Abstract
The system of financial reporting and the accounting and auditing profession are often accused because of the appearance of frauds and the loss of trust in the reliability of financial information on the part of the users and makers of economic decisions. Great financial frauds at the end of the past and the beginning of this century have imposed the need for deeper investigation of irregularities in the area of financial reporting. Within profession, the Enron scandal lead towards formation of a new regulative bodies and the appearance of a new profession, this is called Forensic Accounting Investigation or simply Forensic Accounting (FA). It is the combination of the Accounting, Auditing and Investigation skills. Forensic Accountants are related with deterring, detecting and investigating frauds in financial reporting. Initially, forensic accountants were used by government agencies (such as, the CIA, the FBI, and the IRS), to uncover and investigate leading frauds. Later on they became financial detectives employed by management to uncover fraudulent financial reporting and misappropriated assets. Forensic Accounting in India, of late (after Satyam scam) has come to limelight recently due to rapid increase in white-collar crimes and the belief that our law enforcement agencies do not have the expertise needed or time to uncover frauds. This exploratory research paper discusses on the problems and prospects of forensic accounting, as profession in India on the basis secondary data collected from various sources.

1 Introduction
Accountants all over the world need to make sure that their explanation of Generally Accepted Accounting Practices (GAAP) make certain “a true and honest representation of accounting data and information.” Debates on what is ‘true and fair’ view according to GAAP is continuing globally and many professional bodies have taken a more regulated approach including the US. Under contemporary conditions of business activity, securing dependable financial information through disclosing financial statements is considered a generally accepted motto. Numerous financial frauds from the past and the beginning of the century have seriously disrupted the faith of numerous users in financial information contained in financial statements. The greatest frauds of the users of financial information and primarily investors have been committed by exhibiting falsified financial statements. Many groups in society are expecting accountants to adopt a more vigorous role in providing assurance regarding reliable financial reporting, responsible corporate governance and detection and prevention of frauds. Perhaps a forensic accountant may have been able to track these complex
puzzles before the fallout from these events and highlighted them to investors. Recently, forensic accounting has come into limelight due to speedy increase in financial frauds and white-collar crimes. The mixing of accounting, auditing and investigative skills creates the specialty, known as forensic accounting (Singh, 2012). It is a ‘specialty’ practice area of accounting that explains engagements, which result from real or anticipated disputes or litigation. Forensic accounting is unique in that it combines accounting with investigation. These bloodhounds – as opposed to watchdogs that are auditors – attempt to sniff out deceitful transactions from the records of institutions.

The opportunities for forensic accounting are growing at a rapid space. Collapse of Enron and World Trade Centre twin towers have blessed the American Forensic Accountants with the opportunities. The nature of fraud in India has undergone a change. According to KPMG Fraud Survey white-collar crime in corporate India has witnessed a “substantial increase” over the last three years. The incidence of fraud had increased by 13% from 2010 to the same survey in 2013. It has an adverse impact on entrepreneurial spirit in India. An estimate by C K Prahalad, a management expert at the University of Michigan, puts the cost of corruption to the Indian economy increased to 2.5 trillion rupees a year. According to the latest report by Transparency International, a UK-based anti-corruption organization, India ranks 88 out of 180 countries in terms of corruption. Therefore in the Indian context the Forensic accountants are the most required in the wake of the growing frauds. However, Forensic accounting is still embryonic in India. In the wake of the Satyam scam, demand for forensic accountants has gone up in India. The formation of Serious Fraud Investigation Office is the landmark creation for the forensic accounting profession in India.

2 Objectives and Methodology of the Study

The present study has been taken with an overall objective of highlighting the problems and prospects of Forensic accounting in India in the context of growing of multiple frauds; accordingly, the reminder of the paper is organised as under. Section three discuss on the conceptual issues of Forensic Accounting. Section four elaborates the genesis of Forensic Accounting. Section five and section six explains the scope and modus operandi of Forensic Accounting. Section seven discusses on the problems and prospects of the same and the last section i.e. section eight is devoted for concluding observations.

The study is basically exploratory in nature and depends exclusively on secondary data. Secondary data are collected from various reports published by GOI, RBI, KPMG, Price Water house and other research papers on Forensic Accounting.

3 Concept of Forensic Accounting

The term "forensic accounting” was first used in 1946 by Maurice E. Peloubet, a partner in a New York based accounting firm . He wrote about the use of accounting in courtroom proceedings as part of testimony, but acknowledged that investigation was becoming more common for accountants due to the raise in government agencies that regulated financial practices.In 1953, a New York lawyer named Max Lourie claimed that he invented the phrase "forensic accounting,” although Peloubet wrote about it first. Lourie stressed the need for forensic accounting literature and training.

