1.1 Introduction

Ever increasing frauds, equipped fraud perpetrators, volatile business atmosphere, development of technology are exerting pressure on finance executives as far as handling the business risk is concerned. The business organizations today have to continuously deal with frauds, financial misrepresentation etc. The nature, volume, severity and type of fraud can be different for different industries; depending upon the effectiveness of internal controls, efficiency of audit procedures, work culture of an organization, opportunities for frauds etc. But none the less, fraud is all pervading. Growth in volume and value of business organizations obviously denotes enormous challenges for risk management. Management has to react and adapt to this ever challenging situation when it comes to fraud fighting.

Companies are increasingly feeling the need to manage fraud risk more efficiently than ever before. The attitude of regulatory authorities has also changed towards stringent norms to punish fraudsters and monitor frauds. Establishment of Serious Fraud Investigation Office (SFIO) under Ministry of Company Affairs, introduction of Companies Act 2013 are a few to name.

Haribhakti & Co., in one of their reports on fraud risk mentioned that India has witnessed a lot of fraud cases and the number is increasing each day. Right from Harshad Mehta Scam (1992), Telgi’s Stamp paper scam (2002), Satyam Scam (2009), Sahara case (2010), Speak Asia scam (2011), to the most recent NSEL scam (Rs. 5600 crores) in 2013; the frauds are on the rise in terms of the financial impact and intensity as mentioned by (Lohana, 2013). Frauds not only erode the economic resources but also ruin the reputation of a firm. Complexities in business, newer markets, growing turnover of business transactions are all leading to increase in the incidences of frauds and consequent fraud losses. Every year on an average, a 5% of revenue is lost to frauds by businesses across the world as mentioned in the (ACFE, 2012) in its report mentioned that the losses owing to frauds are huge and can be controlled to a large extent if the control mechanism works efficiently. Thus, it is becoming increasingly essential that appropriate steps be taken against fraud losses in order to ensure that frauds are controlled before it is too late. (Rothberg, 2012) in one of his articles in fraud magazine commented that frauds can be managed only when
they can be appropriately measured in terms of money involved, nature of frauds and the extent of the damage done by them.

A fraud is a deliberate act of omission or commission by any person carried out in the course of business transactions or in the books of accounts of a business concern, resulting in wrongful gain to any person for a temporary period or otherwise and damage to the other person. Frauds are perpetrated either for the wrongful gain of the employer or for the employee himself. Whatever may be the impetus behind the wrong action; a fraud, no doubt, results in financial damage to a firm.

Error on the other hand, refers to ‘unintentional’ mistake in the financial information generally arising on account of ignorance of accounting principles, or error arising out of negligence of accounting staff. Though not committed with bad intent, an error takes a toll on the quality of financial reporting and puts a question mark on the checks over the reporting process in general (Kalbers, 2009).

Frauds are of many types. Cyber frauds, employee frauds, bribery, corruption, financial statement frauds, asset misappropriation etc. are a few of them. All the types of frauds hamper the organizations adversely, but financial statement frauds are most severe. KPMG Fraud Survey of 2012 mentioned that these frauds are relatively less common in occurrence but most intense in terms of the amount lost to frauds by businesses. Financial statement frauds mislead the stakeholders who take decisions based on these financial statements. In this sense, they affect public at large and thus, are a serious menace to the nation as a whole.

(ACFE, 2014) in its report stated that pro-active data monitoring and analysis is an extremely effective anti-fraud control; however it is overlooked by most of the organizations as per the survey. The report further stated that financial statement frauds were less common as compared to asset misappropriation and corruption. However, they were seen to be most costly as compared to other two forms of occupational frauds, leading to a median loss of $1 billion. This relates back to the 2012 report by KPMG, wherein the same comment about financial statement frauds was made. Researcher in the present study, has studied financial statement frauds and
fraudulent financial statements, which affect the financial condition of a business, directly or indirectly and leave a mark in the financial statements.

