Online Trading-Legal Issues

By Naavi

@Nalsar :22/2/2019

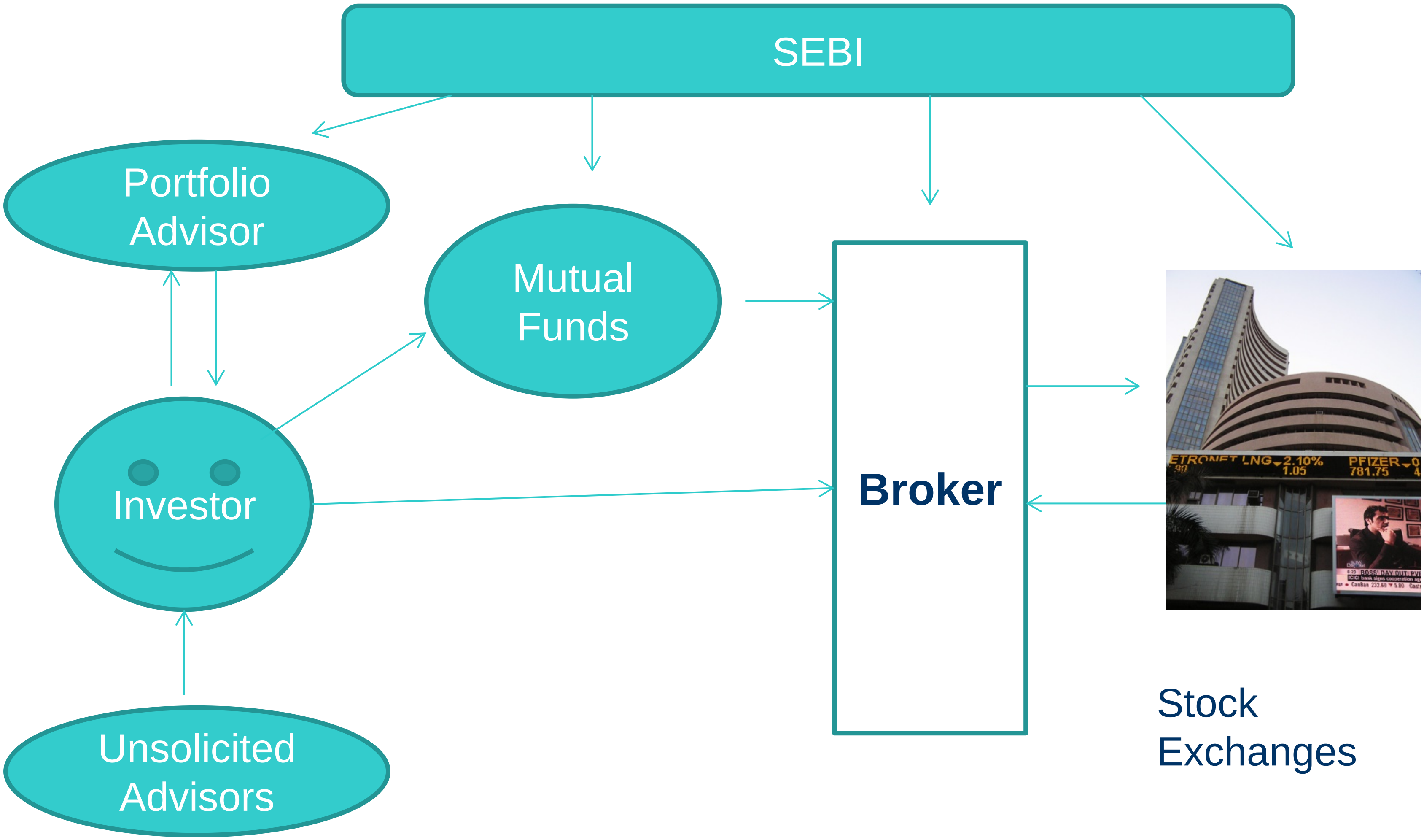
Agenda

- Scope of Online trading
- Legal enablement
  - Contractual Issues
  - SEBI Issues
- Frauds

