digital age, and the strategic use of Corporate Social Responsibility (CSR) events to enhance customer interaction, which collectively serve to underscore the significance of the customer within the banking ecosystem, emphasizing that without customers, banking cannot exist.

Recovery is posited as the Fundamental "Life Line" of the Banking System, analogous to the Circulatory System within the Human Body; should Banking Assets become ensnared in Non-performing Assets, the Vital Recycling of Funds will cease to occur. The Cessation of this fund recycling will inevitably Halt Banking Operations, thereby undermining Customer Confidence and Damaging the Institution's Reputation. This Crucial Information is thoroughly articulated by Shri Mohan Vasant in the Chapter Titled "Follow Your CEO Instinct."

Another Compelling Chapter within "Banking Beyond Borders" is "Think Like a CEO," in which Shri Tanksale asserts that "If you believe you are the CEO of your Branch or Department, the Simple Process of Due Diligence and Proper Governance is extremely crucial to all Your Work and also Your Career as a Banker." In my assessment, whether one serves as a Branch Manager or a Regional Manager, possessing Micro-level Knowledge to deliver exemplary Customer Service at the Branch Level, along with a Macro-level understanding of the Banking Sector's Significance, is imperative for the sustainable growth of the Banking Industry within the Economy.

This understanding is Essential for all Bankers, as it is widely recognized that "Banking is the Backbone of the Indian Economy," and the Development of the Three Critical Sectors like Agriculture (Primary), Industry (Secondary), and Services (Tertiary) is intrinsically linked to the Health of the Banking Sector.

I extend my heartfelt Wishes for an Enriching reading Experience to all Esteemed Readers and Happy New Year 2025.

Generative Artificial Intelligence (GenAI): Changing Banking Landscape

Shri Ghanshyam Srivastava
Dy General Manager (IT Yono 2.0 Dev)
State Bank of India

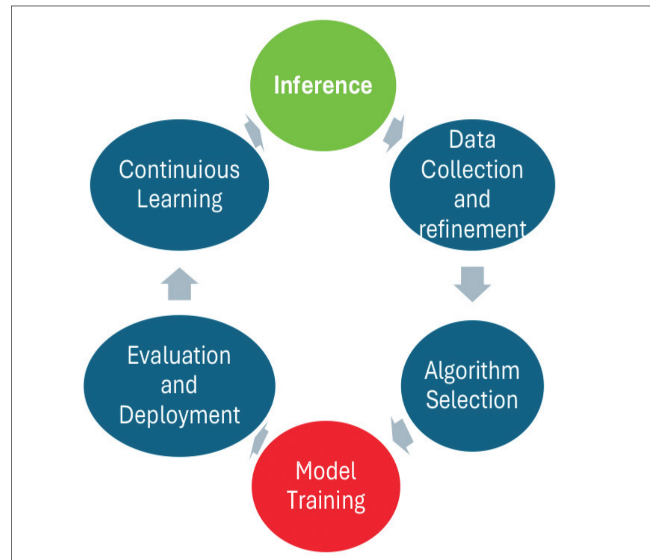
It was year 1997, when a machine named Deep Blue, developed by the IBM. defeated chess champion Gary Kasparov, signifying victory of machine developed mind over human brain. As we traverse further from there, virtual personal assistants like Siri and Alexa have become part of everyday life of many of us. As we move further, we meet ChatGPT which is far beyond a search engine and provides customized answers based on the information available and model used. All these examples which might have appeared to us science fiction a few decades ago, have turned into reality and one field that is bringing in this revolution is Artificial Intelligence (AI). As the name alludes, ***Artificial Intelligence, popularly known as AI, is the intelligence that is not derived from the natural source of intelligence i.e. human brain, instead AI refers to***

the computer systems that are capable of performing tasks that are traditionally performed by the human brains such as learning, problem solving, reasoning, language comprehension and perception management. The ability of computers to handle large amount of data further adds to the capabilities of AI, which can analyse enormous amount of data to identify patterns and give predictions and even can give hitherto unknown patterns. The AI, as technology evolved has also evolved and from Narrow AI. Predictive AI, General AI etc., it has reached to the most advanced one called Generative AI.

The Generative Artificial Intelligence (AI) is a subset of artificial intelligence which creates something which is not present and uses generative models to produce text, images, videos, or other forms of data. Unlike traditional AI, which is programmed to perform specific tasks based on historical data, generative AI creates new and unique content, like text, images, music, or even code. The history of Gen AI is short and its journey began in 1961 with ELIZA, a chatbot or talking computer was created by Joseph Weizenbaum. The technologies that laid the foundation of AI and are taking it to the next level are machine learning, deep learning, neural networks, long short term memory, boosting algorithm, backpropagation, Hopfield net, transformers, generative adversarial networks, large language models and exponential growth in computational capabilities. With each advancement in the technological landscape, AI also reached to another higher level, from chatbot to ChatGPT. Leveraging learning models and related large and voluminous data, generative AI produces outputs that are similar to human-created contents, helping individuals and organizations generate innovative solutions with minimal manual intervention.

Understanding Generative AI and How it Works

From problem statement to the output that solves the problem follows various stage which are sequenced and arranged to get the desired result. These stages of AI and a brief description is as below:



- ***Data Collection:*** This is central to the Gen AI and quality and quantity of data will decide the success of any Gen AI output.

- ***Data Pre-processing:*** Next stage is data cleaning, structuring, enhancing and standardization.

- ***Algorithm Selection:*** This is decided by the problem statement. Some of the commonly used AI algorithms include neural networks, decision trees etc.

- ***Model Training:*** This is a critical stage in the entire cycle. Training is driven by the mathematical models and may be supervised (labelled data) or unsupervised (unlabelled data). This entire process is iterative to minimize errors so that pattern identification is near real life. Some of the techniques used are gradient descent and backpropagation in neural networks.

- ***Model Evaluation:*** This is post training activity for assessing its performance and generalization ability to make it effective.

- ***Model Deployment:*** On successful evaluation, model is put to use in production environment to solve real life problems.

- ***Continuous Learning and Improvement:*** As environment is dynamic so the model has to be, to keep it relevant and accurate. Feedback loop and new developments in business environment are factored in to improve the model.

- ***Inference and Decision-Making:*** This is the final stage and now model is ready for use to solve real life problems. One important aspect to be taken care of is understanding the assumptions used in the model.

Within this overall life cycle, Generative AI operates through advanced machine learning techniques and neural networks. These networks are trained on enormous datasets, such as text documents, images, or audio files, to recognize patterns and nuances. By processing large volumes of data, these models develop an understanding of language, structure and style, allowing them to generate coherent and relevant content that resembles creation of human brain. For instance, a language model like OpenAI's GPT (Generative Pre-trained Transformer) is trained to understand the relationships between words and phrases, enabling it to craft responses to prompts, generate text, or answer questions in a natural, human-like manner. Similarly, visual models like DALL-E can generate realistic or imaginative images based on text prompts. There are many more such models in use or under experimentation in various industries.

Generative AI impacting our day to day life

Generative AI is gradually becoming ever pervasive and touching our lives in more ways than we ever imagined and this landscape is changing by every passing day through product and process innovations across industries covering entire humanity. Even the creative industries, like artists, writers and designers are now increasingly using generative AI to create high-quality illustrations, logos, contents, at lesser time and cost. Generative AI powered virtual assistants and chatbots embedded in many applications are helping people organize their schedules, manage tasks, or access information quickly. In summary, AI-powered tools are inducing efficiency and enhancing productivity

This impact of GenAI is not confined to individual applications, instead it is changing the way business is done across industries covering almost every industry from healthcare, education, to banking and finance. From mere automation, GenAI is helping industries to create innovative product designs, customer support and over all data driven decision making to keep them stay ahead in the competition. Those who are embracing the AI are expected to stay ahead for longer period in the race. Banking as a sector is also gearing up for greater adoption of this innovative technology. While global banks have taken leap, Indian banks are also gradually gearing up to move up in the ladder by becoming AI savvy from simply being tech savvy.

Advantages of Gen AI

The key advantages of using GenAI are summarized below:

- Generating new outputs
- Ability to learn
- Data driven decision making
- Data augmentation
- Enhanced Productivity
- Cost efficiency
- Enhanced compliance and risk management capabilities
- Drives innovations by handling most of the non-core and part of core activities
- Democratizing access to technology which enables people to innovate, driving economic growth and social progress.

Transformation of banks using Generative AI

The adoption of GenAI across industries is increasing at rapid pace and financial sector, primarily banks are also racing to board this train so that they are not left behind. GenAI is transforming the way banks do business, manage risk, conduct trade and treasury activities, contain frauds, provide customer service with a difference and regulatory compliance. Efficiency and innovations are two key pillars which are being supported and fed by the GenAI to take banks to the next level of technological innovation. As per estimates by the McKinsey Global Institute, Gen AI could add between $200 billion and $340 billion in value annually across the industry, or 2.8 to 4.7 percent of total industry annual revenue or 9 to 15 percent of annual operating profit, largely through increased productivity. With this kind of revenue impact, no bank can afford to remain spectator to this change being unfolded and therefore almost every bank is working on the Gen AI strategy for the coming years.

Banks can use generative AI to get deep insight of customer behaviour by analysis of transaction data and can use the same for offering hyper personalized services for better value creation for customers to fraud prevention thus making banking an efficient and safer service for customers which is becoming a major challenge as cyber frauds are unabatedly increasing. Some of the prominent use cases of GenAI in banking may include following:

GenAI driven chatbots to enhance customer service:

Nothing can be more challenging for a bank than to offer excellent customer service 24*7. The virtual assistants or chatbots powered by GenAI will be of great help as these can replace humans and offer human equivalent (in terms of understanding context, sentiments, emotions and nuances) services like responding to inquiries, process routine transactions, provide financial guidance, thus bettering customer experience at much lower cost. With Generative AI, banks can create customizable banking interfaces say mobile application that adapt to each customer's preferences and needs. The interface can be personalized by customer to display only specific information, such as account balances, transaction history etc. in the selected formats and language. There are many more such opportunities for banks to explore, riding on the capabilities of GenAI. Many banks have already moved on this and others are adopting faster.

Fraud Detection and Management:

The cyber security risk is perhaps the most prominent risk banks are facing these days. While there is revenue loss, the reputational risk and probable regulatory action is much more problematic for the banks. GenAI can be used to detect customer behaviour/patterns at an early stage thereby preventing the fraud and restoring credibility in the banking ecosystem. The GenAI driven fraud detection and prevention systems can monitor transactions on real time

basis and generate alerts and machine learning models can predict certain futuristic patterns which bank may use to devise mitigation tools in advance against these patterns causing potential frauds. The new learning capabilities of GenAI models make them ever evolving thus making them effective for identifying/managing both existing and emerging threats. Thus, Gen AI powered fraud prevention tool can help banks in minimizing financial losses, protect customers from unauthorized transactions and more importantly manage reputation of the financial institutions.

Credit Risk Assessment

Credit extension is the core activity of any banking institution and GenAI potentially can transform the way credit assessment and decisions do take place. Moving ahead from traditional credit assessment which largely relies on the historical data and statistical tools, GenAI enabled tools and models can analyse vast amount of data of customer covering entire financial system, transaction history, socio economic indicators of economy and specific industry to generate credit models which are more sophisticated, accurate and cover a lot many dimensions that a human or a simplistic statistical models may miss out impacting credit decisioning.

This analysis using data and complex models can be used to find patterns and correlations which may be extremely useful in preventing defaults thus improving credit quality. The impact of GenAI on the credit assessment and management process is significant as it improves credit decisions, reduces cost, automates credit process, provides credit insight to the various segment of customers and drives data driven informed credit decisioning.

Algorithmic Trading:

The treasury and therefore trading is at the core of any bank and financial institution. This is one segment where even millisecond of time and accuracy may have large impact on the overall operations. The banks and financial institutions are adopting GenAI to formulate their trading strategies, optimize their investment returns and keeping organizations ahead in the competition. The GenAI enabled trading models can analyse vast amount of past data (market and organization), historical movement in economic indicators of country and world, news and social media content and provide a model that without any human intervention can manage the treasury portfolio of banks. As these models keep updating themselves with every new information, they adopt to changing market and economic conditions and provide accurate estimate of the trading strategies. Algo trading has gained traction and many banks are moving towards less human intervened trading floors.

Wealth Management and Portfolio Optimization:

The data analysing capabilities generated by AI and availability of enormous data can be used in providing personalized portfolio management and asset allocation services to the wealth customers of banks. The accuracy and speed brought in by the GenAI tools will help banks in catering this segment of customers efficiently. The scaling up of wealth segment is also very much feasible, thanks to the emerging GenAI capabilities.

Prevention of Money Laundering (ML)

Data driven GenAI tools can identify patterns to find out suspicious activities in customer accounts. As models are self-learning, they will predict future patterns which will help in identifying patterns and gaps that may be used for money laundering. GenAI is helping banks in managing money laundering risk and thus avoiding regulatory strictures and penalties and of course, mitigating reputational risk.

Personalized Marketing and Lead Generation Chatbots:

Generative AI-based chatbots can interact with potential clients, gather information about their needs and preferences, and create personalized product recommendations.

Many more use cases in banks and financial institutions will emerges as GenAI capabilities mature and reach to next stage. However, adoption of GenAI is not uniformly distributed across the banks. More proactive banks are joining this journey while others may still be sitting on the fence. Being the novel IT revolution, its adoption to be steered from the top. The GenAI has to enter Board room discussions of Banks and driven down to their IT vertical. The CTOs of banks should help Board to create strategy and implementation road map of GenAI capabilities across the use cases. Availability of suitable talent is one major challenge which banks will face as they embark on GenAI journey. Capacity building for this innovative technology must start now so that people and strategy can walk in tandem. Selecting suitable technology, models and data are also daunting tasks for the banks and financial institutions which needs to be discussed and addressed for taking a lead in GenAI adoption. Risk mitigants, assumption validations, back testing of models used, data accuracy are some more challenges which will have to be surmounted for a bank to be truly GenAI driven. Ethical considerations for use of GenAI are also on rise and needs to be addressed well.

Conclusion

Generative AI is a major technological leap of ongoing decade and century and already making ripples in tech world and reshaping the human and organization's life. Banks are also embracing fast this technology for driving growth and innovation.

However, GenAI comes with its own set of challenges like data privacy issues, biases in data and models, stringent regulatory compliances. To leverage the strength of Gen AI, we have to mitigate challenges and power the organizations with the capabilities of GenAI. By embracing GenAI, banks can drive the next phase of growth through innovation and generate enormous value for each and every stake holder. Banking landscape is changing fast so as the technology led by the GenAI and banks have to align their strategy with the technology evolution, especially generative AI to remain relevant and enter to next phase of industry level evolution.

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Cybersecurity and Fraud Prevention in Banking: Safeguarding the Digital Frontier

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The banking industry is undergoing a profound transformation fuelled by rapid digitization. As banks expand their online services and mobile banking offerings, they are increasingly exposed to sophisticated cyber threats and fraud schemes. With sensitive customer information at stake, Cybersecurity and fraud prevention have become paramount priorities for financial institutions. The need to protect customer data and ensure the integrity of

banking operations has never been more critical, driving banks to invest in advanced Cybersecurity technologies and strategies.

In this evolving landscape, banks are adopting a multi-layered approach to Cybersecurity that includes threat intelligence, encryption, and biometric authentication, among other solutions. This article explores the significance of Cybersecurity in the banking sector, the technologies and strategies being deployed, and the challenges that financial institutions face in safeguarding against evolving threats.

The Growing Need for Cybersecurity in Banking

The digitization of banking services has brought about numerous benefits, including increased convenience and efficiency for customers. However, this shift has also exposed banks to a host of Cybersecurity risks. Cybercriminals are becoming more sophisticated in their methods, employing techniques such as phishing, malware attacks, and social engineering to exploit vulnerabilities in banking systems.

According to recent studies, the financial sector is among the most targeted industries for cyber-attacks, with hackers constantly seeking new ways to breach security defenses. In this context, the protection of customer data and the prevention of fraud are not just regulatory requirements but also crucial for maintaining customer trust and safeguarding the institution's reputation.

Key Cybersecurity Threats Facing Banks

Banks face a myriad of Cybersecurity threats that can lead to data breaches, financial losses, and reputational damage. Some of the most common threats include:

Phishing Attacks: Cybercriminals often use phishing emails or messages to trick customers into providing personal information or login credentials. These attacks can be highly sophisticated, mimicking legitimate communications from banks.

Ransomware: Ransomware attacks have surged in recent years, where hackers encrypt a bank's data and demand payment for its release. Such incidents can lead to significant operational disruptions and financial losses.

Distributed Denial of Service (DDoS): DDoS attacks overwhelm bank servers with traffic, rendering online services inaccessible. This can lead to lost revenue and diminished customer trust.

Account Takeover: Fraudsters often attempt to gain unauthorized access to customer accounts, using stolen credentials or exploiting security weaknesses. Once in control, they can drain accounts, make fraudulent transactions, or gather more personal data.

Insider Threats: Employees with malicious intent or negligence can pose significant risks to Cybersecurity. Insider threats can lead to data breaches, financial fraud, and the accidental disclosure of sensitive information.

Advanced Technologies for Cybersecurity and Fraud Prevention

To combat the evolving landscape of cyber threats, banks are investing in a range of advanced technologies designed to enhance Cybersecurity and fraud prevention efforts. These technologies include:

Threat Intelligence: By leveraging threat intelligence, banks can gain insights into emerging threats and vulnerabilities. This proactive approach allows them to stay ahead of cybercriminals and implement measures to mitigate risks before attacks occur. Threat intelligence platforms aggregate data from various sources, providing banks with actionable information to bolster their security posture.

Encryption: Encryption plays a crucial role in safeguarding customer data during transmission and storage. By encrypting sensitive information, banks ensure that even if data is intercepted or accessed without authorization, it remains unreadable and useless to cybercriminals. This is particularly important for online banking transactions, where sensitive data is exchanged.

Biometric Authentication: As mentioned earlier, biometric authentication enhances security by using unique biological traits for verification. By integrating biometrics into their security protocols, banks can reduce reliance on passwords, which are often weak and susceptible to theft. Fingerprint and facial recognition technologies provide a more secure and user-friendly alternative.

Machine Learning and AI: Artificial intelligence and machine learning algorithms are increasingly being used to detect fraudulent activities in real time. These systems analyze patterns in transaction data to identify anomalies that may indicate fraud. By leveraging AI, banks can improve their response times and accuracy in detecting fraudulent transactions.

Multi-Factor Authentication (MFA): MFA adds an extra layer of security by requiring users to provide multiple forms of verification before accessing their accounts. This could include a combination of passwords, biometric data, and one-time codes sent to mobile devices. MFA significantly reduces the risk of unauthorized access, even if login credentials are compromised.

Security Information and Event Management (SIEM): SIEM systems aggregate and analyze security data from across the bank's IT infrastructure. By providing real-time visibility into potential threats and security incidents, SIEM solutions enable banks to respond quickly to incidents and maintain compliance with regulatory requirements.

Building a Culture of Cybersecurity Awareness

While technology is a critical component of Cybersecurity, fostering a culture of awareness among employees and customers is equally important. Human error remains a significant factor in many Cybersecurity breaches, making education and training essential.

Employee Training: Banks should conduct regular training sessions to educate employees about Cybersecurity best practices, phishing awareness, and the importance of data protection. By empowering employees with knowledge, banks can reduce the risk of insider threats and ensure that staff are vigilant against cyber risks.

Customer Education: Banks also have a responsibility to educate their customers about Cybersecurity. This includes informing customers about how to recognize phishing attempts, the importance of strong passwords, and the benefits of using secure banking practices. Providing clear and accessible resources can help customers protect themselves from fraud.

Incident Response Planning: Banks should develop and regularly update incident response plans to ensure a swift and coordinated reaction to Cybersecurity incidents. These plans should outline the steps to take in the event of a data breach or fraud attempt, including communication strategies and regulatory reporting requirements.

Regulatory Compliance and Cybersecurity Frameworks

As cyber threats continue to evolve, regulatory bodies are increasingly emphasizing the importance of robust Cybersecurity practices within the banking sector. Banks must comply with various regulations that mandate strong Cybersecurity measures to protect customer data.

Data Protection Regulations: Regulations such as the General Data Protection Regulation (GDPR) and the California Consumer Privacy Act (CCPA) impose strict requirements on how banks collect, store, and process customer data. Compliance with these regulations is essential to avoid significant fines and penalties.

Cybersecurity Frameworks: Frameworks like the NIST Cybersecurity Framework and the ISO/IEC 27001 provide guidelines for establishing effective Cybersecurity practices. By adopting these frameworks, banks can assess their security posture, identify gaps, and implement necessary controls to enhance their Cybersecurity resilience.

Challenges in Cybersecurity and Fraud Prevention

Despite the advances in Cybersecurity technologies and practices, banks face several challenges in their efforts to protect against cyber threats:

Evolving Threat Landscape: Cybercriminals continually adapt their tactics, requiring banks to remain vigilant and proactive in their security measures. The fast-paced nature of technology means that banks must constantly update their defenses to address new vulnerabilities.

Cost of Implementation: Investing in advanced Cybersecurity technologies can be costly, particularly for smaller financial institutions. Balancing the need for robust security with budget constraints can be a significant challenge.

Integration of New Technologies: As banks adopt new technologies, they must ensure that these solutions integrate seamlessly with existing systems. Poor integration can create vulnerabilities and hinder the effectiveness of Cybersecurity measures.

Customer Resistance: Some customers may resist adopting multi-factor authentication or biometric authentication due to perceived inconvenience or privacy concerns. Banks must work to communicate the benefits of these measures effectively and provide user-friendly solutions.

The Future of Cybersecurity in Banking

Looking ahead, the importance of Cybersecurity in banking will only continue to grow. As technology advances, banks will need to adopt a proactive and adaptive approach to protect customer data and prevent fraud.

Investment in Emerging Technologies: As cyber threats become more sophisticated, banks must invest in emerging technologies such as artificial intelligence, machine learning, and blockchain to enhance their security measures. These technologies can provide new ways to detect and prevent cyber threats in real time.

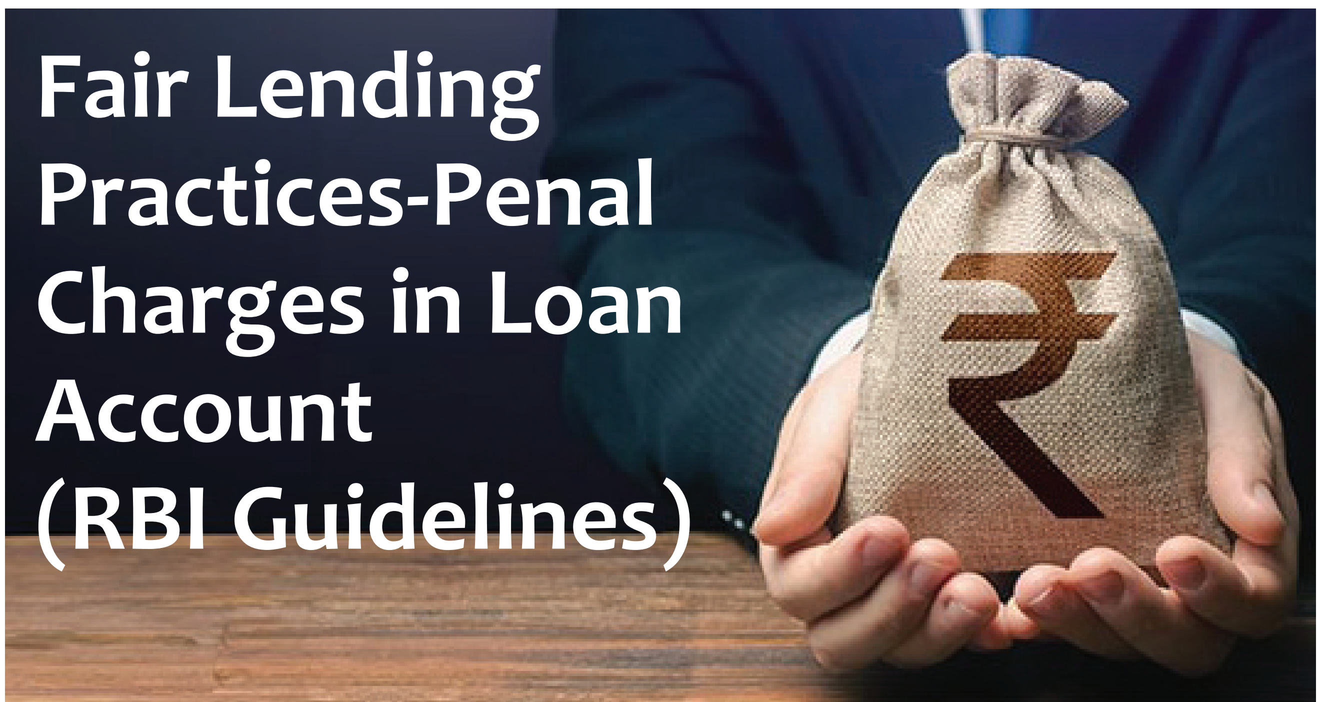
Collaboration and Information Sharing: Collaborative efforts among banks, regulators, and Cybersecurity firms will be essential to improve overall security within the banking sector. By sharing information about threats and vulnerabilities, financial institutions can strengthen their defenses and stay ahead of cybercriminals.

Continuous Improvement: Cybersecurity is not a one-time effort; it requires continuous assessment and improvement. Banks must regularly evaluate their security measures, conduct penetration testing, and adapt to changing threats to ensure that their defenses remain effective.

In an era of increasing digitization, Cybersecurity and fraud prevention have become critical priorities for the banking industry. As banks invest in advanced technologies such as threat intelligence, encryption, and biometric authentication, they are better equipped to safeguard customer data and protect against evolving threats.

However, the challenges of Cybersecurity require a holistic approach that encompasses technology, employee training, customer education, and regulatory compliance. By fostering a culture of Cybersecurity awareness and staying proactive in the face of emerging threats, banks can enhance their security posture, build customer trust, and position themselves for success in the digital age.

As the landscape of cyber threats continues to evolve, a commitment to robust Cybersecurity practices will be essential for financial institutions to thrive in an increasingly complex and competitive environment. By prioritizing Cybersecurity and fraud prevention, banks can ensure the safety of their customers and secure their reputation as trusted financial partners



Fair Lending Practices-Penal Charges in Loan Account (RBI Guidelines)

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The Reserve Bank of India (RBI) has issued certain instructions to Banks and Financial Institutions to ensure that lending institutions are prevented from Capitalising on the Defaults committed by a borrower. The "Fair Lending Practice-Penal Charges in Loan Accounts" was Notified by the RBI vide Notification dated 18-08-2023, read with the Notification dated 29-12-2023, (Collectively "Notifications"). These Notifications lay down the protocol that Banks and Financial Institutions are required to follow with effect from 01-04-2024 in case of New Loans, and not later than 30-06-2024 in case of Existing Loans (effective date).

The instructions apply to "regulated entities" (REs), namely:

(i) All commercial banks (including small finance banks, local area banks and regional rural banks) excluding payments banks;

(ii) All primary (urban) cooperative banks;

(iii) All non-banking finance companies (including

housing finance companies); and

(iv) All India financial institutions [Exim Bank, National Bank for Agriculture and Rural Development, National Housing Board, Small Industries Development Bank of India (SIDBI) and National Bank for Financing Infrastructure and Development (NaBFID).

The revised fair lending practice, which prohibits Banks and NBFCs from using Penal Charges on 'Loan Defaults' as a 'Revenue Enhancement Tool'. Concerned over the practice of Banks and Non-banking Financial Companies (NBFCs) using penal interest as a revenue enhancement tool, the RBI had modified norms, under which lenders would be able to levy only "Reasonable" Penal Charges in case of Default in Repayment of Loans.

"Such Penal Charges shall be reasonable and levied by the lenders only on the amount under default in a Non-discriminatory manner as per their Board Approved Policy. Further, it must be ensured that there is no Capitalisation of the Penal Charges, no further interest computed on such charges," RBI said.

The Central Bank further said although no upper limit / cap for penal charges has been prescribed in the August 2023 Circular, the Regulated Entities (REs), while formulating their Board Approved Policy on Penal Charges, should keep in mind that the intent of levying Penal Charges is essentially to inculcate a sense of Credit Discipline and such charges are not meant to be used as a "Revenue Enhancement Tool".

"Accordingly, the Quantum of Penal Charges shall have to be 'Reasonable' and 'Commensurate' with the Non-compliance of material terms and conditions of the loan contract," RBI said.

The RBI's instructions do not apply to:

- Credit Cards.
- External Commercial Borrowings.
- Trade Credits and
- Structured Obligations.

Which are covered under Product-specific Directions.

Instructions to the Regulated Entities (REs):

(i) Penalty imposed on Non-compliance of material terms of the loan by the borrower should be in the form of "Penal Charges". Hence, REs cannot levy the said penalty in the form of "Penal Interest", which is currently added to the applicable rate of interest applicable to the loan. Additionally, the REs should not compute further interest on the "Penal Charges" if the borrower fails to pay such "Penal Charges" as per agreed terms.

(ii) No additional component should be introduced in the applicable rate of interest for the loan.

(iii) The REs should formulate a board-approved policy on levying the penal charges.

(iv) REs should ensure that the quantum of penal charges is reasonable and based on the Non-compliance with the material terms of the loan. Further, the penal charges should not be discriminatory within a particular loan / loan category.

(v) Penal Charges applicable on loans availed by individual borrowers, for purposes other than business, should not be higher than the penal charges applicable to Non-individual Borrowers, for similar Non-compliance.

(vi) The quantum and reason for penal charges should be disclosed to the borrower, in the loan agreement and most important terms & conditions / key facts statement (as applicable), in addition to the same being displayed on REs' website under interest rates and services charges category.

(vii) REs should communicate the applicable

penal charges to the borrowers (including impositions of penal charges along with reasons thereof) while sending them reminders for non-compliance of material terms.

(viii) Prior to the occurrence of the effective date, adequate policies have to be implemented by REs to ensure compliance with the Notifications.

Detailed Guidelines of RBI:

- ✔ These guidelines are applicable, in case of existing loans as well, the instructions shall come into effect from April 1, 2024 and the switchover to New penal charges regime shall be ensured on the next review / renewal date falling on or after April 1, 2024, but not later than June 30, 2024.)

- ✔ The instructions as contained in the circular are not applicable to products covered under the RBI Master Direction-External Commercial Borrowings, Trade Credits and Structured Obligations dated March 26, 2019 (as amended from time to time) and the banks may be guided by the relevant instructions contained in the aforesaid Master Direction.

- ✔ The material terms and conditions may be defined by the REs, if not already done, as per the Credit Policy of the Bank and they may vary from one category of loan to another, and also, from lender to lender based on their own assessment.

- ✔ Default in repayment by the borrower is also a Type of non-compliance of material terms and conditions of loan repayment contract by the borrower and penalty, if charged, for such default may only be levied in the form of penal charges and not penal interest. Such penal charges shall be reasonable and levied by the lenders only on the amount under default in a Non-discriminatory manner as per their Board approved policy. Further, it must be ensured that there is No Capitalization of the penal charges i.e., no further interest computed on such charges.

- ✔ In terms of para 3(i) of the said Circular, the prescribed guidelines will not affect the normal procedures for compounding of interest in the loan account. Therefore, REs may charge interest on unpaid interest (including on unpaid EMI) at the contracted rate of interest till the date of remediation, and not at the penal rate of interest.

- ✔ REs may formulate an appropriate Board approved policy and adopt a suitable structure of penal charges that is 'reasonable' and 'commensurate' with the non-compliance of material terms and conditions of the loan contract.

- ✔ The structure of penal charges within a particular loan / product category shall have to be uniform irrespective of the constitution of the borrower.

- ✔ Additional penal charges cannot be levied on the earlier outstanding amount of penal charges.

- ✔ The RBI instructions issued vide the circular are applicable to all credit facilities except those specifically exempted in the circular.

- ✔ The quantum and reason for penal charges shall have to be clearly disclosed by REs to the customers upfront in the loan agreement and Most Important Terms & Conditions (MITC) / Key Fact Statement (KFS), as applicable.

- ✔ Although no upper limit / cap for penal charges has been prescribed in the RBI circular, the Regulated Entities, while formulating their Board approved policy on penal charges, should keep in mind that the intent of levying penal charges is essentially to inculcate a sense of credit discipline and such charges are not meant to be used as a revenue enhancement tool. Accordingly, the quantum of penal charges shall have to be 'reasonable' and 'commensurate' with the non-compliance of

material terms and conditions of loan contract.

- ✔ Since instructions related to GST are issued by Central Board of Indirect Taxes & Customs (CBIC), instructions and clarifications, if any, issued by CBIC in this regard may be followed.

- ✔ In case of the funded facility created on account of invocation of BG / Devolvement of LC, the Bank may charge an appropriate rate of interest on the devolved amount taking into account the associated credit risk premium as per the bank's credit underwriting policy. However, penalty, if any, on that funded facility on account of non-repayment by the borrower within the due date may only be levied in the form of penal charges and not penal interest.

- ✔ Banks be guided by Para 3.2.3 of the RBI Master Circular - Prudential norms on Income Recognition, Asset Classification and Provisioning pertaining to Advances dated April 1, 2023, as per which in respect of NPAs, Fees, Commission and similar income that have accrued should cease to accrue in the current period and should be reversed with respect to past periods, if uncollected. Accordingly, in respect of NPA accounts, Penal Charges shall be reversed to the extent it remains uncollected for the specific purpose of Non-recognition of Income. However, the same shall be part of the Total Liability of the Borrower to the lender, unless it is waived as per the Bank's Board Approved Policy.

- ✔ In terms of Annexure II Part-A (Notes and Instructions for compilation) for Schedule 13: Interest Income of Reserve Bank of India (Financial Statements–Presentation and Disclosure) Directions, 2021, Schedule 13 will include all types of interest / discount income for the Banks. Accordingly, Banks will disclose Fees and Charges, including Penal Charges, recovered from Customers in 'Schedule 14: Other Income'.

- ✔ The prescribed instructions on penal charges are also applicable in case of Securitisation and Co-lending Portfolios.

- ✔ The prescribed instructions on penal charges are not applicable in case of Rupee / Foreign Currency Export Credit and other Foreign Currency Loans.

To Conclude:

Most lending institutions impose penal interest on borrowers upon a payment default, and at times upon non-payment defaults. This is supposed to act as a deterrent against borrowers committing defaults. As penal interest is added to the existing standard rate of interest, the same gets calculated and compounded at the same frequency as the standard rate of interest. Therefore, lenders end up capitalising the amount generated in the form of penal interest and treat it as income earned on the loan account.

While the purpose of levying such penalty is to ensure that the borrower adheres to the mutually agreed terms of the credit facility, it has been observed that penalties are used as a means of enhancing the revenues of the lending institution. Over the years, this practice has led to multiple disputes between borrowers and lending institutions. The instructions seek to eradicate, or at least minimise such unjust levy of penal interest over and above the agreed rate of interest.

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Know About Co-Lending

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Co-lending represents a partnership framework between Banks and Non-banking Financial Companies (NBFCs) aimed at mitigating the risks associated with default on repayment obligations. This Model is predominantly employed by Banks and NBFCs for financing High-risk Priority Sector such as Agriculture and Small and Medium enterprises (SMEs). Through Co-lending arrangements, NBFCs can collaborate with larger Banks or NBFCs to access extensive markets that may be inaccessible due to constraints in resources. The Banks derive advantages from Co-lending as it facilitates the fulfilment of their Priority Sector lending obligations with significantly reduced Operational Expenditures.

The Reserve Bank of India (RBI) delineates a Priority Sector as any economic domain that holds paramount significance for the Nation's Developmental Trajectory. These Sectors do not always represent the most lucrative investment opportunities; hence, Banks and other Financial Entities may exhibit hesitance in extending Credit to Enterprises operating within these domains. The RBI stipulates that Commercial Banks in India are required to allocate 40% of their Net Credit to these Priority Sectors, which encompass Agriculture, Education, Rural Housing, Social Infrastructure, among others.

A Co-lending Partnership necessitates the mutual agreement of both parties on several essential terms. It is imperative to ensure accuracy in this process to guarantee that all involved parties possess a comprehensive understanding of their commitments. The following delineates several fundamental components of this Model.

- **80-20 Split:** Typically, the financing arrangement is divided such that one entity provides a predominant share, frequently with the Banking Institution Contributing 80% and the Non-Banking Financial Company (NBFC) supplying the remaining 20%.

- **Joint Underwriting:** Both Entities engage collaboratively in the underwriting procedure, exchanging their perspectives and evaluations of associated risks.

