CHAPTER-3
SCOPE OF RESEARCH WORK

If we study and analyze Indian Stock Market, SEBI and CBI investigations and reports, we can find some of the most high-profile scandals where investors have lost billions of rupees. Before discussing the scope of our research work, we are presenting history of some big scams happened in India which are as follows [41,45,47-48,51,55-57].

(i) Harshad Mehta Scam (1992)

Harshad Mehta was also known as the 'Big Bull', in the year 1992 he had executed a rise in the Bombay Stock Exchange by trading in shares at a premium across many segments. By taking advantages of loopholes in the banking system, Harshad and his associates executed a securities scam diverting funds of Rs 4000 Crores from the banks to stockbrokers between April 1991 to May 1992. Earlier, Harshad Mehta had worked with the New India Assurance Company before he tried his luck in the Stock Market. Sooner, Mehta became master in the tricks of the trade and he had set out on dangerous game plan. Mehta had siphoned off huge sums of money from several banks and millions of investors were conned in the process. When his scam was exposed, the markets crashed and then he was arrested and banned for life from trading in the Stock Markets. Later, he was charged with 72 criminal
offences in which a special court also sentenced Sudhir Mehta, Harshad Mehta's brother, and six others, including four bank officials, to rigorous imprisonment ranging from 1 year to 10 years on the charge of duping State Bank of India to the tune of Rs 600 crores in connection with the securities scam that rocked the financial markets in 1992 and he died in 2002 with many litigations still pending against him.

(ii) Cobbler Scam (1995)

In this scam, Sohin Daya, which was son of a former Sheriff of Mumbai, was the main accused in this scam. In this scam, Daya of Dawood Shoes, Rafique Tejani of Metro Shoes, and Kishore Signapurkar of Milano Shoes were arrested for creating several leather co-operative societies which did not really exist. They had availed loans of Crores of rupees on behalf of these fake societies. This scam was exposed in 1995. The accused had created a fake cooperative society of cobblers for taking advantage of government loans through various schemes. In this scam, officials of the Maharashtra State Finance Corporation, Citibank, Bank of Oman, Dena Bank, Development Credit Bank, Saraswat Co-operative Bank, and Bank of Bahrain and Kuwait were also charge sheeted.

(iii) C R Bhansali Scam (1996)

This scam resulted in a loss of over Rs 1,200 Crores. C R Bhansali, first launched the finance company named CRB Capital Markets,
followed by CRB Mutual Fund and CRB Share Custodial Services. During 1992 to 1996, he collected money from the public through fixed deposits, bonds and debentures. The money was transferred to companies, which were not really in existence. CRB Capital Markets raised Rs 176 Crores in three years. In the year 1994 CRB Mutual Funds raised Rs 230 crores and Rs 180 crores through fixed deposits. Bhansali also succeeded to raise fund of around Rs 900 crores from the markets, and he tried borrowing more money from the market. This led to a financial crisis, so it became difficult for Bhansali to sustain himself. The Reserve Bank of India refused banking status to CRB and thus he was in the dock. SBI bank was one of the banks, in which he had huge defaults.

(iv) Virendra Rastogi Scam (1996)

Virendra Rastogi was chief executive of RBG Resources. He was charged for deceiving banks worldwide of an estimation of $1 billion. He was also involved in the duty-drawback scam of Rs 43 Crores in India. The CBI had said that there are five companies whose directors were the four Rastogi brothers - Subash, Virender, Ravinde and Narinder. They had exported bicycle parts to Russia and Hong Kong during 1995-96, by heavy over invoicing the value of goods for claiming excess duty drawbacks from the customs.
(v) Uday Goyal Scam (1998)

Uday Goyal was the managing director of Arrow Global Agrotech Ltd. He was another fraudster who had cheated investors by promising for huge returns through plantations. He had conned the investors to tune of over Rs 210 Crores, and finally arrested. This scam was exposed when two investors had lodged a complaint when they were failed to get the promised returns. Around 43,300 persons were trapped in this scam. So many criminal complaints were filed with the Economic Offences Wing. The directors of company and their relatives had misused the investors' money for buying properties. Later, High Court ordered the company to sell the properties and to repay to its investors.

(vi) The UTI Scam (2001)

In reference to the 'UTI scam', former UTI chairman P S Subramanyam and two executive directors – S.K Basu and M.M Kapur and a stockbroker Rakesh G Mehta, were arrested. 40,000 shares of Cyberspace were purchased by UTI in September 2000, worth of Rs 3.33 Crores from Rakesh Mehta, at the time when there were no buyers for this scrip. That time the market price was around Rs 830. CBI had said it was the conspiracy of the four people which resulted in the loss of Rs 32 Crores. Kapur, Subramanyam and Basu changed their stand on an investment advice of equities research cell of UTI. Arvind Johari, the promoter of Cyberspace Infosys, was arrested in connection
with this case. Rs 50 lakh were paid to the officials by Cyberspace to promote its shares.