Types of Trading

- Shares/ Bonds/Debentures/ Foreign Exchange/ Commodities/Gold/ Silver/ Gold bonds
- Spot or Futures
- Options
  - All purchases are through brokers who are members of a stock exchange
  - Brokers may allow sub brokers to execute the orders
  - More popularly the investors execute their orders directly using a software provided by the broker which itself uses the connectivity provided to the broker by the exchange
  - Investors may also opt to invest in mutual funds as if mutual funds are individual stocks

Scope of online Trading



Technical Tools

- Investor registers himself on the broker's platform, links it to the demat account and Bank account
- Downloads the trading software for the computer or mobile
- Holdings in the demat account is used as stock in trade and for storing and delivering shares.
- Cash is transferred from the Bank account to a current account with the broker..who may also provide his own overdraft
- Broker's buy/Sell orders are placed on the platform and executed on the exchange platform
  - Orders may be conditional..min price, max price, automatic stop loss,
  - stock, futures, options may have different conditions attached

Types of Frauds

- Phishing and using the stolen credentials for transacting in the name of the investor
  - Intentionally creating a loss to favour the counter party
  - may attempt Kite-flying fraud and cause loss
  - Broker's employees may transact at better price and charge higher for investor.
  - Impersonate and receive money due to the investor diverted

Types of Frauds

- Pump and Dump Frauds
  - Not exclusive to online trading
  - Spread fake news about a company to manipulate the share price and profit
- Trading que bypass fraud by manipulating load balancing systems

Legal issues

- Not much different from E Commerce except that there is a watch dog in the form of SEBI
  - If there is volatility beyond some limits, trading may be suspended.
  - If fraudulent or erroneous execution takes place, Stock Exchange/SEBI may even cancel orders executed.
  - There is a close monitoring of the transactions at the exchange level to find out if there are any systematic frauds happenning.

Contractual Issues

- Initial contracts are mostly done offline.
- Brokers send the contract notes with digital signatures
- Customers donot use digital signatures.
- Possibility of eves dropping, man in the middle attack, virus or trojan infection, denial of service, phishing are all possible.

Compliance Requirements

- All Brokers are subject to ITA 2008 compliance requirement which requires an ISO 27001 equivalent compliance
  - When PDPA 2018 is applicable, it would be further reinforced
  - SEBI has indicated a security framework of its own
  - The risks in the industry are many and compliance is complex

Case 1 (NSE Live Feed)

- October 2015
  - The data and info-vending products of NSE are provided through a separate company NSE Data & Analytics Limited (formerly known as **DotEx** International Limited), a 100% subsidiary of NSE, which is a professional set-up dedicated solely for this purpose.

Case 1 (NSE Live Feed)

- The NSE's real time data is provided in three levels (level 1, level 2,level 3 and tick by tick).
  - Level 1 provides Level 1 provides best bid and ask price
  - Level 2 provides market depth data upto 5 best bid and ask prices and
  - Level 3 provides market depth data upto 20 best bid and ask prices .
  - The real time data feed is provided in TCP-IP format.
  - It is provided on-line through a dedicated 2-10 mbps channelized E1 private leased line circuits.
  - This line shall be owned by the customer and the line should be from National Stock Exchange, Mumbai to the premises of the customer.
  - Alternatively, the customer can take the data from one of our authorised data vendors.
    - Available through appropriate systems and software
    - Tick by tick terminal …available for 180 free users with additional Rs 1400 per month per user there after

Case 1 (NSE Live Feed)

- The allegation was that live feed was sold by a vendor without license.
  - DotEx noticed that two websites other than their customers appeared to be selling NSE live data and when approached, offered the service for a fee.
  - On payment the complainant was provided with a “Team Viewer” ID and password through which access was provided to live data.
  - By logging into the Team Viewer, the user would be able to view the “NSE Now Terminal System” and the live market data.
  - The complainant has alleged that the two website owners had stolen NSE’s live data and were selling it illegally
    - The accused was traced through payment made and one person was arrested under Sections 420 IPC, Sec 66 and Sec 66B