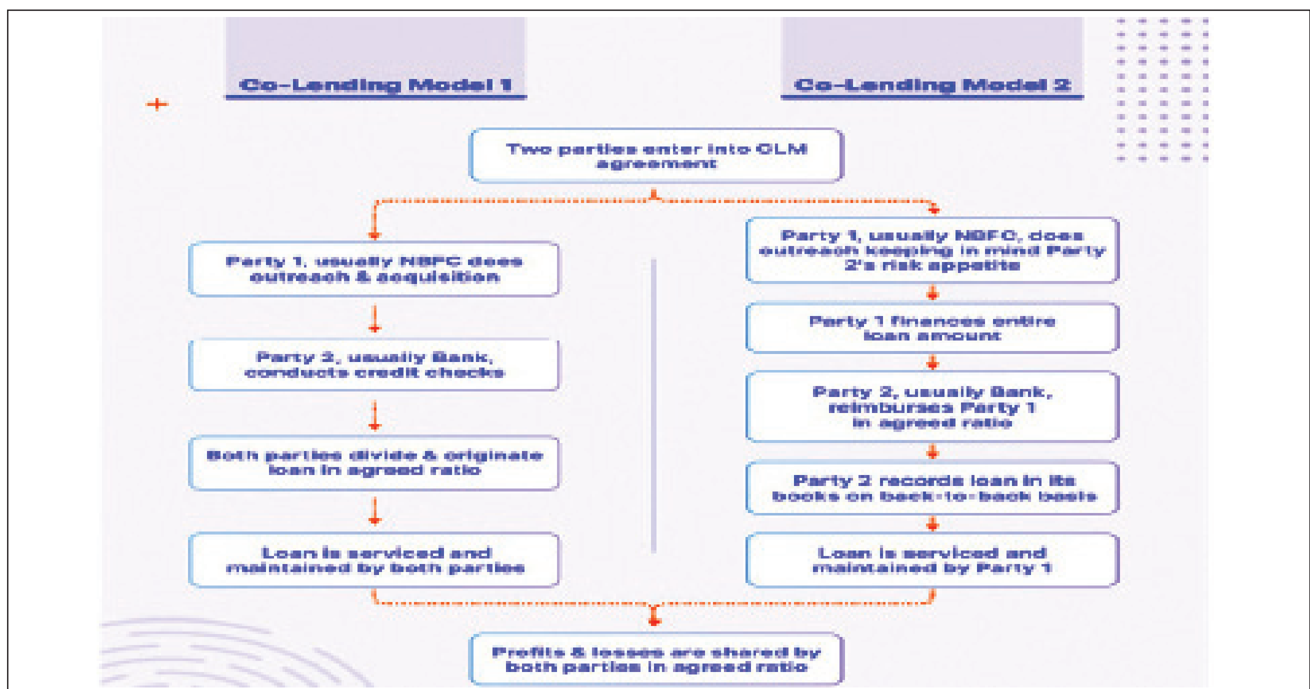
- **Risk-Return Split:** The Distribution of Risks and Returns is allocated in accordance with the Capital Investment made by each party.

- **Final Interest Rate Charged:** The Interest Rate is generally a composite of the rates that each institution would customarily impose.

- **Defined Roles:** Each entity is assigned specific, well-articulated roles concerning their obligations in Loan Servicing, Oversight, and Regulatory Compliance.

Co-Lending:

In the Co-lending framework, Banks and NBFCs collaborate to extend credit facilities to borrowers. They mutually share the associated risks and rewards inherent in the lending process. The Industry has adopted Two Distinct Models of Co-lending, although the RBI's Co-lending guidelines do not explicitly differentiate between these Models:



CLM 1 (Co-Lending Model 1): In this framework, both entities simultaneously partition and disburse the loan. The loan is initiated and maintained across both institutions.

CLM 2 (Co-Lending Model 2): In this arrangement, the NBFC is responsible for originating and disbursing the loan, subsequent to which the bank reimburses the NBFC for up to 80% of the loan amount.

Consequently, the Bank retains its proportion of the Loan on its Balance Sheet in a Back-to-Back manner, thereby allowing it to count towards its Priority Sector Lending Targets. This mechanism enables Banks to broaden their Priority Sector Lending Scope without direct involvement in Loan Origination and Servicing; meanwhile, NBFCs can enhance their outreach and Service Segments of the Economy that were previously reserved for more established banks and NBFCs.

RBI Co-Lending Guidelines: Below is a concise elucidation of the RBI Co-lending Guidelines.

(a) ***Scope of Co-Lending:*** The NBFC and the Bank are required to establish a robust mechanism to assess creditworthiness, as the RBI mandates that the responsibility for credit sanctioning cannot be outsourced. Prior due diligence must be executed by both the Bank and the NBFC directly. The Bank must ensure compliance with Know Your Customer (KYC) requirements in accordance with RBI Regulations. This KYC Due Diligence may be conducted by a Third Party, Contingent upon conditions such as the Third Party not being situated in a jurisdiction deemed High-Risk. The Bank must also ensure adherence to the revisions outlined in the Guidelines on Securitization Transactions Circular promulgated by the RBI in 2012.

The Regulatory framework encompasses the Minimum Holding Period (MHP), which mandates that Financial Institutions retain a specified fraction of Co-lending Loans for a designated duration. For Instance, in the case of loans directed towards the Non-priority sector, the stipulated minimum holding period is three months for loans with a maturity of up to two years. The MHP may be exempted under particular circumstances, such as when the contractual arrangement between the Non-Banking Financial Company (NBFC) and the Bank incorporates a Back-to-back Provision. Furthermore, a Bank is precluded from engaging in a Co-lending arrangement with an NBFC that is affiliated with the same promoter group.

(b) ***Customer-related Matters:*** The NBFC serves as the exclusive interfacing entity for clients; hence, the delineation of Roles and Responsibilities among all involved parties should be comprehensively articulated within the contractual agreement. The ultimate borrower shall incur an all-encompassing interest rate that is mutually established by both the NBFC and the Bank.

The NBFC must possess sufficient data to produce the account statement for the customer. To facilitate this, it is advisable for the NBFC and Banks to establish information-sharing agreements. Moreover, the NBFC is obligated to implement a grievance redressal mechanism to address any complaints that may be raised by the borrower.

(c) ***Operational Facets:*** Both the Bank and NBFC are required to maintain distinct accounts for each borrower corresponding to their respective portions of the loan. Nonetheless, all financial transactions between the NBFC and the Bank must be processed through an escrow account to prevent any conflation of funds. The NBFC and the Bank shall mutually determine a framework for the oversight and recovery of the loan, including pertinent details related to security and charges. Any involvement of third parties necessitates the prior consent of both the NBFC and the Bank.

(d) ***Escrow Account:*** Is a pivotal component of the

co-lending framework. All transactions pertinent to the co-lending partnership must be processed through an escrow account, which is maintained by the operating partner. An Escrow Account guarantees transparency and adherence to regulatory requirements. Although traditional banks offer a robust Escrow infrastructure for Co-lending Partnerships, the user experience and ease of use are significantly deficient.

Benefits:

The Co-lending paradigm revolutionizes conventional lending practices by incorporating contemporary elements, thereby augmenting every dimension of the borrower's experience and broadening the operational capabilities of financial entities.

- ✔ ***Enhancement in Quality and Turnaround Time:*** Accelerated processing times coupled with superior quality of customer service.
- ✔ ***Reduced Interest Rates:*** Competitive interest rates arising from the distribution of risk and resources among institutions.
- ✔ ***Automated & Paperless Procedures:*** Optimized operations facilitated by the integration of advanced technology.
- ✔ ***Expedited Loan Disbursement:*** Diminished waiting periods for both loan approval and disbursement.
- ✔ ***Extensive Customer Base:*** The collaborative outreach efforts of banks and non-banking financial companies (NBFCs) effectively draw in a more extensive customer demographic.
- ✔ ***Increased Financial Inclusion:*** By enhancing the accessibility of credit, co-lending initiatives contribute to the integration of a larger number of individuals and enterprises into the formal banking framework.
- ✔ ***Diversification of Financial Offerings:*** Financial institutions are empowered to provide a broader array of customized financial products that cater to specific customer requirements.

The trajectory of co-lending appears auspicious and is well-positioned for expansion.

- ✤ ***Expansion in Services:*** There will be an extension beyond conventional domains such as housing to encompass a wider array of personal and Micro-financing alternatives.
- ✤ ***Technological Integration:*** An elevated application of Artificial Intelligence and Machine Learning is anticipated to enhance the efficacy of service provision.
- ✤ ***Regulatory Support:*** There is an expectation of more conducive regulations aimed at Fostering Financial Inclusivity.
- ✤ ***Global Adoption:*** Given its demonstrated success, co-lending frameworks are likely to gain traction in additional nations, thereby adapting to the diverse financial requirements on a global scale.
- ✤ ***Integration with Fintech Innovations:*** Collaborations with fintech enterprises may pave the way for the incorporation of novel functionalities such as blockchain, thereby augmenting security and transparency.

In Conclusion, the NBFC and the Bank are tasked with formulating a business continuity strategy to guarantee that borrowers receive uninterrupted services, even in the event of the termination of the Co-lending agreement between the Co-lenders.

Co-lending represents the future of digital lending, propelled by the Reserve Bank of India's Co-lending guidelines. These guidelines encourage both Banks and NBFCs to engage in Co-lending Partnerships, positioning the sector for substantial growth in the forthcoming decade. With the entry of FinTech Companies such as Smartcoin and Rupeek into the Co-lending arena, this sector is poised for extraordinary innovation in the years ahead.

Money Transfer Rules for Stronger KYC

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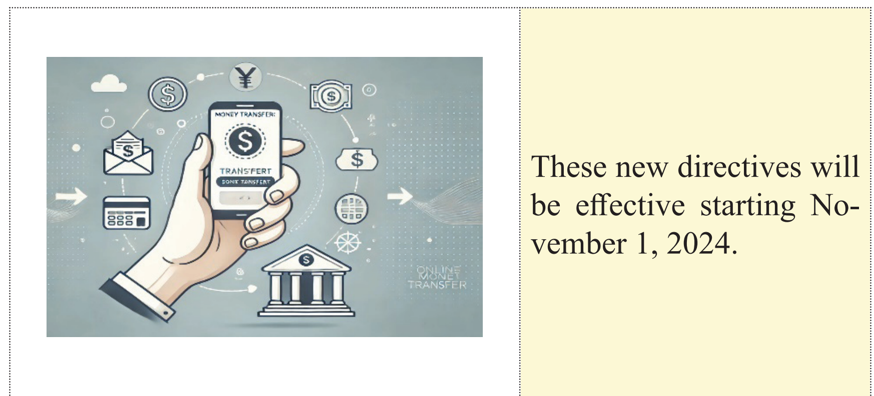
The Reserve Bank of India (RBI) has introduced a novel framework for Domestic Money Transfer (DMT) in July 2024, specifically aimed at Regulated Entities. The revised guidelines are centered around enhancing Know Your Customer (KYC) record protocols and refining banking services and payment systems.



These new directives will be effective starting November 1, 2024.

The objective of the amended regulations is to strengthen the security of domestic money transfers while ensuring compliance with existing financial legislation. Considering the escalating incidence of cashless and digital transactions in India, the goal is to establish a resilient and

secure infrastructure for money transfers.

The modifications implemented in the current framework resulted from an exhaustive assessment of diverse payment transfer services. According to a notification disseminated by the Reserve Bank of India to authorized payment system operators, remitting banks are now required to procure and maintain a record that includes the name and address of the beneficiary for cash disbursement purposes. Furthermore, each transaction initiated by a remitter must be subjected to validation through an Additional Factor of Authentication (AFA).

In its July Circular, the RBI Stated: "The framework for Domestic Money Transfer (DMT) was established in 2011, as per RBI circular DPSS PD.CO. No.622/02.27.019/2011-2012 dated October 5, 2011. Since that time, there has been a notable increase in the accessibility of banking outlets, advancements in payment systems for funds transfers, and simplifications in meeting KYC requirements; consequently, users now possess numerous digital avenues for funds transfer. A recent review was conducted regarding various services provided within the current framework."

Key Areas:

1. Financial institutions are mandated to preserve a record of the beneficiary's name and address during cash transfers to enhance transparency and accountability in financial transactions.

2. Both Banks and Business Correspondents (BCs) are required to authenticate the remitter's mobile phone number and pertinent documentation.

3. Remitters will undergo a registration process utilizing an authenticated mobile phone number along with a self-certified 'Officially Valid Document' (OVD) in accordance with the guidelines established by the Reserve Bank of India (RBI).

4. The new framework stipulates that remitting banks must track the name and address of beneficiaries for cash pay-out services to improve traceability and accountability in cash-based transactions.

5. These provisions have been instituted to bolster the oversight and accountability of cash transactions.

1. Additional authentication will be requisite for each transaction.

7. Remitting banks and their Business Correspondents must adhere to the stipulations of the Income Tax Act regarding cash deposits.

8. Remitting banks are required to incorporate the remitter's details within the transaction message on platforms such as IMPS and NEFT.

9. Cash-based remittance transactions must include a specific identifier within the message.

10. For Cash Pay-out Service, the remitting bank has been instructed to obtain and retain a record of the beneficiary's name and address.

Importance of New Guidelines:

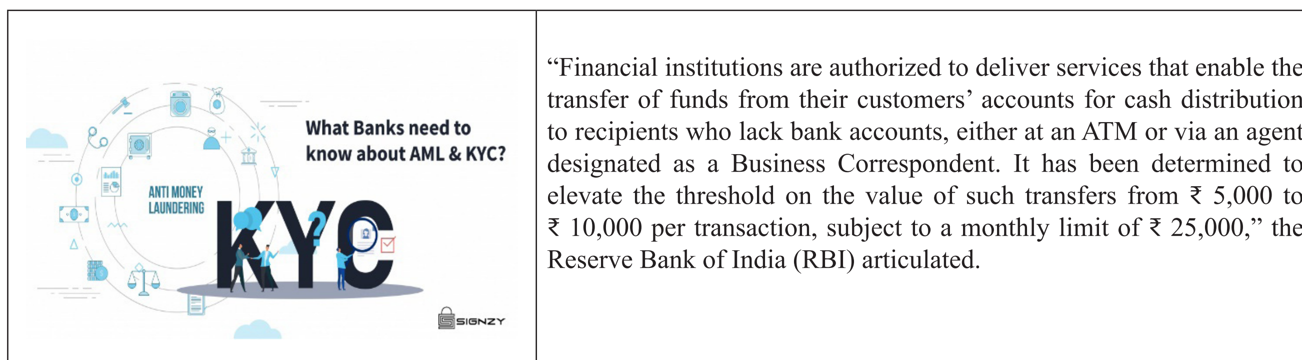
- In accordance with the Master Direction-Know Your Customer (KYC) Direction 2016, financial institutions and business correspondents must ensure the registration of remitters using a validated mobile phone number and a self-certified Officially Valid Document (OVD).

- This initiative is instituted to enhance the integrity of identity verification protocols and to attenuate the risks associated with potentially fraudulent activities.

- It is essential to recognize that the revised directives do not pertain to card-to-card transactions, which will continue to be regulated by the pre-existing guidelines relevant to such financial exchanges.

Cash Payout Services:

Cash pay-out pertains to the process of remitting funds from banking institutions to beneficiaries lacking personal bank accounts. The mechanism of cash pay-out entails the transfer of monetary assets from bank accounts to individuals who do not possess banking facilities. In 2011, the central banking authority promulgated a communication permitting financial institutions to provide services that facilitate clients in executing fund transfers from their accounts for cash disbursement to recipients devoid of bank accounts, either at an Automated Teller Machine (ATM) or through an appointed intermediary referred to as a Business Correspondent. The permissible limit for such financial transactions was escalated from ₹ 5,000 to ₹ 10,000 per transaction, with an overarching monthly limit of ₹ 25,000.



"Financial institutions are authorized to deliver services that enable the transfer of funds from their customers' accounts for cash distribution to recipients who lack bank accounts, either at an ATM or via an agent designated as a Business Correspondent. It has been determined to elevate the threshold on the value of such transfers from ₹ 5,000 to ₹ 10,000 per transaction, subject to a monthly limit of ₹ 25,000," the Reserve Bank of India (RBI) articulated.

a) Enhanced KYC Requirements for Transfers: Commencing on November 1, all domestic monetary transfers will necessitate augmented customer verification. Whether utilizing UPI, mobile wallets, or conventional banking transfers, individuals may be required to furnish supplementary information pertaining to their identity. This may necessitate the submission of Aadhaar, Permanent Account Number (PAN), or other identification forms, particularly if the comprehensive KYC procedure remains incomplete.

b)Transaction Limits for Non-KYC Accounts: Customer account have not undergone complete KYC verification; one should not anticipate executing substantial transactions. The newly instituted regulations will impose stringent transactional limitations on accounts that lack full verification. Consequently, individuals may encounter restrictions regarding the quantum of funds they can transfer, irrespective of the purpose, be it an urgent financial need or a significant payment.

c)Real-Time Monitoring of Transactions: The RBI is advocating for increased transparency within digital financial transactions. The implementation of real-time monitoring will become standard practice, facilitating the prompt identification of suspicious or a typical activity. This implies that if any irregularities are observed Customers funds transfer-for instance, a remittance to an unfamiliar recipient or an unusually large amount, the system may flag such transactions for further examination.

d) Augmented Verification Protocols: Anticipate

comprehensive verification protocols during transactional activities. Financial institutions and payment service providers shall be mandated to adopt sophisticated technologies, including biometric authentication and refined identity verification, to ascertain that the individual executing the monetary transfer is indeed the individual they purport to be. The primary objective is to safeguard against fraudulent activities and identity theft.

e) Compulsory Reporting of High-Value Transactions: Significant financial transactions will be subjected to increased scrutiny. Service providers are now obligated to report transactions that exceed a predetermined threshold, thereby assisting regulatory authorities in identifying suspicious trends and mitigating illicit activities such as money laundering.

Role of Customers:

Below are several critical measures to implement forthwith to avert any interruptions:

✔ **Finalize KYC Immediately by Customers:** Refrain from procrastinating, complete KYC procedures without delay. This will guarantee customer ability to execute transfers without concerns regarding restrictions. Whether it involves banking institution, a mobile wallet, or an alternative payment service, it is imperative to present identification documentation.

✔ **Prepare for Augmented Verification Procedures:** Anticipate a more rigorous verification protocol during transactional activities. Whether customers are remitting funds to relatives, settling bills, or conducting business transfers, they may be required to respond to additional inquiries or furnish supplementary identification. The customer service provider to request heightened verification, this is fundamentally a measure of security.

✔ **Monitor Transactional Limitations:** In the absence of a completed KYC, customer transfer limitations may be significantly constricted. Whether the customers are transferring funds for an online purchase or dispatching a substantial amount to an acquaintance, failing to maintain an updated KYC could lead to delays or restrictions on the sum that customers are permitted to transfer.

✓ **Maintain Security**: With the implementation of more stringent KYC regulations and enhanced monitoring, it is reassuring to note that digital transactions will be rendered more secure. The newly instituted measures will facilitate the prompt identification of fraudsters and scammers, thereby diminishing the likelihood of fraudulent activities impacting customers' account. Additionally, customer will receive timely notifications should any irregularities arise concerning the transfers.

Conclusion:

Although the modifications may initially appear burdensome, they represent a significant advancement for any individual seeking a more secure and transparent digital payment ecosystem. By guaranteeing that only validated users are authorized to conduct substantial transactions and by promptly flagging anomalous activities, the Reserve Bank of India (RBI) is effectively complicating the efforts of fraudsters to operate under false identities.

For customers, this translates into enhanced protection and a reduced likelihood of becoming victims of scams or fraudulent schemes. The RBI's new regulations will contribute to the safety of digital payments for all parties involved businesses, individuals, and governmental entities alike.

Data Analytics and Big Data

Shri C. Ramesh Chander,
Chief Manger (Statistics), Analytics Depat., SBI

Analytics is helping the banking industry become smarter in managing the myriad challenges it faces. While basic reporting and descriptive analytics continues to be a must-have for banks, advanced predictive and prescriptive analytics are now starting to generate powerful insights, resulting in significant business impact.

Advanced analytics-backed solutions are enabling banks to not only manage the increasing cost of compliance, but also the risk (both monetary and reputational) of non-compliance. Product and portfolio optimization modeling is helping banks achieve profitable growth in an environment with significant volatility across asset classes and rising losses in traditional banking products.

Fraud and AML/KYC analytics are helping banks stay ahead of fraudsters, terrorists, organized mafia, and others in preventing

money laundering and associated potential losses. Consumer behavior and marketing analytics are driving sustainable competitive advantage in an era with eroding product differentiation, waning customer loyalty, and exploding volume, velocity, and variety of data.

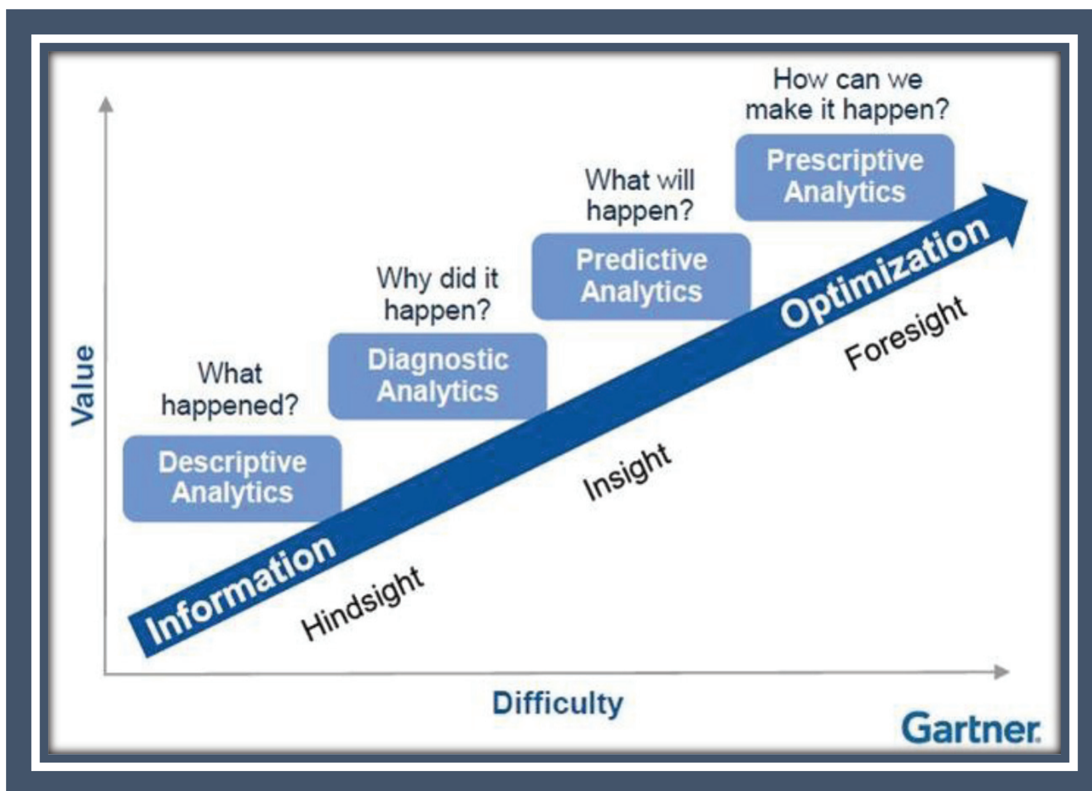
What is Analytics?

Analytics is the application of mathematical and statistical techniques to data in order to discover patterns and correlations or to make models that predict, thereby enabling fact-based decision making or planning within the organization.

The scientific process of transforming data into insight for making better decisions, offering new opportunities for a competitive advantage

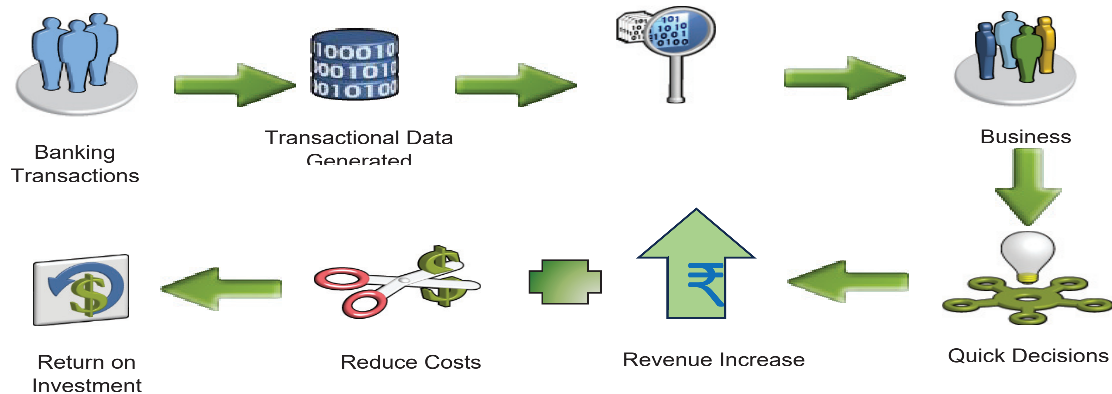
Why Analytics?

- ✔ Within the Industry, all the Banks are offering similar products
- ✔ Technology and processes thus become the key differentiators for business
- ✔ ANALYTICS is extensively being used by banks to derive the maximum profits and improve efficiencies.
- ✔ Enables business to proactively discover what the customer wants
- ✔ The factors affecting the customer experience positively are discovered
- ✔ Optimize processes and reduce costs
- ✔ Prediction of changes in market conditions for faster and efficient decision making.



Data Analytic Approach:

Applying analytics on transactional data enables quick decision making thereby generating good returns



Application of Analytics in BFSI

The banking, financial services and insurance sectors can extensively leverage analytics for marketing and customer segmentation, pricing, risk selection, product management and fraud detection

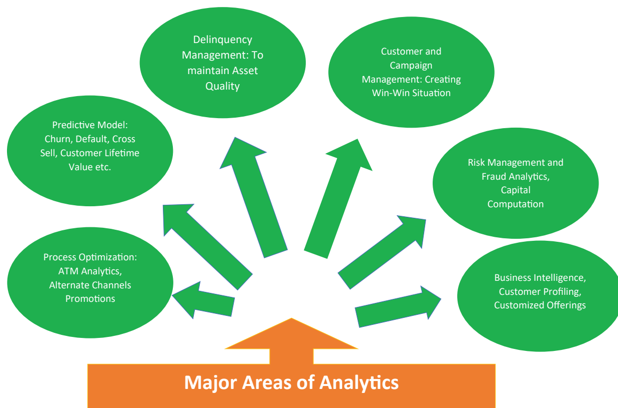
- Customer segmentation- based on demographic analysis, transaction behavior etc.
- Creation of value segments (Profitable, less profitable customers)
- Transaction analysis- to generate leads for business takeover, cross-sell, up-sell.
- Predict customer attrition based on –decrease in avg. balance, inactivity.
- Transactional anomalies, frauds etc.
- Identification of prospective customers and their acquisition
- Identification of business takeover opportunities.
- Bureau data- credit information, risk analytics.
- Acquire customer wallet share.
- Customer loyalty to competitors

Analytics covers following functional areas for generating Insights & Trends:

- Customer Relationship Management Analytics
- Alternate Channels Analytics
- Campaign Analytics
- Competition Analytics
- Risk, Fraud and AML/KYC Analytics
- NPA Analytics
- Performance, Productivity & Profitability Analytics
- Process Optimization Analytics
- HR Analytics
- Web Analytics
- Product and portfolio optimization

Analytics at Work : Business Benefits

- Improved and Fact-Based Decision Making
- Efficient Customer Services



- Power to predict and reduce uncertainty
- Regulatory Compliance
- Customer One View and Competitive Advantage
- Better Alignment of Resources with Business Strategy
- Cost Savings, Higher Revenue and Return on Investment

Data Challenges

Data is the integral part of Analytics

- Wrong Data entry at the point of data entry, e.g invalid date of birth, wrong rate of interest in products
- Maintaining the integrity and purity of data, e.g unrecognizable college names, wrong PAN card details
- Integration of different types of data (structured, unstructured, different formats etc.),
- Identification quality of data. e.g different ID details of the customer

How to overcome Challenges?

- Continuous monitoring tools to be deployed and rules to be enforced to check and enhance data quality.
- Analytics department has been periodically generating exception reports to improve the data quality of the Bank.

What is Big Data?

Data that is TOO LARGE & TOO COMPLEX for conventional data tools to capture, store and analyze.

Big Data is defined by the following Vs:

1. **Volume:** Refers to the volume of data generated by the systems.
2. **Velocity:** Refers to the speed of generation of data as it streams into the enterprise in order to maximize its value.
3. **Variety**: Big data is any type of data - structured and unstructured data such as text, sensor data, audio, video, click streams, log files and more.
4. **Variability** - This refers to the inconsistency which can be shown by the data at times, thus hampering the process of being able to handle and manage the data effectively.
5. **Veracity -** The quality of the data being captured can vary greatly. Accuracy of analysis depends on the veracity of the source data.

Why Big Data Analytics?

Why is Big Data Analytics important?

Big data analytics helps organizations harness their data and use it to identify new opportunities. That, in turn, leads to smarter business moves, more efficient operations, higher profits and happier customers.

A Business analyst is not able to discover insights from huge sets of data of different domains.

Data scientists can work in co-ordination with different verticals of an organization and find useful patterns/insights for a company to make tangible business decisions.

Use of Big Data Analytics for Personal Segment

Social Network Analytics

- Data gathered from blogs and social media websites is analyzed
- Gain insights on purchase behavior, next financial decisions and loyalty with the Bank
- **Benefit to Bank-** The insights may be used to make business decisions / strategies for customer acquisition/ cross-sell/up-sell/ customer relationship management

Web Analytics

- Analyze raw web data into meaningful business information by capturing web usage of customer and utilizing customer activities over Bank's Website
- **Benefit to Bank-** This helps in cross-sell, up-sell or new customer acquisition opportunities

Payment Analytics

- Payment Analytics carried out to provide a consolidated view of payments (NEFT/RTGS) by customers with regard to payment types, channels used, currencies and geographies and beneficiaries
- **Benefit to the Bank-** Business Insights and leads emanating from the analysis may be used for cross-sell/up-sell and acquisition of new customers

Big Data Analytics in the BFSI Sector

Big Data Analytics refers to the process of examining large and varied data sets to uncover hidden patterns, correlations, market trends, and customer preferences. In the Banking, Financial Services, and Insurance (BFSI) sector, the utilization of big data analytics is transforming how organizations operate, enhance customer experiences, and manage risks.

Understanding the BFSI Sector:

The BFSI sector encompasses a broad range of financial services, including banking, insurance, investment management, and capital markets. The industry is characterized by vast amounts of data generated from various sources such as transactions, customer interactions, regulatory compliance, and market activities. This data, when analyzed effectively, can lead to improved decision-making and strategic advantages.

Key Applications of Big Data Analytics in BFSI:

1. Customer Insights and Personalization:

Big data analytics enables BFSI institutions to gain deeper insights into customer behavior and preferences. By analyzing transaction data, social media interactions, and customer feedback, organizations can segment their customers effectively and tailor products and services to meet individual needs. This personalized approach enhances customer satisfaction and loyalty, ultimately driving revenue growth.

2. Risk Management and Fraud Detection:
The BFSI sector is heavily regulated and must manage various risks, including credit, operational, and market risks. Big data analytics plays a crucial role in identifying potential risks by analyzing patterns and anomalies in transaction data. For instance, machine learning algorithms can detect unusual spending patterns that may indicate fraudulent activity. Early detection of fraud not only protects the institution's assets but also helps maintain customer trust.

3. Regulatory Compliance:
With increasing regulatory requirements, BFSI organizations must ensure compliance with various laws and regulations. Big data analytics can streamline compliance processes by automating data collection, monitoring transactions, and generating reports. This reduces the risk of non-compliance and associated penalties, allowing organizations to focus on growth and innovation.

4. Operational Efficiency:
Big data analytics can significantly enhance operational efficiency within the BFSI sector. By analyzing internal processes and workflows, organizations can identify bottlenecks and areas for improvement. Predictive analytics can also help optimize resource allocation, ensuring that the right resources are available at the right time to meet customer demand.

5. Market Trend Analysis:
Understanding market trends is vital for BFSI organizations to remain competitive. Big data analytics allows institutions to analyze vast amounts of market data, including economic indicators, competitor performance, and customer sentiment. This information can inform strategic decisions, such as product development and marketing strategies, enabling organizations to respond quickly to changing market conditions.

Challenges in Implementing Big Data Analytics:
Despite the numerous benefits, the implementation of big data analytics in the BFSI sector comes with challenges. Data privacy and security are paramount concerns, as organizations must protect sensitive customer information from breaches. Additionally, integrating data from various sources can be complex, requiring advanced analytics tools and skilled personnel. Lastly, the cultural shift towards data-driven decision-making may encounter resistance within traditional organizations.

Summary of Big Data Analytics
Big data analytics refers to the process of examining large and varied data sets often referred to as "big data" to uncover hidden patterns, correlations, and insights. It utilizes advanced analytics techniques, such as machine learning, predictive analytics, and data mining, to analyse complex data from diverse sources like social media, sensors, and transaction records. The goal is to enable organizations to make data-driven decisions, improve operational efficiency, enhance customer experiences, and drive innovation. As businesses increasingly rely on data, effective big data analytics can provide a competitive advantage in today's data-centric landscape.

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A Progressive Advancement in Taxpayer Services (PAN 2.0 Project- Government of India)

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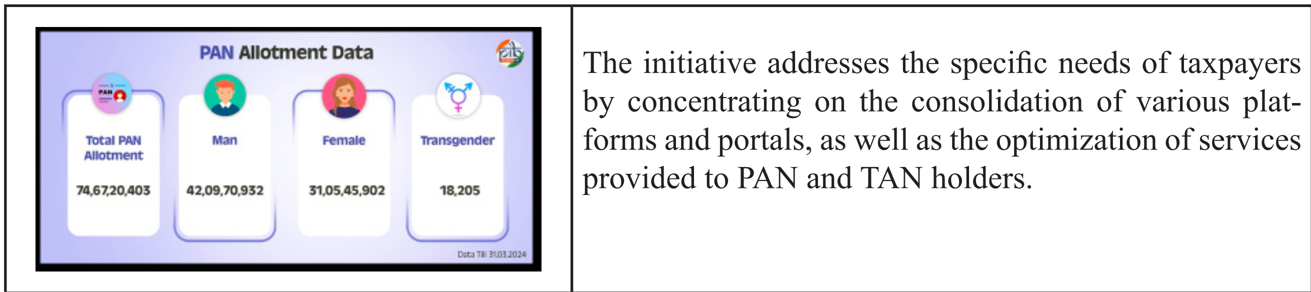
The Permanent Account Number (PAN) has historically functioned as a fundamental element of India's financial and administrative frameworks, linking individuals and enterprises to critical economic activities while fostering financial transparency and regulatory compliance. As a pivotal facilitator of the digital economy, PAN has evolved into an essential conduit for vital services, rendering it indispensable in everyday transactions. To augment user accessibility and align with contemporary technological advancements, the Indian Cabinet has recently sanctioned PAN 2.0, which represents a significant progression in redefining the role of PAN within India's dynamic digital and financial milieu.

The PAN 2.0 Project constitutes a transformative endeavour aimed at modernizing taxpayer registration through the implementation of sophisticated e-governance practices. With a projected financial investment of ₹ 1,435 crore, the initiative seeks to re-engineer the PAN/TAN services to provide an integrated digital experience. This project aspires to streamline and modernize the issuance and management processes of PAN and TAN, thereby enhancing user-friendliness and operational efficiency.



The initiative addresses the specific needs of taxpayers by concentrating on the consolidation of various platforms and portals, as well as the optimization of services provided to PAN and TAN holders.

The PAN 2.0 Project facilitates a technology-driven transformation of taxpayer registration services and offers considerable advantages, including:

- A singular portal for all PAN/TAN-related services to facilitate user access.
- Environmentally sustainable, paperless processes designed to minimize paperwork.
- PAN will be issued at no cost, accompanied by accelerated processing times.
- Personal and demographic information will be safeguarded through enhanced security protocols, including the establishment of a PAN Data Vault.
- A dedicated call center and helpdesk will be available to resolve user inquiries and issues.