**(vii) Dinesh Dalmia Scam (2001)**

Dinesh Dalmia was the managing director of DSQ Software Limited. Central Bureau of Investigation (CBI) had arrested him because he was involved in a stocks scam of Rs 595 Crores. Dalmia's had the group which had included DSQ Holdings Ltd, Hulda Properties and Trades Ltd, and Powerflow Holding and Trading Pvt Ltd. He was resorted for making money through illegal ways through the partly paid shares of DSQ Software Ltd, in the name of New Vision Investment Ltd, UK, and un-allotted shares in the name of Dinesh Dalmia Technology Trust. Investigation had showed that DSQ Software Ltd’s 1.30 Crores shares was not listed on any stock exchange.

**(viii) Ketan Parekh Scam (2001)**

Ketan Parekh followed Harshad Mehta's footsteps to fiddle Crores of rupees from banks. He was chartered accountant. He used to run a family business, NH Securities. He had bigger plans in mind. He had targeted smaller exchanges like the Allahabad Stock Exchange and the Calcutta Stock Exchange. He bought shares in fictitious names. His dealings was with around shares of ten companies like Himachal Futuristic, Global Tele-Systems, SSI Ltd, DSQ Software, Zee Telefilms, Silverline, Pentamedia Graphics and Satyam Computer (K-
10 scrips). Ketan had borrowed Rs 250 crores from Global Trust Bank, along with his associates he also managed to get Rs 1,000 crores from the Madhavpura Mercantile Co-operative Bank. According to RBI regulations, a broker is allowed to get a loan of only Rs 15 Crores. There was evidence of price rigging in the shares of Global Trust Bank, Zee Telefilms, HFCL, Lupin Laboratories, Aftek Infosys and Padmini Polymer.


By selling fruits and vegetables on trains Abdul Karim Telgi studied at Sarvodaya Vidyalaya. He is today well known for India's biggest scams. He was exposed in year 2000, in the involvement of fake stamp racket. Rs 171.33 Crores, loss estimated through his racket. In 1994, he acquired a stamp paper license from the Indian government and started printing fake stamp papers. Telgi had bribed to get into the government security press in Nashik and he had bought special machines for print fake stamp papers. Telgi's network was spread across in 13 states which had 1000 employees, 176 offices and 123 bank accounts in 18 cities.

(x) IPO Scams (2005)

SEBI had barred 24 key operators, in which Indiabulls and Karvy Stock Broking were also included, from operating in the Stock Market and also banned 12 depository participants from opening fresh accounts because of their involvement in the Initial Public Offer scam.
SEBI had also banned 85 financiers which were involved in this scam, from capital market activities.

Suzlon Energy Ltd's IPO of Rs 1,496.34 Crores (September 23-29, 2005). The IPO’s retail portion was oversubscribed 6.04 times and the non-institutional portion was oversubscribed 40.27 times. In this IPO scam, key operators had used 21,692 fake accounts to corner 323,023 shares for representing 3.74 per cent of the total number of shares allotted to retail investors.

Jet Airways's IPO of Rs 1,899.3 Crores (February 18-24, 2005). The IPO’s retail portion was oversubscribed 2.99 times and the non-institutional portion by 12.5 times. In this IPO scam, key operators had used 1186 fake accounts for cornering 20,901 shares for representing 0.52 per cent of the total number of shares allotted to retail investors.

National Thermal Power Corporation Ltd's IPO of Rs 5,368.14 Crores (October 7-14, 2004). The IPO’s retail portion was oversubscribed 3.73 times and the non-institutional portion by 11.93 times. In this IPO scam, key operators had used a total of 12,853 afferent accounts for cornering 2,750,730 shares for representing 1.3 per cent of the total number of shares allotted to retail investors.

Tata Consultancy Services's IPO of Rs 4,713.47 Crores (August 19-23, 2004). The IPO’s retail portion was oversubscribed 2.86 times and the non-institutional portion by 19.15 times. In this IPO scam, key operators had used 14,619 'benami' accounts to corner 261,294 shares
for representing 2.09 per cent of the total shares allotted to retail investors.

Patni Computer System Ltd's IPO of Rs 430.65 Crores (January 27 - February 5, 2004). The IPO’s retail portion was oversubscribed 9.36 times and the non-institutional portion by 39.22 times. In this IPO scam, key operators had used 2541 afferent account for cornering 127,050 shares for representing 2.71 per cent of the total number of shares allotted to retail investors.

(xi) Satyam Computer Services Scam (2008)

Ramalinga Raju who was Satyam founder, and was its chairman from 1987 to till 7th January, 2009. He had cooked up the account books, with a fraud involving about Rs 7,000 Crores. Satyam's accounts had been falsified over a number of years. He had admitted to an “accounting fraud” to the tune of 7000 Crores, to hide the company's poor performance. He had also used dummy accounts to trade in Satyam's shares, and violated the insider trading rule.