Financial statement frauds and asset misappropriation are two main categories of ‘occupational frauds’ which are significant for auditors as also for the users of financial statements. While financial statement frauds fabricate the financial data by giving wrongful information of the facts; asset misappropriation leads to a situation where the assets will not be available to their legal owners. However, few asset misappropriations do affect the financial statements. For example, schemes like skimming, ghost employees, fictitious expenses etc. affect the financial condition of a company and thus, indirectly hamper the financial statements also.

These effects have also been considered by researcher in the present study.

1.2 Forensic Accounting: A tool of fraud risk mitigation

The inherent limitations in the auditing process necessitate the use of more pointed and intense techniques of analyzing the accounting system and financial statements. “Forensic accounting” is said to be a tool which enables study of financial statements from various angles like propriety, materiality etc. It tries to go beyond what meets the eye. The aim of forensic accounting is to reduce the “Fraud Risk”. Fraud risk is nothing but the likelihood that fraud remains unobserved in business firms.

Webster's Dictionary explains the term ‘forensic’ as "Belonging to, used in or suitable to courts of judicature or to public discussion and debate." In this sense, forensic accounting is an analysis of accounting system done with a suspicion in mind about fraud possibilities in an accounting system. Forensic accounting aims at generating evidences suitable for legal proceedings if required and helps in dispute resolution. It helps in detection and prevention of frauds by keeping the accounting system on right track. It connects the facts and the fact-finding tools. It involves investigation and inquiry of accounting information in order to pinpoint uncommon transactions arising as a result of either a fraud or an error.

(Rahbar, 2014) mentioned that assignments of forensic accounting often involve an in depth evaluation of a company’s system of accounting and practices. Forensic
accounting reaches out to those areas and transactions, which might otherwise remain undetected by statutory auditing techniques alone. The principles of forensic accounting carry the ability to translate the financial uncertainties coming in the way of smooth functioning and growth of an organization. This gives them a competitive edge over others.

Unearthing frauds is a major area of forensic accounting. However, this field also extends to many other services like assisting in professional negligence claims, personal damage claims, marital and family issues on wealth distribution, post-acquisition disputes, employee fraud investigations, capital market frauds, financial misappropriations, exposing tax evasions etc.

Forensic accounting and fraud auditing is not new in India. References to embezzlement were made by Chanakya in his literature called “Arthashastra” towards the end of fourth century BC. However, it’s only after the Satyam Saga, that issues regarding inherent limitations of statutory audit were brought to the limelight. Many scams before that had given enough jerks to Corporate India. But Satyam scam is said to be the real eye-opener for all the stakeholders in many ways.

Forensic work in India increased at least by 100% after the Satyam saga. Forensic work by and large has remained the prerogative of only the ‘Big Four’ chartered accountancy firms which usually serve the giants in the corporate world. Mid and small sized firms and many of the large scale companies also are still unaware of the benefits that forensic services can fetch for them.

Detection of frauds can only set a stage for learning from the mistakes. However detection alone may not really help organizations survive in the long run. Installing and maintaining a strong fraud deterrence mechanism and inculcating a culture of trust and ethics amongst organizations are absolutely essential for the long term sustainability and financial stability.

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1 Raja Murthy, “India’s Forensic auditors join war on fraud”, (Asia Times, Dec 3, 2009)
Companies Act 2013 formally defined the term “Fraud” for the first time in history. The definition as given in section 447 of the act not only includes the concept of misstatements but also the concept of morality or propriety. The act requires the independent directors and statutory auditors of listed companies to include a statement mentioning about risk management policy of company and about the adequacy and effectiveness of internal financial controls.

1.2.1 ‘Red Flags’
This is a key concept in forensic accounting which has been used in the present research. Red flags are also called as fraud indicators showing the possibilities of fraud. Researcher in the present study, has studied these fraud indicators which in turn show the need of forensic accounting in India. The red flags show the need to go deep in the books of accounts and use forensic accounting techniques as required. They speak about deviations from the norms or expected activity. They indicate anomalies or unusual events that occur in an organization. Red flags are nothing but warning signals that warrant accountant’s attention to some abnormality in the finances of an organization.