PAN 2.0 Revolutionizing Existing System:

The PAN 2.0 initiative seeks to revolutionize the current system by amalgamating all PAN / TAN services into a consolidated portal, thereby ensuring a seamless and paperless experience. The availability of free e-PAN services and streamlined updates enhances the convenience for taxpayers. A detailed examination of these key features includes:

a) Integration of Platforms: Presently, PAN-related services are distributed across three distinct portals (e-Filing Portal, UTIITSL Portal, and Protean e-Gov Portal). Within the framework of the PAN 2.0 Project, all PAN/TAN-related services will be centralized on a single unified portal managed by the Income Tax Department. This portal will encompass all end-to-end services related to PAN and TAN, such as allotment, updating, correction, Online PAN Validation (OPV), Know Your AO, AADHAAR-PAN linking, PAN verification, e-PAN requests, and requests for reprints of PAN cards, among others

b) Comprehensive use of Technology for Paperless Processes: The initiative aims to facilitate a fully online, paperless process, contrasting with the current operational modalities.

c) Taxpayer Facilitation: The allotment, updating, and correction of PAN will be conducted at no charge, with e-PANs dispatched to the registered email addresses. For the issuance of a physical PAN card, the applicant must submit a request along with the requisite fee of ₹50 (Domestic). For the delivery of the card outside India, a fee of ₹15 plus actual charges from India Post will apply to the applicant.

Changes for Existing PAN Cardholders:

Current holders of PAN cards need not express concern, as individuals possessing existing PAN cards are not obligated to submit an application for a new PAN under the revised system. The presently valid PAN cards will continue to function effectively within the framework of PAN 2.0 unless the holders initiate a request for modifications or corrections. A new PAN card will not be disseminated unless a formal request for updates or corrections is submitted.

QR Code Feature in PAN 2.0

An examination of the QR code feature and the alterations occurring under

PAN 2.0 reveals the following:

a) The QR Code is not a novel introduction; it has been integrated into PAN cards since the fiscal years 2017-18. Under the framework of PAN 2.0, this feature will be augmented with a dynamic QR code that presents the most up-to-date information from the PAN database.

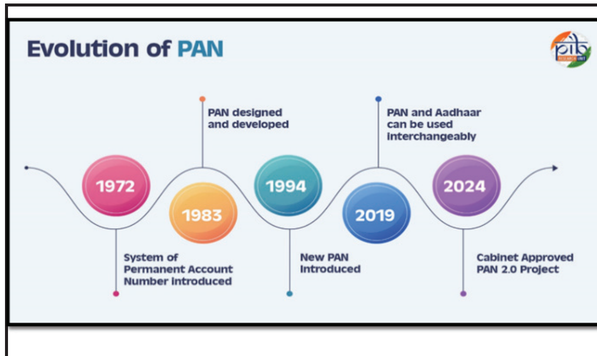
b) Holders of older cards that do not incorporate a QR code may request a new card featuring a QR code, applicable under both the existing PAN 1.0 system and the enhanced PAN 2.0.

c) The QR code serves to facilitate the validation process of PAN details, thereby ensuring the authenticity of the information.

d) A specialized QR reader application is readily available for the verification of details. Upon scanning, it reveals the holder's photograph, signature, name, parental names, and date of birth.

Global Standards for Secure and Seamless Services: The PAN 2.0 Project embraces globally recognized standards to improve the registration process of taxpayers through seamless digital methodologies and robust data security measures. It guarantees adherence to essential ISO certifications concerning quality, security, and service management (e.g., ISO 27001, ISO 9001). The initiative streamlines the processes for PAN/TAN registration through simplified online procedures, minimal documentation requirements, and centralized databases, thereby enhancing user experience while concurrently protecting data through stringent security measures and adherence to international best practices.

PAN Service in India:



PAN 2.0 represents a culmination of extensive developments since the inception of the Permanent Account Number (PAN) in the year 1972.

Conceived as a distinctive 10-digit alphanumeric identifier, PAN serves to associate an individual or organization's financial transactions, including tax payments, TDS/TCS credits, and income tax returns, with the Income Tax Department. Through the enhancement and modernization of these processes, PAN 2.0 aspires to improve efficiency, security, and accessibility, thereby establishing a resilient digital framework that simplifies compliance and fortifies financial transparency.

Acquisition of PAN is Mandated for:

- Every individual whose total income or the total income of any other individual for whom they are assessable during the fiscal year surpasses the maximum threshold exempt from taxation.
- Charitable trusts that are obligated to submit returns in accordance with Section 139(4A).
- Every person engaged in any business or profession whose cumulative sales, turnover, or gross receipts are anticipated to exceed five lakh rupees within any fiscal year.
- Every individual intending to engage in specified financial transactions that necessitate the quoting of PAN.

- Every non-individual resident entity and associated individuals must apply for PAN if the financial transactions they engage in during the financial year exceed 2,50,000.

Absence of PAN or the Possession of Multiple PANs:

- Section 272B of the Income-tax Act stipulates a penalty of 10,000 for taxpayers who neglect to adhere to PAN-related mandates. This encompasses the failure to procure a PAN, when necessary, intentionally quoting an erroneous PAN on prescribed documents, or supplying an incorrect PAN to the party responsible for tax deduction or collection.

- According to the Income-tax Act, no individual is permitted to possess more than one PAN. In instances where an individual holds multiple PANs, it is imperative that they notify the Jurisdictional Assessing Officer and solicit the deactivation or deletion of the additional PAN.

- In the context of PAN 2.0, the system has been refined with enhanced logic to detect duplicate PAN applications. This centralized and sophisticated mechanism is designed to diminish occurrences of individuals holding more than one PAN.

TAN Allotment:

TAN (Tax Deduction and Collection Account Number) is a 10-digit alphanumeric identifier conferred by the Income Tax Department to entities responsible for TDS/TCS. It is obligatory for the submission of returns, execution of payments, and issuance of TDS/TCS certificates. TAN cannot be substituted for PAN except under particular provisions such as Section 194-IA. The failure to secure or quote TAN may incur penalties, underscoring its pivotal role in ensuring adherence to tax regulations and precise tracking of deductions.

To Conclude:

The PAN 2.0 Project signifies a substantial advancement towards the modernization of India's Tax infrastructure through the implementation of enhanced Digital Methodologies, security measures, and improved accessibility. By transitioning to a Direct Delivery Model and incorporating Global Best Practices, it pledges a more efficient and streamlined experience for Taxpayers, in alignment with the Government's Vision of a Digital India. This initiative not only simplifies service delivery but also guarantees data security and transparency, thereby promoting enhanced Tax Compliance and Governance.

Reference:

PIB – Government of India.

Managing The Durable Liquidity In The Banking Sector

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Liquidity management in the banks seeks to ensure adequate liquidity in the system so that sufficient credit is provided to all productive sectors in the economy. Adequate liquidity in the banking system fosters growth, investment and stability of interest rates and exchange rate. An excess liquidity situation leads to appreciation in asset prices or inflation; a deficit position mutes demand and leads to contraction of economic activities.

The liquidity management is aimed at ensuring sufficient reliable liquidity at all times and in the all circumstances. Effective liquidity management helps ensure a bank's ability to meet cash flow obligations, which are uncertain as they are affected by external events and other agent's behaviour. Liquidity management is of paramount importance because a liquidity shortfall at a single institution can have system-wide repercussions.

Why Durable Liquidity Is Important In The Banks?

While daily overnight operations (or weekly/ fortnightly operations followed by overnight operations) should address the liquidity needs of the banking system, it is nonetheless possible that unanticipated shocks [i.e. variations in Government cash balances, fluctuations in cash in circulation, or forex intervention operations] could lead to liquidity build-up (positive or negative) that could result in actual liquidity being different from the desired level. If the effect of such shocks is expected to be temporary, then flexible use of variable rate operations should suffice. If, however, such liquidity conditions are expected to persist, it would be necessary to bring the system back to the desired level.

This could be achieved by Reserve Bank of India through outright open market operations (OMOs), or where outright operations are not feasible or desirable (e.g., because of their impact on yields), it would be beneficial to develop alternative tools to achieve the durable liquidity impact. One alternative to the above OMOs, can be longer-term repo or reverse repo operations (beyond 14 days and up to one year), as they do not have a discernible impact on bond yields. These instruments would, however, work if their interest rates are market determined.

Similarly, longer-term Forex swaps (buy-sell or sell-buy Rupee-Dollar swaps) can also be used for durable

liquidity operations. These instruments – OMOs, longer term variable rate repos or reverse- repos or Forex swaps – should be used to bring the liquidity position in the banking system back to the desired level.

Managing Durable Liquidity Through Modulation In Net Domestic Assets Or Net Foreign Assets

In order to meet the demand for durable reserves, the Reserve Bank of India modulates net domestic assets and/or net foreign assets. In other words, the Reserve Bank supplies durable reserves either by buying Rupee bonds or by buying foreign exchange and vice-versa. Both these instruments have their own constraints. While excessive use of open market operations has the potential to distort the Government security yield curve, the forex route is a state contingent instrument. When net foreign flows turned negative, as witnessed during 2018-19, the Reserve Bank had only one instrument, viz., OMOs to meet the demand for reserves. The Reserve Bank recently augmented its liquidity management toolkit by including forex swap auctions which is a two-way tool and can be used for both, injection and absorption of liquidity.

Use Of Long Term Repos/Reverse Repo Operations For Managing Liquidity

Another instrument for managing durable liquidity is the use of long-term repo for supply of reserves to the system. While the Reserve Bank has conducted long-term repo/reverse-repo operations to tide over liquidity mismatch due to frictional factors which were expected to persist over slightly longer horizon, the maturity of such operations has never exceeded 90 days. One pertinent issue in acceptability of longer term operations has been policy rate expectations of market participants.

Also, a longer-term repo is generally found more acceptable as compared to longer term reverse-repo as banks have preference for liquidity. Another reason could be that such operations are often supernumerary, given that banks have the option to choose the tenor.

Why Durable Liquidity Generated Through OMOs Is More Desirable Than Term Repos ?

From a balance sheet perspective of banks, the durable reserves generated through OMOs may be more desirable as compared to term repos which expose banks to rollover risk. Term repos are auction-based and allotment is done on a best bid basis. This creates uncertainty whether the participant will be able to obtain funds in the next auction. On the contrary, there is no rollover risk attached to the primary liquidity received by market participants through outright OMO/Forex route. However, as discussed above, outright operations have a spillover effect on other market segments and the Reserve Bank uses outright operations in a calibrated manner to minimise this impact. In such conditions, longer-term operations could complement outright operations.

Recommendation Of Internal Working Group On 'Liquidity Management Framework' In this regard, the Internal Working Group set up by the RBI to review 'Liquidity Management Framework' has recommended that, build-up of liquidity into a large deficit (greater than about 0.25 per cent to 0.5 per cent of net demand and time liabilities) or surplus, if expected to persist, should be offset through appropriate durable liquidity operations. Deficit in system liquidity should ideally be offset by durable liquidity injection measures (such as OMO purchases or buy-sell Forex swaps); in the same manner, persistent surplus in system liquidity should ideally be neutralised by durable liquidity absorbing operations (such as OMO sales or sell-buy Fx swaps).

As an alternative to OMO purchases, longer-term variable rate repos, longer than 14 days and up to one-year tenor, be considered as a new tool for liquidity injection if system liquidity is in a large deficit. Similarly, longer-term variable-rate reverse-repos could be used to absorb excess liquidity.

As these are possible substitutes for OMOs, these instruments should be operated at market determined rates.

Forms of Business and Prudential Regulation for Investments : New draft guidelines of RBI

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Background

The financial sector is the backbone of the economy and crucial for its well functioning on a sustainable basis. Theproactive and nimble footed approach of Reserve Bank of India has proved to be a success story ,as a regulator andsupervisor of the financial sector.As the guardian of financial stability, the RBI has exhibited a pragmatic approach with asteady focus on ensuring stability while supporting sustainable growth.The regulator has attempted to move with the times, to meet the requirements of the developing economy and has been revising its master directions on various issuesconcerning the Banking sector.The growing interconnectedness of the markets,and broader economy have made the system

morevulnerable to risks and building resilience in these circumstances is of utmost importance.

New financial products and services are evolving based on innovative technologies (including AI & machine learning) and due to changing demand ,in the current scenario of multidimensional growth. A need has been , therefore, felt to ringfence the core business of the commercial banks from other risk bearing non- core business of the banks.Here we delveinto the latest draft guidelines on "Forms of Business and Prudential Regulation for Investments ", issued by RBI on 4thOctober 2024 and the way forward for commercial banks / NBFCs .

Broad features

The new draft guidelines of RBI seek to amend the directions earlier issued vide Master Direction-Reserve Bank ofIndia (Financial Services provided by Banks) Directions, 2016 dated May 26, 2016 .The proposed amendmentsprimarily relate to the broad regulatory framework for the banks to undertake various permissible forms of business eitherdepartmentaly or through a separate group entity and prudential regulations for their investments .The activitiesundertaken by the bank departmentaly form the part of the stand alone balance sheet of each bank in comparison to theother group entities.

Forms of Business

A bank can undertake only those activities permitted under section 6(1) of the Banking Regulation Act 1949, eitherdepartmentaly or through subsidiaries set up under section 19 (1) a of the Act .

Any activity undertaken by the bank /entities held by the Non - Opetaive Financial Holding Company (NOFHC) shall beexamined and approved by the bank / NOFHC 's respective Risk Management Committee as well as the Board .NOFHCis financial institution through which promoter/promoter groups are permitted to set up a new bank .It is a wholly ownedcompany which will hold the bank as well as other financial services companies regulated by RBI or other financial sectorregulators to the extent permissible under the applicable regulatory prescriptions.

The draft guidelines have segregated the activities into broadly three categories, based on their respective fundamental

nature and kind of risks involved in each of them. While the core business of banks is 'taking of deposits' and 'lending' ,over the period of time ,as the economy has developed ,the scope of activities has widened and new products andservices have evolved.The earlier RBI Master Directions of 2016, had listed the various activities, under the head 'business of financial services ' to be undertaken by a Financial Services Company.This included the activities coveredunder specified sections of Banking Regulation Act 1949 and RBI Act 1934. Activities like business of merchant bankers ,credit rating agency , business of credit information company, operation of payment system, business of securitisation orreconstruction company, business of managing pension fund etc are also a part of financial services which are coveredunder SEBI Act or respective specific Acts for each activity.

The following conditions have been intere alia stipulated in the draft master directions under the head forms of business :

a) Core business of the banking ,viz acceptance of deposits and lending shall necessarily be carried out departmentallyby the bank unless otherwise notified by the Reserve Bank of India . Banks will have the freedom to undertake certainbusinesses viz factoring, primarily dealership, credit card business, housing finance, equipment leasing and hire purchase,either departmentaly or through a separate group entity (associate/ joint venture /subsidy) subject to the respectiveconditions brought out in the Master Direction 2016-chapter three .

b) Mutual fund business, insurance business, pension fund management, investment advisory services or other such risk- sharing activities that require ring- fencing shall not be carried out departmentally, but only through a

group entitysubject to the conditions stipulated for the respective activities.(This will however not preclude the banks fromundertaking agency business -without risk participation - for distribution of third party products as per the stipulated termsand conditions specified earlier in Master Direction 2016)

c) only a single entity within a bank group (the bank and it's group entities) shall undertake a particular form ofpermissible business. Multiple entities within a bank group shall not undertake, the same business or hold/acquire thesame category of licence/authorisation or registration from any financial sector regulator. Further , there shall be nooverlap in the lending activities undertaken by the bank and it's group entities.

d) In addition to complying with the above requirement on overlap in lending business ,the existing Non - BankingFinancial Company (including Housing Finance Company) group entities of banks shall comply with the followingrequirements :

1.Scale Based Regulations as applicable to NBFC - Upper layer

2.Regulatory and other restrictions on loans and advances applicable to banks.

e) A group entity shall not be used to circumvent regulations/guidelines applicable to the parent bank or other group entityto carry on any business activity which is not permitted otherwise .

f) Banks shall require prior approval of the Department of Regulation RBI, to undertake any new activity through a groupentity , other than those already permitted.

g) conduct of activities by small Finance Banks and payments banks shall also be subject to their respective licensingguidelines/ conditions and operating guidelines.

The amendments in the guidelines as above are thus more comprehensive in nature and intended to bring in moreclarity,transparency and increased level of compliance while undertaking specific activities within the group.

In addition, in respect of activity undertaken departmentaly by a bank ,the need for board approved policy and strictadherence to instructions /guidelines relating to KYC / AML /CFT as applicable to banks/other group entities have beenreiterated .

h) Further, it was been prescribed that ,no bank shall engage in any activity other than those listed as under (listed fromrelevant paragraphs ,in chapter three of Master Direction 2016), without the prior approval of the Department ofRegulation RBI :-

1) Equipment leasing and hire purchase business

2) Factoring Services

3) Primary Dealership Business

4) Underwriting Activities

5) Insurence broking services departmentally

6) Agency Business by Banks

7) Referral Services

8) Retailing of government securities

9) Membership of SEBI approved stock exchanges

i) In addition, an overseas branch of an Indian bank shall not undertake any activity that is prohibited for the parent bankin India, unless specifically permitted by the RBI .

Further overseas branches shall adhere to the more stringent of the host or home country regulations.

Prudential Regulation for Banks ' Investment

Investment by a bank in any group entity or in other financial/non - financial services company or other equity investments, including overseas investments shall be subject to the prudential limits specied in Paras 5 (a) to (f) of thease draft guidelines under refrence . In addition,these Directions shall be read in conjunction with the Exposure Norms and LargeExposure Framework as applicable . Further, investment by small Finance Banks and Payments Banks shall also besubject to their respective licensing guidelines/conditions and operating guidelines.

The prudential limits mentioned above as detailed in the draft guidelines inter alia relate to limits on investments in equityin any company, including its group entity individually shall not exceed 10% of bank's paid up share capital and reservesas per last audited balance sheet or a subsequent unaudited balance sheet, which ever is lower.

The aggregate equity investments made in all companies including group entities and overseas investments shall notexceed 20% of the bank's paid up capital and reserves . There are certain exceptions to this rule as elaborated in thedraft guidelines.

There are some restrictions prescribed,in relation to the Investee Company 's Equity Capital also , including ReITS andInVITs ,and non- financial services company,as brought out in the draft circular.

Emphasis has been laid to have a robust mechanism,wherby banks shall put in place a group -wide capital managementpolicy with respect to the capital requirements and the risks faced by its group entities.

The various provisions of the draft guidelines are aimed at ensuring a balanced portfolio with adequate risk managementand safeguards, to maintain stability in functioning and operations of the bank and its group entities.At the same time italso aims at providing a level playing field to all the banks.

Commencement

The provisions contained in the paragraphs of the circular involving major changes shall come into effect two years fromthe date of final circular .(To be issued after examining the comments from banks and other stakeholders on the draftcircular, invited for submission, by November 20 ,2024)

Conclusion

The amendments in the master directions now proposed in the the draft guidelines of RBI will have far-reaching impacton operations of commercial banks and the other entities owned by them in the domain of financial services.The idea is toisolate the core business of the bank viz acceptance of deposits and lending from rest of the risk bearing financialservices for more transparent and robust governancev. The prudential regulations applicable to bank's investment aimat maintenance of a balanced portfolio.Sufficient time has been given for implementation of the new provions and thecommercial banks need to draw out suitable course of action.The banks need to stay ahead of the likely challengesemerging out of growing diversity and complexity of the financial sector with a view to securing and preserving financialstability while aiminng at sustainable growth.

Synchronizing Government Schemes with Bank Loans

(Empowering Annadatas-New Schemes to Increase the Income of Farmers)

Dr. P. Sai Sudha
Freelancer

The Government of India is presently engaged in the implementation of a diverse array of schemes and programs with the primary objective of augmenting the welfare of Agrarian Communities across the Nation. Among the recently launched initiatives are the Pradhan Mantri Kisan Samman Nidhi Yojana (PM-KISAN), Pradhan Mantri Kisan Maandhan Yojana (PM-KMY), Pradhan Mantri Fasal Bima Yojana (PMFBY), Agriculture Infrastructure Fund (AIF), National Beekeeping and Honey Mission (NBHM), the formation and advancement of 10,000 Farmer Producer Organizations (FPOs), and the National Mission on Edible Oils-Oil Palm (NMEO-OP), among various others.

The following few of the above schemes delineates a succinct overview of the principal beneficiary-oriented schemes, inclusive of the recently instituted programs, which are being administered by the Department of Agriculture and Farmers' Welfare and these are to Synchronize with Bank Loan Products, so that Annadata will benefit a lot.

Pradhan Mantri Kisan Samman Nidhi (PM-KISAN): PM-KISAN represents a central sector initiative that was inaugurated on the 24th of February, 2019, with the intent of addressing the fiscal requirements of landholding farmers, subject to certain exclusions. Under the auspices of the scheme, a financial benefit amounting to ₹ 6,000 per annum is allocated in three equal instalments every four months directly into the bank accounts of farmers' families throughout the nation, facilitated via the Direct Benefit Transfer (DBT) mechanism.

Pradhan Mantri Kisan Maandhan Yojana (PM-KMY): In an effort to extend financial assistance and security to the most vulnerable farming households, the Government instituted the Pradhan Mantri Kisan Maandhan Yojana effective from 12.09.2019, intended to provide pension benefits to small and marginal farmers. PM-KMY is specifically tailored for Small and Marginal Farmers within the age demographic of 18 to 40 years who possess cultivable land not exceeding 2 hectares. The initiative aspires to confer a monthly pension of ₹ 3,000 to Small and Marginal Farmers upon their attainment of the age of 60 years.

Pradhan Mantri Fasal Bima Yojana (PMFBY): Commenced in 2016, PMFBY aims to provide a straightforward and economically viable crop insurance product designed to ensure comprehensive risk coverage for farmers' crops against all non-preventable natural adversities from the pre-sowing phase through to post-harvest, while also assuring an adequate claim amount. The scheme operates on a demand-driven basis and is available to all farmers.

Interest Subvention Scheme (ISS): The Interest Subvention Scheme (ISS) facilitates concessional short-term agricultural loans to farmers engaged in crop husbandry and other associated activities such as animal husbandry, dairying, and fisheries. ISS is accessible to farmers securing short-term crop loans of up to ₹ 3.00 lakh at an interest rate of 7% per annum for a duration of one year. An additional 3% subvention is granted to farmers for the prompt and timely repayment of loans, thereby reducing the effective interest rate to 4% per annum. The benefits of ISS are also available for post-harvest loans secured against Negotiable Warehouse Receipts (NWRs) on crop loans for an extended period of six months post-harvest for small and marginal farmers possessing Kisan Credit Cards (KCCs), particularly in the event of natural disasters and severe natural calamities.

Agriculture Infrastructure Fund (AIF): To address the existing inadequacies in agricultural infrastructure and to promote investment in this sector, the Agri Infra Fund was established as a component of the Aatmanirbhar Bharat Package. The conception of AIF is aimed at fundamentally transforming the agricultural infrastructure paradigm of the country. The Agriculture Infrastructure Fund serves as a medium to long-term debt financing instrument intended for the investment in viable projects related to post-harvest management infrastructure and community farming resources, augmented through interest subvention and credit guarantee mechanisms. The Fund, which amounts to ₹ 1 lakh crore within the framework of the scheme, is slated for disbursement from FY 2020-21 to FY 2025-26, with the provisions of the scheme extending until FY 2032-33.

In the context of the scheme, ₹ 1 Lakh Crore will be disbursed by banking institutions and financial organizations in the form of loans, supplemented by an interest subvention of 3% annually and credit guarantee protection under CGTMSE for loans not surpassing ₹ 2 Crores. Furthermore, each entity is permitted to benefit from the scheme for a maximum of 25 projects distributed across diverse LGD codes.

Eligible beneficiaries comprise Farmers, Agricultural Entrepreneurs, Start-ups, Primary Agricultural Credit Societies (PACS), Marketing Cooperative Societies, Farmer Producers Organizations (FPOs), Self Help Groups (SHGs), Joint Liability Groups (JLGs), Multipurpose Cooperative Societies, Central or State agencies or Local Body sponsored Public-Private Partnership Projects, State Agencies, Agricultural Produce Market Committees (Mandis), National and State Federations of Cooperatives, Federations of FPOs (Farmer Produce Organizations), and Federations of Self Help Groups (SHGs).

Formation & Promotion of new 10,000 FPOs: The Government of India has launched the Central Sector Scheme (CSS) for the "Formation and Promotion of 10,000 Farmer Producer Organizations (FPOs)" in 2020. This scheme includes a comprehensive financial allocation totalling ₹ 6,865 crores. The creation and promotion of FPOs are to be carried out through Implementing Agencies (IAs), which will subsequently collaborate with Cluster Based Business Organizations (CBBOs) to establish and offer professional mentorship to FPOs for a period of 5 years.

FPOs are qualified to receive financial assistance up to ₹ 18.00 lakh per FPO for a duration of 03 years. In addition, mechanisms have been established for a matching equity grant of up to ₹ 2,000 per farmer member of the FPO, with a ceiling of ₹ 15.00 lakh per FPO, in conjunction with a credit guarantee facility of up to ₹ 2 crore for project loans per FPO from eligible lending institutions to ensure the availability of institutional credit for FPOs. Comprehensive provisions have been instituted to facilitate the training and skill development of FPOs.

FPOs are integrated into the National Agriculture Market (e-NAM) platform, which enables the online trading of their agricultural products through a transparent price discovery process, thus allowing FPOs to secure more advantageous compensation for their produce.

Per Drop More Crop (PDMC): The Per Drop More Crop initiative fundamentally prioritizes the optimization of water utilization efficiency at the agricultural level through the implementation of precision and micro-irrigation methodologies. In addition to promoting precision irrigation (specifically, drip and sprinkler irrigation systems) and improved on-farm water management strategies designed to maximize the effective use of available water resources, this component also endorses micro-level water storage or conservation /management initiatives aimed at enhancing micro irrigation.

Sub-Mission on Agriculture Mechanization (SMAM): Since its inception in April 2014, the Sub Mission on Agricultural Mechanization (SMAM) has been dedicated to fostering accelerated yet inclusive growth of agricultural mechanization within India. Its objectives encompass improving access to farm mechanization for small and marginal farmers as well as regions experiencing restricted farm power availability, promoting the creation of 'Custom Hiring Centres' to alleviate the adverse economies of scale linked to small landholdings and the elevated costs of individual ownership, establishing hubs for sophisticated and high-value agricultural machinery, enhancing awareness among stakeholders through demonstration and capacity-building efforts, and ensuring stringent performance testing and certification at designated testing sites across the nation.

Sub-Mission on Seed and Planting Material (SMSP): SMSP encompasses the entire seed production continuum, ranging from the generation of nucleus seeds to the distribution of certified seeds to farmers, aimed at facilitating the development of infrastructure conducive to the advancement of the seed sector. It also provides support to public seed-producing entities to augment their capabilities and the quality of seed production, establishes dedicated seed banks to address unforeseen contingencies arising from natural disasters, among other objectives.

Integrated Scheme for Agriculture Marketing (ISAM): The Integrated Scheme for Agriculture Marketing (ISAM) extends assistance to state governments in the regulation of agricultural produce marketing through the establishment and enhancement of market infrastructure, development of capacity, and provision of access to market intelligence. In the fiscal year 2017-18, the National Agriculture Market Scheme, commonly known as the e-NAM scheme, was incorporated into this initiative, leading to the integration of 1389 mandis across 23 states and 4 Union Territories into the e-NAM platform.

Mission for Integrated Development of Horticulture (MIDH): The Mission for Integrated Development of Horticulture (MIDH), a Centrally Sponsored Scheme, was inaugurated in the fiscal year 2014-15 with the purpose of promoting comprehensive growth within the horticulture sector, which includes an extensive array of crops such as fruits, vegetables, root and tuber crops, mushrooms, spices, flowers, aromatic plants, coconut, cashew, cocoa, and bamboo.

Rainfed Area Development (RAD): The initiative is designed to promote integrated farming systems by prioritizing multi-cropping, crop rotation, and supplementary activities such as livestock management and apiculture, among others. Integrated farming systems play a crucial role in alleviating the adverse impacts of crop failure through diversified methods, thereby enhancing production and productivity in rainfed areas and supporting the income sustainability of small and marginal farmers in the face of climatic variability.

Rastriya Krishi Vikas Yojana (RKVY): This initiative focuses on the development of pre- and post-harvest infrastructure within agriculture and allied sectors, thereby facilitating the provision of quality inputs and market facilities to farmers. It affords flexibility and autonomy to states for the execution of projects that align with the specific needs and priorities of local farmers across a diverse range of activities in agriculture and allied sectors. The scheme seeks to rectify resource deficiencies within agriculture and allied sectors by offering financial assistance to states for the implementation of various initiatives aimed at bolstering the overall advancement of agriculture and allied sectors, as well as enhancing farmers' income. The financial allocation for the scheme in the fiscal year 2022-23 amounts to ₹ 3,031.08 Crore.

In conclusion, the alignment of governmental initiatives with banking products tailored for agricultural loans or deposits yields favourable outcomes for both agricultural famers and financial institutions, thereby fulfilling the governmental mandate to offer diverse financial support. In the process of formulating banking loan or deposit offerings, it is imperative that institutions meticulously analyse the array of services extended by the government to agriculturalists; this approach not only mitigates the risk of redundancy but also ensures that the financial needs of farmers are adequately addressed through banking channels, thereby facilitating the government's objectives.

Reference:

PIB-Government of India.

The more the Indians Celebrate, the More Grows the Indian Economy

"The more you praise and celebrate your life, the more there is in life and economy to celebrate."

Shri Hargovind Sachdev
Former General Manager
SBI

India operates as a 'saving economy ', a term that refers to a country where the average citizen tends to save more than they spend. This has been a long-standing trend in India, with spending typically reserved for festive days. The expenditure during festivals, from clothing to decorative items, significantly boosts all industries. Sectors like Automobiles see a surge in sales. Housing Infrastructure Industries of Paint, Sanitary ware and Woodwork also experience a significant uptick. ***Festivals create numerous opportunities for the unorganised labour class, especially artisans, for whom it is a crucial means of survival.***

India is a vast country with multifaceted cultures. Depending on seasonality, region-specific festivities allow vendors to move from

one area to another. New products and designs are launched during festival time to increase sales.

E-tailers like Amazon, Flipkart, and Snapdeal experience a multi-fold increase in demand. Flipkart clocked Rs 600 crore in sales in 10 hours last Diwali. ***Traditionally, gold and silver have been the preferred assets for Indian investors. The clamour for these precious metals increases during festivities as they are considered auspicious.***

In recent years, festivals have promoted tourism. The time-limited events encourage tourists to visit the place during the event to interact with the local community, gaining a profound experience of the ambience, customs, and local culture.

The top ten countries by savings rate are Djibouti, Qatar, Ireland, Gabon, Singapore, Brunei, Luxembourg, Congo, Zambia, and Norway. ***In March 2023, India's gross savings rate was 30.2% of GDP***, bringing the country closer to these countries. There is a connection between economic growth, income, and savings rates. Oil wealth is associated with higher savings rates. India has no oil income, ***but festivals like Diwali, Eid, Christmas, and the wedding season fuel short-term consumption and support long-term growth by promoting businesses and generating employment.***

ASSOCHAM estimates data on various festivals in India and their impact on the Indian economy. ***Ganesh Chaturthi*** generates about Rs 20,000 crore in business across its presence for 10 days with a 20 per cent CAGR, particularly in Maharashtra and Telangana. On the other hand, Hyderabad generates Rs 5,000 crore in business for the Ganesh Chaturthi festival. It is an employer for more than 20,000 families during the peak season and year-round.

Like ***Ganesh Chaturthi***, ***Durga Puja*** generates about Rs 40,000 crore with an almost 35% CAGR, the foremost of which is in West Bengal.

The Raksha Bandhan festival generates about Rs 400 crore in business and employs more than 4,000 families in Gujarat. The colour festival ***HOLI*** spins in another Rs.400 crore across north India.

During ***Diwali***, electronics, automobiles, and apparel dominate the share of companies nationwide. ***52% of apparel product sales occur during this time, and every individual spends 20% more for celebrations***. The ***Diwali*** festival generated over ***₹ 3.75 lakh crore***, approximately $47 billion.

The International ***Kite Festival*** in Uttarayan, a famous festival in India, generated about Rs 500 crore in business in Gujarat, Uttar Pradesh, and Delhi. The kite festival boosts the kite industry, which employs about 6,000 families.

India's wedding industry contributes around $130 billion annually, making it its fourth-largest industry. It strengthens the economy through its demand for jewellery, apparel, and venues and boosts the food and grocery industries. The hospitality sector experienced a 30% growth during the 2023 festive period, with hotels and restaurants benefiting from increased travel and family gatherings.

Festivals trigger a surge in consumer spending, particularly in retail, which grew by 62% during Diwali 2023, according to the ***Confederation of All India Traders (CAIT).***

The impact of festivals on the economy is not limited to consumption. They also enhance the nation's cultural capital, promoting tourism and international interest in Indian traditions. ***The government reported that tourism saw a 15% increase during major festival seasons in 2023,*** contributing to earnings as below:

Direct Contributions:

Retail Sales: Festivals boost retail sales, with people buying new clothing, jewellery, home decor, and gifts.

Food and Beverages: Traditional sweets, snacks, and beverages are in high demand during festivals.

Travel and Tourism: Festivals attract domestic and

international tourists, generating revenue for the tourism industry

Advertising and Media: Companies spend heavily on advertising during festivals.

Indirect Contributions:

Job Creation: Temporary employment opportunities arise in retail, hospitality, and logistics.

Small Businesses and Entrepreneurs: Festivals allow businesses and entrepreneurs to sell traditional products.

Cultural Preservation: Festivals promote India's rich cultural heritage.

Social Bonding: Festivals foster community bonding.

Economic Impact:

GDP Contribution: Festivals contribute significantly to India's GDP.

Revenue Generation: Governments earn revenue through taxes on festival-related sales.

Festivals with Significant Economic Impact:

Diwali: Known for increased consumer spending on infrastructure.

Dussehra: Boosts sales of electronics and vehicles.

Navratri: Generates revenue through Garba and Dandiya Raas events.

Ganesh Chaturthi & Durga Pooja: Create demand for idols, decorations, and sweets.

Festival celebrations in India are essential for prosperity for several reasons:

Cultural Significance:

Preserving Heritage: Festivals preserve India's rich cultural heritage, passing traditions to future generations.

Community Bonding: Festivals foster community bonding, strengthening social relationships.

Spiritual and Emotional Well-being:

Spiritual Renewal: Festivals provide spiritual rejuvenation, connecting people to their faith.

Emotional Well-being: Celebrations reduce stress and promote joy and happiness.

Social Harmony:

Unity and Inclusiveness: Festivals transcend social and economic barriers, promoting unity.

Cultural Exchange: Festivals facilitate cultural exchange between communities.

Traditional Beliefs:

Ward off Evil: Many festivals ward off evil spirits and misfortune.

Invoke Blessings: Festivals invoke divine blessings for prosperity.

The funds generated during festivals circulate in the local economy during the remainder of the year, recycling cash flows to create additional income and benefits.

The economic survey 2023-24 reports a 12.7% growth in GST collection, driven by increased consumer spending during festivals.

Festival celebrations in India are essential for prosperity as they integrate cultural, economic, spiritual, and social aspects, promoting overall well-being. ***The more the Indians celebrate, the more powerful their economy becomes.***

Rightly said, ***" Getting together with friends and family at a festival is the best way to spend time together and grow together ."***

Is 'Netting Off' Hiding Borrower Stress?

CMA Manmohan Sahu
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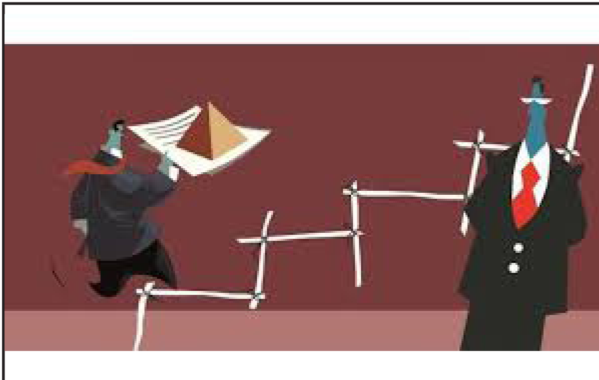
The Reserve Bank of India ("RBI") has expressed significant concerns regarding the prevalent yet contentious practice within the lending sector known as the 'renewal or rollover of loans'. In a recent directive, the RBI urged microfinance institutions to terminate the practice of rollover and netting off, which terminates in the phenomenon of loan evergreening. In September 2024, the RBI broadened its oversight to encompass gold loan providers, necessitating a thorough examination of their operational practices and demanding a comprehensive action report to be submitted within a three-month timeframe.

