



## INSIDER TRADING : THE ROLE OF AI AS A PREVENTION TOOL

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### ABSTRACT

In this article, we aim to provide an overview on Insider Trading and the role of AI as a prevention tool in curbing insider trading. It being a malpractice provides a leverage to some selective investors over the other investors in the Stock Market. In this type of trade practice, some unpublished information about a company or stock which are price sensitive are disclosed to some of the investors who utilize it to make personal gain and monetary profits out of it. The definition, types of insider trading, the legal framework in India as well as the penalties regarding the subject matter of Insider trading have been discussed in the paper and it focuses on the benefits that can be garnered if we implement more AI-based technologies to curb insider trading because all pen and paper makes no sense if it is not enforced adequately. The article recommends the preventive mechanisms that can be adopted in order to control and regulate the increasing insider trading activities. Moreover, two eminent cases- Harshad Mehta's case as well as Rajat Sharma's case have been stated to give a clear understanding about the topic.

**Keywords-** *SEBI , Insider Trading , Artificial Intelligence , Prevention , Regulations*

### INTRODUCTION

Insider trading can be defined as a trading in which someone who is a connected person (or with the help of connected persons) trade in the stock market using Price Sensitive Information's which are Unpublished (UPSI). As per the definition, **connected persons** are the people who are prohibited from trading on a specific stock of a company or companies as they carry or might carry price sensitive information's. Mostly connected persons are:-

- 1) Relatives of connected persons who might carry the information or,
- 2) A holding, associate or subsidiary company or,
- 3) Intermediaries, employee, director or,
- 4) A company involved in Investments, a trustee company, an Asset Management Companies (AMC)
- 5) an employee, director, related or,
- 6) A stock exchange official or people involved in Clearing Corporations or,
- 7) A member of Mutual Funds or AMC or any employee working there or people related to them or,
- 8) Bankers involved in the company or related as such or,
- 9) A concern firm, trust, HUF, with which the director or information carrying officials are related to.

Moreover, The Price Sensitive Information that are Unpublished (UPSI) Unpublished Price Sensitive Information often refers to information about a firm or its securities that is not available in the public domain and is expected to have a meaningful impact on the price of the shares being traded. These mostly include information's such as:-



- 1) All Financial results (profits, losses & various other information's) of the Company.
- 2) Any information regarding Dividends & Beneficiary policies of the Company.
- 3) Change in the capital structure of the company.
- 4) Change in key management personnel which is not being informed to public i=or been stated in a public domain.
- 5) Mergers, De-Mergers, Acquisition, Expansion etc.

Thus, if any of the above mentioned persons trade on the securities of a company using any of the above mentioned UPSI shall be held liable under Insider trading.

### TYPES OF INSIDER TRADING

#### 1) LEGAL INSIDER TRADING

It is generally, difficult to state and define a legal insider trading. When the **insiders** trade in the company's stock and inform the Securities Exchange commission (SEC) about the trade. For example, when a CEO or a managing director or any higher authority of the company plan to buy back the shares of their company i.e., during buy back of shares etc. It happens very often, listed companies many a time buy back their own shares. They buy back shares with a view point of expansion of the company or to hold its ownership as per the plan. Although, a CEO purchasing shares of his company can influence the investors from the perspective of price movement, but still it is considered to be legal to give the companies liberty to hold their market, expand or to conduct their various business plans as they decide.

#### 2) ILLEGAL INSIDER TRADING

As defined earlier, the more popular form of Insider Trading is the illegal insider trading. It can be done by any of the Connected Persons (as mentioned before) using the Price Sensitive Information which are Unpublished. An example of Illegal insider Trading would be, a lawyer representing the company buys or sells shares using confidential unpublished information for personal benefit or when a CEO of a publically traded firm disclosed about a merger to his immediate relative which is supposed to happen, which will shoot up the prices of the shares. Now since, this information is not available in a public domain it becomes illegal and unfair as it gives few of the investors an undue advantage over the other investors in the market.

### LEGAL OVERVIEW ON INSIDER TRADING

The Securities Exchange Board of India (SEBI) had introduced SEBI (Prohibition of Insider Trading) Regulations, 1992. This Act was later amended in the year 2015. The SEBI (Prohibition of Insider Trading) Regulations, 2015 deals with the matters regarding Insider Trading. Regulation 9 of SEBI (Prohibition of Insider Trading) Regulations, 2015 states the Code of Conduct which is required to be followed by very company whose securities are listed on stock exchanges and every market intermediary registered with SEBI governing trading by its employees.