The term "Forensic", according to the Webster's Dictionary means, “Belonging to, used in or suitable to courts of judicature or to public discussion and debate.” The word accounting is defined as "a system of recording and summarizing business and financial transactions and analyzing, verifying, and recording the results.” George A. Manning in his book "Financial Investigation and Forensic Accounting” defines Forensic Accounting as the science of gathering and presenting financial information in a form that will be accepted by a court of jurisprudence against perpetrators of
economic crimes. The term forensic accounting means financial fraud investigation which comprise of analysis of accounting records to prove or disprove financial fraud and serving as an expert witness in Court to prove or disprove the same. Actually, forensic accounting is the use of accounting for legal purposes. It is a very important tool to sense, investigate and prevent the frauds. According to AICPA, “Forensic accounting is the application of accounting principles, theories and discipline to facts or hypothesis at issues in a legal dispute and includes every branch of accounting knowledge”. Crumbley et al. (2009) define forensic accounting as the action of identifying, recording, settling, extracting, sorting, reporting and verifying past financial data or other accounting activities for settling current or prospective legal disputes or using such past financial data for projecting potential financial data to settle legal disputes. Mehta and Mathur (2007) perceive that forensic accounting involves a financial detective with an apprehensive mind, a financial bloodhound, someone with a “sixth sense” that enables reconstruction of past accounting transactions and an individual who looks beyond the numbers. Bhasin (2007) identified that the objectives of forensic accounting include: evaluation of damages caused by an auditor’s negligence, fact finding to see whether an embezzlement has taken place, in what amount, and whether criminal proceedings are to be taken; collection of evidence in a criminal proceedings; and calculation of asset values in a divorce proceedings. He argues that the primary direction of forensic accounting is explanatory analysis (cause and effect) of phenomenon including discovery of deception (if any) and its effects introduced into the accounting domain.

Forensic accounting, sometimes called investigative accounting is the application of an expert knowledge and specific skills to spot transactions which are not authentic and gather the evidence regarding the same. It is used for fraud examination and fraud examination covers fraud allegations from inception to disposition, including obtaining evidence, interviewing, writing reports and testifying. Forensic accounting may consists of the following two major components:

a) In case of court case, investigative skills of forensic accountant are used in two ways, he can be called upon to give his expert opinion based on his investigation and may require possible courtroom testimony.

b) Forensic accountant’s investigative skills are required for collecting, analyzing, and evaluating financial evidence, as well as the ability to construe and communicate findings.

Forensic accountants are recruited by law firms, corporations, banks, government agencies, insurance companies and other organizations to analyze, interpret, summarize and present complex financial and business related issues in a simple and succinct manner. Forensic accountant may apply certain examination and evaluation techniques similar to those used in financial audits but the objective of these procedures is quite different. The forensic accountant may examine a trail of paperwork to corroborate the calculations needed to meet the specific motto of the engagement.

4 Genesis of Forensic Accounting

Forensic accounting has been around for nearly 200 years. The earliest reference was found in 1824 in an accountant’s advertising circular in Glasgow, Scotland. These special accountants gave testimony in court and in arbitration proceedings. In the Egyptian times, 3300-3500 BC, commercial transactions were recorded on clay tablets, these tablets were then sealed, and if the tablets were found to be tampered with later, investigations took place (Ghosh et al 2011). Employee crime, when discovered was punishable by fine, mutilation or death in some cases. In India (321-184 BC) at least 40 different kinds of embezzlement were recorded and were punishable. In The Roman Empire, importance was given on control and audit of financial matters rather than efficiency of asset use and The Royal Courts of Justice were in charge for both the accounting and administrative functions of central government. The feudal system required rolls and estate accounts to be kept; they provided a
base for both legal process and control and there was a formal coalition between law and accounting. Worldwide, Sherlock Holmes, the artificial character created by Sir Arthur Conan Doyle is considered to be the pioneer of forensic accounting. In India, ‘Kautilya’ was the first person to mention the famous forty ways of embezzlement in his book ‘Arthashastra’ during the ancient times. He was the first economist, who openly recognized the need of the forensic accountants. Similarly, Birbal, one of the nine gems of King Akbar have explained different fraud examination methods (Bhasin, 2007). The first official chartered accounting profession in 19th century at Scotland was based on and had strong linkages between accounting and law. In the 20th century, however, accounting services grew and legal consultancy became a smaller of most accounting practices. The emphasis was given on “record-keeping” and other financial services. Thus, forensic accounting appears to be a move towards the original role of an accountant. Indeed, the 1960’s experience the first legal case to highlight the role of forensic accountant to business and society. The 1980’s saw a rapid expansion in demand for forensic accounting services, when many businesses suffered losses from the great recession. The Association of Certified Fraud Examiners (ACFE) was founded in Texas in 1988 and the American College of Forensic Examiners was established in 1992. These institutions briefly explain need for trained forensic accountants and set the educational standards for training. The sudden increase of white-collar crime in the 1990’s, the complexity of technology and the September 11th terrorist attacks on twin towers in US causes many business houses facing financial wreck after losing almost all their accounting records; this has fuelled the demand for forensic accounting services. Undoubtedly, forensic accountants have been involved in bringing life back into New York based businesses, after September 11th, by compiling basic records for filing insurance claims. Interest in forensic accounting spread through the US and UK early in the twentieth century. One of the first institutions to use the services of such investigative accountants was the IRS. The story of A1 capone the famous mobster being caught on a tax evasion scheme is well known. Collapse of the Enron corporations and World Trade Centre’s twin towers have given ample opportunities to American forensic accountants.