Following the regulatory intervention aimed at curbing exorbitant lending rates, the RBI's attention is now directed towards the practice of loan renewals, which has been extensively critiqued for obscuring credit risk and postponing essential financial restructuring. In this discourse, the notion of loan renewal, its regulatory framework, the ramifications of the RBI's advisory, potential issues that may arise, and the proposed course of action for lenders moving forward.

Loan Renewals: Loan renewals provide borrowers with an opportunity to extend their repayment schedules, frequently occurring just prior to the designated due date. In more precise terms, the borrower (typically nearing the repayment deadline) would seek to obtain a new loan (or an augmentative loan) or request an extension of the duration of the current loan (commonly referred to as a rollover) in accordance with the provisions established by the lender. Consequently, the lender would document either the termination of the existing loan account and the establishment of a new loan within its financial records or a modification of the repayment timeline.



Reasons for Loans Renewals: The process of loan renewals, wherein a lender opts to roll over or extend a loan rather than demanding immediate repayment, can yield certain transient advantages for both borrowers and lenders, albeit it also elicits considerable apprehensions from a regulatory standpoint and with respect to long-term fiscal stability. The rationale underlying this practice is as follows for both borrowers and lenders:

Borrowers Derive the following Advantages:

Relief from Repayment Pressure: For individuals with outstanding loans, especially those encountering ephemeral financial challenges, the renewal of a loan can furnishes immediate respite by prolonging the repayment duration. This extension provides them with additional time to fulfil their repayment obligations without incurring default, which could otherwise lead to punitive measures, elevated interest rates, or potential legal ramifications.

Avoidance of Default or Loss of Collateral: By opting for the rollover of a loan, borrowers can circumvent the ramifications of default, including the forfeiture of assets (particularly pertinent in secured loans such as those backed by gold), deterioration of creditworthiness, and the possibility of subsequent legal actions arising from non-compliance with repayment terms.

Access to Additional Funds: In certain scenarios, financial institutions may extend supplementary funds concomitantly with the rollover of the initial loan, thereby enabling borrowers to address supplementary financial exigencies. This phenomenon is especially prevalent in domains such as microfinance and payday lending, where borrowers often depend on short-term loans to satisfy ongoing liquidity requirements.

Gains to Lenders:

Reduced Risk of Default: Through the process of renewing or rolling over loans, lenders may mitigate the prospective losses associated with defaults. Provided that borrowers persist in meeting minimum payment obligations or conforming to the stipulations of renewal, lenders can sustain an uninterrupted income stream from interest payments, thus diminishing the likelihood of non-repayment.

Lower NPAs: A loan is designated as a non-performing asset (NPA) when the borrower neglects to fulfil principal or interest obligations for a designated timeframe (typically 90 days). If a borrower is incapable of adhering to the repayment timetable yet is granted a fresh loan or a rollover agreement, the lender is not compelled to categorize the original loan as an NPA, even if the borrower continues to experience financial difficulties. Rather, the loan may be reclassified as a new financial obligation with an amended repayment structure, or the maturity date of the existing loan may be adjusted, enabling the lender to report it as a performing asset.

Interest Accumulation: Through the mechanism

of loan renewals, lenders can extend the duration during which interest accrues on the loan, thereby potentially inflating the total interest revenue generated throughout the loan's lifespan. This arrangement can yield substantial profits, particularly within high-interest lending contexts.

Regulatory Framework with respect to Loan Renewals:

While the Reserve Bank of India (RBI) guidelines do not explicitly delineate the terms "rollover" or "renewals," a reference to these practices is incorporated within the Master Direction – Reserve Bank of India (Non-Banking Financial Company – Scale Based Regulation) Directions, 2023 ("SBR Directions"). The SBR Directions characterize 'restructuring' as follows:

"A restructured account is defined as one wherein the Non-Banking Financial Company (NBFC), due to economic or legal considerations pertaining to the borrower's financial distress, concedes to the borrower modifications that the NBFC would not typically entertain. Restructuring usually entails alterations to the terms of the advances/securities, which generally encompass, among other factors, modifications to the repayment timeline/amount due / size of instalments / rate of interest (for reasons other than competitive factors). …. In essence, the extension or postponement of Equated Monthly Instalments (EMIs) for individual borrowers, as opposed to an entire cohort, will result in the classification of such accounts as 'restructured accounts.''

A corresponding definition has also been delineated within the Reserve Bank of India (RBI) circular pertaining to the 'Prudential Framework for Resolution of Stressed Assets' issued on June 7, 2019 ("RBI Circular 2019").

Regulatory concerns have emerged due to the fact that requests for loan renewals were predominantly submitted in proximity to the repayment date, thereby eliciting skepticism regarding the authenticity of such requests, which appeared to function as a stratagem to obscure the actual Non-Performing Assets (NPAs) and artificially augment the reporting of loan disbursements. This scenario has generated apprehensions regarding the integrity of financial reporting and the risk of presenting misleading figures within the lender's financial documents.

The demarcation between 'a facility for borrower's convenience' and 'an instrument to evergreen loans' has progressively become increasingly nebulous. What might initially present as a convenient alternative for borrowers has devolved into a mechanism that conceals systemic asset downgrades, thereby undermining the legitimacy of NPA reporting and exacerbating systemic credit risks.

What are the regulator's apprehensions?

In light of the fact that a substantial proportion of borrowers depend on the loan renewal facility and manage their cash flows with the anticipation of such renewals being accessible, a sudden cessation of this practice could precipitate a marked escalation in NPA reporting. Consequently, an immediate consequence may involve widespread downgrading of credit scores, potentially prompting some customers to disengage from their lenders. As a result, lenders may encounter customer attrition and a decline in loan disbursement volumes. This necessitates that lenders expand their customer base in order to sustain comparable lending volumes. Such a development could, in turn, engender enhanced cash turnovers and a more rapid turnover within the loan cycle.

It appears that the regulator aims to confine loan renewal facilities or the extension of repayment timelines exclusively to borrowers who are genuinely experiencing financial distress. In these circumstances, such facilities should be construed as targeted relief measures, tailored to the borrower's financial hardships rather than being characterized as a generic product feature. This approach is expressly permitted under the restructuring framework, contingent upon asset classification downgrades and augmented provisioning requirements. Although this may assist borrowers facing financial adversities, lenders will still be obligated to report NPAs. This will serve to mitigate the regulator's concerns regarding the integrity of NPA reporting. From an operational perspective, lenders may encounter challenges in assessing the financial conditions of individual borrowers and in extending renewal facilities accordingly.

While loan renewals might ostensibly furnish transient advantages, they can ultimately precipitate financial instability for both borrowers and lenders. For borrowers, such practices can ensnare them in a perpetual debt cycle, impeding their ability to fully extinguish the loan, while for lenders, these actions can obscure the actual financial health of the borrower base, resulting in heightened credit risk and a potential accumulation of NPAs that could adversely affect the lender's long-term financial viability.

The RBI's escalating concerns regarding these practices necessitate enhanced transparency and the implementation of stricter lending standards to avert over-leveraging and to ensure that credit is dispensed in a sustainable and responsible manner. This practice is increasingly perceived as a means to artificially sustain lending operations, which may not align with the long-term interests of either party involved.

Conclusion:

The advisory issued by the Reserve Bank of India concerning loan renewals currently focuses on particular financial institutions within industries where this phenomenon is predominantly observed. Nevertheless, if elevated volumes and analogous trends persist, it is plausible that broader guidance may be disseminated across various sectors as well.

Financial institutions are required to engage in a thorough examination of their internal protocols to evaluate potential risks linked to practices that may be construed as evergreening. It is essential for lenders to foresee the possible ramifications of an alteration in their loan renewal strategies, particularly in the event that new regulations are promulgated.

UPS or NPS

Shri Sudhakar Kulkarni
Certified financial Planner

Considering growing demand from employees to roll back the Old Pension Scheme (OPS), in August 2024, the Union Cabinet, chaired by Hon.Prime Minister Narendra Modi, approved a new assured pension scheme in the name of Unified Pension Scheme (UPS)which will provide pension amounting 50% of salary for those who joined the service after January 1, 2004. (This is the date from which OPS was discontinued.) UPS will be implemented from 1st Aril 2025. Currently government employees are covered under National Pension Scheme (NPS) from 1st January 2004.

With the launch of UPS central government employees who have joined services from 1stJan2004 and who will join from 1st April 2025 will have option to choose between NPS and UPS. So also, the employees of the state's governments those who will approve this new UPS will also have option to choose between UPS& NPS. To choose the right option employee should understand pros and cons of UPS& NPS. From this perspective let us first under what is UPS.

The Unified Pension scheme is a new pension scheme introduced by the Central government in August 2024. This scheme offers a guaranteed pension, family pension and minimum pension to all Central Government employees. It can be extended to state government employees as well subject to approval from the respective state government. Employees covered under the NPS can opt for the UPS.

Features of UPS:

- **Assured pension:** Retired employees will receive a pension of 50% of their average basic pay over the previous 12 months before retirement. This benefit is provided to employees with at least 25 years of service. Proportionate pension benefits are offered to employees with shorter service periods (10 years to 25 years).

- **Government contribution:** The government will contribute 18.5% of the employee's basic salary to the pension fund. The employees will contribute 10% of their basic salary to the pension fund.

- **Assured family pension:** In case of the pensioner's death, 60% of the pension immediately before the retiree's demise will be given to her/his spouse.

- **Assured minimum pension:** An employee with at least 10 years of service will receive Rs. 10,000 per month upon superannuation.

- **Inflation indexation:** Inflation indexation will be provided on assured pension, assured minimum pension and assured family pension.

- **Lump sum payment:** Retirees will receive a lump sum payment along with their gratuity at the time of superannuation. This payment will be equal to one-tenth of the monthly emoluments (pay + DA) as on the superannuation date for every six months of completed service. It will not reduce the amount of assured pension.

Pension calculation will be as under

a) Total service 25 years or more and last 12month's average salary is Rs. 90000 then initial monthly pension will be Rs.45000 which will increase with inflation

b) Total service 20 years and average salary foe last 12 months at the time of retirement is Rs. 80000 (i.e. Less than 25 yrs) then proportionate initial monthly pension will be 80000*0.5*20/25=Rs.32000

c) Total Service more than 10 yrs and average salary for last 12 months at the time of retirement is Rs. 12000 then initial monthly pension will not be Rs.6000 but minimum Rs.10000

d) Lumpsum amount will be calculated as given below.

   Total service 34 years, salary at the time of retirement Rs.100000 then 10% of it for every six month of completed service will be 100000*10%*34*2=Rs.680000

   As against NPS was initially introduced in 2004 for all government employees after the discontinuance of the Old Pension Scheme (OPS). In 2009, the government opened it for all individuals such as private sector employees, self-employed and NRIs

   The NPS is annuity-based market linked investment where in case of government employees the contribution amount (which 14% of salary by employer and 10% of salary by employee) is invested monthly normally till the age of retirement. Employees can also make additional voluntary contributions to their NPS account and after retirement employee receives regular payment from the purchased annuities. The NPS subscribers is allowed to withdraw up to 60% of the accumulated NPS corpus as a lump sum and the remaining 40% are to be mandatorily invested in any of the pension funds to receive pension. in case

of NPS, there is no assured pension amount. The pension amount depends upon the individual's contribution, selected investment option such as aggressive, moderate and conservative also the market performance. There is option to get the pension by spouse after death of pensioner.

Let us now see the difference between UPS and NPS

Particulars	UPS	NPS
Eligible employees	Government employees	Government employees, individuals between 18-60 years and NRIs
Pension amount	50% of the average basic pay over the last 12 months of retirement for employees retiring with at least 25 years of service and proportionate pension benefits for employees with 10-25 years of service	Pension amount depends on the investments made in the NPS investment scheme and the accumulated corpus
Minimum pension amount	Rs. 10,000 per month for employees with at least 10 years of service	Minimum pension amount depends on the investments made in the NPS scheme
Family pension	In the case of the retiree's death, 60% of the pension provided immediately before the demise is given to the family	Family pension amount depends on the accumulated corpus and the chosen annuity plan
Employer's contribution rate	18.5% of the basic salary	14% of the basic salary
Employee's contribution rate	10% of the basic salary	10% of the basic salary
Risk factor	Risk-free as it provides an assured pension amount	There is market risks as the returns depend on the performance of the maket-linked funds
Lump sum amount payment	A lump sum amount is provided to employees upon superannuation, which is 1/10th of their last drawn monthly pay for every six months of completed service	60% of the NPS corpus can be withdrawn as a lump sum upon superannuation
Tax benefit	The government has yet to provide clarity if employee and government contributions have any tax benefits	60% of the NPS corpus withdrawn as lump sum is tax-free, while the remaining 40% invested in NPS schemes is taxable
Inflation protection	Provides inflation protection by adjusting pensions to inflation indexation	There is no provision for to protect against inflation

From the above table you will find that UPS is combination of NPS and OPS. It offers assured pension after retirement with inflation indexation and family pension. including an assured minimum pension, inflation indexation and an assured family pension.

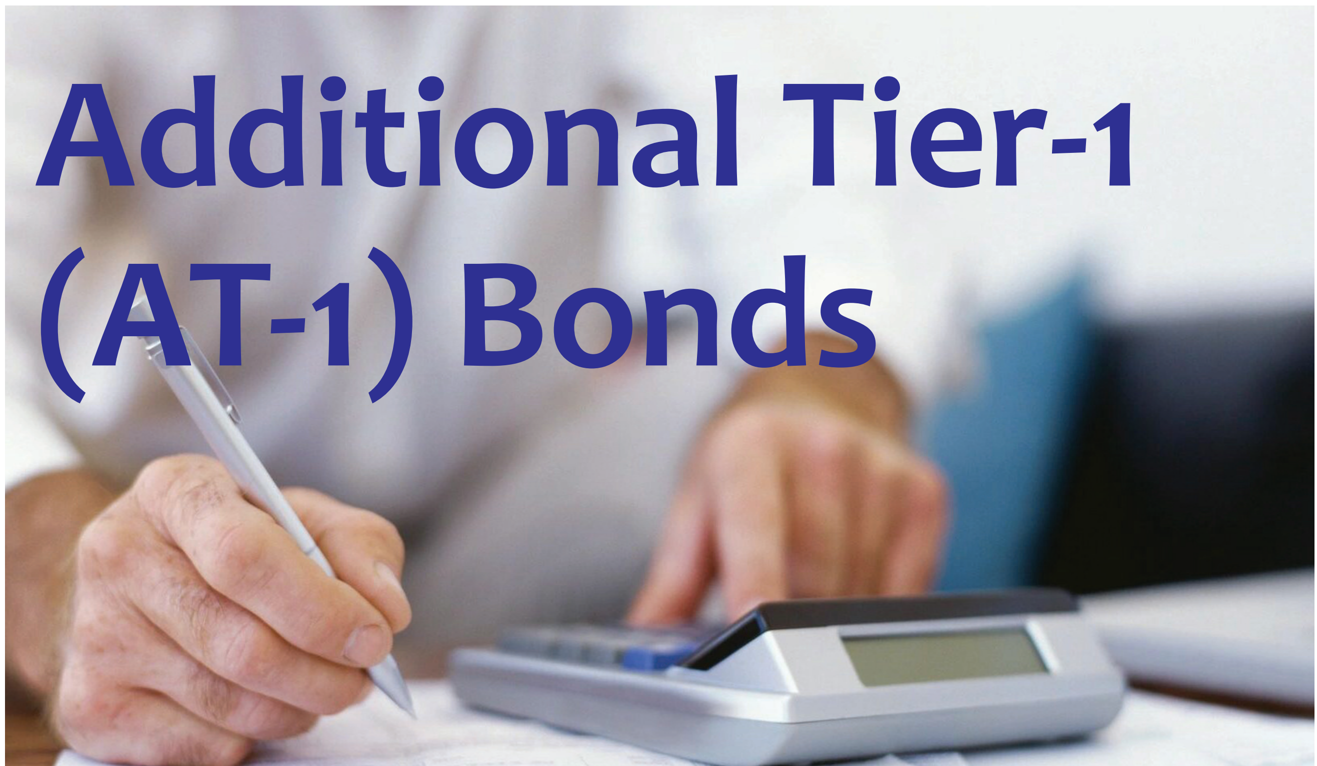
As against, NPS may provide higher pensions and lumpsum since the investments are market linked and of long-term nature. Hence likely to generate higher returns (between 10% to 12%).

However, these investments are subject to market risks, and the final pension amount may vary.

Let us consider Mr.X joined government service with starting salary of Rs.50000 and he retires after completing 30 years' service. Assuming his salary increases at average of 10% all throughout the 30 yrs. His last 12 months average salary will be Rs.8 lakh approximately. If opts for UPS he will get initial monthly pension of Rs.4 lakh and Rs.48 lakh as lumpsum 10% 0f 8 lakh (80000*30*2=48lakh), this pension will go on increasing with inflation and after his death if spouse is alive, he/she will get 60% of his prevailing pension amount which also will go on increasing with inflation. This will continue till the spouse is alive.

If Mr.X opts for NPS with monthly contribution @0.24% of salary (14% employer contribution and 10% employee contribution) pension corpus will be approximately Rs.8 crore assuming 10% average annual return, of which 60% he can withdraw on retirement i.e. Rs.4.8 crore and remaining Rs.3.2 crore will be used for purchasing annuities assuming 6% annual return these annuities will give monthly pension of Rs.160000 and assuming 8% return on 4.8 crores he will get monthly Rs.320000 means total Rs.480000 per month. However, this amount will not increase with increase in inflation on the contrary if interest rates come down in future this amount will get reduced to some extent. One more thing in case of NPS pensioner is free to use of 60% withdrawn amount in whatever manner he desires and the amount is at his hands tax free. Secondly 40% annuity corpus will be transferred to legal hairs on the death of both.

From the above example it is quite clear that those who want guaranteed pension that too with inflation indexation for him/herself and for spouse also he should opt for UPS and one who is prepared to take market risk he should opt for NPS, he may get less pension but can get reasonably good amount in lumpsum.



Additional Tier-1 (AT-1) Bonds

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Additional Tier 1 (AT1) Bonds are classified as perpetual securities. Such perpetual securities are characterized by the absence of a specified maturity date. Consequently, they may be categorized and perceived as Equity Instruments rather than as traditional Debt Obligations. These unique financial instruments do not permit investors to recover the Principal Amount, and Hypothetically, Interest Payments persist indefinitely. Perpetual Securities are categorized within the realm of Fixed-income Instruments. AT1 Bonds are associated with elevated levels of Risk. These Securities are issued by Banking Institutions in compliance with directives established by the Reserve Bank of India (RBI). In the event of a Banking Institution's failure, these Bonds are vulnerable to substantial risk. Banking Entities generate Capital by offering AT1 Bonds at designated intervals.

AT1 Bonds:

Numerous Characteristics distinguish these Perpetual Securities from conventional bonds. They are devoid of any maturity date. Banking Institutions possess

the capability and authority to initiate a call and redeem the capital at intervals of Five or Ten years. Furthermore, Banks may opt to remit solely Interest Payments on AT1 Bonds for an Indefinite Period. The decision to forgo interest payments for a particular year or to reduce the nominal value of the Bond can be executed without significant complications for the investors. Various circumstances prompt the Reserve Bank of India to provide directives to Financial Institutions regarding AT1 Bonds.

AT1 bonds are notably intricate and hybrid in nature. They are particularly suited for astute and seasoned investors who possess the capability to interpret their stipulations effectively and conduct a comprehensive analysis to determine whether the elevated returns justify the associated risks. These perpetual securities are marketed to a broad spectrum of retail investors in India as alternatives to Non-convertible Debentures (NCDs) or Fixed Deposits.

Each AT1 Bond is assigned a face value of ₹ 10 Lakh. The Ranking of AT1 Bonds is subordinate to all other Debt Instruments, yet they hold a Senior Position relative to Common Equity. In accordance with recent and significant regulatory guidelines in India, Banks are mandated to maintain a Capital Ratio of at least 11.5 percent of their Risk Based Loan Portfolios. Of this Total, 9.5 percent must be classified as Tier-1 Capital, while 2 percent must be designated as Tier-2 Capital.

Process of Issuing AT1 Bonds:

AT1 bonds are issued by Banking Institutions in alignment with the directives of the Reserve Bank of India (RBI). Financial Entities typically issue such Bonds to satisfy their Capital Adequacy requirements (CAR). CAR serves as an evaluation of a Bank's capital relative to its Risk-weighted Assets. The norms surrounding Capital Adequacy were established under the Basel-III framework instituted in 2009, subsequent to the Financial Crisis of 2008.

These Financial Instruments are classified as Contingent Convertible Bonds, a Category of Debt Securities that Financial Institutions possess the authority to convert into Equity at any moment if their Capital Ratios dip below designated thresholds. This mechanism aids the institution in alleviating its debt obligations while concurrently overseeing its Capital Adequacy. Additional Tier-1 (AT1) Bonds incorporate a Call Option, which empowers the Banks to repurchase these securities from investors. While these Bonds offer substantial returns, they also entail heightened risk exposure. In the event of a Banking Institution's Insolvency, the aforementioned Bonds are susceptible to Loss.

Its Characteristics:

Absence of Maturity Date: AT1 Bonds are characterized as Perpetual Instruments, indicating they lack a maturity date. Nonetheless, these securities feature a call option that enables banks to repurchase them following a predetermined duration.

Interest: AT1 Bonds are associated with an elevated interest rate in comparison to alternative Bonds. The interest associated with these instruments is typically fixed and subject to adjustments at specified intervals. Additionally, Banks possess the discretion to forgo interest payments.

Liquidity: Investors are unable to redeem their Bonds directly with the issuing Bank due to the absence of a put option related to these securities. However, these Bonds are listed on Stock Exchanges, thereby permitting investors to liquidate their holdings as needed.

Subordinated Debt: In circumstances of default, these Bonds are positioned lower in the hierarchy of repayment compared to other debt instruments, classifying them as subordinated debt.

High Lot Size Value: The minimum allocation size and trading lot for these bonds is set at ₹ 1 crore.

Pre-payment: The issuing bank holds the

capability to repay or recall the bond at any point in time, even prior to the maturity date.

Risks Associated:

Unsecured Bonds: While these securities offer a higher coupon rate attributable to their perpetual and subordinated characteristics, they are accompanied by increased risk and lack security. In scenarios of financial instability, the RBI may compel banks to withdraw their Tier-1 Bonds, potentially leaving investors without any form of compensation.

Interest Payment: Although these Bonds typically feature a fixed interest rate, banks possess the ability to defer or omit interest payments, which can significantly undermine the returns for investors.

Call Option: Investors typically perceive these bonds as perpetual securities that yield interest. However, banks retain the option to conveniently recall these bonds, resulting in the cessation of interest accrual.

Regulations:

Financial Institutions employ Additional Tier-1 (AT1) bonds to augment their foundational Equity, thereby satisfying the stipulations set forth by Basel-III. The Basel-III framework was established and implemented as a regulatory response to the Banking Sector's vulnerabilities exposed during the Global Financial Crisis of 2008. These Regulatory Norms obligate Financial Institutions to uphold a predetermined level of Capital as a safeguard against potential financial distress. The Capital Structure of Banks is Categorized into Tier-1 and Tier-2 Capital. Tier-1 Capital is further subdivided into Common Equity Tier-1 and Additional Tier-1 Capital (AT1 Bonds). AT1 Bonds are classified as 'Going Concern Capital', signifying that these resources are designated for absorbing losses in scenarios of institutional failure.

The Securities and Exchange Board of India (SEBI) has promulgated specific directives for Mutual Fund Entities, which collectively hold more than one-third of the aggregate AT1 Bonds available in the Marketplace. SEBI has mandated that Mutual Funds assess these Debt Instruments as if they were 100-Year Bonds, while simultaneously imposing a Cap on Investments in AT1 Bonds to a Maximum of 10% of Total Assets. Nevertheless, this 10% limitation has been postponed for a duration of Two Years following consultations with the Ministry of Finance.

AT1 Bonds to Augment Capital:

Financial Institutions resort to AT1 bonds to generate Capital as these Financial Instruments are specifically engineered to furnish a reliable Capital Source for the Bank while preserving the Organization's Adaptability in orchestrating its Capital framework.

AT1 bonds serve as a crucial mechanism for Banks to secure Capital and navigate their Capital framework in a manner that reconciles stability with adaptability. Nonetheless, Stakeholders investing in AT1 Bonds should remain cognizant of the inherent risks, including the possibility of incurring losses should the Banking Institution encounter Financial Adversities.

AT1 Bonds Valuation:

The Securities and Exchange Board of India (SEBI) has promulgated a mandate stipulating that mutual funds are required to appraise the Additional Tier-1 (AT-1) Bonds they possess utilizing the 'Yield to Call' Methodology. This directive is in accordance with the recommendations outlined in the report from the National Financial Reporting Authority (NFRA) directed to the Department of Economic Affairs.

AT-1 Bonds are Classified as Perpetual Securities issued by Banking Institutions to satisfy regulatory Capital Prerequisites. These instruments lack a definitive Maturity Date, thereby obligating Banks to render periodic Interest Disbursements throughout the lifespan of the Bond. Nonetheless, they incorporate a "Call Option" which permits the issuer to redeem or repay the investors following a predetermined duration.

Mutual funds are now instructed to evaluate

Additional Tier-1 or AT-1 Bonds employing the Yield to Call (YTC) approach. Yield to Call signifies the anticipated return an investor may accrue if they acquire a Bond and retain it until the issuer reclaims it on the designated Call Date, prior to the Bond reaching Maturity.

The NFRA Report advocates that since the prevalent market practice for AT-1 Bonds typically involves Trading or Quoting Prices on a Yield-to-Call Basis, the valuation of these bonds on a Yield-to-Call framework, adjusted with suitable risk spreads, is congruent with the principles of market-based measurement as delineated by Ind AS-113.

Furthermore, the NFRA report underscores that the recommendation concerning the Yield-to-Call Methodology is specifically tailored to the interpretation of Ind AS-113 in relation to the valuation of AT-1 Bonds. The determination of deemed maturity dates for ancillary purposes is beyond the purview of the NFRA.

In alignment with the NFRA's recommendations, SEBI articulated in a Circular that Mutual Funds should adopt the Yield-to-Call Method for the assessment of AT-1 Bonds to ensure conformity with market practices and the principles encapsulated in Ind AS-113. However, for all other purposes, the deemed maturity of perpetual bonds shall comply with the directives established in the Master Circular. Although AT-1 Bonds are issued by Banking Institutions without a Maturity Date, they indeed encompass a Call Option.

Conclusion:

In general, market participants exhibit a proclivity for enhanced returns through Additional Tier-1 Bonds. The yields associated with conventional fixed deposits do not attain comparable levels of return. Financial Institutions periodically augment their Capital by issuing such Bonds at regular intervals. Furthermore, Lenders actively advocate for these perpetual bonds to potential investors, emphasizing the numerous advantages associated with their investment. Currently, however, seasoned investors are approaching these bonds with heightened circumspection. AT1 Bonds constitute High-risk, High-return Perpetual Securities that offer superior yields relative to Traditional Fixed Deposits. Banks intermittently issue these Bonds to satisfy their Capital Adequacy requirements.

References:

Reserve Bank of India Guidelines.

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Project Financing, Due Diligence, and Assessment

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Introduction

Project financing plays a critical role in bringing ambitious projects to life, from infrastructure and energy to technology and healthcare. This form of financing structures a loan around the project's cash flow and assets, offering an approach where the project's future earnings become the primary source of repayment. To secure financing, project sponsors and financiers conduct thorough due diligence to assess the feasibility, risks, and potential return on investment.

1. Understanding Project Financing

1.1 Definition and Structure

Project financing refers to a type of funding where debt and equity are used to fund a project, with future cash flow from the project serving as the collateral.

The structure is usually "non-recourse," meaning lenders cannot pursue sponsors' personal assets beyond their investment in the project.

It's commonly used for large-scale projects such as renewable energy plants, roads, pipelines, and telecommunications networks.

1.2 Participants in Project Financing

Project Sponsors: Initiators who identify and develop the project.

Lenders: Banks or financial institutions providing debt.

Equity Investors: Provide capital in exchange for ownership or profit participation.

Government and Regulatory Bodies: Set project guidelines and sometimes offer guarantees or subsidies.

Suppliers and Contractors: Manage operational and technical aspects.

1.3 Stages in Project Financing

Project Development: Identifying project feasibility and defining objectives.

Financial Structuring: Determining capital mix, risk allocation, and repayment terms.

Construction Phase: Active construction and managing financing through milestones.

Operation Phase: Managing cash flows for debt servicing and returns.

Termination or Sale: Disposal of assets or sale to new owners upon project completion.

2. Key Concepts in Due Diligence

2.1 Purpose of Due Diligence

Due diligence helps assess risks, evaluate feasibility, and secure confidence in the project.

Identifies potential red flags that might affect the project's profitability or regulatory compliance.

2.2 Types of Due Diligence in Project Financing

Financial Due Diligence: Analyzes the project's financial health, budget estimates, revenue projections, and funding sources.

Technical Due Diligence: Focuses on the technical aspects of the project, including engineering, technology viability, and construction feasibility.

Legal Due Diligence: Evaluates compliance with laws, regulatory requirements, and contractual obligations.

Environmental and Social Due Diligence: Examines environmental impact, sustainability, and community impacts.

2.3 Risk Assessment in Due Diligence

Due diligence identifies potential risks, including market risks, operational risks, political risks, environmental risks, and financial risks.

Strategies to mitigate each risk type are developed, ensuring project stability and profitability.

3. Assessment and Feasibility Analysis

3.1 Project Feasibility Studies

A feasibility study examines whether a project is viable, often involving cost-benefit analysis, break-even analysis, and market analysis.

Factors analyzed include demand projections, pricing structures, operational efficiency, and competition.

3.2 Economic Viability and Financial Modeling

Financial modeling predicts cash flow, return on investment, and sensitivity to variables like inflation, currency fluctuations, and interest rates.

Key metrics include Net Present Value (NPV), Internal Rate of Return (IRR), Debt Service Coverage Ratio (DSCR), and Payback Period.

3.3 Environmental and Social Impact Assessment

Compliance with environmental laws, community impact, and sustainability goals are often part of the funding conditions.

Environmental, Social, and Governance (ESG) criteria are becoming increasingly vital, influencing investor decisions.

4. Risk Management in Project Financing

4.1 Types of Risks

Construction Risk: Delays, cost overruns, or technical challenges.

Operational Risk: Issues in project operation, such as technical failures or inefficient performance.

M***arket Risk:*** Variability in demand, pricing, and competition.

Legal and Regulatory Risks: Changes in laws or failure to meet compliance.

Environmental Risks: Negative impact on the environment or failure to meet sustainability guidelines.

4.2 Risk Mitigation Strategies

Insurance: Covers risks like construction delays, property damage, and business interruptions.

Hedging: Reduces risks associated with fluctuating interest rates or exchange rates.

Guarantees and Covenants: Lenders may require guarantees from sponsors or covenants that mandate certain actions if financial performance declines.

Diversification and Contingency Funds: Allocation of contingency reserves to handle unexpected costs.

5. Structuring Project Finance Transactions

5.1 Debt and Equity Composition

Debt is often senior or subordinated, with different levels of priority in case of liquidation.

Equity is provided by project sponsors or third-party investors willing to share in the risks and returns.

5.2 Financing Instruments

Bank Loans: Traditional loans with fixed interest rates.

Bonds: Debt instruments issued to raise capital, often with long maturity.

Public-Private Partnerships (PPPs): Collaborative financing between the government and private sector.

Export Credit Agency (ECA) Financing: Government-backed financing for projects in foreign countries.

5.3 Loan Covenants and Agreements

Covenants may include performance benchmarks, dividend restrictions, or additional disclosures.

Agreements outline repayment terms, project milestones, and conditions for disbursement.

6. Regulatory and Compliance Considerations

6.1 Importance of Compliance in Project Financing

Compliance ensures projects meet legal and environmental standards, avoiding penalties or operational shutdowns.

Projects may also need permits and adhere to guidelines for tax incentives or subsidies.

6.2 Monitoring and Reporting Requirements

Regular reporting to stakeholders, lenders, and regulatory bodies is essential.

Key reports include financial statements, performance reviews, and risk management updates.

6.3 International Compliance Standards

Standards such as the Equator Principles, World Bank Environmental and Social Standards, and International Financial Corporation (IFC) Performance Standards may apply, especially for cross-border projects.

7. Case Studies in Project Financing

7.1 Renewable Energy Projects

Example: Offshore wind farms, where sponsors raised funds through bonds and bank loans.

Due diligence included environmental impact studies and analysis of regulatory support for renewable energy.

7.2 Infrastructure Projects

Example: Highway toll road funded by a mix of government support and private investment.

Challenges in assessing revenue from tolls and traffic flow forecasts were managed through detailed feasibility studies.

Reserve Bank of India on Project financing :

The Reserve Bank of India (RBI) has set specific guidelines for project finance to ensure that lending institutions, particularly banks, handle large project financing responsibly. These guidelines aim to mitigate risks, support sustainable development, and maintain financial stability within the banking sector. Here's an overview of the RBI's main guidelines and principles regarding project finance:

1. Eligibility Criteria for Project Finance

RBI guidelines stipulate that banks can extend project financing only to borrowers who meet certain eligibility criteria. These criteria ensure that projects receiving funding have a solid foundation and viable business models. Key criteria include:

Promoter's Contribution: Project promoters must contribute a specific portion of the project cost upfront as equity.

Debt-Equity Ratio: RBI requires a prudent debt-equity ratio, typically ranging from 2:1 to 4:1 depending on the project type, to ensure that promoters bear adequate financial responsibility.

Track Record of the Borrower: Borrowers should have a credible track record and demonstrate financial stability, particularly for large-scale projects.

2. Loan Disbursement and Monitoring

RBI mandates strict monitoring and phased disbursement of loans, ensuring that funds are released based on project milestones. Key requirements include:

Phased Disbursements: Loans are disbursed based on the project's completion stages to minimize risk.

Project Monitoring Mechanism: Banks must establish a monitoring committee or appoint experts to oversee project progress, check for delays, and manage risks. Regular reporting ensures transparency.

Escrow Accounts: RBI recommends that lenders secure their interest through escrow accounts to manage project cash flows. This ensures that income from the project is used for debt servicing before other payments.

3. Due Diligence and Risk Assessment

RBI's guidelines emphasize comprehensive due diligence for project finance. Due diligence includes:

Technical Feasibility: Assessment of technical viability, project design, technology used, and scalability.

Market and Financial Feasibility: Evaluation of market demand, revenue projections, and potential profitability.

Legal and Regulatory Compliance: Ensuring that the project complies with local, state, and national regulations, environmental guidelines, and RBI's lending policies.

Risk Mitigation: RBI expects banks to assess credit, operational, market, legal, and environmental risks, and implement mechanisms like insurance, hedging, or

guarantees to mitigate identified risks.

4. Consortium and Syndicated Loans

For large projects requiring significant funding, RBI allows consortium or syndicated lending, where multiple banks participate to reduce risk exposure:

Lead Bank Responsibility: In consortium loans, a lead bank is appointed to coordinate activities, monitor the project, and ensure compliance with agreed terms.

Information Sharing: All participating banks are required to share relevant project information, ensuring transparent and collective decision-making.

5. Prudential Norms and Capital Adequacy

The RBI has set prudential norms to limit banks' exposure to individual borrowers and sectors:

Exposure Limits: To reduce concentration risk, banks have limits on exposure to individual projects or companies. RBI caps exposure limits based on a percentage of the bank's Tier-1 and Tier-2 capital.

Capital Adequacy Requirements: For project finance, especially in infrastructure, banks must hold additional capital against their loan exposure to cover potential losses. Capital adequacy ratios help absorb unexpected losses, maintaining banking sector stability.

6. Restructuring and Resolution of Stressed Assets

RBI provides guidelines on restructuring project loans if projects face financial distress:

Flexible Structuring and Refinancing: RBI permits flexible structuring to allow longer repayment periods for infrastructure and core industry projects.

Corporate Debt Restructuring (CDR): RBI offers guidelines under which stressed loans may be restructured, giving borrowers more time for repayment or altering loan terms without marking them as non-performing assets (NPAs) if certain conditions are met.

Strategic Debt Restructuring (SDR): RBI guidelines allow lenders to convert a portion of debt into equity in case of default, enabling banks to take control and find a suitable buyer.

7. Environmental and Social Governance (ESG) Compliance

In line with global trends, RBI encourages banks to consider Environmental, Social, and Governance (ESG) factors in their lending practices:

Environmental Impact Assessments (EIA): RBI encourages banks to conduct EIAs as part of due diligence, particularly for large-scale infrastructure and industrial projects.

Sustainable Lending: RBI's guidelines increasingly support the financing of green projects, especially in renewable energy, promoting environmentally and socially responsible lending practices.