- 1) *“ The board of directors of every listed company and market intermediary shall formulate a code of conduct to regulate, monitor and report trading by its employees and other connected*



*persons towards achieving compliance with these regulations, adopting the minimum standards set out in Schedule B to these regulations, without diluting the provisions of these regulations in any manner.*

- 2) *Every other person who is required to handle unpublished price sensitive information in the course of business operations shall formulate a code of conduct to regulate, monitor and report trading by employees and other connected persons towards achieving compliance with these regulations, adopting the minimum standards set out in Schedule B to these regulations, without diluting the provisions of these regulations in any manner.*
- 3) *Every listed company, market intermediary and other persons formulating a code of conduct shall identify and designate a compliance officer to administer the code of conduct and other requirements under these regulations.”<sup>1</sup>*

Both India and UK have a similar definitions of ‘price sensitive information’ and ‘connected person i.e. an insider’. In India both the civil and criminal liability of Insider Trading is dealt under the same common statute. Whereas in UK, there are two separate statutes for the civil and criminal liabilities.

### **PENALTIES IN CASE OF NON-COMPLIANCE**

**Section 15G of SEBI Act, 1992** as well as **Section 195(2) of Companies Act, 2013**

deals with the Punishment of Insider Trading. It states that if any insider who,

- i. either on his own behalf or on behalf of any other person, deals in securities of a body corporate listed on any stock exchange on the basis of any unpublished price sensitive information; or
- ii. communicates any unpublished price sensitive information to any person, with or without his request for such information except as required in the ordinary course of business or under any law; or
- iii. counsels, or procures for any other person to deal in any securities of any body corporate on the basis of unpublished price sensitive information,” “shall be liable to a penalty [which shall not be less than ten lakh rupees but which may extend to twenty-five crore rupees or three times the amount of profits made out of insider trading, whichever is higher.”<sup>2</sup> According to **Section 10(b) of the Securities Exchange Act, 1934** in US, a conviction for insider trading may lead to a maximum fine of \$5million for an individual (25million for business entity) and upto 20 years of imprisonment.

As per SEBI Act, Insider Trading is a punishable offence and the penalty is assigned to be INR 25,00,00,000 or three times the profit earned through such act of Insider Trading, whichever is higher. Moreover, any person who contravenes or attempts to contravene the Punishment as per the Act shall be liable to imprisonment of 10 years or fine or both.

<sup>1</sup> SEBI (Prohibition of Insider Trading) Regulation, 2015 Reg. 9

<sup>2</sup> Securities and Exchange Board of India Act, 1992 s. 15G



Although, these provisions have been implemented but still it becomes a big burden for the SEBI to prove that Insider Trading is actually occurring. The officials have to monitor the performance of the stocks as well as the investors to identify whether actually Insider Trading is occurring as well as to gather evidence against the suspicious investors. They also take Connected Persons inside the radar while monitoring such cases. So many laws and provision have been introduced for the smooth functioning of the stock market, to prevent centralization of information in one particular hand & to prevent exploitation but the laws have somehow miserably failed in its implementation due to lack of **adequate technology & prevention mechanism.**

#### **FAMOUS CASE REFERENCES ON INSIDER TRADING**

**Harshad Mehta's Case- Harshad Shantilal Mehta** (full name) was an Indian stockbroker famously known as the 'BIG BULL' because of his trading style. As famously shown in the web series "SCAM 1992" as well as in a Bollywood movie "THE BIG BULL". It was said that he had 27 criminal charges against him out of which only 4 of them were charged upon him before his death. Mr. Mehta was born in the state Gujarat. He belonged to a monetarily below middle class family & was fond of Cricket. He completed his schooling from Janta Public School & moved to Mumbai for further studies and to find a job as well. He did several jobs related to sales and marketing. During 1980s, he started working in various brokerage firms and later grew into fame by Early 1990s, to a point that he was famously called as the 'Amitabh Bachchan of stock market'. Later, he was covered in various famous articles and was also featured in the famous magazines

from "Business Today". In the early 1990s, Banks were not allowed to invest in Stock Markets but it was alleged that Mehta diverted the capital of Banks and invested them in Stock Market to earn profits which was highly risky and illegal. He was alleged to be involved in various Bank Receipts related scandals as well, he used fake forged BRs & in order to get unsecured loans from various banks and also pressurized small banks to provide loans. These BRs were transferred from Bank to Bank. The Banks thought that they were providing loans in return of Government Securities which was not really the case. He used this money to increase the prices of the stocks in market and then sell them at a higher price. He thus, increased the stock prices to exponential level and then sold them to earn enormous profits and to repay the loans. Moreover, he also had a subsidiary company using which he allegedly used to tap prices and used to raise the price of the stock to a really high number and then used to sell it to earn enormous profits. He heavily traded in the shares of the company ACC which lead to increase in the price of ACC from 200 to 9000 Indian Rupees within hardly 3 months. This process of trading is famously known as "ready forward" trading. "In 1998 SEBI initiated charge for insider trading against him and the executives of three companies, namely Sterlite, BPL and Videocon. Those companies resorted to insider trading to push their scripts prices. Between April to June, 1998 the share prices of those companies rose up to 137%, 232%, and 41% respectively though BSE Sensex declined by 11% due to the national and global uncertainties (Fernando, 2014)". Later on 23rd April, 1992 a prominent journalist Sucheta Dalal exposed the illegal happenings which were being conducted by Mehta in the



