SEBI'S PROPOSAL FOR REGULATING RETAIL INVESTORS' ACCESS TO ALGORITHMIC TRADING

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INTRODUCTION

Algorithmic trading, commonly referred to as algo trading, uses computer programs and algorithms to execute trading strategies at high speeds and with precision. Historically, this domain has been dominated by institutional players due to the resources and technical expertise required. However, the increasing democratization of technology and financial markets has led to growing interest among retail investors. Recognizing this trend, the Securities and Exchange Board of India (SEBI) is considering measures to facilitate retail investors' participation in algo trading under a more regulated and structured framework.

BACKGROUND

SEBI has always prioritized safeguarding market integrity and investor protection. The regulator's past initiatives, such as regulating algo trading for institutional players and introducing frameworks for co-location services, reflect its cautious approach. As retail investors increasingly adopt technological tools for trading, SEBI's focus is on ensuring that such participation does not compromise market fairness or expose investors to undue risks.

LITERATURE REVIEW

Umoh, A.A., Adefemi, A., Ibewe, K.I., Etukudoh, E.A (2024) The financial markets are dynamic and erratic. The price of an asset is influenced by a number of economic factors and market uncertainty. It is extremely difficult to forecast asset price trends and project an asset's future value. This is the reason why more traders in the financial markets are using algorithmic trading. The process of executing orders using pre-programmed automated trading instructions that take asset characteristics like price and volume into account is known as algorithmic trading a computer program that executes trades in accordance with a predetermined set of instructions, or an algorithm, algorithmic trading enables traders to make gains more quickly and often than they could as a human trader. The most advanced algorithmic trading currently available makes use of maximum informative resilient filtering (MIRF) and Kalman filtering (KF), which enable traders to improve trading tactics and increase the prediction ability of statistical models. A significant disadvantage of MIRF, which is becoming more and more popular in pairs trading, is that it selects a threshold value—which is presumed to be one—ad hoc rather than maximizing the Sharpe ratio.

Varga, S., Brynielsson, J. and Franke, U., (2021) An essential electronic document used in commercial trading and finance industries to record financial transactions is the order book. Hardware is a better option than software-based systems since High Frequency Algo Trading requires quick responses.

Verma, P. and Sehgal, S., (2023) Effective forex forecasting typically determines the outcome of an implicit foreign exchange trading decision. Two distinct methodologies have been used to examine the forex market: technical analysis and fundamental analysis. Accordingly, the core economic variables have a significant impact on the.

Tymoteusz Cejrowski, Julian Szymanski, and Tomasz Boinski, (2022) wrote a study titled "Exact-Match Based Wikipedia-WordNet Integration." Creating connections between Wikipedia articles and WordNet synsets was their goal in order to improve natural language processing. Unlike earlier research that mostly concentrated on evaluating resource similarity, this work presents a novel approach for reliable, automated matches. It describes different methods, assesses how well they work, and emphasizes

how a single solution may lead to better match quality. The authors stress the need for greater study to improve algorithm ordering, pick larger test datasets for a more thorough analysis, and improve similarity measures. The study offers insightful information for natural language processing applications and focuses on synchronizing WordNet with Wikipedia data.

Arora, G., & Sherry, A. M. (n.d.) conducted a study titled "Evolution of Algo Trading and Its Future in India," which aimed to investigate the development and current state of algorithmic trading in India. This research included a comprehensive literature review to(2016), spanning April 2010 to December 2016, the study found that in India, algorithmic trading orders, particularly in the cash segment, are executed at faster speeds, resulting in more trades compared to non-algorithmic orders. The large volume of orders placed by algorithmic trading contributes to substantial margins. Algorithmic trading is seen as a move towards a more transparent system and suggests lower leverage costs. The rapid growth of algorithmic trading indicates that India is progressing towards a more efficient capital market.

Ramkumar, G. (2018) conducted a study on the significance of algorithmic trading in the Indian stock market. The study aimed to understand the mechanism of algorithmic trading, identify reasons for its preference, understand its benefits for the stock market, and identify challenges in adopting it in India. The study sampled 50 respondents with sufficient knowledge of algorithmic trading. It concluded that algorithmic trading is an emerging strategy in the stock market and proves to be a better strategy for large trade volumes, benefiting investors. However, retail investors are concerned about being deprived of profits. SEBI has regulated such trading to ensure all types of investors benefit, avoiding inequalities among them.