8. Priority Sector Lending (PSL)

RBI has guidelines under Priority Sector Lending that encourage banks to finance certain projects that contribute to economic growth:

Inclusion of Infrastructure and Renewable Energy: Priority sectors now include renewable energy, social infrastructure, and small-scale infrastructure projects. RBI mandates a portion of bank lending to go towards these sectors.

9. Loan Documentation and Covenants

RBI emphasizes thorough documentation and covenants to safeguard lenders' interests:

Comprehensive Documentation: Loan agreements must include clear terms on repayment, performance benchmarks, collateral, and exit clauses.

Covenants: Banks often impose covenants such as maintaining minimum financial ratios or restrictions on additional borrowing, helping manage project risks.

10. Guidelines for Infrastructure and PPP Projects

RBI provides specific guidelines to support Public-Private Partnership (PPP) projects:

Partial Risk Guarantee Mechanisms: RBI supports risk-sharing mechanisms where the government or other financial institutions may partially guarantee loans, reducing banks' risk exposure.

Viability Gap Funding (VGF): RBI allows banks to consider government-backed viability gap funding, especially for projects with high capital outlay but delayed revenue generation, such as toll roads or public transportation.

RBI's guidelines on project financing provide a structured and secure approach for banks, enabling responsible lending for large-scale projects. By balancing risk management, due diligence, and capital adequacy, RBI's regulations help stabilize both the banking sector and the broader economy while fostering growth in critical sectors like infrastructure and renewable energy. These measures ensure that banks fund projects with viable foundations, risk management practices, and compliance with environmental and social standards, helping projects succeed sustainably.

Case study on project financing :

Case Study: Project Financing of a Renewable Energy Wind Farm

Project Overview

A renewable energy company, Wind Power Ltd., plans to construct a 150 MW wind farm in Maharashtra, India. The total project cost is estimated at $300 million, and the company aims to generate sustainable electricity to contribute to India's renewable energy goals. The company approached a consortium of banks led by Bank of India to secure financing for the project.

Financing Structure

The financing for this wind farm follows a project finance model with the following structure:

Equity Contribution: Wind Power Ltd. provides 30% ($90 million) of the project cost as equity.

Debt Financing: The consortium of banks provides the remaining 70% ($210 million) as a loan, structured with a 15-year term at a fixed interest rate, with repayments starting after construction.

Due Diligence and Risk Assessment

The banks conducted thorough due diligence, covering several aspects:

Technical Feasibility:

Independent engineers evaluated the project site's wind potential and the technology proposed for the turbines.

The due diligence confirmed that the location had sufficient wind speed to generate consistent electricity output.

Market Feasibility:

The project had a Power Purchase Agreement (PPA) with the state utility, ensuring a fixed rate for the electricity generated, reducing market risk.

The PPA provided long-term revenue predictability, allowing the bank to assess cash flow with greater confidence.

Environmental and Social Impact:

The project's environmental impact was studied, and the developer obtained necessary environmental clearances from local and national authorities.

The project also engaged in community development programs to support the local population, aligning with the banks' Environmental, Social, and Governance (ESG) policies.

Financial Projections and Stress Testing:
Financial models were created to assess cash flows, debt service coverage ratio (DSCR), and other critical metrics.

Stress testing was conducted to analyze the impact of potential delays, cost overruns, and variations in wind speed.

Risk Mitigation Measures

Insurance: The project was insured against construction delays, equipment damage, and business interruption.

Escrow Account: All project revenues were deposited in an escrow account, giving priority to debt servicing before distribution to equity holders.

Debt Covenants: The loan agreement included covenants, such as maintaining a minimum DSCR and restricting additional borrowing.

Project Execution and Outcome
The wind farm was completed on schedule within the budget, and the first phase of electricity generation began six months after construction.

The consistent cash flow enabled WindPower Ltd. to service the debt according to the agreed-upon terms.

Positive environmental and social impacts, along with renewable energy production, contributed to the project's success.

This case study illustrates how project financing, when structured with careful due diligence and risk mitigation, enables the development of capital-intensive renewable energy projects, supporting sustainable development goals while safeguarding the financial interests of lenders and investors.

Conclusion
Project financing, due diligence, and assessment are integral to realizing major projects with optimal efficiency and risk mitigation. Thorough due diligence and assessment help safeguard investor interests and contribute to sustainable project development, while financing structure and compliance ensure long-term success.

Transforming Customer Interactions and Personalization in CRM Systems through advanced Machine Learning and Generative AI

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Introduction

The Evolution of Customer Relationship Management (CRM) CRM systems have long served as the fundamental framework in the financial sector to efficiently manage and know their customer relationships. To make the CRM system robust and user friendly it has gone through several significant advancements since their inception, for instance transitioning from a very simple customer data storage and management tools to sophisticated, cloud-based platforms in recent decades. The CRM system has evolved from basic customer interaction tracking to becoming an integrated tool for driving corporate strategies. The most notable paradigm shift has occurred with the implementation of artificial intelligence, enabling these systems to transcend basic data management and engage customers intelligently.

The Role of Personalization in Modern CRM Use of personalization is one of the main ingredients in a successful CRM strategy with heightened demands for greater personalization across each customer touchpoint. It is no longer good enough

to store customer data; businesses must creatively interact with their customers in personalized and meaningful manners. The ability for personalized recommendations, messages, or services will certainly go a long way in bolstering customer satisfaction and loyalty. As a result, personalization is now seen as a key differentiator in competitive markets, and businesses are increasingly turning to AI to help them achieve this.

Defining Generative AI and Its Functionality

Generative AI is the quantum leap in the development of AI that finally allows AI to create new content, rather than simply analysing or sorting existing data. This contrasts with other models of AI, which were developed under strict rules for accomplishing functions such as data sorting and predictive analytics. Generative AI was created for the generation of new data output, largely indistinguishable from that created by humans. A fully-fledged generative AI is an algorithmically complicated interplay of high-level neural networks generating text, images, even music-the stuff of our everyday instincts. The term "generative" points to the AI-driven ability to generate-either a human-like textual response to a given textual prompt, or as fantastic in developing realistic images from their textual descriptions or composing music pieces. These models have been trained on large data sets of learning how to create coherent output at contextually relevant levels.

The prime example of generative AI includes OpenAI GPT models, which build complex text out of simple prompts. This type of generative AI is DALL-E: generating images from word descriptions. The body of creative work that is made possible by using these systems is quite varied. The underlying functionality of generative AI involves understanding context, generating varied outputs, and continuously improving through machine learning this makes it a powerful tool in transforming CRM, where each customer interaction and experience will need to be personalized.

Generative AI: Key Components

The effectiveness of generative AI stems from several advanced technologies that work together to process data, recognize patterns, and produce human-like outputs. These key components include Natural Language Processing (NLP), Machine Learning (ML), and Deep Learning.

1) **Natural Language Processing (NLP):** NLP is a segment of AI that deals with the interaction of computers and humans in natural- language form. NLP allows generative AI to understand and interpret human languages in meaningful ways. It also permits AI to process customer queries, formulate responses, and even detect sentiment in communications; hence, NLP becomes invaluable in CRM applications.

2.) **Machine Learning (ML):** Machine learning is at the core of generative AI, whereby systems are able to learn from data without prior programming. With iteration of the learning processes, over time, it enables AI models to improve their capability to generate content both accurately and relevantly. In CRM, ML helps AI to better understand customer preferences and predict their needs, facilitating more personalized interactions.

3) **Deep Learning:** Deep learning is a class of machine learning that uses neural networks with more than one layer, hence the name "deep," and is capable of processing and learning from huge amounts of data. These neural networks resemble the structure of the human brain, enabling AI systems to process inputs of complex natures, like voice, texts, and images, and further elaborate this information into sophisticated outputs. Deep learning has become critical for the development of advanced generative models, such as GPT, which relies on huge data processing to generate high-quality content.

4) Large Transformers are a specific deep learning model that revolutionized the field and enabled AI to manage huge amounts of data, structured sequentially, such as text. The transformer uses

an attention mechanism to permit concentration on particular parts of the input data. This will permit them to understand the meaning of the content and the relations between elements of the data. This becomes important in CRM, where knowing the context in which customers make interactions is necessary to offer them relevant and personalized responses.

Generative AI: Key Components Role in Customer Relationship and Personalization:

Generative AI is already making significant inroads into CRM systems, providing businesses with new ways to engage with customers, enhance personalization, and streamline operations. Some of the key implementations of generative AI in CRM include:

1) Automated Customer Service: Generative AI enables the chatbots and virtual assistants with intelligence to respond to customer queries with high resolution rates. AI-driven agents can produce responses appropriate in context and human-like, hence offering real-time assistance to customers. This not only reduces the load of human customer service representatives but also ensures timely and efficient support to customers.

2) Personalized Content Creation: In new services and product marketing, generative AI has been put to work on personalizing email campaigns, product recommendations, and social media content to particular customers' preferences. By analysing customer data, AI can even create content that best resonates with any particular audience and thus improves engagement while raising conversion rates.

3) Dynamic Customer Interaction: It allows generative AI to interactively engage and dynamically adapt with customers. Let's consider the following: through AI, responses get modified with the customers' every move in real time, perhaps tracked by sensed changes in sentiment or level of engagement. This will make the interaction relevant for the customer, thus allowing him to become responsive, hence improving his experience

4) Predictive Analytics: While identifying patterns, generative AI also uses historical data in analyzing and making predictions on future customer behaviours and preferences. It will, therefore, enable business firms to take the initiative in solving customer needs, such as offering product recommendations or discounts even before the customer shows interest in them.

5) Content Generation for Knowledge Bases: In this way, AI allows for auto content generation of the knowledge base and frequently asked questions. The most important thing here is that CRM systems require correct details and exhaustive knowledge bases to always support the customers.

6) Real-Time Communication and Chatbots: One of the most significant applications of generative AI in CRM is the enhancement of real-time communication through intelligent chatbots and virtual assistants. These AI-driven tools are revolutionizing customer service by providing instant responses to customer queries, mimicking human conversation, and understanding customer intent.

7) Personalized Customer Engagement: Personalization is at the core of effective CRM, and generative AI is taking personalization to new heights. By analyzing vast amounts of customer data—such as purchase history, browsing behaviour, and previous interactions—AI can generate highly tailored messages, offers, and recommendations that resonate with individual customers. For instance, generative AI can craft personalized email campaigns that address customers by name, reference their recent purchases, and suggest complementary products they might be interested in. This level of personalization

extends beyond just content generation; it also includes timing. AI can predict the best time to send a message based on when the customer is most likely to engage, increasing the chances of a positive response.

Conclusion:

With generative AI being continuously adopted by CRM systems, this is a trend one would logically expect to continue with even more radical changes. Further generations of AI are expected to offer further gains in model sophistication, with richer emotional understanding and thus stronger personalization. Similarly, AI armed with other emerging technologies-like the Internet of Things and blockchain-will create experiences that are not just more efficient but safer for end-consumers. This involves a strategic leveraging of the exponentially increased intelligence of AI through strategic investment in advanced technology along with an innovative culture and adaptability. Companies that seamlessly merge generative AI into their CRM strategy undoubtedly emerge as the frontrunning companies in the competitive market. They will attain it by delivering remarkable customer experiences that ensure loyalty and hence guarantee long-term success. Generative AI is one of the key developments that enable CRM systems to create more client contact and personalization, with amazing prospects. Successfully meeting the challenges of generative AI and embracing the power of AI-powered solutions will allow firms to achieve unparalleled levels of consumer involvement, thus giving them a competitive edge within today's fast-paced market.

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Treatment of Willful Defaulters

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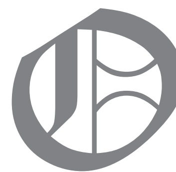
Practicing Cost Accountant

n July 30, 2024, the Reserve Bank of India (RBI) promulgated updated directives concerning the handling of willful defaulters, which included the implementation of the Master Directions on Willful Defaulters and Large Defaulters (effective from October 28, 2024) (Master Circular/ Master Directions 2024). Previously, these directives were amalgamated, incorporating all prior instructions disseminated by the RBI regarding the aforementioned issues up to June 30, 2015. The Master Directions of 2015 have now been superseded by the Master Directions of 2024. This Article aims to furnish a comprehensive analysis of these guidelines, their historical context, developmental trajectory, pivotal judicial interpretations, and pragmatic measures for institutions, financial entities, borrowers, and guarantors.

Suggestive Steps:

a) **Transparency:** It is imperative to ensure full disclosure and transparency in all financial interactions. This entails presenting realistic and attainable financial forecasts to the lender, avoiding excessively optimistic or idealistic projections. Furthermore, it is

essential to regularly inform the lender of any significant alterations in business or financial circumstances. Transparency fosters trust and exemplifies the borrower's dedication to prudent financial governance.

b) **Commitments:** It is vital to uphold all financial commitments, including promises of equity infusion. Borrowers should only commit to those conditions and timelines that they can feasibly fulfil. Moreover, borrowers are encouraged to be forthright regarding their financial capabilities and to refrain from consenting to terms that exceed their control. This methodology aids in sustaining credibility and averts potential disputes with lenders.

c) **Fund Usage:** It is essential to ensure that the funds disbursed by the lender are utilized exclusively for the designated purposes. Regular oversight and meticulous documentation of fund utilization can avert unauthorized asset liquidation and fund misappropriation. Establishing internal controls and conducting periodic audits are crucial to ensure adherence to the stipulated terms of the loan.

d) **Contingencies:** It is advisable to anticipate possible challenges and to establish provisions for unforeseen circumstances. Borrowers should incorporate contingency plans within their financial projections and solicit reserve funding from the lender to address potential cost overruns or delays. This proactive strategy can mitigate the risk of defaults stemming from unexpected complications.

e) **Response:** It is critical to promptly and comprehensively address any communications from the lender, including show-cause notices. Timely and detailed responses signify the borrower's readiness to cooperate and resolve issues. Engaging proactively with the lender to discuss any difficulties in meeting financial obligations and seeking mutually beneficial solutions is also recommended.

Facing Notice:

- ✔ **Information:** It is essential to compile all pertinent financial documents and evidence that substantiate compliance. This includes financial statements, transaction records, and any correspondence with the lender that illustrates efforts to meet obligations.

- ✔ **Representation:** A comprehensive representation should be drafted, addressing each point raised in the show-cause notice. Any deviations from the agreed-upon terms must be elucidated, along with evidence of attempts to comply. Additionally, it is important to underscore any external factors that may have adversely affected business operations and financial outcomes.

- ✔ **Legal Advice:** It is prudent to consult with legal professionals to ascertain rights and prepare for personal hearings. Legal experts can assist in formulating a robust defence and ensuring that all procedural requisites are satisfied.

- ✔ **Hearings:** Engage in personal hearings with the Review Committee and articulate a compelling argument. Be equipped to furnish clear and succinct justifications, substantiated by empirical evidence, to establish that the default was not intentional. Emphasize any attempts made to rectify the circumstances and propose feasible alternatives for restructuring or enhanced support from the lending institution.

One-Time Settlement and Compromise:

In the context of financial distress and the impending designation as a wilful defaulter, borrowers may contemplate a one-time settlement (OTS) or compromise settlement pursuant to the guidelines established by the Reserve Bank of India (RBI) and the policies of their respective financial institutions. This necessitates the formulation of a comprehensive settlement proposal that delineates the financial challenges encountered, the rationale for default, and the proposed settlement figure.

The proposal ought to encompass potential sources of funding for the settlement and any collateral that may be offered. If deemed appropriate, the borrower may also solicit counsel from a financial advisor or consultant who possesses expertise in debt restructuring to ascertain that the proposal is both pragmatic and in alignment with the bank's policies. The proposal should be thorough and incorporate all requisite documentation, including financial statements, cash flow forecasts, and details regarding assets and liabilities. Upon submission, the borrower should be prepared to engage in negotiations regarding the terms and conditions, including the settlement sum, payment timeline, and any concessions that may be solicited.

The bank will conduct a thorough evaluation of the settlement proposal through its internal committees, such as the External Committee or Compromise Settlement Committee, in accordance with the bank's established policies. This evaluation entails an analysis of the borrower's financial status and the viability of the proposed settlement. Following a satisfactory assessment, the bank's committee will sanction the one-time settlement or compromise proposal, which may necessitate multiple levels of authorization contingent upon the magnitude and intricacy of the settlement.

Upon approval, a formal settlement agreement will be executed between the borrower and the bank, stipulating the terms and conditions of the settlement, the payment schedule, and other pertinent details. The borrower is obliged to adhere to the stipulated payment schedule and comply with all terms to avert additional complications or penalties.

The bank will oversee the settlement process to ensure compliance, and upon successful fulfilment, the borrower's name will be expunged from the defaulter list. Following the complete payment of the settlement amount, the borrower should formally request the bank to amend the records with Credit Information Companies (CICs) and expunge their name from the list of wilful defaulters, where applicable.

In the event that the settlement proposal is rejected or if legal complexities arise, it is imperative to seek legal counsel to comprehend the options available for further negotiation or legal recourse.

Divesting of Stake by following RBI Guidelines and Bank Policies:

In a similar vein, considering their financial capabilities and the prospect of resolving the default situation in a timely manner, borrowers may also deliberate on the divestment of their stake in the business. This process commences with a meticulous evaluation of the financial condition of the business to ascertain the degree of distress and the ability to effect payment or settle outstanding obligations.

Divesting an equity interest in an enterprise to other interested stakeholders necessitates the identification of prospective investors, the formulation of a comprehensive business valuation, as well as the creation of financial projections. It is imperative to engage with financial institutions and lenders to obtain their consent for the divestment, predicated upon the financial standing and credibility of the investor, in conjunction with the internal policies of the lending institution. The negotiation of terms with the incoming investors is critical to ensuring that the transfer of equity retains value for the borrower, promoters, and investors alike. The conclusion and execution of the divestment agreement necessitate compliance with all relevant legal and regulatory frameworks.

In the process of divesting a stake in a business, various types of agreements are typically requisite to guarantee the legality of the transaction and safeguard the interests of all stakeholders involved. These agreements encompass a Letter of Intent (LOI) or Term Sheet to delineate initial terms, a Non-Disclosure Agreement (NDA) to safeguard confidential information, as well as a Share Purchase Agreement (SPA) or Business Transfer Agreement (BTA) to formalize the sale and transfer of shares or assets. Such agreements may incur stamp duty and registration fees in accordance with the applicable

statutory laws of the jurisdiction wherein the assets or entity are situated. Furthermore, a Shareholders' Agreement regulates the relationship between existing shareholders and the new investor subsequent to the transaction, while an Escrow Agreement oversees the holding and disbursement of funds or documents. A Promoter Undertaking secures commitments concerning non-compete clauses, and Employment Agreements serve to retain key employees or promoters. If pertinent, an Assignment of Contracts facilitates the transfer of existing contractual obligations, while Regulatory Filings and Approvals ensure adherence to legal stipulations. Lastly, Tax Considerations and Agreements address the fiscal ramifications of the transaction. It is advisable for the borrower to consult professionals with expertise in such complex transactions.

To Conclude:

The promoters ought to pursue the release of their personal guarantees and securities. Typically, when assessing these requests, financial institutions would demand the provision of collateral of equivalent value and guarantees supported by net worth that is deemed satisfactory by the banks. Consequently, all these factors necessitate careful consideration and negotiation with prospective investors during the terms of engagement.

The borrower must acknowledge that being classified as a 'wilful defaulter' carries severe ramifications; such a classification not only impairs access to financing but also entails considerable civil and criminal liabilities. Therefore, it is paramount for borrowers to conduct themselves with responsibility by providing realistic financial projections and upholding transparency in their transactions to avert being categorized as wilful defaulters.

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Artificial Intelligence as integral part of Indian Banking

Dr. Jyotsna Haran
Presently visiting Professor in Mumbai

Did we ever imagine machines doing our daily routine work? Perhaps NEVER. But now it is YES in very common sense, may the fact children know better than elders.

Artificial Intelligence (AI) is revolutionizing the Indian banking sector by enhancing efficiency, improving customer experience, and enabling innovative financial solutions. With a growing demand for digital banking services and increasing competition, AI has become a cornerstone for driving transformation in the industry. AI can go to which extent, who knows, time will reveal. Simply to talk of few aspects, all aspects difficult to cover here, for the reason ALL is too big.

Enhancing Customer Experience

Indian banks are leveraging AI-powered chatbots and virtual assistants to improve customer interactions. Tools like SBI's SIA and ICICI Bank's iPal provide instant support for common queries, such as account details, transaction statuses, and loan information. These systems operate 24/7, ensuring consistent customer service while reducing operational costs.

Artificial Intelligence (AI) has significantly transformed customer

service in Indian banking by making it faster, more efficient, and accessible around the clock.

AI-powered tools like chatbots are increasingly used to handle routine customer queries. For instance, State Bank of India's chatbot *SIA* and ICICI Bank's *iPal* provide instant support for tasks such as balance inquiries, transaction tracking, and loan details. These tools operate 24/7, ensuring customers get timely assistance without the need for human intervention.

Multilingual Support

In a linguistically diverse country like India, AI solutions are designed to communicate in multiple languages, catering to a wider customer base. This capability enhances accessibility for rural and regional customers, bridging the gap in banking services.

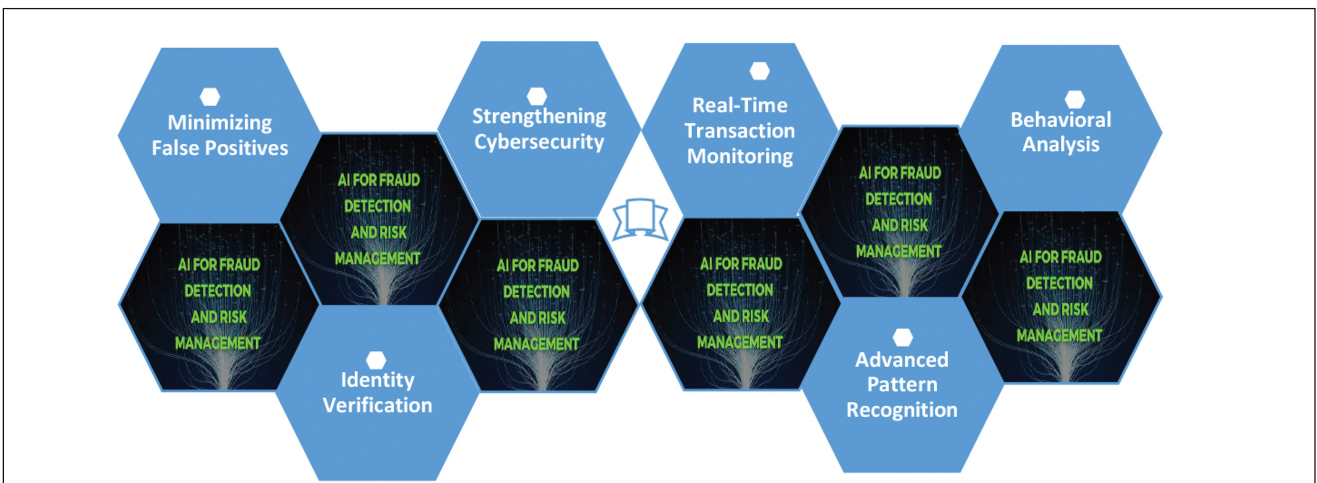
AI systems can analyze customer concerns and provide immediate solutions, reducing the need to escalate issues to bank representatives. This minimizes waiting times and enhances user satisfaction

By analyzing customer data, AI can offer tailored recommendations or solutions during interactions. For example, customers seeking loan information may receive personalized options based on their credit history and financial needs.

Fraud Detection and Risk Management

AI is a game-changer in identifying fraudulent activities. Machine learning algorithms analyze large volumes of transaction data to detect unusual patterns or anomalies in real time. For instance, AI systems can flag potential credit card fraud by identifying transactions made outside the customer's typical behavior. Banks such as HDFC and Axis Bank are deploying AI to strengthen their cybersecurity frameworks and mitigate risks.

Fraud detection is a critical area where Artificial Intelligence (AI) has proven to be highly effective for Indian banks. By leveraging advanced algorithms



and real-time data analysis, AI helps identify and prevent fraudulent activities, ensuring security for both customers and financial institutions.

AI systems monitor millions of transactions in real time, identifying patterns and flagging suspicious activities. For instance, if a customer's credit card

is used in an unusual location or for an unusually high-value purchase, the system can immediately alert the bank and temporarily block the transaction.

AI-powered tools analyze customer behavior, such as spending habits, transaction frequency, and location trends. Any deviation from established patterns, like sudden large withdrawals or unusual cross-border transactions, triggers alerts for potential fraud.

Machine learning algorithms detect complex fraud patterns that might escape traditional rule- based systems. These algorithms continuously improve by learning from past fraudulent activities, becoming more accurate over time.

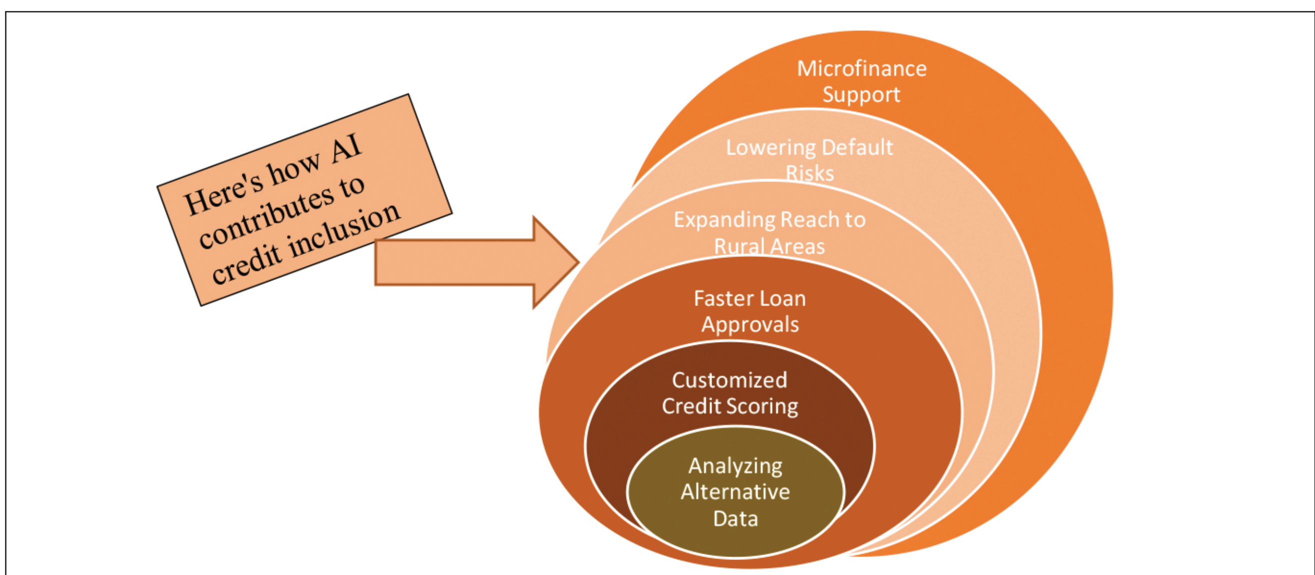
AI enhances the security of account access through biometric authentication methods like facial recognition and voice identification. These methods make it harder for unauthorized individuals to gain access to accounts.

Traditional fraud detection systems often result in false positives, causing unnecessary inconvenience to customers. AI reduces this issue by providing more accurate assessments, ensuring only genuine threats are flagged.

AI detects potential cyber threats such as phishing, malware, and hacking attempts by monitoring network traffic and identifying unusual patterns. This proactive approach helps banks prevent breaches before they occur

AI's Role in Promoting Credit Inclusion in Indian Banks

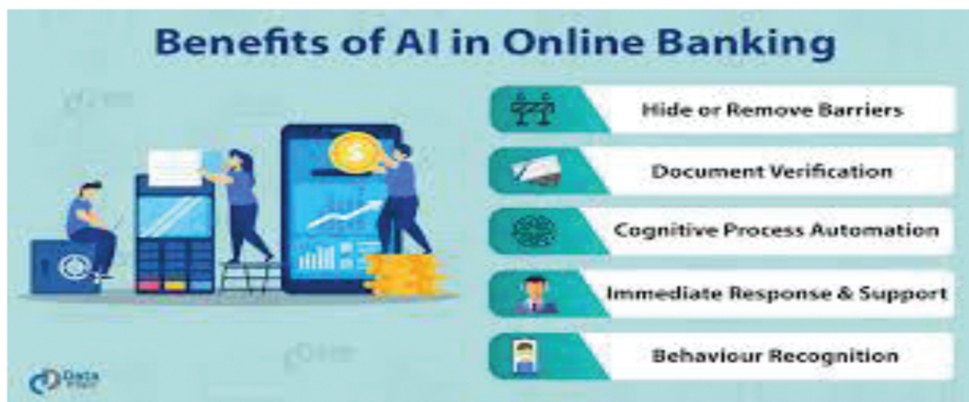
Artificial Intelligence (AI) is transforming the way Indian banks evaluate creditworthiness, making loans and financial services accessible to a broader population. Traditional methods of credit assessment often exclude individuals without formal credit histories, but AI enables a more inclusive approach by leveraging alternative data and advanced analytics.



AI algorithms consider non-traditional data sources, such as mobile phone usage, utility bill payments, e-commerce transactions, and social media behavior, to evaluate creditworthiness. This is particularly beneficial for individuals in rural or unbanked areas who lack formal financial records.AI-powered

systems create dynamic credit scores tailored to the financial behavior and risk profiles of individuals. For example, a small business owner with irregular income but consistent bill payments can still be considered creditworthy based on AI's comprehensive analysis. By automating the credit evaluation process, AI significantly reduces the time required for loan approvals. Borrowers no longer need to wait for extensive manual verification, making financial support accessible when it is needed most.

Many rural Indians are underserved by traditional banking due to a lack of formal documentation. AI tools, combined with mobile banking platforms, enable banks to assess these individuals and provide loans, fostering financial inclusion in remote regions. AI models predict an applicant's ability to repay loans by analyzing diverse data points and identifying potential risks. This helps banks offer credit to a broader audience while managing risks effectively.AI also supports microfinance institutions by identifying potential borrowers with no credit history but strong repayment potential. This helps empower small entrepreneurs and self-employed individuals, contributing to economic growth.



Banks like HDFC, ICICI, and State Bank of India have started implementing AI-driven credit assessment systems to extend financial services to previously excluded populations. By making credit more accessible, AI plays a crucial role in fostering financial inclusion and driving India’s economic progress.

Examples of banks integrating AI into their routine activities

Indian banks, including HDFC and Axis Bank, have adopted AI-based fraud detection systems to safeguard customer accounts and minimize losses. By combining speed, accuracy, and adaptability, AI is reshaping fraud prevention strategies in the Indian banking landscape.

Indian banks like HDFC Bank and ICICI Bank are actively using AI-powered personalization to deepen customer relationships. By leveraging AI, banks not only enhance customer satisfaction but also drive business growth through better engagement and service delivery.

Several Indian banks have embraced Artificial Intelligence (AI) to enhance their operations, improve customer experiences, and streamline processes. Here are notable examples of how banks in India are integrating AI into their routine activities:

1. State Bank of India (SBI)

- AI-Powered Chatbots: SBI introduced SIA (SBI Intelligent Assistant), an AI-driven chatbot that handles millions of customer queries related to account balance, transaction history, and product information, ensuring quick and efficient service.

- Fraud Detection: SBI uses AI and machine learning to monitor transaction patterns, identify anomalies, and prevent fraudulent activities in real-time.

2. HDFC Bank

- Virtual Assistant EVA: HDFC Bank's EVA (Electronic Virtual Assistant) is an AI-based chatbot that provides instant responses to customer queries, covering over 1,000 banking-related questions.
- Risk Assessment: AI algorithms are used to assess credit risks for loan approvals, speeding up the decision-making process.
- Personalization: AI-driven tools analyze customer data to recommend tailored financial products and services.

3. ICICI Bank

- iPal Virtual Assistant: ICICI's AI chatbots iPal provides personalized banking services, handling over six million interactions monthly and assisting with tasks like bill payments and fund transfers.
- Automated Loan Processing: The bank uses AI for credit evaluation and document verification, ensuring faster loan approvals.
- Fraud Prevention: ICICI employs AI to identify fraudulent transactions by analyzing customer behavior and transaction patterns.

4. Axis Bank

- AI-Powered Lending: Axis Bank uses AI to simplify the loan application process by automating credit risk assessments and predicting customer repayment capacity.
- Conversational AI: The bank has implemented AI-driven solutions to provide voice-based assistance, allowing customers to interact with its services in a more user-friendly way.

5. Yes Bank

- Chatbots YES ROBOT: Yes Bank launched YES ROBOT, an AI chatbot that provides personalized responses to customer queries and helps with tasks such as account management and transactions.
- Big Data Analytics: The bank leverages AI to analyze customer data and predict financial trends, enabling better product recommendations.

6. Kotak Mahindra Bank

- AI for Investment Advice: Kotak Mahindra uses AI to offer investment suggestions based on a customer's financial goals, risk appetite, and market conditions.
- Enhanced Customer Support: AI systems help in resolving customer queries and improving overall service delivery.

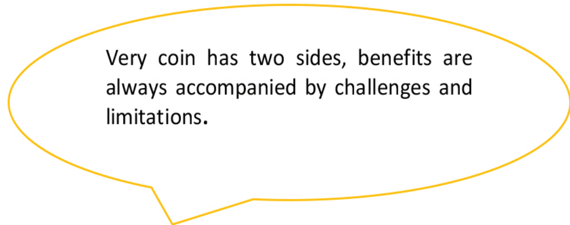
7. Punjab National Bank (PNB)

- AI-Based Fraud Detection: PNB utilizes AI and machine learning to monitor transactions, identify potential fraud, and prevent cyber-attacks.
- Loan Monitoring: AI is used to track and predict the performance of loans, reducing non- performing assets (NPAs).
- Conversational Banking: IndusInd Bank introduced an AI-based conversational assistant integrated with platforms like Alexa and Google Assistant, enabling customers to carry out banking tasks through voice commands.
- Credit Decisioning: AI-driven systems evaluate credit applications more efficiently, accelerating approvals for loans and credit cards.

These examples showcase how AI is becoming an integral part of Indian banking operations, driving innovation, and improving service delivery.

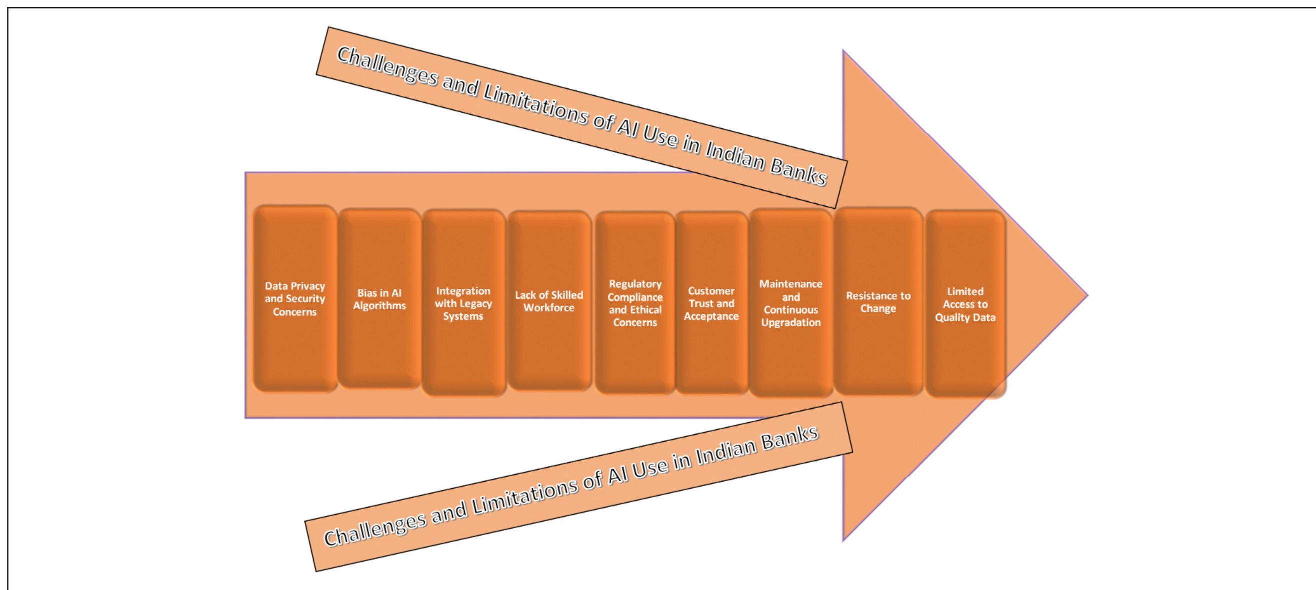
Challenges and Limitations of AI Use in Indian Banks

While Artificial Intelligence (AI) offers numerous benefits to Indian banks, its adoption comes with several challenges and limitations, lets that must be addressed.