Times of India. As the fraud got exposed it was found that many prominent banks, brokers and industrialists were also involved in these sort of activities. Later in the year 2001 Mehta died of a heart attack at the age of 47 in Thane Civil Hospital.

**Rajat Gupta's Case-** Rajat Gupta was an Indian-American based businessman. He was born on December 2, 1948 in Calcutta (now Kolkata), India. He was a managing director, in McKinsey & Company between the years (1994-2003). Moreover, he was also a board member of many prominent companies one of the being Goldman Sachs. He completed his education from renowned universities such as Bachelors of Technology (B.Tech) from Indian Institute of Technology (IIT), Delhi & did his Master of Business Administration (MBA) from Harvard University. However, controversy surrounded Gupta's term. When Gupta joined McKinsey, it was a tiny firm managed to the high standards of its founder, Marvin Bower. However, by the time Gupta became managing director, McKinsey was facing rising competition, and Gupta's expansion attempts were claimed to have diluted McKinsey's lauded ideals. "Gupta's net worth in 2008 was estimated at US\$84 million". In the year 2009, the SEC filed a civil complaint against him along with Mr. Rajaratnam (he was a hedge fund founder, for Galleon group). Both sides eventually dropped the allegation after Mr. Gupta countersued. Later, in the year 2010, the 'US Attorney's Office' filed criminal charges against Mr. Gupta. He was arrested by the FBI in New York and not pleaded guilty. On the same day he was released on bail for '\$10 million'. Although, his lawyer claimed that all the charges placed against Gupta were baseless and untrue. He also claimed that Gupta was never involved in any sort of unlawful acts.

"The SEC alleged, "The tips generated 'illicit profits and loss avoidance' of more than \$23 million". Moreover, the media took an active participation in this case, it was all over the news and debate channels which really lead to the blowing up of this scandal. Details of wiretap recordings and trading activity relating to the charges were extensively scrutinized in the media, with experts weighing in on the prosecution's and defense's arguments. The case majorly focused on Raj Rajaratnam, Anil Kumar (a senior partner of McKinsey & Co.), and Gupta's relationship. The trial began in the year 2012, later in the year he was allegedly found guilty of "three counts of securities fraud" and one count of conspiracy and not guilty on two securities fraud charges. The maximum punishment for securities fraud was up to 20 years of imprisonment & for conspiracy was 5 years. As the trial continued, negotiations happened & pleadings were made by the respective lawyers from both the sides and finally on, October 24, 2012 he was sentenced an imprisonment of 2 years. He got released from the prison in the year 2016 and was in a house arrest for 2 months. After the completion of his punishment, he published a book, "Mind without fear" in March 2019 and gave interviews where he stated his side of story.

### ROLE OF AI IN INSIDER TRADING

We have come across instances where the close relatives or acquaintances have often traded days before the actual announcement was made by the company as because the older system for surveillance was not efficient enough to detect the insider trading activities and the persons would escape the radar but after the introduction of the new surveillance system which is based on



Artificial Intelligence, it has become a lot more easy for the SEBI to detect such insider trading even if it is indirect. The stock exchanges used to provide SEBI with alerts and the company's regulatory filings would help SEBI to detect the issues but it could only help by focusing on management who had direct knowledge about the information that were confidential. SEBI could not locate indirect insider trading. But with the new technology, SEBI could locate even if the insider trading is being done indirectly by people related to the officials.

The role of AI will come into play when we realize how the improved technology is going to transform the entire securities market all over the globe. AI-based applications should be implemented in different phases of the securities industry like in the operations, while dealing with investment processes, maintaining proper database for all the filings etc. Whereas manual filings or man power based works can end up with various loopholes but adopting AI based tools can efficiently give accurate results to improve market integrity and prevent insider trading.