(xii) 2-G Spectrum Scam (2008)

In this scam, officials in the government of India illegally distributed undercharging frequency allocation licenses to mobile telephony companies. A. Raja arranged the sale of the 2G spectrum licenses below their market value. In this scam, Swan Telecom, a new company, bought a license for Rs. 1537 Crores. Shortly thereafter, the board had sold 45% of the company stake to Etisalat for Rs. 4200
crores. In the similar manner, a company related to real estate, the Unitech Group had purchased a license for Rs. 1661 crores. The company board sooner, thereafter sold a 60% stake in their wireless division for Rs. 6200 crores to Telenor. The fact was that the licenses were quickly resold at a huge profit. This indicates that the selling agents had issued the licenses below market value.

(xiii) Madhu Koda Scam (2009)

Madhu Koda is an Indian politician who was former Chief Minister of Jharkhand from 2006 to 2008. He was alleged to have involved in Money-laundering and mining scam and was charged with laundering money worth over Rs. 4000 crores.

(xiv) Adarsh Housing Society Scam (2010)

Adarsh Housing Society is a co-operative society in Mumbai. In this scam, apartments were allocated to bureaucrats, politicians and army personnel who had nothing to do with ‘Kargil War’.

(xv) LIC Housing Loan Scam (2010)

CBI had arrested eight top ranking officials of Public Sector Banks and Financial Institutions, including the LIC Housing CEO, Ramchandran Nair. Officers of various Public Sector Banks and Financial Institutions received bribes from the private financial company Money Matters, which plays a role as a mediator for corporate loans. The bank officials sanctioned large scale corporate loans to realty developers. The loan provided through this manner are
estimated of worth of Rs about 10,000 crores dollars which came as the biggest scandal in the Housing Finance in Asia.

(xvi) Common Wealth Games (2011)

According to CAG (Comptroller and Auditor General) reports, Rs 7000 crores was allocated to be spent on the Indian Sport Persons, but only half was spent. The rest of money went into the pockets of politicians and bureaucrats. So this money was recovered from people’s pockets in the form of taxes. Bus fares were increased 2 times and inflation was increased in Delhi. This scam had effected the developments schemes and infrastructure that was to be developed in Delhi.

(xvii) Coal Mining Scam (2012)

This scam is also known as mother of all scams, because this has resulted loss of Rs. 10,70,000 crores. CAG (Comptroller and Auditor General) an authority established by Government of India who audits all the receipts and expenditures by the Central Governments as well as the State Governments of India, has accused the government of India for illegally and irregularly providing our nation’s coal deposits to private and state run entities instead of auctioning them in public. Our country is the fourth largest energy consumer after USA, China and Russia, it is presently suffering from acute shortage of electricity generation, this happened due to the coal scam.
(xviii) IPL-BCCI Scam (2013)

IPL (Indian Premier League) has turned out to be a huge scam in the year 2013. In this scam not only IPL players and bookies are involved but BCCI (Board of Control for Cricket in India) officials and their chief N. Shrinivasan, IPL officials and their chief Rajiv Shukla and many more names yet to be disclosed as investigation is not completed yet. The estimated money involved in this scam in the year 2013 is around Rs 40,000 crores.

There are lots of financial scams are happening day by day and unaware public get trapped by the fraudsters and destroy their hard earned money and wealth. Thus poor investors and nation’s wealth is destroyed. Fraudster always come up with new ideas to trap unaware or new investors. Stock Market is a million dollar business, so here maximum fraudsters can be found to trap the poor investors by their various newer fraudulent activities every day like publishing fake balance sheets by company, by giving false news like bonus, dividend, takeovers, merger, new orders, expansions etc to arouse people to buy their company shares at unfair price.

Prevention and Detection of stock market frauds are complement and supplement of each other, however prevention is always better than detection, but both are difficult tasks because fraudsters always come up with newer ideas of frauds whenever old ideas get detected by fraud detectors, thus it is also difficult job for detectors to detect new type of fraud pattern.
Our proposed research work is concerned with Stock Market Fraud Detection, so that poor investors may become more aware by knowing the different activities of possible frauds done by fraudsters, that can happen in the Stock Market, thus it will be also helpful for protecting nation’s wealth.

By reviewing the literature related to Fraud Detection (Chapter-2), we have found that there is very less research work done in the direction of Mortgage Fraud, Money Laundering, Securities Fraud and Commodities Fraud. There is lack of research work done using Data Mining Techniques of Outlier Detection for Financial Fraud Detection, may be it is very difficult to detect outliers as according to Agyemang et al. (2006) [83], Outlier Detection is a very complex task akin to finding a needle in a haystack.

Stock Market plays vital role for any country’s wealth creation or destruction because it is a million dollar business as the amount of money involved in Stock Market is very high, so it is very essential to do research in the direction of finding fraudulent activities and fraudsters in the Stock Market to protect the nation’s and investors wealth. So we have chosen our research problem as Outlier Detection in Stock Market.

Several fraud detection methods are available for the fields like credit card, telecommunications, network intrusion detections etc. but Stock Market Fraud Detection area is still behind. So, appropriate fraud detection system is essential to detect various types of frauds happening day by day in the Stock Market.