1.2.2 Forensic Accountants: The bloodhounds
(Rahbar, 2014) explained that forensic accountant is a fraud expert who possesses knowledge of accounting, auditing, internal controls, risk assessment, investigative skills and also has a basic understanding of the legal environment. (Panigrahi, 2006) stated that forensic accountant has to work towards searching for exceptions, oddities, abnormalities, patterns and doubtful transactions.

Forensic accountants hound for conclusive evidences using financial records of an organization, which can be presented in the court of law, in the event of dispute resolution and settlement. These experts take a more proactive, skeptical approach in examining the accounting records as compared to statutory auditors. They do not intend to look for compliance with the accounting or assurance standards and are not keen on arithmetical accuracy. Their main objective is to expose fraud, if any. Forensic accountants can be appointed in many business situations to analyze, interpret, summarize and present financial issues and situations in an understandable
and supportable manner. They investigate with the help of interviews, laboratory analysis of physical evidence, physical and electronic surveillance etc.

1.2.3 Forensic Auditing
Forensic Accounting encompasses different tools and techniques of finding the truth and creating evidence in case of a fraud possibility. It is an examination of legalities of events by taking together the techniques of propriety, investigative and financial audits. Mr. Kessler, a field auditor in health care industry in early 70’s, was the one who gave birth to the concept of “Forensic auditing”. The field of forensics was born as a result of economic crime, may it be in the form of fraud or corruption. Forensic Auditing is a branch of forensic accounting field.

Forensic auditing has been used mainly for investigation of a fraud or a possibility of fraud and goes on to gather evidences that can be presented in the court of law.

(Sulphey, 2014) defines forensic auditing as an embellishment of auditing with forensic techniques. It involves investigation into the financial affairs of a business entity as a trigger of an alleged fraud. Forensic auditor is supposed to find out the time period of fraud, its monetary impact and the persons involved in such a fraud. It is usually initiated after a request for such an audit from someone, either government authority, shareholders of company or the management of the company itself.

At global level, managers are increasingly considering forensic auditing as a tool to identify the vulnerability in financial as also internal controls at large. As mentioned in an article by (qfinance), forensic auditing also helps in investigation, detection and prevention of financial impropriety, improper financial reporting, wasteful use of resources etc. However, this avenue of forensic auditing is in the nascent stage in India as yet.

1.3 Need of the Study
The present research topic was chosen after a detailed review of about 55 research papers, many books, doctoral thesis and other reports in the domain of forensic accounting.
Financial statement frauds are looked upon very seriously by all the stakeholders and thus, any such incidence gives rise to many questions about the auditors, governance and the management of the company. The overall reliability of the audit procedures and that of the auditors of the company is questioned.

The thought process for the present study was triggered with the Satyam Software saga in 2009 and the turmoil thereafter. Corporate India became increasingly cautious about fraud risk management and it was felt that there has to be some way of curbing this problem at its inception. A need to go little beyond the traditional audit procedures and become investigative prompted the present study.

The need of the present study is also underlined by the responsibilities that the Indian law has entrusted on the management and the auditors of companies. Law mentions that auditors are expected to express their opinion about ‘true and fairness’ of the financial position of an entity at the end of a statutory audit. Auditor is looked upon as the guardian of shareholders’ interest. However, the primary responsibility of preparation and communication of authentic and true financial statements to all stakeholders rests with the management of a company. Thus finally, any fraud which takes place in an organization is the result of defaults by management and auditors.

The present study has given indicators which prompt the need of forensic accounting as a mechanism to control fraud risk. Organizations always strive to optimize returns by way of efficient utilization of economic resources and avoiding leakages in revenue. But, frauds create hindrance in this goal. (KPMG, 2012) survey stated there is a greater awareness about frauds in corporate India. However, that there is a need to consider the fraud risks at a strategic level and adopt comprehensive fraud mitigation frameworks in view of long term sustainability. This would automatically result in reduction of fraud incidences, thereby maintaining an ethical atmosphere in the organization.