AI systems require vast amounts of sensitive customer data to operate effectively. The storage and processing of this data raise concerns about data privacy and security. Inadequate protection could lead to data breaches, identity theft, and other cybercrimes. Indian banks must comply with stringent data protection regulations to ensure that customer information remains secure.

Implementing AI technology requires substantial upfront investment in terms of infrastructure, software, and skilled personnel. For many smaller or mid-sized banks, the cost of AI adoption can be prohibitive. This initial investment may not always yield immediate returns, posing a challenge for banks with limited resources.AI integration demands a skilled workforce capable of managing and operating advanced technologies.



However, there is a shortage of AI professionals in India, which makes it difficult for banks to find the necessary talent to deploy and maintain AI systems. This gap in skills also affects the ability of banks to train existing employees to use AI tools effectively. AI models are trained on historical data, and if this data contains biases, these biases can be inherited by the AI system.

This can lead to unfair or discriminatory outcomes, especially in credit scoring and loan approval processes. Addressing algorithmic bias is critical to ensuring that AI applications remain ethical and unbiased.

Many Indian banks still operate using legacy systems, which can be difficult to integrate with AI-driven technologies. The complexity of blending traditional banking infrastructure with modern AI tools can cause operational disruptions and lead to inefficiencies in the use of AI in banking must comply with evolving regulations from bodies like the Reserve Bank of India (RBI) and other financial authorities. Regulations regarding AI usage, data

processing, and consumer protection are still developing, and banks must navigate this complex legal landscape while adopting AI. Additionally, ethical concerns about transparency, accountability, and the potential for AI to replace human jobs need to be addressed.

While AI can enhance banking services, some customers may feel uncomfortable or distrustful of AI-driven systems, especially when dealing with sensitive financial information. Building customer trust in AI applications is a crucial challenge. Banks must ensure transparency, explain AI decision-making processes, and provide customers with a seamless transition to AI-enabled services.AI systems require constant monitoring, maintenance, and updates to stay relevant and effective. Regular adjustments are necessary to adapt to changing customer needs, market conditions, and emerging technologies. The cost and effort required to continually update and maintain AI systems can be a challenge for banks, particularly in the absence of skilled professionals.

AI models require large volumes of accurate and high-quality data to function effectively. In some cases, Indian banks may struggle to access reliable data sources, especially for underserved or rural populations. Without comprehensive data, the accuracy and effectiveness of AI solutions may be compromised. Employees and customers accustomed to traditional banking methods may resist the shift to AI-powered services. Training staff and educating customers about the benefits and functionalities of AI tools is essential to ensure smooth adoption. However, this resistance can slow down the implementation process.

Banks after a Decade—how it may be?

The banking landscape in India is set for a remarkable transformation by 2035, largely driven by advancements in technology, customer expectations, and regulatory changes. Here's what the future of Indian banks might look like:

By 2035, most Indian banks will be entirely digital, with AI-powered systems managing everything from account management to loan approvals and investment advice. Physical branches will likely become fewer and smaller, with most banking functions shifting to mobile apps, online platforms, and automated kiosks. AI chatbots and virtual assistants will provide real-time, personalized customer support, enhancing efficiency and accessibility for customers across urban and rural areas. Banks will offer a seamless experience across digital and physical touch points. Customers will be able to access banking services via smartphones, voice assistants, wearables, and even smart home devices. Services like voice-activated transactions, biometric authentication (such as facial recognition or iris scanning), and personalized banking solutions will be commonplace, providing a consistent, personalized experience regardless of the platform used.

AI and machine learning algorithms will play a pivotal role in decision-making. They will enable predictive analytics for risk management, personalized financial advice, and real-time fraud detection. Banks will use AI to not only optimize internal operations but also offer hyper- personalized services based on each customer's preferences, financial habits, and goals. Automated credit scoring models will rely on alternative data sources like social media activity, purchase behavior, and mobile phone usage, making credit more accessible to previously underserved populations. Block chain technology will likely be widely adopted for secure, transparent, and efficient transactions. It will eliminate intermediaries in financial services, reduce transaction costs, and provide greater security in areas such as cross-border payments, smart contracts, and record-keeping. By 2035, block chain could also enable the creation of digital currencies and central bank digital currencies (CBDCs), which would be widely used for everyday transactions.

The digital banking revolution, supported by AI, will enhance financial inclusion in India. People in rural and remote areas who have limited access to physical banks will benefit from mobile- based banking

solutions. AI will assist in assessing creditworthiness based on alternative data, enabling millions of unbanked individuals and small businesses to access loans, insurance, and other financial products, thus bridging the gap between urban and rural financial services.With the increasing reliance on digital banking, cybersecurity will become even more crucial. By 2035, banks will employ advanced AI-based security measures to detect and prevent fraud in real- time. Biometric authentication and multi-factor identification will be the norm, ensuring that access to sensitive financial data is more secure than ever before. AI systems will also predict cyber threats, enabling proactive measures to protect customers from evolving risks.

Sustainability will be a key focus for Indian banks, with many institutions adopting green banking practices. Banks will increasingly fund eco-friendly projects and offer products like green bonds and sustainable loans. AI will help banks assess the environmental impact of their portfolios, encouraging investments in renewable energy, electric vehicles, and other sustainable industries.

The regulatory environment will evolve to accommodate the rapid pace of technological advancements. The Reserve Bank of India (RBI) and other regulatory bodies will likely introduce frameworks to govern the use of AI, block chain, and digital currencies. AI will also help banks maintain compliance by automating reporting and monitoring transactions to ensure they adhere to regulations. By 2035, banks will be incredibly customer-centric, with services tailored to individual needs and delivered in real-time. Banks will offer not only financial services but holistic financial management, including budgeting, investment planning, tax advice, and retirement planning, all powered by AI.

Personalized banking experiences will be available 24/7, allowing customers to manage their finances with ease from anywhere in the world. With the automation of routine tasks, the role of bank employees will shift towards more strategic functions such as customer relationship management, financial advisory, and technology innovation. While AI and automation will handle day-to-day operations, human expertise will remain crucial in decision-making and in building long-term customer relationships.

By 2035, Indian banking will to be expected be entirely digital. AI will automate routine procedures, engrave financial advice, and enhance security, making banking more reachable and proficient. Physical branches will be few, replaced by virtual services and voice-activated tools. Technologies like block chain will ensure secure transactions and pave the way for digital currencies.

To sum up

The future of AI in Indian banking envisions a seamless integration of technology into everyday life, transforming banks into intuitive, customer-centric ecosystems. AI will drive hyper- personalized services, offering tailored financial advice and real-time solutions while extending banking access to rural and underserved populations through vernacular and biometric technologies. Security will reach new heights with AI-powered fraud detection and block chain- enabled transparency, ensuring trust and resilience. Instantaneous credit approvals, AI-managed Central Bank Digital Currency (CBDC) wallets, and sustainable investments will redefine financial inclusion and responsibility. Despite challenges like data privacy and ethical concerns, AI will shape Indian banking into a dynamic, inclusive, and futuristic experience that blends efficiency with empathy.

The road to this futuristic banking utopia isn't without hurdles. Data privacy will need robust frameworks, and banks must invest heavily in ethical AI. Balancing automation with human oversight will be key to maintaining trust. In the coming years, AI will empower Indian banking to achieve what seemed impossible: universal access, intuitive services, and unmatched security. As technology and humanity converge, banking will no longer be a service—it will be an experience embedded in life itself.

DevSecOps: Redefining Software Development

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The DevOps is a portmanteau of two short terms Dev and Ops, which means Development and Operations respectively. DevOps can be defined as combination of practices and tools designed to enhance ability of an organization to shorten time to market by delivering products, services and applications faster than traditional software development processes. While the term has grown further, from DevOps to DevSecOps and included security also in its ambit, this evolutionary journey of development processes to operations and security and the integrated approach will help us in understanding the current practices in a better way.

The traditional software development process is closely linked with the system development process and the concept of the life cycle management originated in 1960s in specific reference to the information systems. The Systems Development Lifecycle had many phases from the beginning or conception stage till the final stage. These phases were named as Analysis, Design, Development, Testing etc. This structured approach to the systems development caught the eye of software development professionals who adopted process and practices of

the System Development Life Cycle and a new term Software Development Life Cycle originated which was far more better and structured than adhoc code fix and release being followed hitherto. Scaling and lack of proper tools was one of the major challenges during the initial days of SDLC, which later got addressed as technology expanded its wings. Many variations of the SDLC have originated since it came into being with the earliest one being the 9 phase model, with following stages:

1. Operational plan 2. Machine and operational specifications 3. Program specifications 4. Coding specifications 5. Coding 6. Parameter testing 7. Assembly testing 8. Shakedown 9. System evaluation

The latest SDLC process contains following stages, which are mostly aligned with the erstwhile 9 stage process:

The initial days of the SDLC followed waterfall model which was essentially a sequential model where each stage was to be completed in the defined, linear, sequential and rigid manner. The various stages as depicted above are supposed to follow the same order in the waterfall method. The other known models of SDLC are:

- Iterative Model
- V Shaped Model
- Evolutionary Prototype Model
- Agile and Scrum Framework
- Lean Software Development
- Scaled Agile Framework

Each model is useful in the specific reference and often a single approach does not deliver best results instead a mix of various models or hybrid approach is followed to derive the optimum results.

The SDLC process in all models or approaches had certain stages or steps to be completed, and was riddled with issues from inception, like the inability to cope with change in requirements, silo approach resulting into the lack of close cooperation and communication between teams and absence of an effective customer feedback loop to improve the end product well in time before its obsoletion. These critical factors introduced delays in the process of release owing to the separation of operating processes followed by the Development and Operations teams. To bridge this wide gap between the Dev and Ops teams and to embrace the agile working style with efficiency in an ever changing business model landscape, DevOps as a practice was evolved in year 2009. This new approach to the software development enabled Continuous Integration and Continuous Deployment (CI/CD) which was ensuring that the multiple teams were equipped with working on the same code/different code and empowered them in performing multiple deployments a day. With the emergence of various tools, manual intervention at various stages of the SDLC was minimized and whole process from development to production deployment was automated. This improved the turn around time and visibility of the end product well in time enabling the teams to drive improvements and changes to better the product in multiple cycles in a shorter time span. The feedback loop from Ops to Dev enabled this iterative process to ensure that barriers between the teams were broken and enabled the maintainability of the product. This approach also brought in a cultural shift of more collaborative approach in the software development. In other words, without cultural shift in the teams, success of the DevOps was not possible.

The journey did not stop here. The security vulnerability after the successful testing emerged as a major challenge, especially after the cyber security threats became prominent, in the last decade and tools used in the DevOps process kept security out of loop. These security vulnerabilities were to

be fixed and again run through the same process which development cycle has already gone through thus impacting badly time to market. Thus a need was felt to incorporate security at very beginning of the development lifecycle and this "Shift left" approach led to emergence of another concept known as DevSecOps around year 2015. This inclusion of security in the entire SDLC process at the initial stages significantly improved the SDLC process by catching security issue very early and fixing them. Security which was supposed to be totally untouched was now integral part of the process. Thus DevSecOps was built on an amalgamation of Culture, People and Process where even though tools and technology were primarily ensuring the adherence to processes but the automation of the same in an integrated and coherent manner ensured the dismantling of barriers within and between the teams involved, emphasising that security was everyone's responsibility and an integral part of the development life cycle. This also inculcated habit of "doing first time right" in all respects including security.

To summarize DevOps can be defined as:

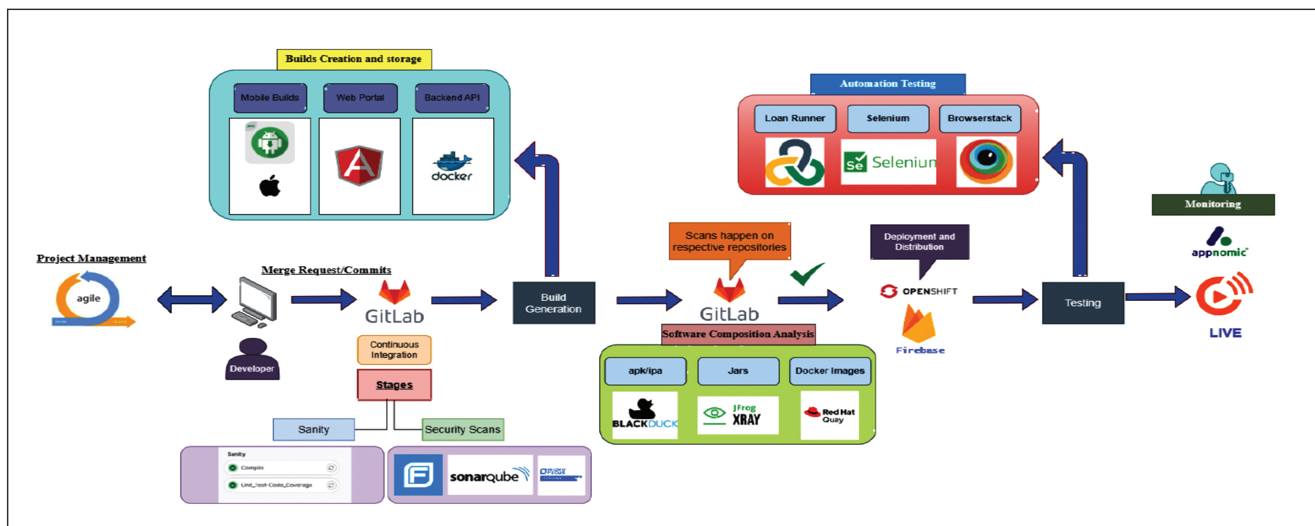
DevSecOps, a software development method, is a fusion of development, security and operations and combines organizational cultural, philosophies, practices, tools and frameworks that accelerates its ability to deliver quality and secured applications at high velocity with minimal human intervention to meet the dynamic customer demands.

The adoption of DevSecOps brings in many benefits to the organizations. Some of these benefits are enumerated below:

- Better collaboration among team members
- Accelerated delivery and Improved time to market
- Keeping pace with the modern development
- Greater reliability
- Enhanced security
- Better efficiency
- Enhanced automation
- Accuracy with security embedded
- Security no longer an after thought

DevSecOps Architecture:

A typical DevSecOps architecture consists of three layers namely development, platform and operations and management. These three layers along with some sample tools that are used in the industry are depicted below:



Creating DevSecOps Culture:

The implementation and adoption of DevSecOps is more than having tools and platform, instead it is about bringing in cultural shift in the organization and that is the reason it is not easy to implement. Therefore, creation of DevSecOps culture becomes very important for organization who wish to modernize their software or application development. This change cannot be brought in overnight but a step by step approach will help in creating a sustainable DevSecOps culture. Some of the steps which needs to be initiated for fostering this culture are:

-Create a culture of collaboration by allowing everyone, including security and operations teams to contribute in the code development and testing process. Creating a sense of shared responsibility will help in brining teams together in implementation of this.

-Every member of team should understand the importance of adoption of security practices. From development to operations, everyone should be well trained in the best security practices.

-Creation of cross functional teams to break the silos which are often created among the development and operations teams.

-Development to be done in small chunks and to go through the security check process every time a change in code is effected.

-A culture of compliance needs to be created where compliance should be adopted by everyone.

-Every team member to be told clearly that security is an enabler and not a barrier. Any vulnerability detected early saves a lot of time and cost.

DevSecOps- Future Trends

The DevSecOps field is evolving everyday in this fast paced world of digital innovational where development and security has been inseparably integrated and security by design is gaining momentum. DevSecOps is capable of revolutionizing the way whole development and security posture is managed in application design and development. As the business products and processes are driven by the innovation, rapid adoption of DevSecOps has become of paramount importance in managing and mitigating risk and developing a collaborative culture for delivering high quality software products in quick time and embedded with the adequate security controls. Some of the future trends in this field that we would see unfolding as we move forward are:

- Infrastructure as a code is gaining momentum. By adopting tools like ansible and using configuration files, management and monitoring of infrastructure is being automated up to large extent and thus freeing resources from this mundane work and inducting accuracy and cost effectiveness.

- Consolidation of tools

- Integration of AI and machine learning into DevSecOps process is expected to automate threat detection and introduce changes to mange the new threats. With these two latest tech developments, software development will become cost effective, efficient and cyber security resilient. AI copilots are brining unprecedented changes in the coding, documentation, debugging, security scanning thus revolutionizing the way coding is done now.

- The security of containerized platform and environment like run time protection and containing image vulnerabilities will be at the centre as it is emerging as the preferred platform for building applications across industries.

- Integration of quantum encryption into DevSecOps process is capable of heightening security controls and thus obviating traditional security threats and pave path for emergence of a new era of digital security

The organizations today are more worried on the

cyber security threats and ever evolving security landscape than ever before. No organization can afford to remain behind the curve and postpone implementing robust DevSecOps practices. Keeping pace with the evolving trends in DevSecOps has become essential to retain a competitive edge in this expanding digital universe. Security by the design, enriched by the AI, machine learning and quantum computing will re-shape the entire landscape of software development as we step forward and may see integrated application security from code to cloud security and that will be realization of the goal of "true left". In today's cyber hazardous world, where mitigating "cyberthreat innovations"

by the perpetrators has so deeply become part of life of organizations, embracing DevSecOps and continuously building on it is no longer optional, rather it has become compulsion for their survival and remain future-proof.

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Impact of AI Interpretability in Decision Making in Banking and Financial Services

The rapid adoption of artificial intelligence (AI) in the banking and financial services industry (BFSI) has revolutionized decision-making processes. From automating workflows to offering data-driven insights, AI has become an indispensable tool for financial institutions. However, as AI systems grow in complexity, so does the challenge of understanding their decisions. This is where AI interpretability—the ability to understand and explain AI outputs—becomes crucial. By ensuring transparency, accountability, and trust, AI interpretability is transforming decision-making in various BFSI domains. This article explores its impact in detail, highlighting its applications, benefits, and challenges.

The Importance of AI Interpretability in BFSI

AI interpretability ensures that stakeholders—be it customers, employees, or regulators—can understand and trust the decisions made by AI systems. In a highly regulated sector like BFSI, interpretability is vital to maintain transparency, prevent biases, and ensure compliance with legal and ethical standards.

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Key Benefits of AI Interpretability in Decision-Making:

1. Building Trust: Transparent AI models foster trust among customers and stakeholders, ensuring they accept AI-driven decisions.

2. Regulatory Compliance: Interpretability ensures adherence to regulations like GDPR, Fair Credit Reporting Act, and Basel III, which demand accountability in decision-making.

3. Bias Mitigation: By exposing the inner workings of AI, interpretability helps identify and eliminate biases, promoting fairness.

4. Improved Decision Quality: Decision-makers can validate AI

predictions, improving outcomes in areas like lending, investments, and risk assessment.

AI Interpretability Across BFSI Domains

1. Risk Management

Risk management is one of the most critical areas in BFSI where AI is extensively deployed. AI models analyze complex datasets to forecast risks, assess creditworthiness, and manage portfolios.AI interpretability ensures that the rationale behind risk scores, market predictions, and portfolio strategies is clear to analysts and regulators.

Credit Risk Assessment: Transparent AI models explain why certain borrowers are deemed high-risk, enabling fair loan decisions.

Market Risk Analysis: Traders can understand why an AI model suggests certain hedging strategies, improving decision accuracy.

Operational Risk Management: Interpretable AI helps identify the root causes of potential operational failures.

Example:

A bank using an AI system for credit risk assessment can demonstrate how income, debt-to-income ratio, and payment history influence a borrower's credit score.

2. Fraud Detection and Prevention

Fraud detection relies on AI systems that identify anomalies and suspicious activities in real-time. Interpretability ensures that flagged transactions are explained with actionable insights, enabling swift and accurate investigations.

Regulatory Compliance: Transparent models demonstrate how fraud is identified, satisfying regulatory scrutiny.

Fewer False Positives: Analysts can refine models based on clear explanations, reducing customer inconvenience.

Improved Security: Clear insights into fraud patterns allow institutions to design better preventive measures.

Example:

A financial institution can use interpretable AI to explain why a transaction was flagged as fraudulent, such as deviations in geographical patterns or unusual amounts.

3. Customer Experience and Personalization

AI is increasingly used to personalize financial products, improve customer service, and enhance user experience. Transparent AI systems help customers understand why certain products or services are recommended to them.

Personalized Financial Advice: Customers trust AI recommendations more when the rationale behind them is clear.

Complaint Resolution: Transparent systems explain discrepancies in fees, charges, or decisions, improving satisfaction.

Customer Retention: Transparent and fair practices foster long-term relationships.

Example:

An AI-driven recommendation engine in a bank suggests savings plans and explains that the suggestions are based on the customer's spending habits, income, and goals.

4. Loan Approvals and Credit Underwriting

AI-driven models streamline loan approval processes by assessing applicants' profiles more efficiently than traditional methods.Interpretable models justify loan decisions, ensuring fairness and compliance with lending regulations.

Increased Transparency: Customers can understand why their application was approved or rejected.

Bias Reduction: Explanations help identify and

eliminate discriminatory practices.

Regulatory Adherence: Transparent models ensure compliance with legal requirements for fair lending.

Example:
A fintech firm uses AI to approve loans and provides applicants with detailed explanations, such as how their credit score and income influenced the decision.

5. Investment and Wealth Management
AI plays a pivotal role in managing investment portfolios, analyzing markets, and recommending strategies. Interpretability helps investors and advisors understand AI-driven insights, ensuring informed decisions.

Risk Awareness: Interpretable AI clarifies potential risks and benefits of investment options.

Custom Strategies: Advisors can tailor recommendations based on transparent insights.

Enhanced Trust: Clients trust AI recommendations when they understand their basis.

Example:
An AI system recommends diversifying an investor's portfolio and explains that the suggestion is based on reducing exposure to high-volatility sectors.

6. Regulatory Compliance and Reporting
BFSI institutions must adhere to strict regulatory standards, which often require explainable decision-making processes. Transparent AI systems simplify reporting and ensure compliance with legal standards.

Audit Readiness: Interpretability provides clear documentation of AI decision-making processes.

Bias Identification: Regulators can assess and address biases in AI systems.

Ethical Practices: Transparent systems align with ethical AI adoption.

Example
A bank uses interpretable AI to demonstrate that its loan approval system complies with anti-discrimination laws by basing decisions solely on financial metrics.

Challenges in Implementing AI Interpretability

While the benefits are substantial, implementing AI interpretability in BFSI comes with challenges:

1. Model Complexity: Advanced AI models like deep neural networks are inherently complex, making their decisions difficult to interpret.

2. Performance Trade-offs: Simplifying models for interpretability may reduce their accuracy or efficiency.

3. Integration Costs: Adapting existing systems to include interpretability can be resource-intensive.

4. Regulatory Ambiguity: Differing regulations across regions make standardizing interpretability practices challenging.

Emerging Techniques for AI Interpretability

Several techniques are being developed to enhance AI interpretability in BFSI:

Explainable AI (XAI): A field dedicated to making AI systems understandable to humans.

SHAP (SHapley Additive exPlanations): A method that explains the output of machine learning models by assigning contributions to input features.

LIME (Local Interpretable Model-Agnostic Explanations): Explains individual predictions by approximating complex models locally with simpler ones.

Counterfactual Explanations: Show how slight changes in input data could lead to different outcomes, helping users understand decision boundaries.

Future Outlook for AI Interpretability in BFSI

The demand for AI interpretability will continue to grow as BFSI institutions adopt more sophisticated AI systems. Key trends include:

Stronger Regulatory Mandates: Governments and regulatory bodies will likely enforce stricter interpretability requirements.

Integration with Ethical AI Practices: Institutions will prioritize fairness, transparency, and accountability in AI systems.

Advancements in Technology: New tools and techniques will emerge to simplify complex models without compromising performance.

Conclusion

AI interpretability is no longer optional in the banking and financial services sector—it is a necessity. By enabling transparency, building trust, and ensuring compliance, interpretable AI empowers institutions to make informed and ethical decisions. As BFSI continues to evolve, embracing AI interpretability will be key to achieving sustainable growth, customer satisfaction, and regulatory harmony. Institutions that prioritize interpretability today will not only lead the industry but also set new standards for responsible AI adoption.

Autonomic Systems in Banking-Driving Operational Efficiency, Reducing Errors, and Elevating Customer Experience

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The rapid pace of digital transformation in the banking sector has pushed financial institutions to seek innovative solutions that enhance operational efficiency, minimize human error, and elevate customer experience. One of the most promising technological advancements in this realm is autonomic systems—intelligent, self-managing systems capable of adapting to changing conditions with minimal human intervention. By incorporating principles of self-regulation, learning, and adaptation, autonomic systems enable banks to streamline operations, improve service reliability, and reduce costs.

Autonomic systems, often powered by artificial intelligence (AI) and machine learning (ML), are transforming various facets of banking, from real-time transaction monitoring to predictive maintenance of IT infrastructure. This article delves into the impact of autonomic systems on banking, exploring how these systems are reshaping back-office operations,

enhancing security, and creating seamless, personalized customer interactions.

Understanding Autonomic Systems: The Path to Self-Managing Banks

Autonomic systems, inspired by the human autonomic nervous system, are designed to manage complex environments autonomously, making real-time decisions and adjustments without human intervention. These systems can monitor their own processes, diagnose problems, and initiate corrective actions to ensure smooth and efficient operations. In banking, autonomic systems help institutions maintain optimal functionality, from managing IT infrastructure to enhancing customer service capabilities.

For banks, the benefits of autonomic systems are vast. By automating routine tasks, banks can reduce reliance on manual processes, improve accuracy, and allow employees to focus on higher-value tasks. Autonomic systems are especially valuable for banks that operate in high-pressure, high-stakes environments, where even minor errors can lead to significant financial and reputational consequences.

Key Capabilities of Autonomic Systems in Banking

Autonomic systems operate based on a set of core capabilities—self-configuration, self-healing, self-optimization, and self-protection—that make them highly adaptable and efficient. Each of these capabilities brings unique advantages to banking:

> ***Self-Configuration:*** Autonomic systems can automatically configure themselves in response to changes in the environment. In a banking context, self-configuration can enable systems to adjust workflows or allocate resources dynamically based on transaction volume or user demand. For example, an autonomic system could automatically adjust server capacity during peak usage periods to prevent service delays.
>
> ***Self-Healing:*** Self-healing capabilities allow autonomic systems to detect and resolve issues without human intervention. For instance, if an ATM network experiences connectivity issues, an autonomic system can diagnose the problem and initiate a recovery process without requiring manual input. This reduces downtime, enhances system reliability, and ensures that services remain available to customers.
>
> ***Self-Optimization:*** Autonomic systems continuously monitor their performance and make adjustments to improve efficiency. In banking, self-optimization can be applied to processes such as transaction processing, where the system can prioritize high-value transactions during peak periods to reduce wait times for customers. Self-optimization also enhances resource utilization, reducing operational costs.
>
> ***Self-Protection:*** Security is a top priority for banks, and autonomic systems are equipped with self-protection capabilities to identify and counteract security threats in real-time. For example, an autonomic system can detect suspicious activity and automatically initiate security protocols, minimizing the risk of fraud or data breaches. By responding instantly to threats, self-protecting systems enhance the overall security posture of banks.

Operational Efficiency and Cost Savings with Autonomic Systems

One of the primary drivers for adopting autonomic systems in banking is the potential for improved operational efficiency and cost savings. Autonomic systems reduce the need for human intervention in routine processes, enabling banks to streamline workflows and reallocate resources more effectively. Key areas where autonomic systems enhance operational efficiency include:

> ***Automated Back-Office Operations:*** Routine back-office tasks, such as data reconciliation and report generation, can be automated with autonomic systems, freeing up employees to

focus on strategic activities. For example, an autonomic system can automate reconciliation between internal records and external statements, reducing the time required for this critical yet labor-intensive task.

Predictive Maintenance of IT Infrastructure: Autonomic systems enable predictive maintenance by analyzing data from IT infrastructure to identify potential issues before they escalate. By predicting equipment failures or system downtime, autonomic systems allow banks to perform maintenance proactively, reducing costly outages and ensuring continuous service availability.

Resource Optimization: Autonomic systems can optimize the allocation of resources, such as computing power and network bandwidth, based on real-time demand. This dynamic resource management reduces wastage and helps banks scale their operations efficiently, especially during high-traffic periods like the end of the financial year or major market events.

Reduced Human Error: Human error is a common issue in banking, often leading to costly mistakes. By automating processes and decision-making, autonomic systems reduce the likelihood of human error, ensuring greater accuracy in tasks such as data entry, transaction processing, and reporting.

Enhancing Customer Experience with Autonomic Systems

Customer experience is a critical factor in banking, where personalized, responsive services can drive customer loyalty and satisfaction. Autonomic systems empower banks to create seamless, personalized experiences by enabling real-time decision-making and adaptive services. Key ways autonomic systems improve customer experience include:

Personalized Services: Autonomic systems use AI-driven insights to personalize interactions, such as recommending products based on a customer's transaction history and spending behavior. For instance, an autonomic system could automatically identify a customer's preference for mobile banking and prioritize mobile-based interactions to enhance convenience.

Real-Time Assistance: Autonomic systems enable banks to provide real-time assistance through chatbots and virtual assistants. These AI-powered tools can answer customer inquiries, resolve issues, and guide users through complex processes without human intervention. For example, an autonomic chatbots could help a customer reset their password instantly, reducing wait times and improving satisfaction.

Faster, Smoother Transactions: Autonomic systems optimize transaction processes to ensure that they are fast, secure, and reliable. By dynamically adjusting system resources during peak times, autonomic systems reduce transaction delays and prevent service interruptions. This capability is especially valuable for high-frequency traders and customers making time-sensitive transactions.

Proactive Issue Resolution: With self-healing capabilities, autonomic systems can identify potential service disruptions before they affect customers. For instance, if an online banking platform experiences a spike in traffic, an autonomic system can proactively adjust resources to prevent downtime, ensuring that customers enjoy a smooth experience without interruptions.

Autonomic Systems in Banking Security

Security is a paramount concern in the banking industry, where cyber threats and fraud are constant risks. Autonomic systems strengthen banks' security frameworks by monitoring for threats, detecting anomalies, and responding automatically to potential breaches. Some key applications of autonomic systems in banking security include:

Fraud Detection and Prevention: Autonomic systems can analyze transaction data in real-time to detect unusual patterns indicative of fraud. If suspicious activity is identified, the system can automatically flag the transaction for review or initiate preventive measures, such as temporarily freezing the account. This real-time fraud detection capability reduces losses and helps banks comply with regulatory standards.

Intrusion Detection: Autonomic systems equipped with AI algorithms can detect unauthorized access attempts and respond instantly to block potential intruders. For example, an autonomic system might detect a login attempt from an unusual location and automatically enforce additional authentication steps, enhancing security without disrupting legitimate customer access.

Data Protection and Compliance: Autonomic systems enable continuous compliance monitoring, ensuring that data protection measures meet regulatory requirements. By automating compliance checks and audits, autonomic systems reduce the burden of manual compliance tasks and provide a robust audit trail for regulatory reporting.

Endpoint Security: With self-protection capabilities, autonomic systems can monitor endpoints, such as ATMs a***nd mobile banking apps, for vulnerabilities and unauthorized access. If a threat is detected, the system can initiate countermeasures, such as isolating the compromised endpoint or*** applying security patches, reducing the risk of widespread attacks.

Challenges to Implementing Autonomic Systems in Banking

While autonomic systems offer significant benefits, banks may face challenges during implementation. Key challenges include:

Integration with Legacy Systems: Many banks rely on legacy infrastructure that may not be compatible with modern autonomic systems. Integrating autonomic capabilities with existing systems requires careful planning, often involving a phased approach to modernization.

Data Privacy and Security: Autonomic systems handle sensitive customer data, making data privacy and security a top priority. Banks must ensure that autonomic systems adhere to data protection regulations, such as GDPR, and implement robust encryption, access controls, and audit trails.

Cost of Implementation: Deploying autonomic systems involves significant upfront investment, both in terms of technology and training. Banks need to evaluate the cost-benefit ratio and plan for long-term maintenance and upgrades to maximize the value of autonomic systems.

Cultural Resistance: Autonomic systems represent a shift from traditional, manual processes to automated, self-managing operations. This shift can create resistance among employees who may be concerned about job security or adapting to new technologies. Banks must foster a culture of innovation and provide training to help employees embrace autonomic solutions.

Best Practices for Adopting Autonomic Systems in Banking

To ensure a successful implementation of autonomic systems, banks should consider the following best practices:

Adopt a Phased Approach: Rather than implementing autonomic systems across all processes at once, banks should sta***rt with smaller pilot projects. This phased approach enables banks to test autonomic capabilities, refine processes, and gradually expand adoption.***

Prioritize Security and Compliance: Security must be at the forefront of autonomic system

implementation. Banks should work closely with vendors to ensure that systems meet regulatory standards and implement regular security audits to identify potential vulnerabilities.

I***nvest in Employee Training***: Autonomic systems are most effective when employees understand how to work with them. Banks should invest in training to ensure that staff can leverage autonomic capabilities effectively, focusing on how these systems complement their roles.

Monitor and Optimize Performance: Autonomic systems require continuous monitoring and optimization to ensure they deliver the intended benefits. By tracking performance metrics and making adjustments as needed, banks can maximize the efficiency and reliability of autonomic systems.

Autonomic systems represent a paradigm shift in the banking sector, offering a pathway to enhanced operational efficiency, reduced human error, and improved customer experience. By automating routine tasks, enabling real-time decision-making, and providing proactive security measures, autonomic systems empower banks to operate with greater agility and resilience in an increasingly competitive market.

As banks navigate the complexities of implementation, the advantages of autonomic systems make the journey worthwhile. With a strategic approach, banks can harness the power of autonomic systems to streamline operations, meet regulatory demands, and provide exceptional customer experiences, positioning themselves as leaders in the digital age.

Biometric Authentication in Banking Enhancing Security, Convenience, and Customer Trust

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As the banking industry continues to evolve in response to digital transformation and increasing customer expectations, the demand for secure, efficient, and user-friendly authentication methods has risen dramatically. Traditional forms of authentication, such as passwords and PINs, are often vulnerable to theft, hacking, and human error. To address these challenges, banks are increasingly turning to biometric authentication technologies, including fingerprint recognition, facial recognition, and voice recognition. These technologies provide a higher level of security while offering the convenience that customers seek in today's fast-paced digital environment.

Biometric authentication relies on unique physical or behavioral traits, making it much harder for fraudsters to replicate or breach. By implementing biometrics, banks not only enhance security but also simplify the authentication process, creating a seamless experience for customers. This article explores the various types of biometric authentication used in banking, the benefits and challenges of biometrics, and how this technology is reshaping the future of secure,

customer-centric banking.

Understanding Biometric Authentication in Banking

Biometric authentication is a method of verifying an individual's identity based on unique biological characteristics. Unlike passwords or PINs, which can be forgotten or stolen, biometric identifiers such as fingerprints, facial features, and voice patterns are inherently unique to each individual, making them a more secure and reliable form of authentication. Biometric data is typically captured through a sensor and compared with previously stored data to confirm the individual's identity.

In the banking industry, biometric authentication is applied across various touch points, including mobile banking apps, ATMs, and even in-branch services. As customers demand faster, more secure ways to access their accounts and perform transactions, banks are adopting biometric solutions to provide a frictionless experience without compromising on security.

Types of Biometric Authentication Technologies in Banking

Several types of biometric authentication technologies are widely used in the banking sector, each offering unique benefits and applications:

Fingerprint Recognition: One of the most commonly used biometric methods, fingerprint recognition involves scanning an individual's fingerprint and comparing it to stored data for authentication. It is particularly popular for mobile banking apps, as most smartphones today are equipped with fingerprint sensors. Fingerprint recognition provides a fast and convenient way for customers to access their accounts with a simple touch, reducing the need for PINs or passwords.

Facial Recognition: Facial recognition technology captures an image of the user's face and compares it to a stored template for verification. This method is gaining traction in mobile and online banking, as many modern smartphones and laptops have built-in cameras and facial recognition capabilities. Facial recognition is also used at ATMs and bank branches, providing a touchless authentication experience that is both secure and convenient.

Voice Recognition: Voice recognition uses unique vocal characteristics, such as pitch, tone, and cadence, to verify identity. This technology is especially useful for telephone banking, where customers can authenticate themselves by speaking a specific phrase. Voice recognition is also being integrated into virtual assistants and chatbots, enabling banks to offer a seamless, hands-free authentication process.