Case 1 (NSE Live Feed)

- ***"420. Cheating and dishonestly inducing delivery of property***.—
  - *Whoever cheats and thereby dishonestly induces the person deceived to deliver any property to any person, or to make, alter or destroy the whole or any part of a valuable security, or anything which is signed or sealed, and which is capable of being converted into a valuable security, shall be punished with imprisonment of either description for a term which may extend to seven years, and shall also be liable to fine."*

Case 1 (NSE Live Feed)

- In the instance case, the “Property” is the “Live NSE Data”.
- Assuming that the property belonged to DotEx as an exclusive licensee, the allegation is that it was dishonestly sold to others by the accused.
- Does this qualify to be called “Property” under IPC, is a matter to be discussed if IPC sections are to be applied to the case.

Case 1 (NSE Live Feed)

- Section 66 of ITA 2000 is a reflection of Section 43 and includes “Unauthorized Access” to a computer system including data.
- Section 66B applies to “Usage of stolen computer resource” which includes data.
- Hence application of ITA 2000/8 is undisputed though the cause of action under sections 66 and 66B needs to be established.
- This revolves around “Whether the sharing of data was authorized or not”

Case 1 (NSE Live Feed)

- More than the concept of “Data Theft”, this offence appears to be falling in the domain of transgression of the “License to use”.
- If the accused is an authorized user in the first place and re-sold it to others, it may not qualify as “Data Theft” or “Unauthorized Access” but may have to be debated under the “Terms of usage of license”.
- In the instant case, the accused has further used “Team Viewer” and created a “Closed system of sub-users” who have been authorized to share the feed which was available to him probably as a legal right.
- If therefore the first right was legal, the sale thereof would be legal or otherwise based on the contract on which the first right was obtained.

Case 2 (Server manipulation)

- June 2015
  - A whistle blower from Singapore revealed a major fraud which he alleges has been going on in NSE for a long time which has been hushed up by the Stock Exchange.

Case 2 (Server manipulation)

- Co-location of trading servers used by High Frequency traders manipulated to gain milli seconds advantage
- NSE has two price feed streams-broadcast an leased line networks
  - Tick by tick data (TBT) consists of large volume of data and hence not amenable for broadcast and made available through co-location

Case 2 (Server manipulation)

- Fraudulently obtaining the market price data ahead of others
- The users access NSE feed with an API
- TBT server for the purpose of load balancing maintains multiple servers and each server servicing connection requests from many.
  - Person who connected first would get the price information ahead of others.
  - The que position gets determined in the morning when the user first connects for the day and continues for the entire day
    - It was critical to connect first and preferably to one with a smaller load

Case 2 (Server manipulation)

- NSE mandated that a particular user should connect only to a specified server so that it can manage the allocation of load with some certainty.
- The TBT servers were activated each day before the market opened not necessarily at the same time
- Information delivery could vary between upto 50 ms for different customers.
- Access to this time advantage meant “Riskless Trading”.
- If one could connect to the back up server, the time advantage would be maximum since load would be zero to start with.
  - The insiders assisted some favoured broker customers to enjoy this advantage

Lessons

- The online trading system which extends to stocks, futures, options currencies and commodities
  - Is highly vulnerable to technical manipulation
  - Though law recognizes such manipulations as a Section 66 offence,
    - Challenge is getting the evidence and satisfying the Court.
    - Apart from technology, integrity of the manpower, and managing their rotation of duties etc are part of the security strategy to avoid such frauds.

How Ready is ITA 2000/8 for such challenges

- ITA 2000 focuses on defining the laws in terms of "Electronic Documents" and is device independent.
- For production of evidence, device need not be presented in the Court
  - Only a computer output certified as per Section 65B of Indian Evidence Act would suffice for admissibility
    - Hence Law is ready to face the challenge of technology

Discussions