(Akinjobi & Omowumi, 2010) commented that fraud has become an industry and is built on handling the consequences of fraud rather than on preventing fraud.
Previous researches have shown different ways and means of fraud detection. However, not much research has been conducted about prevention and deterrence of fraud. Fraud prevention plan includes identification of red flags and early detection of frauds before they acquire a gigantic form. As such, fraud prevention is just like the preventive health plan of a company, which ensures that health is guarded before a disease catches you. The present study has established indicators which point out the vulnerability of companies to fraud risk and the resultant need of forensic accounting. These indicators would act as fraud symptoms and would go a long way in preventing frauds at right time.

Identifying indicators, which show the need of using forensic techniques in accounting, is essential for internal auditors also. Statutory auditing also called as external auditing, has certain inherent limitations as discussed above. The onus of considering fraud risk thus shifts from statutory auditor to internal auditor and the management of a company. Even the Companies Act 2013 has reiterated the fact that primary duty of fraud detection rests with management alone. Increasing frauds and compulsion on the part of companies to adhere to fraud risk management has given further impetus to forensic services. But how to identify the need and how to implement the same are the biggest challenges in front of Indian companies today. The present research aimed at seeking answers to these questions.

1.4 Role of Auditors and Financial Statement Frauds
Auditors are said to be the reporters of the financial condition of an entity. Talking about companies in particular, auditors are the information centers for stakeholders like shareholders, employees, investors, suppliers etc. Joint stock companies are characterized by separation of management and ownership. Auditing in such a set up safeguards the investment of owners and ensures fair working by management.

It has been stated in the SA-240 which was previously known as AAS - 4 that, primary responsibility for prevention and detection of fraud and errors rests with both those charged with the governance and the management of an entity. Auditor is supposed to dig deep into a transaction or situation if and only if he finds an abnormality during the audit procedures. Audit, as such, cannot guarantee an absolute assurance about absence of material misstatements due to fraud and errors. This
includes ensuring the integrity of the entity’s accounting and financial reporting systems and that appropriate controls are in place, including those for monitoring risk, financial control and compliance with the laws and regulations. An auditor thus, is often termed as a watchdog and not a bloodhound after the famous case of Kingston Cotton Mills in 1896.

However, the Companies Act 2013 has increased liability of auditors towards fraud. The act has included stringent provisions on appointment of auditors, powers and duties of auditors, penalty for failure to disclose fraud etc. Thus even auditors cannot now stop by being watchdogs and have to go ahead and sniff the books.

1.4.1 Present challenges in front of the auditors
Almost 75 per cent of the respondents in corporate India felt that the overall incidence of fraud is rising, as per ‘India Fraud Survey Report 2010’ by KPMG. Weak internal control systems, vanishing ethics and insufficient decisive action against the perpetrators etc. have been cited as the main reasons for the rising frauds. Ineffectual whistle-blowing systems and feeble regulatory control mechanisms are the reported reasons which add to the growing worries as far as fraud risk mitigation is concerned. Internal auditors, statutory auditors, board of directors and executive management are said to be the cornerstones of corporate governance. They all need to work hand in hand for success of an entity. However various accounting scandals and frauds have time and again proved that the governance systems today are not really capable of preventing businesses from the risk of financial statements being misrepresented.

Auditing is said to be a control mechanism which ensures factual financial reporting to all the concerned parties. It is an essential element of controlling frauds. Auditing has seen a drastic change in its relevance and procedures being adopted. The major challenge that auditors have always faced is that of evidence gathering and understanding the sufficiency thereof. This has become even more difficult with the increasing requirements of financial reporting. Fraud incidences increase when auditors get too cozy with the management\(^2\). Independence of auditors thus, plays an important role in fraud prevention as also detection.

1.5 Rationale behind selection of the research topic

Any kind of financial misstatement results into wrongful data and wrong decisions based thereon. Fraud detection is necessary in order to ensure that lessons are learnt on the basis of the experience gathered. Detection ensures that fraudsters are reprimanded. Such actions communicate the non-tolerance of the top management towards fraud incidences as also the ability of the management to unearth frauds and punish the wrongdoers.