Iris and Retina Scanning: Iris and retina scanning technologies use patterns in the eye to authenticate identity. Although less common in consumer banking due to high costs, these methods are extremely secure and are typically used in high-security environments. Iris scanning is being explored for use in ATMs and physical branches to provide an additional layer of security for high-value transactions.

Behavioral Biometrics: Behavioral biometrics analyzes patterns in an individual's behavior, such as typing speed, swiping gestures, and even how they hold their device. This type of biometric is commonly used as an added layer of security, continuously monitoring for unusual behavior that may indicate fraudulent activity. Behavioral biometrics is a powerful tool for online and mobile banking, where it can provide continuous authentication in the background.

Benefits of Biometric Authentication in Banking

The adoption of biometric authentication in banking provides numerous advantages that benefit both banks and their customers. Some of the key benefits include:

Enhanced Security: Biometric data is unique to each individual, making it much harder for

fraudsters to replicate or breach. This level of security significantly reduces the risk of unauthorized access and fraud, providing banks with a robust defense against cyber threats. For example, a fraudster may be able to steal a password, but replicating a fingerprint or voice pattern is far more challenging.

Convenience and Speed: Biometric authentication simplifies the login process, allowing customers to access their accounts with a fingerprint or facial scan rather than memorizing passwords or PINs. This convenience is especially valuable for mobile banking, where users often want to log in quickly while on the go. With biometrics, customers can access their accounts securely in seconds, improving the overall user experience.

Improved Customer Trust: As biometric authentication reduces the risk of fraud, customers feel more confident in the security of their accounts. This increased sense of security enhances customer trust and strengthens the relationship between banks and their clients. For banks, this trust is invaluable, as it can lead to increased customer loyalty and satisfaction.

Reduced Operational Costs: By automating the authentication process, biometrics reduce the need for manual verification and password resets, lowering operational costs. For example, a fingerprint scan can replace the need for customer service agents to verify identity over the phone. This efficiency helps banks allocate resources more effectively and improves cost management.

Fraud Detection and Prevention: Behavioral biometrics, in particular, offer continuous authentication, monitoring user behavior for unusual activity. If the system detects behavior that deviates from the norm, it can prompt additional security checks or even block access. This proactive fraud prevention reduces the likelihood of account takeovers and other security breaches.

Key Applications of Biometric Authentication in Banking

Biometric authentication can be applied across various banking services and platforms, improving both security and customer convenience. Some of the most common applications include:

Mobile Banking: Most banks have integrated biometric authentication into their mobile banking apps, allowing customers to log in using fingerprints or facial recognition. This feature is especially popular among users who value convenience and security on the go. For example, a customer can access their bank account by simply placing their finger on the phone's sensor or looking at the camera.

ATM Authentication: Many banks are deploying biometric-enabled ATMs that allow customers to authenticate themselves using fingerprints or facial recognition. This eliminates the need for a physical card and PIN, reducing the risk of card skimming and unauthorized access. Biometric ATMs provide a safer, more user-friendly way to withdraw cash and complete transactions.

In-Branch Services: Some banks are using biometric authentication within branches to streamline customer verification for services like account opening, loan applications, and high-value transactions. By using facial or fingerprint recognition, banks can quickly verify a customer's identity, reducing wait times and enhancing the in-branch experience.

Telephone and Voice Banking: Voice recognition enables customers to verify their identity over the phone without needing to answer security questions. This application is particularly useful for call centers, where voice authentication provides a fast and secure alternative to traditional verification methods, reducing wait times and improving customer service.

Digital Onboarding: Many banks are using biometrics as part of their digital onboarding

process for new customers. Instead of visiting a branch, new customers can verify their identity using facial recognition or other biometric methods via a mobile app. This process simplifies account opening, reduces paperwork, and speeds up onboarding, making it easier for banks to attract new customers.

Challenges of Implementing Biometric Authentication

While the benefits of biometric authentication are significant, banks face several challenges in implementing and managing these technologies:

Privacy and Data Security: Biometric data is sensitive information, and banks must ensure that it is stored securely and handled responsibly. Unlike passwords, which can be changed, biometric data is permanent. Any breach of biometric information can have serious consequences for both the bank and the customer, requiring banks to invest in advanced encryption and data protection measures.

Regulatory Compliance: Biometric authentication technologies must comply with data protection regulations, such as GDPR and other local laws governing the use of biometric data. Compliance with these regulations can be complex, as banks need to ensure that they are collecting, storing, and using biometric data in a manner that respects customer privacy and adheres to legal requirements.

Cost of Implementation: Deploying biometric technology across various platforms, such as ATMs, mobile apps, and branches, requires a significant upfront investment. This cost includes not only the technology itself but also the infrastructure needed to support it, such as secure data storage and network upgrades. Banks must carefully assess the cost-benefit ratio to ensure that biometrics provide a viable return on investment.

User Acceptance: While biometric authentication is convenient, some customers may have privacy concerns or be uncomfortable with the use of their biometric data. Banks need to educate customers on the security and benefits of biometrics to encourage adoption. Providing options for customers who prefer traditional methods can also help ease the transition.

Technical Limitations and Accuracy: No biometric system is fool proof, and factors such as lighting, device quality, and physical changes in the user (e.g., aging or injury) can affect accuracy. Banks need to ensure that their biometric systems are robust and can handle these variations to provide a reliable user experience.

Best Practices for Implementing Biometric Authentication in Banking

To maximize the effectiveness of biometric authentication, banks should consider the following best practices:

Prioritize Data Security and Compliance: Implement strong encryption and access controls to protect biometric data, and ensure compliance with all relevant data protection regulations. Regular audits and security assessments can help identify potential vulnerabilities.

Offer Multi-Modal Authentication: Combining multiple biometric methods, such as fingerprint and facial recognition, can enhance security and provide a backup option if one method fails. This multi-modal approach increases flexibility and improves the overall user experience.

Educate Customers: Transparency and education are key to customer acceptance. Banks should communicate the benefits of biometric authentication clearly and address any privacy concerns customers may have.

Regularly Update and Test Systems: Biometric systems should be updated frequently to

ensure compatibility with the latest devices and operating systems. Regular testing helps banks maintain accuracy and reliability.

Provide Alternative Authentication Options: While biometrics are becoming the preferred method, it's essential to offer alternative authentication methods for customers who may be unable or unwilling to use biometric technology.

Biometric authentication is revolutionizing the banking industry, offering a secure, convenient, and efficient way for customers to access their accounts and conduct transactions. By leveraging unique physical and behavioral traits, biometrics provide a robust defense against fraud while enhancing the customer experience. However, as banks embrace biometric technology, they must also address the challenges of data security, privacy, and user acceptance to fully realize it's potential.

In an era where customer trust and security are paramount, biometric authentication stands out as a powerful tool that aligns with both customer demands and regulatory requirements. As banks continue to innovate, biometric authentication will play a critical role in shaping a secure, user-friendly future for digital banking.

Harnessing Data Analytics and Big Data in Banking: Unlocking Insights for Enhanced Decision-Making

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In today's digital economy, data has become one of the most valuable assets for banks. The sheer volume of customer data generated through various channels presents both challenges and opportunities for financial institutions. To thrive in this competitive landscape, banks are increasingly turning to data analytics and big data technologies to derive actionable insights from vast amounts of information. By harnessing these tools, banks can better understand customer behavior, personalize offerings, and make data-driven decisions that enhance operational efficiency and mitigate risks.

As banks navigate the complexities of digital transformation, the effective use of data analytics is paramount. This article explores the significance of data analytics and big data in banking, the technologies and techniques being employed, the benefits they offer, and the challenges that banks face in their data journey.

Understanding Data Analytics and Big Data in Banking

Data analytics involves the systematic examination of data sets to uncover patterns, trends, and insights that can inform business decisions. In the context of banking, data analytics encompasses various techniques and methodologies, including statistical analysis, predictive modelling, and machine learning. Big data, on the other hand, refers to the massive volumes of structured and

unstructured data generated at high velocity from multiple sources, such as transactions, social media, and customer interactions.

The integration of data analytics and big data allows banks to tap into this wealth of information, transforming raw data into valuable insights that can drive strategic decision-making. By leveraging these technologies, banks can gain a comprehensive understanding of their customers, enhance risk management processes, and optimize operational efficiency.

Key Applications of Data Analytics in Banking

Data analytics has a wide range of applications within the banking sector, each contributing to improved customer experiences and operational performance:

Customer Behavior Analysis: By analyzing customer data, banks can gain insights into spending habits, preferences, and needs. This information enables banks to tailor their products and services to meet individual customer requirements, ultimately enhancing customer satisfaction and loyalty. For example, analyzing transaction data can help banks identify patterns that inform personalized marketing campaigns and product recommendations.

Risk Management and Fraud Detection: Data analytics plays a crucial role in identifying and mitigating risks associated with lending and financial transactions. By employing predictive analytics, banks can assess the creditworthiness of potential borrowers and identify unusual patterns that may indicate fraudulent activity. Machine learning algorithms can analyze historical data to detect anomalies in transaction behavior, allowing banks to respond swiftly to potential fraud attempts.

Operational Efficiency: By leveraging big data analytics, banks can streamline their operations and improve efficiency. For instance, analyzing operational data can help identify bottlenecks in processes, allowing banks to optimize workflows and reduce costs. Predictive analytics can also forecast customer demand, enabling banks to allocate resources more effectively and enhance service delivery.

Market Segmentation and Targeting: Data analytics enables banks to segment their customer base into distinct groups based on demographics, behavior, and preferences. This segmentation allows banks to tailor marketing strategies and product offerings to specific customer segments, increasing the effectiveness of their campaigns. For example, banks can identify high-value customers and offer those personalized incentives or services.

Product Development and Innovation: By analyzing customer feedback, market trends, and competitive intelligence, banks can identify gaps in their offerings and develop new products that align with customer needs. Data-driven insights facilitate innovation and help banks stay ahead of market trends, ensuring they remain competitive in a rapidly evolving landscape.

Technologies Driving Data Analytics in Banking

The effectiveness of data analytics in banking is powered by a range of technologies that enable banks to collect, process, and analyze vast amounts of data. Some of the key technologies include:

Big Data Platforms: Technologies such as Hadoop and Apache Spark allow banks to store and process large volumes of structured and unstructured data efficiently. These platforms facilitate the analysis of diverse data sources, enabling banks to derive insights from a comprehensive data ecosystem.

Data Warehousing and Data Lakes: Data warehousing solutions enable banks to consolidate data from various sources into a central repository, making it easier to access and analyze information. Data lakes, on the other hand, allow banks to store raw data in its

native format, providing flexibility for future analysis.

Machine Learning and Artificial Intelligence: Machine learning algorithms enable banks to uncover patterns in data and make predictions based on historical trends. AI-powered tools enhance the analytics process, automating tasks such as data cleaning, analysis, and reporting, thereby increasing efficiency and accuracy.

Business Intelligence (BI) Tools: BI tools such as Tableau, Power BI, and QlikView allow banks to visualize data and generate interactive reports. These tools empower stakeholders to explore data insights easily, facilitating data-driven decision-making across the organization.

Cloud Computing: Cloud technologies enable banks to scale their data analytics capabilities rapidly, allowing for the storage and processing of large datasets without the need for extensive on-premises infrastructure. Cloud solutions provide flexibility, cost-effectiveness, and accessibility for data analytics initiatives.

Benefits of Data Analytics and Big Data in Banking

The adoption of data analytics and big data technologies offers several significant benefits for banks:

Enhanced Customer Insights: By leveraging data analytics, banks can gain a deeper understanding of their customers' needs and preferences. This knowledge allows banks to create personalized experiences and develop targeted products that resonate with customers, ultimately driving satisfaction and loyalty.

Informed Decision-Making: Data-driven decision-making enhances the quality of strategic choices made by banks. By relying on empirical data rather than intuition, banks can make more accurate predictions, identify growth opportunities, and mitigate risks effectively.

Improved Risk Management: Advanced analytics enables banks to assess and manage risks more effectively. Predictive models can identify potential defaults, enabling banks to take proactive measures to minimize losses. Enhanced fraud detection capabilities allow banks to respond quickly to suspicious activities, protecting both customers and the institution.

Cost Reduction and Operational Efficiency: By optimizing operations through data analytics, banks can identify inefficiencies and streamline processes, leading to significant cost savings. Improved operational efficiency enables banks to allocate resources more effectively, ultimately enhancing profitability.

Competitive Advantage: Banks that leverage data analytics effectively can differentiate themselves from competitors. By offering personalized services, anticipating customer needs, and responding quickly to market changes, data-driven banks can position themselves as leaders in the industry.

Challenges in Implementing Data Analytics

Despite the numerous benefits, banks face several challenges when implementing data analytics and big data initiatives:

Data Privacy and Security: The collection and analysis of customer data raise concerns regarding privacy and data security. Banks must comply with strict regulations governing data protection, such as GDPR, and implement robust security measures to safeguard sensitive information.

Data Quality and Integration: Ensuring the accuracy and consistency of data is essential for effective analytics. Banks often struggle with data silos and disparate systems, making it challenging to integrate data from various sources. Establishing data governance practices and data quality frameworks is crucial for overcoming these hurdles.

Skill Gaps and Talent Shortages: The demand for data analytics professionals has surged, leading to a shortage of skilled talent in the banking sector. Banks must invest in training and development programs to equip their workforce with the necessary skills to leverage data analytics effectively.

Cultural Resistance: Implementing a data-driven culture within an organization can be met with resistance from employees accustomed to traditional decision-making processes. To foster a culture of data-driven decision-making, banks must promote the value of analytics and encourage collaboration between departments.

Cost of Technology Adoption: Implementing advanced data analytics technologies can be costly, particularly for smaller banks. Banks must carefully assess their budgets and prioritize investments to maximize the return on investment in data analytics initiatives.

Best Practices for Leveraging Data Analytics in Banking

To effectively harness data analytics and big data technologies, banks should consider the following best practices:

Establish Clear Objectives: Before embarking on data analytics initiatives, banks should define clear objectives aligned with their strategic goals. Establishing measurable KPIs will help track the success of analytics efforts and ensure they deliver tangible results.

Invest in Data Governance: Implementing robust data governance frameworks is essential for ensuring data quality, security, and compliance. Establishing policies for data access, usage, and management will help banks maintain data integrity and build trust among customers.

Foster a Data-Driven Culture: Encouraging a culture of data-driven decision-making requires buy-in from leadership and ongoing training for employees. By promoting data literacy and providing tools for data access and analysis, banks can empower their workforce to leverage analytics effectively.

Leverage Advanced Analytics Techniques: Banks should explore advanced analytics techniques, such as machine learning and predictive modelling, to unlock deeper insights from their data. By investing in AI technologies, banks can enhance their analytical capabilities and drive more accurate predictions.

Collaborate Across Departments: Data analytics initiatives should involve collaboration between various departments, including marketing, risk management, and operations. Cross-functional collaboration fosters knowledge sharing and enables banks to leverage diverse perspectives in their analytics efforts.

In an increasingly data-driven world, banks must embrace data analytics and big data technologies to unlock valuable insights that drive strategic decision-making. By leveraging advanced analytics techniques, financial institutions can gain a deeper understanding of customer behavior, enhance risk management, and optimize operations.

While challenges such as data privacy, quality, and skill gaps remain, the benefits of effective data analytics far outweigh the hurdles. By establishing clear objectives, investing in data governance, and fostering a data-driven culture, banks can position themselves for success in the competitive landscape.

As the banking industry continues to evolve, the ability to harness data analytics will be a key differentiator for institutions seeking to deliver exceptional customer experiences, drive innovation, and maintain a competitive edge. The future of banking lies in the ability to transform data into actionable insights, enabling banks to thrive in an ever-changing environment.

RegTech - Transforming Regulatory Compliance in Banking Through Technology

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In today's banking landscape, regulatory compliance is more complex and costly than ever. With new regulations emerging continually and existing ones frequently updated, banks are under constant pressure to stay compliant while maintaining operational efficiency. This is where RegTech—short for regulatory technology—enters the scene. RegTech leverages advanced technologies, such as artificial intelligence (AI), machine learning (ML), blockchain, and big data, to help banks streamline compliance processes, reduce costs, and mitigate risk.

With RegTech, banks can shift from manual, labour-intensive compliance procedures to automated, data-driven solutions that increase accuracy, enhance security, and provide real-time insights. This article delves into the role of RegTech in modern banking, exploring how it helps institutions manage regulatory requirements more effectively, respond swiftly to compliance changes, and achieve operational excellence in a highly regulated environment.

Understanding RegTech: The Future of Compliance

RegTech encompasses a wide range of tools and technologies designed to simplify and improve regulatory compliance processes. It aims to provide banks with automated solutions that make it easier to monitor compliance requirements, identify risks, and report to regulatory

authorities. RegTech solutions often involve data analytics, process automation, and risk management functionalities, enabling institutions to manage the complex regulatory landscape with precision and agility.

The role of RegTech is becoming increasingly critical as global regulatory standards evolve. For banks, non-compliance can result in significant financial penalties, reputational damage, and even legal consequences. By adopting RegTech, banks can reduce these risks, improve regulatory reporting, and allocate resources more efficiently. For example, a bank using RegTech tools can automatically monitor transactions for suspicious activities, reducing the need for manual checks and improving the speed and accuracy of fraud detection.

Key Technologies Driving RegTech in Banking

Several advanced technologies are at the heart of RegTech solutions, each bringing unique benefits to regulatory compliance. A few of them are:

Artificial Intelligence (AI) and Machine Learning (ML): AI and ML algorithms can analyze vast amounts of data, identifying patterns and anomalies that may indicate regulatory risks. In compliance functions, ML can automate processes such as fraud detection, anti-money laundering (AML) checks, and customer risk profiling. AI-driven RegTech solutions can also predict regulatory changes, helping banks proactively prepare for new compliance requirements.

Big Data Analytics: Big data enables banks to gather, process, and analyze large data sets, generating valuable insights that support compliance. For instance, big data analytics can be used to monitor transactions in real-time, detect suspicious activity, and automatically flag potential risks. This approach allows banks to make data-driven compliance decisions quickly, improving the overall effectiveness of their compliance programs.

Blockchain: Blockchain technology provides an immutable record of transactions, making it valuable for tracking and verifying compliance-related activities. In areas like know-your-customer (KYC) processes, blockchain can streamline data sharing between banks, reducing duplication of effort and improving data accuracy. For banks operating in multiple jurisdictions, blockchain offers a transparent, secure way to ensure regulatory requirements are met consistently.

Natural Language Processing (NLP): NLP can analyze unstructured text, such as regulatory documents and compliance reports, to extract relevant information quickly and accurately. This capability is especially useful in automating the review of regulatory changes and assessing their impact on the bank's operations. By using NLP, banks can stay updated on evolving regulations without manual effort, ensuring timely compliance.

Benefits of RegTech for Banks

Adopting RegTech brings a host of benefits to banks, transforming how they handle compliance and regulatory challenges:

Cost Reduction: Traditional compliance processes are resource-intensive, often requiring large teams to manually review and report on regulatory requirements. RegTech reduces the need for manual processes, cutting compliance costs significantly. For instance, a RegTech tool that automates AML checks can lower operational expenses while improving accuracy.

Enhanced Accuracy and Efficiency: Automated compliance tools minimize human error, ensuring that regulatory checks are performed with consistency and accuracy. This is critical in the banking sector, where a minor oversight in compliance can lead to severe consequences. RegTech also enhances efficiency by performing compliance tasks at a much faster rate than manual processes.

Real-Time Monitoring and Reporting: RegTech enables banks to monitor transactions and compliance activities in real-time, allowing them to identify and address issues immediately. This is a game-changer in fraud detection, where early detection can prevent significant financial losses. Real-time reporting capabilities also make it easier for banks to respond to regulatory inquiries promptly.

Improved Risk Management: By automating risk assessment and monitoring, RegTech helps banks detect potential compliance risks before they escalate. For example, RegTech can analyze customer data to identify high-risk clients, enabling banks to take preventive measures. This proactive approach to risk management strengthens a bank's overall compliance posture.

Scalability and Flexibility: RegTech solutions are scalable, allowing banks to adjust their compliance processes in line with changing regulatory requirements and business growth. This flexibility is particularly beneficial for banks operating in multiple regions, as RegTech tools can be customized to accommodate various regulatory frameworks.

Key Use Cases of RegTech in Banking

RegTech solutions address a wide range of compliance challenges in banking, making it a versatile tool for regulatory management. Some of the most common use cases include:

Anti-Money Laundering (AML) Compliance: AML regulations require banks to monitor transactions for suspicious activity, a task that is complex and labour-intensive. RegTech solutions automate transaction monitoring, identifying unusual patterns and flagging them for further investigation. This reduces the time and effort needed for AML compliance, improving detection accuracy and regulatory adherence.

Know Your Customer (KYC) Processes: KYC requirements mandate that banks verify the identity of their customers to prevent fraud. RegTech tools streamline KYC processes by automating identity verification and data collection. For example, AI-driven identity verification can validate customer information in seconds, enabling banks to onboard customers quickly while ensuring compliance.

Regulatory Reporting: Banks are required to report on various compliance metrics to regulatory bodies regularly. RegTech solutions automate data collection, analysis, and report generation, reducing the administrative burden of regulatory reporting. This automation ensures that reports are accurate, timely, and in the correct format for regulatory submission.

Fraud Detection and Prevention: Fraud is a significant concern in banking, and RegTech tools play a vital role in combating it. Using AI and ML, RegTech solutions can analyze transaction patterns, detect anomalies, and flag potential fraud in real-time. This proactive approach minimizes losses from fraudulent activities and strengthens customer trust.

Risk and Compliance Monitoring: RegTech enables banks to monitor compliance risks continuously, ensuring that they remain in line with regulations. For instance, a bank can use RegTech to analyze customer risk profiles, adjust lending decisions accordingly, and report any high-risk activities. This real-time monitoring allows banks to manage compliance proactively rather than reactively.

Challenges to RegTech Implementation in Banking

While RegTech offers substantial benefits, implementing it in a complex, regulated environment like banking is not without challenges. Key obstacles include:

Data Privacy and Security: Banks handle

sensitive customer data, and any RegTech solution must ensure the highest levels of security and privacy. Compliance with data protection regulations, such as GDPR, is essential, requiring RegTech providers to implement robust data encryption, access controls, and audit trails.

Integration with Legacy Systems: Many banks rely on legacy systems that are incompatible with modern RegTech solutions. Integrating these outdated systems with RegTech tools can be costly and time-consuming, often requiring a complete overhaul of IT infrastructure.

Regulatory Uncertainty: Regulations in the financial sector are constantly evolving, creating uncertainty for banks. RegTech solutions must be adaptable to regulatory changes, which can be challenging if the technology is not flexible enough to accommodate new requirements.

Cost of Implementation: Although RegTech can reduce long-term compliance costs, the initial investment required for implementation can be high. Banks must evaluate the cost-benefit ratio carefully and ensure that they have the resources to support RegTech adoption.

Best Practices for Implementing RegTech in Banking

To realize the full potential of RegTech, banks should consider the following best practices:

Choose Scalable Solutions: Opt for RegTech solutions that can scale with the bank's growth and adapt to changing regulatory requirements. A scalable solution ensures that compliance processes remain efficient even as the bank expands.

Focus on Security: Given the sensitive nature of banking data, security must be a top priority in any RegTech implementation. Banks should partner with RegTech providers who demonstrate a strong commitment to data protection and compliance with industry standards.

Collaborate with Regulators: Engage with regulatory bodies during RegTech adoption to ensure that the solution meets all necessary compliance standards. Collaboration with regulators can also help banks stay informed of upcoming regulatory changes.

I***nvest in Employee Training***: RegTech tools are only as effective as the teams that use them. Banks should invest in training employees on how to use RegTech solutions effectively, helping them understand the technology's capabilities and limitations.

Monitor and Optimize: Regularly assess the performance of RegTech solutions to identify areas for improvement. This ensures that the technology remains aligned with the bank's compliance objectives and adapts to new regulatory requirements as they arise.

In a landscape where compliance demands are growing and regulatory scrutiny is intensifying, RegTech offers banks a strategic advantage. By automating compliance processes and leveraging advanced technologies, RegTech reduces operational costs, enhances accuracy, and enables real-time compliance monitoring. The benefits extend beyond efficiency gains; RegTech empowers banks to manage compliance proactively, respond swiftly to regulatory changes, and focus resources on delivering superior customer experiences.

Despite the challenges associated with RegTech implementation, the advantages make it an invaluable asset for banks looking to stay competitive in a dynamic regulatory environment. As banks continue to navigate an increasingly complex

A Parametric Evaluation Framework For Corporate Governance In Banks

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Corporate governance may be viewed as a set of relationships among management, Board, shareholders, and other stakeholders of an organisation. Corporate governance also provides the framework through which the objectives of the company are fixed, and the modalities of attaining those objectives and monitoring performance are determined. It helps delineating the way authority and responsibility are allocated and how corporate decisions are made.

Banks through their intermediation process allocate mobilised societal savings to credit worthy users of funds for deployment in various economic and other activities. Banks as providers, among others, of credit, liquidity, payment settlement services etc., to economic agents are crucial part of the economy. The allocative efficiency of banks is of immense economic importance for the nation. Through efficient allocation of mobilised savings to suitable creditors for deployment thereof in their pursuit of production goods and services to subserve the needs of the economy the banks thus emerge as a phenomenon of development.

Banks enjoy a much higher degree of leverage and therefore much higher fiduciary responsibility and accountability devolve on banks. Depositors' trust, which is the main ingredient for banks' stability and sustainability , needs to be grounded in good governance and ethical conduct of the institutions and their functionaries.

Due to their overwhelming involvements in economic activities and transactions banking activities play important roles in the workings and functions of the economy. A Stable, efficient, and resilient Banking system is considered a sine qua non for a stable and healthy economy.

Due to overwhelming importance of the banking system in the economy in general it is universally a regulated industry and banks have privileged umbrella cover of government safety nets.

Effective Corporate governance, if in place in the banks, would support in enhancing the safety, stability and soundness of the banking system besides concomitantly strengthening public confidence in banks.Supervisors have a vested interest in ensuring sound corporate governance taking roots in banks as a well governed banks would need less supervisory intervention and monitoring economising on cost of supervisory process.

Corporate governance in banks sets out the modalities of governance to be exercised in conduct of business and affairs of banks by their Boards of directors and senior management. More specifically it refers to as to how corporate objectives are set, day -to -day operations are carried out, activities and behaviours are aligned with the expectation of conduct thereof in adherence to applicable regulations/rules/laws besides how protection of interest of depositors as also recognised stakeholders to be ensured.

Presence of Strong corporate governance systems in banks is therefore considered indispensable for proper functioning of banks and the banking system as a whole in the interest of smooth conduct of the economic activities of any nation safe guarding the stability of the financial system as a whole .

Sound Corporate Governance (CG): Strategies and Techniques

Described below are the important steps to be taken to put in place an effective and responsive corporate governance frame work in the bank.

i. Loudly proclaim corporate values and set out the codes of conduct and other standards for scrupulous adherence thereto and put in place an effective system to ensure compliance therewith;

ii. Put in place a well-articulated and widely canvassed across the organisation , objective frame work delineating the modalities of measuring overall success of the organisation and the contributions of individuals therein .

iii. Precise delegation of authority and power for decision-making with defined hierarchy for according approvals from individuals to the Board of directors;

iv. Put in place a vibrant consultative mechanism for the interface and teamwork among the Board of directors, senior management and the auditors;

v. Set up strong internal control systems, including internal and external audit functions, risk management functions independent of business lines, and other checks and balances;

vi. Put in place effective system for monitoring of risk exposures in general and more particularly in areas wherein conflicts of interest are more likely.(Viz., business connection with borrowers associated with the bank, large shareholders, senior management, or key decision-makers within the bank)

vii. Ensuring that the incentives given to various functionary viz., senior management, business line management and employees by way of

compensation, promotion and other recognition act in in a manner consistent with the laid down corporate goals , objectives and ethical norms.

viii. Obviate any possible hindrance to free flow of necessary information internally and to the public.

Although varied corporate governance structures exist in banks operating in different countries, structure agnostic sound governance system can be seamlessly implemented. Four important elements of oversight would form the core to ensure that required checks and balances are in place in any banking organisation irrespective of their country of operation and diversity of organisational structure. These four elements are:

- Oversight by the Board of directors or supervisory Board;
- Oversight by individuals not connected with the day-to-day running of the business;
- Subjecting different business areas to direct line supervision ;
- Independence of risk management and audit functions.

However, the most important requisite would be engagement of persons who are fit and proper for the assigned jobs.

The Board of directors have sole responsibility to ensure delivery of proper governance consistent with the objectives, strategy and risk appetite. A well-functioning Board is integral to the long-term success of an organization. Therefore regularly measuring its performance would help ensure that it provides proper oversight, aligns with company objectives, and acts in the best interests of shareholders and other stakeholders.

Therefore, evaluation of performance of the BOD would be crucial to ensure that the Board is providing effective governance, strategic oversight, and adding value to the organization. The assessment may be based on various qualitative and quantitative parameters/metrices which can be used to assess Board performance across different dimensions such as governance, strategy, risk management, and stakeholder relations. Listed below are key metrices which may be used in the evaluation of the performance of the Board under various relevant important aspects of the functioning of the Board. However, the list is only illustrative and not exhaustive one.

1. Board Composition and Structure

a. Diversity: Diversity of the Board may be assessed in terms of gender, age, ethnicity, experience, and skill sets. Boards with diverse perspectives and skill sets relevant for the organisation would be better equipped to effectively govern and address complex issues as and when arising . Percentage of Board members who represent different genders, ethnic backgrounds, and professional expertise may be used as metrices for the purpose.

b. Independence: Independent directors are expected to play critical role in ensuring that unbiased, objective oriented, data based scientific dicision making processes are involved in the deliberations of the Board. The proportion of independent directors on the Board, would therefore be critical for the purpose. Percentage of independent directors vs. non-independent (executive) directors may be used as a metrices for this attribute of the Board.

2. Board Meetings and Attendance

a. Meeting Frequency: A well-functioning Board generally meets at prescribed regular periodicity. Meeting frequency can be measured as the number of Board meetings held within a given time period (annually or quarterly). Regularity with which Board meeting have been held adhering to prescribed periodicity may be used as a metric in this regard.

b. ***Attendance:*** It refers to attendance rate of individual Board members in the meetings. Poor attendance may indicate disengagement or over-commitment. Average attendance percentage per director and overall attendance rate for the Board may be used for as metrices for measuring involvement of Board members in the governance process.

3. Board Dynamics and Participation

a. Engagement Level: It refers to the level of active participation by Board members in meetings, including discussions, questions raised, and contributions to decision-making. Engagement level may be gauged from Board meeting evaluations or peer reviews.

b. Conflict Resolution: Ability of the Board to resolve conflicts constructively and in a manner that enhances effective decision making is a key attribute of good governance by the Board. Qualitative assessment based on feedback or reviews regarding conflict management may be used as a metric for this attribute.

4. Strategic Oversight and Direction

a. Strategic Involvement: It refers to the Board's role in setting, approving, and monitoring the company's long-term strategy and key goals. This can be gauged from Board's involvement in strategic planning sessions, percentage of strategic initiatives discussed and approved by the Board.

b. Alignment with Management: The Board needs to effectively collaborate with the management to ensure its appropriate strategic alignment, while maintaining independent oversight. Qualitative feedback from management and Board members on strategic alignment may be used as metrices for this attribute.

5. Risk Management and Compliance

a. Risk Oversight: The Board has very important role in the oversight of the processes in place for identifying, monitoring, and mitigating key risks facing the organization. The Board's performance in this regard may be assessed by metrices like the number of risk management discussions held by the Board as also its qualitative contribution to the deliberations thereon, extent of Board's involvement in stress testing and risk scenario analysis exercises.

b. Compliance Oversight: The Board must play effective roles in ensuring that the organisation complies with all applicable regulatory requirements and legal obligations. Number of compliance-related issues identified and resolved, number of instances of non-compliance may be indicators for Board's performance in this regard.

6. Performance of Board Committees

a. Committee Effectiveness: Committees viz., the audit, risk, and compensation committees, etc., are constituted by the Board to look into various delineated areas of governance and extend support to the Board . These committees should function effectively as per terms of constitution of the committees. Therefore, in assessing the performance of the Board evaluation of the performance of key Board committees in fulfilling their roles should be assessed. Qualitative reviews of committee reports, frequency of committee meetings, and the depth of discussion around relevant topics may be used as measures of efficacy of the committees.

b. Independence of Committees: Ideally committees, especially the audit and risk committees, should chaired by independent directors. Percentage of independent directors in each key committee would be an indicator in this respect.

7. Board Leadership

a. Chairperson's Effectiveness: Board Chairperson has an important role in enhancing the quality of governance in an organisation. Therefore the performance of

the Board chairperson in leading the Board, fostering open discussion, and ensuring the Board's effectiveness would be key inputs for assessment of Chairman's effectiveness. Peer evaluation or qualitative feedback on the chairperson's leadership skills may be used as the metricess for evaluation of Chairperson's effectiveness.

b. Succession Planning: The Board's role in overseeing the company's executive succession planning and ensuring leadership continuity are essential attributes in assessment of the overall performance of the Board. Presence of a formal succession plan and completeness thereof in alignment with corporate objective and the frequency and quality of discussions on executive leadership planning will tend to indicate how succession planning has taken root in the organisation. These measures would be valuable inputs to be appropriately factored in while assessing the overall performance of the Board

8. Financial Oversight

a. Financial Performance Oversight: This refers to the Board's ability to oversee the company's financial performance and ensure the sustainability of earnings, profitability, and value creation. Company's financial performance relative to goals set by the Board (e.g., revenue growth, profitability, return on equity) may be the metrics to be used for gauging the effectiveness of Financial Performance Oversight of the Board

b. Audit Oversight: This refers to the effectiveness of the Board in reviewing financial audits and ensuring transparency in financial reporting. Frequency of audit reviews and the number of issues raised by the Board that were addressed during the audit process may used as the metrics for the purpose.

9. Stakeholder Relations

a. Shareholder Engagement: This aspect refers to the Board's role in engaging with shareholders, particularly in providing transparency and addressing shareholder concerns. Board's this role is one of the primary attributes to measure the efficacy of the Board in delivery of governance in the institution. Number of shareholder meetings /engagements organised and feedback from shareholders thereon may be used as metrics for assessment of performance of the Board in this regard.

b. ESG (Environmental, Social, Governance) Oversight: This refers to the Board's involvement in overseeing the company's ESG initiatives, including sustainability and corporate responsibility efforts .Percentage of Board discussions dedicated to ESG topics, qualitative feedback on the Board's ESG performance of the stakeholders may be used as metrices for this attribute.

10. Board Evaluation and Improvement

a. Self-Evaluation: It is imperative that the Board conducts regular self-assessments to evaluate its effectiveness and identify areas for improvement. Frequency of Board evaluations (annually, bi-annually), number of action points identified and addressed from previous evaluations may be indicative of Board's effectiveness in this regard.

b. Training and Development: Well-functioning Boards are expected to evince commitment to ongoing training and development to stay informed of industry trends, regulatory changes, and best practices. Number of training sessions attended by Board members, percentage of directors who completed professional development programs may serve as indicator to Board's orientation towards training and developments.

11. Director Turnover and Tenure

a. Board Turnover: It is the rate of turnover among Board members. Excessive turnover can indicate instability, while too little turnover may

prevent fresh perspectives. Director turnover rate (percentage of directors who leave within a given year) is an indicator thereof.

b. Director Tenure: It is defined as the average length of time directors have served on the Board. Boards with a balanced tenure (mix of newer and longer-serving members) tend to have better governance. Average director tenure and the distribution of tenure across the Board may be useful indicators in this regard.

12. Board's Responsiveness to Crisis

The Board's performance during a crisis, including how it guides the company through challenges and makes decisions under pressure constitute valuable input in assessment of overall performance of the Board. Feedback from management on the Board's crisis management performance, number of critical issues resolved with Board involvement may indicate the effectiveness of Board's performance in this regard.

Conclusion

Presence of a robust corporate governance system in banks is crucial for ensuring stability, accountability, and long-term sustainability of the financial system. Weak Corporate governance may adversely affect the bank's risk profile. Strong and vibrant governance structures support mitigation of risks, help enhancing transparency, and protect the interests of all stakeholders, including shareholders, customers, and regulators. Banks to effectively operate in an increasingly complex and dynamic financial environment, must accord top priority to adherence to strong governance practices to maintain public trust, comply with regulatory standards, and foster sustainable growth. Sound corporate governance system in banks not only safeguards the banks' reputation but also contributes to the broader stability and integrity of the financial sector.