Hendershott, T., & Riordan, R. (2013) examined algorithmic trading and the market for liquidity. The study found that algorithmic traders provide liquidity when it's expensive and consume it when it's cheap. They closely monitor the market and respond quickly to changing conditions. When spreads are narrow, algorithmic traders are less likely to submit new orders, cancel their orders, and are more likely to initiate trades. The study explores specific types of algorithmic trading strategies and their implications for academics, regulators, and market operators. It highlights the challenges slower traders face due to adverse selection, as faster traders are better informed about market conditions. The study suggests that increasing algorithmic trading could reduce liquidity and welfare, with significant applications for regulators and trading platform designers. The market infrastructure should ensure equal access for all participants to reduce costs.

Yadav, Y. (2015) investigated the impact of algorithmic trading on capital market efficiency. The study found that although algorithmic trading offers certain advantages, it also incurs substantial costs to the primary function of securities markets, which is to efficiently allocate capital throughout the real economy. The pervasive model risks and the pressures faced by study emphasizes the need for further consideration of the central role of securities prices in regulation and strategies to enhance market informativeness. As markets become more automated, addressing this issue is crucial for regulators.

CURRENT CHALLENGES IN RETAIL ALGO TRADING

- **Lack of Regulation**: Retail algo trading operates in a gray area. Many retail investors rely on Application Programming Interfaces (APIs) provided by brokers, which can lead to unregulated and uncontrolled use.
- **Market Risks**: Without proper oversight, algo trading can lead to erratic market behavior, such as flash crashes or order clustering.
- **Investor Awareness**: Retail investors often lack the technical expertise to understand the risks and operational nuances of algo trading.
- **Fraud and Misuse**: Unregulated algo trading platforms and strategies can expose retail investors to fraudulent schemes and misrepresentation.

SEBI's Proposed Framework

SEBI aims to create a balanced ecosystem where retail investors can leverage algo trading while maintaining market stability and investor protection. Key aspects of the proposed framework include:

1. **Registration and Approval**:

o Retail algo trading strategies and software must be approved by SEBI or a designated body before deployment.

o Brokers offering algo trading services to retail clients must ensure these strategies

comply with SEBI's guidelines.

2. **Standardized APIs**:

o APIs provided by brokers must adhere to SEBI-mandated standards to ensure transparency and prevent misuse.

o Only SEBI-certified APIs should be allowed for retail algo trading.

3. **Risk Management**:

o Retail investors must undergo mandatory risk awareness training before being allowed to use algo trading.

o Margin requirements for algo trades may be higher to account for systemic risks.

4. **Surveillance and Monitoring**:

o Brokers must implement real-time monitoring systems to detect and report suspicious or erratic trading patterns.

o SEBI will deploy advanced surveillance tools to monitor the impact of retail algo trading on market behavior.

5. **Audit and Compliance**:

o Regular audits of brokers and algo service providers to ensure adherence to SEBI's

regulations.

o Penalties for non-compliance to deter malpractices.

6. **Sandbox Environment**:

o SEBI may introduce a regulatory sandbox for retail algo trading, allowing strategies to be tested in a controlled environment before full deployment.

BENEFITS OF THE PROPOSED FRAMEWORK

- **Market Inclusivity**: Retail investors can access advanced trading tools, leveling the playing field with institutional investors.
- **Enhanced Transparency**: Standardized APIs and approved strategies reduce the scope for fraudulent practices.
- **Investor Protection**: Mandatory risk education and regulatory oversight protect retail investors from potential losses and malpractices.
- **Market Stability**: Real-time monitoring and stricter compliance ensure that retail algo trading does not disrupt market dynamics.

POTENTIAL CONCERNS AND MITIGATION

- **Increased Costs**: Retail investors might face higher costs due to compliance and approval requirements. SEBI could consider subsidizing certain costs or providing incentives for initial adopters.
- **Technological Barriers**: Not all retail investors are tech-savvy. SEBI and brokers should focus on education and user-friendly interfaces.

- **Over-Regulation**: Excessive regulatory requirements might deter participation. SEBI must strike a balance between oversight and operational freedom.

CONCLUSION

SEBI's initiative to regulate retail algo trading is a progressive step toward democratizing advanced trading tools while ensuring market integrity and investor protection. By fostering a well-regulated environment, SEBI can harness the potential of algo trading to benefit retail investors and the broader financial market. The success of this initiative will depend on effective implementation, collaboration with market participants, and continuous monitoring to adapt to evolving challenges.

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