AI encompasses various technologies like Machine learning, reinforcement learning, deep learning, supervised and unsupervised machine learning. The broad spectrum of applications help to cluster data similar to each other, algorithms are used to process these data and analyze to provide desired results. In the securities industries, the broker-dealers are using AI for various functions like operations and communication with the customers. The managers will be able to get an insight of the information that are being sent out by their teams to others with the help of machine learning and advanced monitoring AI-based techniques. Also the AI model can be developed as per

the need of the hour by including analytics project, adding new sources of data in the old model, links can be created between the prevailing entities, information can be extracted from the documents filed and understanding the market manipulations beforehand. Back in the 1990s the investment world started seeking AI and it was the ANN-artificial neural networks that gained popularity.

Few AI applications that can be implemented to prevent the potential exploitation are:-

- i. Sentiment analysis to be used to identify the public discussions doing rounds on news and other public forums and prevent false information from generating in the market.
- ii. Trade stimulation virtually provides an environment to analyze the impact of a hypothetically created trade activities in order to prevent the distortion of model harming potential trade.
- iii. Portfolio management on the other hand can make use of client's past activities to assume future.
- iv. Compliance is the most essential part as it can control the insertion of corrupt data and prevents camouflage of insider trading.

Individual AI systems might look after various issues of stock market but what would be a revolution, is, if a single system encompasses all these individual systems into one. It would become feasible to receive all the near-perfect results from this one system regarding the key factors that move the investment market.

However, we should also take note of the fact that everything comes with some boons and banes. The stock market is a complex system



of all times and it is not possible to determine it always with the help of Artificial Intelligence. At the end of the day, it is us who have to feed the algorithm with available data and massive fluctuations of the market tends to overwhelm the machine. Such events which are unpredictable and beyond our reasonable expectations having severe consequences – popularly known as black swan events cannot be predicted by machines. In fact, there is a possibility of such an event to take place because of algorithmic malfunction.

### PREVENTIVE MEASURES TO CURB INSIDER TRADING

The regulatory regime of India related to insider trading is quite weaker as compared to UK and USA. In case of India, during the time of investigation only the person connected with the securities market or the intermediaries are called upon and SEBI can only call the insiders for any assistance in the investigation. This tends to limit the powers of SEBI in investigation making the system weak. With the increase in regulatory pressure, the companies should focus on strengthening their technology departments in protecting the trade information and preventing the conflict of interest. The technology departments should seek to uncover the malpractice of insider trading. Often the company's insiders or officers lack their knowledge of trading laws which leads to their failure of observing the regulations. The employees should be imparted training to follow the regular compliance activities and educate them against discussing with others about their business at various events and occasions. This is to prevent the information, regarding share price or having any link with it, from getting revealed. Also with the outburst of the Covid, when Work

from Home was introduced, employees started using personal devices which made it quite challenging to combat the malpractice. The employees should be strictly bound by employees' code of conduct so that they take proper precautions while discussing any facts about strategies with any other person through text or emails. The market sensitive information should be transmitted only through end-to-end encryption.

Laws on insider trading should be implemented from the very grass-root level for which the companies have to cooperate. The role of the company at such a stage is to ensure constant vigilance, adequate monitoring over the directors and strict reporting. Corporate governance is hence one of the essentials to implement insider trading laws. Policies on insider trading should be made and distributed, regular checks should be conducted and an environment is to be created where the employees can raise their various legal queries or complaints in relation to insider trading. The SEBI (Prohibition of Insider Trading) Regulation of 1992 and 2015 lays down mandate to disclose inside information to the Stock exchanges and company on regular basis. This shall be a strong tool to prevent the inside information from getting exploited. But it has been found time and again that though SEBI is updating its laws yet the offenders are not being punished harshly. Not a single case of imprisonment has been witnessed recently which makes it clear that the impact of the legal framework has been far less reaching to the victims and SEBI is failing to control the malpractice. Thus, it can be stated, the regulation of insider trading in India should be amended and proper preventive mechanisms should be enforced.



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## CONCLUSION AND SUGGESTIONS

The paper focuses on the mismanagement of the insiders of the company and the weak legal framework of India regulating insider trading. It is not possible to control the behaviors of the employees or insiders completely but it can be regulated by the senior management officials by setting strong ethical policies and code of conduct. The government should focus on developing technologies and motivate the companies to adopt such AI-based technologies to keep a better track of information and for maintaining proper databases. The offenders should be given stringent punishments and the issues deserve speedy investigation otherwise justice served late is justice denied. The offenders get away with such white-collar crimes and there is a possibility that they can escape to other countries and cannot be extradited easily. Also, while investigation is carried on, SEBI should be given powers to call 'any person' and not just the insiders, so that not a single fact goes unnoticed during the inquiry process. We know that prevention is always better than cure hence, we should implement procedures to prevent the issue at the very grass-root level rather than crying over spilt milk. With emerging times, AI has seen daylight all over the globe and it is the responsibility of the government and the companies to introduce AI in the shady places of securities market to achieve a flawless system of investment.