It has been established that auditors are the watchdogs and not the bloodhounds of financial data. Fraud detection is not their primary duty. In fact, fraud finding comes incidentally to them while conducting audit procedures. If they find some irregularities or suspicion about fraud then, they are bound to go to the roots of the facts and investigate and report accordingly to the management and to the regulatory authorities as required. However the fact remains that auditors are not duty bound to detect and prevent frauds. This necessitates the use of services of experts in fraud fighting who can see the facts beyond the financial data.

Apart from this, there is a pressing need to protect the interest of investors and other stakeholders in terms of fraud losses. They must have some mechanism to fight against the fraud risk. The answer to all these issues lies in forensic accounting.

Forensic accounting can be really helpful in fraud risk mitigation. (Bhasin, 2013) stated that forensic accountants are the professionals in the field of fraud detection, prevention and control; who can identify, uncover, and prevent structural weaknesses in three key areas namely poor corporate governance, damaged internal controls, and fraudulent financial statements.

The early indicators identified in the present study, would certainly help companies in fraud prevention. It would also help stakeholders in identifying the vulnerability of companies towards fraud risk. This in turn would enhance the decision-making ability of all concerned.

The financial statement frauds arise as a result of either an error or a fraud. Errors in financial reporting and financial statements should be prevented so that same errors
do not take place again and again. Frauds should be curbed because frauds are harmful to the financial health of an organization. Also, fraudster will be motivated to commit larger frauds if he understands that frauds are not unearthed. It is imperative for any firm to show to its employees that the culture of frauds will not be tolerated and fraudsters will be punished suitably. Though both, frauds and errors, result in financial misstatements; frauds are far more dangerous than errors. Thus, considering fraud risk is more important than errors. This is the logic with which researcher chose to study the indicators for the need of forensic accounting. The main purpose of this research is to help companies and also stakeholders to identify fraud symptoms with the help of early indicators.

In Indian context, this research is more important owing to the fact that the need of forensic accounting has not been realized by the corporate world to the extent and severity of frauds taking place in the country. Also, the rising incidences of frauds in the country and consequent revenue losses warrant the need of this research.

Different sectors have been facing difference types of experiences as far as frauds are concerned. Nature of business, pattern of business transactions, government policies, tax regulations, effect of economic condition on a sector would all differ from sector to sector. As such, the indicators of fraud possibilities would also be different for different sectors. This ideology has been retained by researcher while conducting the research at hand.

1.6 Statement of problem

Literature review conducted shows that there is a need to dig further in the area of early detection of frauds. Warning signals about possibilities of frauds can give an insight into the vulnerable areas of a financial system. These signals can guide managers on fraud risk mitigation before a fraud takes massive form.

In case of India, frauds are increasing in size and severity in last few years. Lot of research work has been done in detection of frauds. However, researcher felt that identifying and installing fraud risk controls as part of management control system would go a long way in prevention of frauds.
Forensic accounting techniques have the ability to detect and even prevent frauds to a large extent. The present study thus, aimed at identifying fraud risk indicators which in turn would highlight the need of forensic accounting services and tools.

1.7 Significance of the study

Financial statement frauds have been hitting the Indian corporate world for past decades and still India has not taken the fraud prevention seriously. As already stated, financial statement frauds often take the shape of misrepresentation of financial data, falsified financial reporting and essentially cooking up of books of accounts in one way or the other. This needs to be controlled and monitored in some structured manner. Even for stakeholders, getting factual data on financial position of a company is no less significant.

Researcher observed that a lot of work has been done in the area of fraud detection. It has been reiterated time and again that fraud risk has to be handled very carefully and should gain importance in overall strategy formulation and policy framing of any organization.

Looking at the global scenario, the fraud losses each year are approximately 5% of the annual revenue as per the ACFE’s fraud survey in 2012. Developed countries are relatively more cognizant of the utility and benefits that forensic accounting can fetch. However, India is yet to adapt to this approach of looking at financial statements and books of accounts. Situation in India is alarming. According to a survey by Ernst and Young (2012), total losses suffered by Indian organization were Rs. 66 billion.

Review of literature showed that not much work has been done in the area of fraud indicators as a tool of fraud prevention in Indian context. Prevention is said to be much cheaper in terms of fraud losses and as such, researcher felt that getting indications about fraud possibilities would be of immense help to companies as also all the stakeholders.