The Board of directors have an important role in ensuring that an effective and responsive corporate governance framework is established in the bank and conducive risk sensitive ethical work culture takes roots in the whole of the organisation. Using the metrices detailed hereinabove, a system may be put in place for periodic appraisal of the performance of the Board of a bank in this regard. Corrective action where ever required may be initiated based on the findings of the appraisal . Based on scorecard methods a quantitative index as a weighted sum of the individual matrices values may be worked out for intertemporal comparison of performance of the Board in a more objective manner. This framework may be standardised for comparison of performance of Board of various banks during a period.

Webinars Organized By The BFSIB

Awareness Programme for Investment Management Course

Date: 26/09/2024

The Banking, Financial Services and Insurance Board of The Institute of Cost Accountants of India organised a webinar on "Awareness Programme for Investment Management Course" on 26.09.2024. The webinar was graced by Chief Guest and Speaker,Shri Anish P GandhiFinancial Markets Educator.

CMA Chittaranjan Chattopadhyay, Chairman, BFSIB, began the session by expressing gratitude for the presence of the distinguished guest speaker and asserted that this collaboration of ICMAI with NSE Academy will empower the participants with financial knowledge, unlock wealth generation opportunities, secure financial future and contribute to India's economic growth.

Shri Anish P Gandhi, Financial Markets Educator, Chief Guest and Speakerdetailed on this Online Certificate Course in Investment Management. He said that the importance of financial literacy is very much required in the current scenario and this is because of the rapid economic changes, and the people are now venturing on different modes of investments like Mutual Funds, Cryptocurrencies etc and huge investors are growing day by day in the Indian Economy. This certificate course is ideal for those who aims for stock trading, investment analysis and financial planning and a great foundation for those entering the finance industry.He also discussed the core topics of Level 1: Fundamental Analysis & Valuations, Level 2: Mutual Funds & Technical Analysis and Level 3: Financial Derivatives & its Application, the course duration and the fee structure, the career opportunities after the course completion and to leverage this joint ICMAI and NSE certifications to move up the corporate ladder in financial firms, or pursue entrepreneurial opportunities in trading or financial consulting. He concluded that enrolling in this "Online Certificate Course in Investment Management" is an investment in the professional development, equipping with the skills to excel in finance.

There was an interactive question and answer session. CMA (Dr.) Aditi Dasgupta, Joint Director, ICMAI delivered the concluding remarks and proposed vote of thanks.

IPOs the process of fund raising for India Inc.

Date: 04/10/2024

The Banking, Financial Services and Insurance Board of The Institute of Cost Accountants of India organised a webinar on the topic "IPOs the process of fund raising for India Inc." on October 04, 2024.

CMA Chittaranjan Chattopadhyay, Chairman, BFSIB, briefed on IPO Listing, Red Herring prospectus, various processes involved in the IPO, Due Diligence, SEBI approval, types of IPOs etc and said that these topics will be detailed by erudite Chief Guest and Speaker, CMA Nayan Mehta, Former CFO, BSE.He expressed this event as a great opportunity to explore insights from the distinguished speaker on this emerging topic.

CMA Nayan Mehta, Former CFO, BSE., the speaker, asserted that in India the process of raising funds through IPOs is pretty detailed and complex. A person must plan strategically to get through the entire process. The first step to raise funds through IPOs is that the Management needs to decide first to list the company and also acquire sufficient reasons for listing. The first and foremost reason is to increase the valuation of the company and also increase its stakeholder's valuation. The other reasons include the funds' accumulation, list the company and get the funds from public and to utilize the funds for growth capital of the company. So there are various key steps that lead to listing of company and coming out with an IPO which he detailed very nicely. He discussed on the Key Steps, three main Governing Laws and Key Regulation, Eligibility Criteria-SME IPO such as Net Tangible assets at least INR 1.50 crores, Track Record of at least 3 years, Debt Equity Ratio should not exceed 3:1 (non finance companies), Parties involved inIntermediary Structure, purpose of raising capital, pass appropriate Board and Shareholder resolutions for IPO, Disclosures in Draft Red Herring Prospectus, Red Herring Prospectus and Prospectus, Introduction-About the Offer, Financial Information Summary, Capital Structure, Objects, Basis for Offer Price, Possible Special Tax Benefits, Pre-IPO Marketing & Roadshows,

Anchor Investors, Book Building, Pricing & Allocation, Book Running Lead Managers (BRLMs) and Legal Counsels for legal due diligence. He also asserted if an investor wants to gain information on IPO, the person can refer You Tube videos on internet for the stock markets, IPO processes, and also should choose an authentic person to avoid any misguidance.

It was a very knowledgeable session with reasoned questions raised by the participants and aptly answered by the esteemed speaker. CMA (Dr.) Aditi Dasgupta, Joint Director, ICMAI delivered the vote of thanks and concluded the webinar.

Internal Audit of Life Insurance Companies

Date: 07/10/2024

The Banking, Financial Services and Insurance Board of The Institute of Cost Accountants of India organised a webinar on "Internal Audit of Life Insurance Companies" on October 07, 2024. The webinar was graced by CMA P N Murthy,the chief guest and eminent speaker.

CMA Chittaranjan Chattopadhyay, Chairman, BFSIB, delivered his address by expressing gratitude for the presence of a distinguished speaker and also BFSI Board Member, CMA P N Murthy, the only accredited management teacher of IMA in insurance and a seasoned Life Insurance person. This is an elevating assurance and governance in life insurance and the evolving role of Internal Audit should be the main concern for the CMA profession, he said. He mentioned the Life Insurance plays a pivotal role in India's economic growth providing financial security to millions and as the industry evolves, Internal Auditor's role becomes increasingly crucial in ensuring governance, risk management and compliance and here role of CMAs come significantly.

The speaker emphasized that to achieve India's $5 trillion economy goal, CMAs have a significant role to play in Indian economic situation.He further added that the discussion is mainly focused from the provision created undersection 138 of Companies Act, 2013 where the Act recognizes CMAs as Internal Auditors, undoubtedly it's a great opportunity for CMAs. He also mentioned about the IMF report in August 2013 which looked at Insurance Industry in India, where the Insurance Industry employed about 1,39,000 people in life sector and 61,000 in non life sector. The IMF report says that there is acute shortage of personnels and it says there is a need to increase the number of insurance professionals significantly due to rapid local growth and India is a major supplier of skilled personnel to

emerging Middle East Market. So now in this current scenario, India is capable of handling the skill requirements of the whole world. He discusses the opportunities and challenges here and Life Insurance poses huge challenges as well as provides opportunities now on socio cultural aspect. The focus of IRDAI is to strengthen the three pillars of the entire insurance ecosystem making available right products to right customers and facilitating ease of doing business in the Insurance Sector. He detailed on General administration, SOP, Admin Manual, Circulars-Servicing Policy, Sales & Marketing, Underwriting, Contract Issuances, Policy Servicing-Revivals, Assignment, Death Claims, Actuarial - Pricing and Valuation, Systems, HR, GRM, Fin & Accounts, Regulatory & Compliance Insurance Act, 1938etc of this sector. He insisted that CMAs must be well conversant with all these regulatory procedures since all these are crucial for the internal audit in Life Insurance Industry.

It was a nice programme with an interactive question and answer session. CMA Dibbendu Roy, HoD and Secretary of BFSI Board delivered the vote of thanks and concluded the webinar.

Understanding the basics of commodity market and Energy Price Risk Management Date: 24/10/2024

The Banking, Financial Services and Insurance Board of the Institute of Cost Accountants of India organised a webinar on the topic of "Understanding the basics of commodity market and Energy Price Risk Management". The webinar was graced by Shri Ashish Bhagtani, Assistant Vice President – PMT Energy, Multi Commodity Exchange of India Ltd. It was also attended by CMA Chittaranjan Chattopadhyay, Chairman, BFSIB.

The speaker explained the vitality of the commodity markets in our economy and understanding this market is crucial for business and investors. The basics of commodity market is that it is a platform where the physical commodities like crude oil, natural gas, gold and agricultural productsare bought and sold. Key characteristics of this commodity market includes price volatility, global demand, and supply market speculations, futures contracts. Further, the commodity markets are categorized into, agricultural products, hard commodities like metals, energy and energy commodities like crude oil, natural gas. As a result, it has got a tremendous linkage with the energy price risk management.

Now as there is price volatility, there is risk of loss that can be incurred in exercising the contract on the future date due to price inflation. To avoid this loss there are a number of hedging strategies that can mitigate the loss.

The working of these market is bit complex. There are various parties who work in close coordination to make the operation of the market successful. Some of the parties are broker, clearing house, arbitrager and the investors. Brokers are the persons who help the investors to invest in the market, clearing house on the other hand makes sure that the transaction actually takes place. The arbitrage is the one who utilizes any imperfections to the

markets to make profits.

In one side you have the financial investors, in the other side you have the arbitragers and you have the institutional participants like mutual funds who assume the risk of the hedgers, the corporates, the farmers, producers and consumers and the merchandisers who carry this risk in the market, risk exposure and that risk exposure is transferred to the investors who assume the risk because they have a particular view in the market and basis that they are able to trade in the market. They provide the much required liquidity in these contracts for the hedgers to hedge and transfer the risk of volatile prices.Now on one side stock exchanges have the various participants like farmers, corporates, the importers, exporters, traders and of course associations and government regulators who forms the regulations for these commodity stock exchanges.On the other hand, there is also a clearing corporation which takes place of the entire delivery mechanism right from clearing to the settlement.

The market being volatile attracts many investor and traders. To keep a track and control of the activities, SEBI has taken the control of the market and is now stream lined.

The speaker also explained how the expertise of CMAs can be used on the commodity market and now CMAs can also serve in various capacities in the SEBI.

There was a brief questionnaire session. The webinar ended by giving the vote of thanks by CMA Dibbendu Roy, Additional Director & HoD, BFSIB.

What CMAs ought to know about the complexities of Life Insurance Business

Date: 18/10/2024

The Banking, Financial Services and Insurance Board of the Institute of Cost Accountants of India organised a webinar on the topic "What CMAs ought to know about the complexities of Life Insurance Business" on18.10.2024. The webinar was graced by Chief Guest and Speaker, CMA B. K. Unhelkar, LICian, retired in Executive Director Grade.

CMA Chittaranjan Chattopadhyay, Chairman, BFSIB, asserted that CMAs can provide insights and valuable support and exemplary service to Life Insurance sectors and requested eminent speaker, CMA B. K. Unhelkar, to discuss and delve upon- how the young and budding CMAs will be successful in their venture.

CMA B. K. Unhelkar, the speaker introduced and briefed on the topic "what CMAs ought to know about the complexities of Life Insurance Business". In independent India, gradual evolution has led to the development of insurance through increase in two important parameters namely Insurance Penetration and Insurance Density. Insurance sector market size in India is roughly Rs 8 Lakh crore, which was Rs 50000 crore in 2000. Insurance is Risk Management where Risk is transferred by families or businesses (who cannot afford) to Insurance Companies (who can afford). IRDAI is taking several steps to ensure that the insurance reaches to one and all, whose vision is Fully Insured India by 2047, since India is the most populous country ahead of China, with 143.81 crores as against 140.97 crores of China. India's population will keep rising for next three decades till 165 crores and then will decline. CMAs are having immense potential to contribute to this life insurance industry. CMAs can join as an employee in the Life Insurance company, as an auditor, a successful Life Insurance Agent, in insurance marketing firm and many more. A Chartered Accountant or a CMA or such other professional as may be determined by the Insurance Board can conduct

the internal audit of the functions and activities of the Corporation. Mortality is beyond our control but expenses and investment income can be prudentially managed to generate more available surplus for participating policyholders. "Listing of companies on stock exchanges disciplines the company and provides access to financial markets and unlocks its value", in Budget speech of 2020-21, Finance Minister, inter-alia made the following announcement. This is also to promote and include protection of the interests of the policyholders. Key Performance Indicators in LICs are Annualized Premium Equivalent, Individual New Business Sum Assured, Total Operating Cost Ratio, Net Premium, Solvency Ratio etc. He is quite confident that CMAs can be instrumental in achieving IRDAI's vision of Fully Insured India by 2047.

The session concluded with an invitation for questions, reflecting the speaker's commitment to engaging further on the topic.

CMA Dr. Aditi Dasgupta, Joint Director, ICMAI delivered the vote of thanks and ended the programme.

Life Insurance Finance

Date: 13/12/2024

The Banking, Financial Services and Insurance Board of the Institute of Cost Accountants of India organised a webinar on the topic of Life Insurance Finance. The webinar was graced by CMA P N Murthy,Insurance Consultant. It was also attended by CMA Chittaranjan Chattopadhyay, Chairman, BFSIB.

The speaker stated that both the employees and auditors are to be adept on technical knowledge to function in the Insurance Industry. There ishuge scope in the Insurance sector for the CMAs he stressed upon.

He stated that India being a developing country and has low penetration of insurance as a result a huge scope is present for the industry to grow and prosper.

He stated that the most important aspect of the industry is to comprehend risk and thereafter the. concept of premium. The speaker clearly explained the accounting concept in regard to the premium. He highlighted the insurance penetration and insurance density. The various definitions were explained by the speaker to keep abreast of the various insurance concepts.

The various premium accounting was explained by the speaker. The speaker also stated of the concept of payments of Management expenses as per the Section 40-B of Insurance at 1938. He stated the ambit of Management of Expenses Regulations 2023.

Finally, the speaker explained the regulation which cover theInvestments as per the Section 27A Insurance Act 1938. He explained the final accounts as per the IRDAI Regulations 2000.

An important update was shared in which he explained that the IFRS 17 came into effect for annual reporting periods beginning on or after

January 1, 2023. However, the Insurance

Regulatory and Development Authority of India (IRDAI) extended the deadline to Financial Year 2027 to give companies more time to comply.

The Insurance Contract was touched upon as per Ind AS 104 and the various salient features covering the Audit, Finance and Accounts, Audit and Compliance, General Computations, Age, Dates, Premium computation, paid up computation, were stated. and various audits.

The premium received by the insurance company is invested in various sector to better returns. However, there are certain restrictions to this investments being made by the insurance company.

He iterated that CMAs have ample opportunities in this area.

The webinar ended by giving the vote of thanks by CMA Dibbendu Roy, Additional Director & HoD, BFSIB.

Significant Changes Ahead in the Insurance Secto

Date: 16/12/2024

The Banking, Financial Services and Insurance Board of the Institute of Cost Accountants of India organised a webinar on the topic "Significant Changes Ahead in the Insurance Sector" on16.12.2024. The webinar was graced by Chief Guest and Speaker, CMA (Dr.) S. K. Gupta MD, ICMAI Registered Valuers Organization.

Dr. Gupta, at the outset discussed on the perspectives on importance and role of Insurance in economic development and proposed amendments to Indian Insurance Laws. Insurance plays a crucial role in economic development by helping people and businesses recover from financial setbacks and continue to operate. Insurance can also help to reduce uncertainty, which can lead to increased economic activity and growth. Insurance markets working as a financial intermediary to contribute economic growth of the country as well as risk management more efficiently. Insurance entertains a paradoxical relationship with innovation. Insurance emerges as a crucial player, providing a safety net that not only shields individuals and enterprises from unforeseen events but also fosters economic growth by mitigating risk. Insurance, with its emphasis on risk management and financial security, acts as a bridge to bring more people into the formal financial sector. He further said, a resilient and adaptive insurance sector, coupled with technological advancements, not only mitigates risks but also facilitates a conducive environment for innovation, investment, and sustained economic growth. In a major step toward achieving 'Insurance for All by 2047', the government plans to introduce a transformative bill in the upcoming Budget session to amend the Insurance Act, 1938. The Insurance Amendment Bill aims to improve returns for policyholders and enhance their overall experience by facilitating access to a wider range of insurance products and services and the entry of new insurance

companies and the expansion of existing ones are likely to spur economic growth and create job opportunities across the country. He also elaborated the technology's Role in Revolutionizing Insurance, like Insurtech solutions, such as mobile-based insurance platforms and data analytics, are transforming the way insurance products are designed, underwritten, and distributed. The use of satellite imagery and weather data enables more accurate risk assessment in agriculture insurance, reducing fraud and streamlining claim processes. Similarly, the adoption of artificial intelligence and machine learning algorithms enhances the ability to predict and mitigate risks across various sectors.

The eminent speaker stressed that the role of CMAs in this sector at the base level is Financial Inclusion and reach the unreached and create awareness among the masses which is yet at the bottom of the pyramid. Looking at the voluminous size of the economy, population etc of India, we need to have more players in the insurance market and for that reason, Government is also now allowing 100% FDI in Insurance sector and the Government may also reduce the solvency norms to mitigate the risk and imbalance factor in the Insurance sector. He further said IRDAI is taking care of the Insurance misspelling and will come to grips very soon.

There was a brief questionnaire session. CMA Dibbendu Roy, HoD and Secretary of BFSI Board delivered the vote of thanks and concluded the webinar.

Brochures – Courses Offered By The Bfsi Board

BROCHURE

ONLINE

CERTIFICATE COURSE IN

INVESTMENT MANAGEMENT

(With Exclusive Hands on Trading in NSMART Lab)

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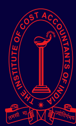
Behind Every Successful Business Decision, there is always a **CMA**



Certificate Course in Investment Management

About ICMAI

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 Asia, having a large base of about 90,000 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."

Institute's Network

Institute's headquarters is situated at Kolkata with another office at New Delhi. The Institute operates through four Regional Councils at Kolkata, Chennai, Delhi and Mumbai as well as through 116 Chapters situated in India, 11 Overseas Centres abroad, 2 Centres of Excellence, 61 CMA Support Centres and 382 Recognized Oral Coaching Centres.

About NSE Academy

"NSE Academy Limited is a wholly owned subsidiary of the National Stock Exchange of India Limited (NSE). NSE Academy Limited enables the next generation of BFSI and FinTech professionals with industry-aligned skills – through capacity building programs and certification courses, powered by an online examination and certification system. The courses are well-researched and carefully crafted with inputs from the industry professional. NSE Academy Limited works closely with reputed universities and institutions across India in building a competent workforce for the future of BFSI and FinTech. NSE Academy Limited also promotes financial literacy as an essential life skill among youngsters – a contribution towards financial inclusion and wellbeing.

For more information visit: *https://www.nseindia.com/"*

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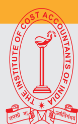
Behind Every Successful Business Decision, there is always a **CMA**



Certificate Course in Investment Management

ONLINE CERTIFICATE COURSE IN INVESTMENT MANAGEMENT

(With Exclusive Hands on Trading in NSMART Lab)

Course Objective

The course aims at providing a better understanding of the Investment decision making process and strategies for investment, with emphasis on equities, equity derivatives and mutual fund investments. The course helps to develop fundamental skills for successful investment by providing insights into how the models can be applied in the real world dynamic environment. Provides an exposure to trading simulations through the NSMART Lab.

Course Outline

The course is divided into **3 levels.** Each level can be taken separately and completed based on the needs and priorities of the participants. The contact classes and hands on practice time for **Level 1** will be **20 hours** and **Level 2** and **Level 3** will be **30 hours** each. All three levels put together aim at providing a holistic view of investment management and help in preparing for different roles offered by capital market intermediaries.

Fundamental Analysis & Valuations: 20 hrs – Level 1

Course Outline:

- Fundamental Analysis: An Introduction
- Brushing the basics
- Understanding Financial Statements
- Valuation Methodologies

Mutual Fund and Market Analysis with Technical: 30 hrs – Level 2

Mutual Fund

- Investment Landscape in India
- Concept and Role of Mutual Funds
- Legal Structure and Regulatory Framework
- Mutual Fund Offer Documents
- Channel Management Practices
- Valuation and Taxation
- Investor Services
- Mutual Fund Scheme Selection

Technical Analysis

- Introduction To Technical Analysis
- Candle Charts
- Pattern Study
- Major Indicators & Oscillators Trading Strategies
- Dow Theory and Elliot Wave Theory
- Trading Psychology and Risk Management
- Hand on session covering above topics

Financial Derivatives & its application: 30 hrs – Level 3

- Basics of Derivatives
- Understanding Index
- Introduction to Forwards, Futures and Options
- Option Trading Strategies and Systems
- Clearing and Settlement
- Legal and Regulatory Framework
- Taxation and Sales Practices
- Investor Protection Services
- Hands on session: Building derivative strategies & execution

Eligibility

- Students pursuing CMA Course (Foundation/ Intermediate/Final)
- Qualified CMAs and members of the Institute of Cost Accountants
- Student with non-commerce or non-accounting bachelor's degree

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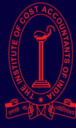
Behind Every Successful Business Decision, there is always a **CMA**



Certificate Course in Investment Management

Course Fees

Module	Level 1	Level 2	Level 3
Course Name	Fundamental Analysis & Valuations	Mutual Fund and Market Analysis with Technical	Financial Derivatives & its application
Training hours per batch	20	30	30
Add-ons	NKH	NKH & NSMART	NKH & NSMART
Mode of Delivery	Online	Online	Online
Total Course Fees (including GST) per candidate	**₹4791**	**₹6844**	**₹8213**

Key Features

- Delivered online through WebEx platform by experienced faculty from NSE Academy
- Webex platform Offers opportunity for participant interaction and Q&A through chat box, questions etc
- Exposes the participants to the dynamic trading environment through lab based sessions
- Brings real world experiential learning to the classroom
- Course offers unique hands on trading and investment experience through the NSMART Lab
- Access to the NSMART Lab for self-study, assignment and hands on practice sessions as per market working hours on working days and Saturdays.
- Rigour maintained through periodic assessment – online quiz and lab based assignments

Assessment for Each Level

- Attendance - with weightage of 30%
- Quiz - with weightage of 30%
- Assignment - with weightage of 40%

Also, the program will be on webex platform and software is accessible on Windows Operating System of 7 and above. Good internet connectivity is a must for participants and connection must be through desktop/laptop

For more details

Course Coordinator from BFSI Department

CMA Dibbendu Roy - Additional Director, HoD & Secretary, BFSIB
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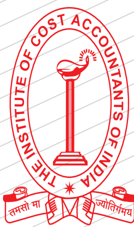
CERTIFICATE COURSE ON CONCURRENT AUDIT OF BANKS

BROCHURE



ICMAI

THE INSTITUTE OF COST ACCOUNTANTS OF INDIA

Statutory Body under an Act of Parliament

www.icmai.in

Headquarters:
CMA Bhawan, 12 Sudder Street, Kolkata - 700016

Delhi Office:
CMA Bhawan, 3 Institutional Area, Lodhi Road, New Delhi - 110003

Behind Every Successful Business Decision, there is always a CMA

Certificate Course on Concurrent Audit of Banks

About The Institute

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International Affiliation

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Course Objective

The Banking, Financial Services and Insurance Board is pleased to offer **Certificate Course** on **"Concurrent Audit of Banks"** for Officials of Regional Rural Banks and Small Finance 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

CEP Hours: 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.

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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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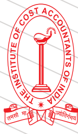

Certificate Course on Concurrent Audit of Banks

Contact for further queries

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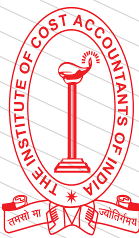
CMA Dr. Aditi Dasgupta, Joint Director at bfsi@icmai.in



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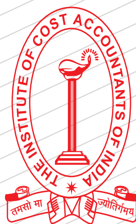
CERTIFICATE COURSE ON CREDIT MANAGEMENT IN BANKS



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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)** for Officials of Private Sector Banks / Local Area Banks.

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

CEP Hours: 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
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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

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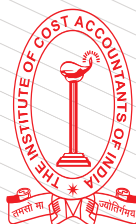

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CERTIFICATE COURSE ON

TREASURY AND INTERNATIONAL BANKING

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Certificate Course on Treasury and International Banking

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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.

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Certificate Course on Treasury and International Banking

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

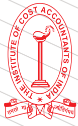
f. ESG Investments Trading:

- ✓ 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



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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

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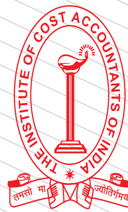

THE INSTITUTE OF COST ACCOUNTANTS OF INDIA

Statutory Body under an Act of Parliament

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Behind Every Successful Business Decision, there is always a CMA

Saapshots

15th BFSI Board Meeting held on Saturday, 28th September 2024 at IMC, Mumbai.

CMA Chittaranjan Chattopadhyay, Chairman, BFSIB & IAASB and ACMB of ICMAI (extreme right), CMA Ashwin Dalwadi, Immediate Past President, ICMAI (extreme left), and CMA Avijit Goswami, Chairman, Members' Facilities Committee, Members in Industry & PSUs Committee and Council Member, ICMAI (2nd from left) met Shri Pradeep Ramakishnan, Executive Director, IFSCA (2nd from right) on 3rd October, 2024.

CMA Bibhuti Bhusan Nayak, President, ICMAI (4th from left) and other Council Members' Meeting with Asian Development Bank Officials on 19th October, 2024.

CMA Bibhuti Bhusan Nayak, President, ICMAI (2nd from left), CMA Chittaranjan Chattopadhyay, Chairman, BFSIB & IAASB and ACMB of ICMAI (2nd from right), CMA M. K. Anand, Council Member, ICMAI (extreme left), and CMA (Dr.) Ashish P. Thatte, Council Member, ICMAI (extreme right) met Shri Shaktikanta Das, Immediate Past Governor, Reserve Bank of India (centre) on 30th October, 2024.

CMA Jaimin Bhatt, Former CFO, Kotak Mahindra Bank Ltd. is being welcomed by CMA Chittaranjan Chattopadhyay, Chairman, BFSIB & IAASB and ACMB of ICMAI, along with CMA Dibbendu Roy, Additional Director & HoD, BFSIB of ICMAI at the BFSI Business Standard Summit at BKC Mumbai on 6th November, 2024 (L to R).

Shri Ashok Kumar Bhattacharya, Editorial Director, Business Standard is being greeted by CMA Chittaranjan Chattopadhyay, Chairman, BFSIB & IAASB and ACMB of ICMAI at the BFSI Business Standard Summit at BKC Mumbai on 6th November, 2024 (L to R).

Shri Ashwani Kumar, MD & CEO, UCO Bank (centre) is being welcomed by CMA Chittaranjan Chattopadhyay, Chairman, BFSIB & IAASB and ACMB of ICMAI (extreme right) at the BFSI Business Standard Summit at BKC Mumbai on 6th November, 2024.

CMA Punit Jain, Director, NIBSCOM (centre) is being welcomed by CMA Chittaranjan Chattopadhyay, Chairman, BFSIB & IAASB and ACMB of ICMAI (extreme left) at the BFSI Business Standard Summit at BKC Mumbai on 6th November, 2024.

CMA Chittaranjan Chattopadhyay, Chairman, BFSIB apprising college students about BFSI Courses at Srinagar on 8th November, 2024.

CMA Rajesh Nagar, GM, HR, UCO Bank felicitated by CMA Chittaranjan Chattopadhyay, Chairman, BFSIB & IAASB and ACMB of ICMAI at Headquarters of UCO Bank, Kolkata on 27th November, 2024 (R to L).

CMA Chittaranjan Chattopadhyay, Chairman, BFSIB with CMA T. C. A. Srinivasa Prasad, Vice President, ICMAI at the Cost Congress on 27th November, 2024 at Chennai.

CMA Chittaranjan Chattopadhyay, Chairman, BFSIB in discussion with CMA Balbir Singh, General Manager, Punjab National Bank at Headquarters Office on 27th November, 2024.

16th ICC MUTUAL FUND Summit 2024 at The Lalit Great Eastern, Kolkata from 10 am onwards on 30th November, 2024. It is organized jointly with ICC and BFSIB, ICMAI.

CMA Chittaranjan Chattopadhyay , Chairman, BFSIB (2nd from left) felicitating Shri Gopal Murli Bhagat, Chief Executive (Officiating) (extreme left) Indian Banks' Association along with Shri Shiv Kumar Sharma, Sr. Advisor, IBA (3rd from left) along with CMA Ajit Yogi, Practising Cost Accountant (extreme right) on 6th December, 2024 at Mumbai.

Shri Sharda Bhushan Rai, Chief General Manager, PR & Publicity, Bank of India felicitated by CMA Chittaranjan Chattopadhyay, Chairman, BFSIB & IAASB and ACMB of ICMAI on 13th December, 2024 (R to L).

CMA Chittaranjan Chattopadhyay, Chairman, BFSIB felicitating Shri S. N. Bhattacharya, Secretary General, Life Insurance Council (extreme right) at Mumbai on 13th December, 2024. He is accompanied by CMA Ajit Yogi, Practising Cost Accountant (extreme left) along with CMA B. N. Unhelkar, Former Executive Director, Life Insurance Ltd. (2nd from left).

Dr. Saurabh Maheshwari, Consultant and Speaker for the Seminar on "Ethics, Accountability, and the Human Touch: Redefining Professional Roles in the Age of AI" felicitated by CMA Chittaranjan Chattopadhyay, Chairman, BFSIB & IAASB and ACMB of ICMAI on 14th December, 2024 (L to R).

Addressed Senior Officials of Ministry of MSME at the training program titled Career Progression In-service Training for IEDS Officers at Kolkata and delved on the various Tax Compliance issues for MSMEs and the Cost Management for Sustainability of MSMEs on 17th December, 2024.

Activities Of The BFSI Board (October To December 24)

The Banking, Financial Services & Insurance Board of the Institute and the BFSI department continued its various activities and initiatives in the quarter from October to December,2024, a synopsis of which is presented herein under -

A. Certificate Courses of BFSI

i) Advance Certificate Course on Fintech

The classes for the 1st batch of Advance Certificate Course on Fintech started from 15th November, 2024. Shri NDSV Nageswara Rao, General Manager (IT), State Bank of India was the Chief Guest for the inaugural session.

ii) Certificate Courses on Certificate Course on Concurrent Audit of Banks

The classes for the 11th batch of the Certificate Course on Concurrent Audit of Banks started from 17th November, 2024.Shri Y. Sathyanarayana Prasad, Former General Manager, Management Audit,

State Bank of India and presently Chief Credit Manager & Business Head (Advances) Coastal Bank was the Chief Guest for the inaugural session.

iii) Certificate Courses on other courses on Banking

The admission for the 11th batch of Credit Management of Banks and 9th batch of the Treasury and International Banking are currently going on.

The syllabi and the study materials has been amended as per the latest developments and amendments and all are requested to be take admission for capacity building and knowledge enhancement.

The admission window for the courses is stated as follows:

https://eicmai.in/OCMAC/BFSI/DelegatesApplicationForm-BFSI.aspx

iv) Investment Management in collaboration with NSE Academy

The admission for the Level-3 Batch No. 1 (Financial Derivatives & it's application) is presently going on and the Department organized an awareness programme for the course on 21st November, 2024. The speaker was Shri SanatBharadwaj, NSE Trainer.

The admission for the Level-1 (Fundamental Analysis & Valuations) Batch No. 2 of the Investment Management in collaboration with NSE Academy has started on 19th October, 2024 and concluded on 8th December, 2024.

The admission window for the courses is stated as follows:

https://eicmai.in/OCMAC/BFSI/DelegatesApplicationForm-BFSI.aspx

B. Webinars

The following webinars were organized by the BFSI on various topics which are stated as follows:

1. IPOs the process of fund raising for India Inc.

The webinar was organized on 4th October 2024 from 5 to 6:30 p.m. CMA Nayan Mehta, Former CFO, BSE and BFSI Board Member, ICMAI was the Speaker.

2. Internal Audit of Life Insurance Companies

The webinar was organized on 7th October 2024 from 4 to 6 p.m. CMA P N Murthy, Insurance Consultant and BFSI Board Member, ICMAI was the Speaker.

3. What CMAs ought to know about the complexities of Life Insurance Business

The webinar was organized on 18th October 2024 from 4 to 5:30 p.m. CMA B. K. Unhelkar, Former Executive Director, Life Insurance Corporation of India was the Speaker.

4.Understanding the basics of Commoditymarket and Energy Price Risk Management

The webinar was organized on 24th October 2024 from 4 to 5:30 p.m. Shri Ashish Bhagtani, Assistant Vice President – PMT Energy, Multi Commodity Exchange of India Ltd. was the Speaker.

5. Life Insurance Finance

The webinar was organized on 13th December 2024 from 5 to 6:15 p.m. CMA P N Murthy, Insurance Consultant and BFSI Board Member, ICMAI was the Speaker.

6. Ethics, Accountability, and the Human Touch: Redefining Professional Roles in the Age of AI

The seminar was organized on 14th December 2024 from 5 to 7:00 p.m. Dr. Saurabh Maheshwari, Consultant was the Speaker.

7. Significant Changes Ahead in the Insurance Sector

The webinar was organized on 16th December 2024 from 4 to 5:30 p.m. CMA (Dr.) S. K. Gupta, MD, ICMAI Registered Valuers Organization, CEO, ICMAI Social Auditors Organization, COO, ICMAI International ADR Chamber was the Speaker.

8. Awareness Programme for Investment Management Courseheld on 26th September from 4 to 6 pm

The BFSI Board of ICMAI had organized a Webinar on Thursday, 26th September 2024, 4:00 p.m. to 6:00 p.m. on the topic "Awareness Programme for Investment Management Course". Shri Anish P Gandhi, Financial Markets Educator is the Speaker.

C. BFSI Insight Summit organized by the Business Standard

BFSI Insight Summit was organized by the Business Standard. The BFSI Board, ICMAI participated in the BFSI Insight Summit organized by the Business Standard from 6th to 8th November, 2024 where stalwarts and captains of BFSI sector participated for the event. The Institute had an exclusive stall for the event and had an excellent opportunity in networking and valuable interaction with the visitors of the stall about the effort of value creation by ICMAI.

D. Publications

Release of the 18th issue of the BFSI Chronicle (FinTech Special)

The BFSI Board, ICMAI has released the 18th issue of the BFSI Chronicle (FinTech Special) in the month of October, 2024.

Sale of Aide Memoire on Infrastructure Financing (Revised and Enlarged 2nd Edition)

The online purchase link of the publication titled Aide Memoire on Infrastructure Financing (Revised and Enlarged 2ndEdition) is as follows:

https://eicmai.in/booksale_bfsi/Home.aspx

E. Inclusion of CMAs/CMA Firms in various opportunities

CMAs Firms are included for empanelment of Concurrent Audit/Revenue Audit of Dakshin Bihar Gramin Bank.

CMAs in included in various vacancies of National Housing Bank

CMA Firms are eligible for stock audit of Indian Overseas Bank

CMA Firms are eligible for concurrent audit of NEDFi

CMA Firms are eligible in providing services to assist in Liability Servicing and related works in IFCI Ltd.

FINANCIAL SNIPPETS

- *SEBI defers ESG disclosure deadline under BRSR framework by 1 yr to FY26*
- *Mutual Fund regulations amended to make way for MF Lite, minimum investment set at Rs 10 lakh*
- *SEBI proposes a platform to trace inactive mutual fund folios*
- *UPI hits record 15,547 crore transactions worth Rs 223 lakh crore by November 2024*
- *Reserve Bank of India amends master directions on KYC norm*
- *RBI released the framework for Financial Market Self-Regulatory Organizations*
- *SEBI amends AIF rules for investors*
- *SEBI hikes net worth requirement for merchant bankers; introduces clauses for cancelling licence*
- *SEBI makes a big move, codifies public-consultation process*
- *SEBI eases norms for boarding of investment advisors, research analysts*
- *SEBI proposes a platform to trace inactive mutual fund folios*
- *PMJJBY has provided Rs 2 lakh life insurance coverage to over 21 crore beneficiaries: Finance Ministry*
- *SEBI enacts significant changes to disclosure and RPT regulations*
- *India's FDI Journey Hits $1 Trillion:*
- *SEBI seeks diversified ownership of clearing corporations*
- *SEBI's SME IPO paper proposes 2x minimum application size, OFS limit of 20%, more allottees*
- *SEBI bats for easing angel fund norms; move to aid funding of startups*
- *SEBI to expand ambit of unpublished price sensitive information*
- *RBI includes spot deals to expand forex transactions reporting requirements*
- *SEBI issues rules for uniform nomination standards in securities markets*
- *Lok Sabha clears Banking Bill, to strengthen governance*

- ***SEBI proposes key reforms for REITs and InvITs to enhance investment opportunities***
- ***IBBI, IBA to launch centralised platform for asset liquidation auctions***
- ***RBI asks NBFCs to maintain at least 25% borrowings from capital market***
- ***RBI sets Rs 300 cr networth criteria for central counterparty authorization***
- ***SBI named Best Bank in India for 2024 by Global Finance Magazine***
- ***RBI sets Rs 300 cr networth criteria for central counterparty authorization***
- ***SEBI proposes mark-to-market valuation for MFs' short-term repo deals***

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