

Fintech Friday: SEBI proposes a “lite framework” for usage of AI/ML in securities market

The Securities and Exchange Board of India (“**SEBI**”) has released a consultation paper on **Guidelines for the Responsible Usage of Artificial Intelligence (AI) and Machine Learning (ML) in Indian Securities Markets** with an aim to provide suggestions to maximize benefits and minimize risks in use of technology in the securities markets (“**Consultation Paper**”).

Background:

- Previously SEBI had introduced the reporting requirements to map AI/ML usage in financial markets.
- Recent advances in the field of AI/ML due to development of Generative AI and Large Language Models (LLMs), have led to its greater adoption by stock exchanges, brokers, mutual funds, etc.
- A working group was constituted by SEBI to study existing guidelines on AI/ML in India and globally and develop guidelines for securities market.
- The working group studied various guidelines on use of AI/ML adopted in India and globally including that of NITI Aayog, International Organisation of Securities Commissions Global (IOSCO), FINRA (USA), MAS (Singapore), and DISRA (Australia).

Current Usage of AI/ML in Indian Securities Market:

Inputs were invited by SEBI from market participants and based on same it identified the current usage of AI/ML as follows:

- By Exchanges: For Surveillance, cybersecurity, member support using chatbots, pattern recognition, etc.
- By Brokers: For KYC/document processing, chatbots, product recommendation, order execution, AML, etc.
- By Mutual Funds: For Customer support, customer segmentation, cybersecurity, etc.

Guiding Principles proposed by SEBI working group:

With respect to the usage of AI/ ML, market participants should be required to ensure the following:

Model Governance:

- Having skilled internal teams to monitor and oversee such models throughout their lifecycle.
- Establishing procedures for exception/error handling and fallback mechanisms related to use of AI/ML and to ensure that functions are carried out through alternate process in case technology fails.
- Having designated senior management for accountability.
- Monitoring and keeping oversight over third party service providers of AI.
- Having service agreement in place with third-party vendors clarifying the scope as well as rights and remedies available with market participants for poor performance by

vendors. However, market participants shall be responsible for third-party services for ensuring compliance with applicable laws.

- Defining data governance norms and recording requests for de-anonymization of data.
- AI/ML based systems shall be subject to independent auditing and findings shall be communicated to SEBI to enable supervisory oversight.
- AI/ML based applications shall provide user autonomy and ensure ethical outcomes.

Investor Protection & Disclosure:

- Mandatory disclosure by market participants of AI usage to investors including disclosures on functions product features and risks, limitation on accuracy, quality of data used and fees levied.
- Disclosures to customers/clients in a comprehensible language pertaining to any direct impact on them due to use of AI/ML by market participants, such as disclosures on algorithmic trading (including high frequency trading), asset management/portfolio management, advisory and support services.

Testing Framework:

- Testing in segregated environments before deployment of AI/ML models.
- Shadow testing using live traffic before deployment in production.
- Continuous monitoring to catch post-deployment shift in the model.
- Documentation retention of all the models for at least 5 years and proper documentation explaining the logic of AI/ML models to ensure traceability of outcomes.

Fairness & Bias

- AI/ML Models must not discriminate amongst one group of clients/customers over another.
- High input data quality and broad input data coverage must be provided to ensure performance of AI/ML.
- Implementation of appropriate processes for bias detection and removal.

Data Privacy & Cybersecurity

- Having clear policies on data security, cyber security and data privacy for usage of AI/ML based models.
- Collection, usage, processing of investors' personal data in compliance with applicable laws.
- Reporting of data breaches and technical glitches to SEBI in line with existing framework.

Tiered Approach

For now, SEBI has proposed a lighter framework for usage of AI/ML in securities market not impacting clients directly. Accordingly, SEBI suggests that guidelines mentioned above such as related to internal compliance and surveillance which includes the guidelines covered under Model Governance, Testing Framework and Data Privacy and Security may initially be made applicable for the SEBI regulated entities.

LK Analysis:

- **Hardship for Smaller Intermediaries: Compliance Burden and Resource Constraints:** While the proposed guidelines aim to instil responsible AI/ML use, the compliance-heavy framework especially under *Model Governance*, *Testing Framework*, and *Data Privacy* norms could disproportionately burden smaller intermediaries such as small brokers or fintech startups.
- **Need for Scale-Based Implementation: Avoiding One-Size-Fits-All Regulation:** SEBI's tiered approach distinguishes between AI systems that directly impact clients and those used for internal functions. However, it currently lacks explicit scale-based differentiation tied to the size or systemic relevance of intermediaries.
- **Data Processing Outside India: Regulatory and Jurisdictional Risk:** AI/ML tools, particularly generative AI and LLMs, often rely on third-party platforms hosted outside India for training, inference, or model operations. The Consultation Paper has not provided any guidance on it.
- **SEBI-SRO Certified AI/ML Providers: Building a Trust Layer for Responsible AI Use:** Given SEBI's emphasis on oversight of third-party AI providers, the idea of mandating certification or registration of AI/ML vendors through a SEBI-recognized SRO (Self-Regulatory Organization) can promote transparency and accountability.

Contact Us

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