The present study will be more significant now in the light of provisions of Companies Act 2013. The Act contains explicit about fraud risk and has given greater responsibility and accountability to independent directors, auditors and employees as
far as frauds are concerned. Thus, identification of possible fraud risk will certainly help senior level officials in companies who would now come under the purview of the provisions of companies act.

Thus, researcher decided to venture into the identification of indicators from published financial statements. This would promote the need of digging to the roots of a transaction, with the help of forensic accounting techniques.

A recent report by Deloitte (December 2014) called “India Fraud Survey” found that inadequate mechanisms to prevent and detect fraud coupled with limited enforcement of internal controls lead to frauds. It further mentioned that a proactive approach to frauds is the need of the hour owing to the rise of newer frauds and volatile regulatory environment.

These findings have reiterated the fact that strong internal controls prove to be very useful to organizations for identifying the possibilities of fraud in their case.

Prevention of frauds is cheaper and better than fraud detection. The indicators of vulnerability fraud risk identified by the present study would help organizations in protecting themselves from the perils of frauds.

1.7.1 Utility of the present study to different stakeholders
This research will help many stakeholders. Government bodies can use this study to identify the companies that have higher vulnerability to fraud risk. Revenue department can use it for income tax assessments or wealth tax and related queries. Investors can take the help of this study to identify companies with lesser risk of fraud before investing. Senior managers and directors of companies can use this research to understand the extent to which their company is vulnerable to fraud risk. This would prompt them to decide about seeking help from forensic experts for fraud prevention or early detection of frauds, as necessary.

1.8 Structure of the research process
Researcher aimed at studying if any fraud symptoms can be flagged from the financial statements in the form of fraud indicators or red flags, showing thereby, the need for
use of forensic accounting services. Researcher selected 2595 companies across 17 sectors of Indian economy for the present study. A statistical model indicating the need of forensic accounting has been developed by researcher. The study was restricted to financial statements frauds that hit the financial condition of a company, in one way or the other. It thus, also covered those frauds which do not lead to direct misstatements in financial statements but affect the finances of an organization in some way. For example, bribes or kickbacks from vendors do not show in the financial statements directly but hamper the overall financial health of the company. Similarly, frauds like physical theft do not mean misstating financial statements but they do reduce the inventory, thereby showing an indirect effect on the bottom line. Non recording of sales invoices, cheque tampering, sale of inventory as scrap are all examples of such frauds which affect the financial condition without any alteration or jugglery done in financial statements. Researcher has covered these types of frauds also by using financial statements and ratio analysis. This research was based on primary data and secondary data.

1.8.1 Scheme of the thesis
This research is divided into five chapters.

Chapter 1 shows includes the introduction to the research topic and has explained the need and utility of the research to its users.

Chapter 2 incorporates a detailed review of literature on the topic of forensic accounting, fraud detection and prevention, red flags and their usefulness etc. It also mentions the frauds that have taken place around the globe in general and specifically in India as well.

Chapter 3 has laid down the detailed methodology that researcher followed in executing the topic under study. It describes the purpose and rationale for the research, the research design, sample selected, variables of the study, method of data processing etc.

Chapter 4 is all about the analysis of primary and secondary data using appropriate statistical tools like Standard binary logistic regression, chi square test of contingency,
Friedman’s chi square test etc. wherever applicable. This chapter leads the way to the next chapter.

**Chapter 5** includes findings, recommendations and conclusion based on the data analysis so conducted. Researcher has written the findings and recommendations for their use by auditors, investors and managers at large. Researcher has concluded this chapter by giving the implications of the study and the scope for further research.

To conclude, it can be said that forensic accounting as a field is not really new to India. However, awareness about its application in fraud prevention area is relatively limited. An average of 5% of annual revenue is lost to frauds globally. This is an alarming situation and needs a solution. With keen interest in auditing and accounting field, researcher was attracted towards finding a solution to the increasing problems associated with frauds, scams and enormous revenue losses resulting there from.