Forensic Accounting in India, of late (after satyam scam) has come to limelight recently due to rapid increase in white-collar crimes and the belief that our law enforcement agencies do not have the expertise needed or time to uncover frauds. The scam like Harshad mehta, Ketan Parekh, Sanjay Seth and recently India bull scam and ‘ Kingfisher Airlines’ Credit card fraud and most recently ‘coal block scam’ are improving the scope of forensic accounting in India. Whether it is stock market fraud or bank fraud or cyber fraud forensic accounting is becoming an indispensable tool for investigation in India.

5 Scope of Forensic Accounting

The services rendered by the forensic accountants are given below:

i. Fraud detection where employees commit Fraud:

Where the employee pampers in fraudulent activities and is caught to have committed fraud, the forensic accountant tries to establish any assets created by them out of the funds defalcated and trying to find out the secret truth.

ii. Criminal Investigation:

Forensic accountant are engaged for fraud and white-collar crime investigations for the purpose of civil and criminal actions.

iii. Matters related with professional negligence:

Professional negligence cases are taken up by the forensic accountants. Non-conformation to Generally Accepted Accounting principles (GAAP) or non-compliance to auditing practices or ethical
codes of any profession is identified by them; they are required to measure the loss due to such professional negligence or shortage in services.

iv. Arbitration service:
Forensic accountants render arbitration and mediation services for the business community, since they are trained in the area of alternative dispute resolution. They also resolve the matters related with partnership and corporation disputes.

v. Settlement of insurance claims:
Insurance companies recruit forensic accountants to have a precise assessment of claims to be settled. Similarly, policyholders seek the help of a forensic accountant when they need to challenge the claim settlement as worked out by the insurance companies. A forensic accountant handles the claims relating to substantial loss policy, property loss due to different risks, loyalty insurance and other types of insurance claims.

vi. Dispute settlement:
Business firms recruit forensic accountants for resolving the cases related with contract disputes, construction claims, product liability claims, and infringement of patent and trademarks, liability arising from breach of contracts and so on.

6 The Modus operandi of Forensic Accounting
The technique of forensic accounting includes the conventional accounting and auditing tools like ratio technique, cash flow technique, a standard statistical tool examination etc. In cases involving significant amounts of data, the present-day forensic accountant has technology available to obtain or source data, sort and analyse data and even quantify and stratify results through computer audit and various other techniques. Some of the techniques involved in forensic accounting to examine the frauds are given below:

i. Benford’s Law
It is a mathematical tool, and is one of the various ways to determine whether variable under study is a case of unintentional errors (mistakes) or fraud. On detecting any such phenomenon, the variable under study is subjected to a detailed inspection. The law states that fabricated figures (as indicator of fraud) shows a different pattern from random figures. The steps of Benford’s law are very simple. Once the variable or field of financial importance is decided, the left most digit of variable under study extracted and summarized for entire population. The summarization is done by classifying the first digit field and calculating its observed count percentage. Then Benford’s set is applied. A parametric test called the Z-test is carried out to compute the significance of variance between the two populations, i.e. Benford’s percentage numbers for first digit and observed percentage of first digit for a particular level of confidence. If the data confirms to the percentage of Benford’s law, it means that the data is Benford’s set, i.e. there is 68% (almost 2/3rd) chance of no error or fraud. The first digit may not always be the only pertinent field. Benford has given separate sets for 2nd, 3rd, … and for last digit as well. It also works for mixture numbers, decimal numbers and rounded numbers. There are many advantages of Benford’s Law like it is not affected by scale invariance and also help in situation when there is no supporting document to prove the genuineness of the transactions.

ii. Theory of relative size factor (RSF)
It shows all unusual fluctuations, which may be arise from fraud or genuine errors. RSF is measured as the ratio of the largest number to the second largest number of the given set. In practice there exist certain limits (e.g. financial) for each entity such as vendor, customer, employee, etc. These limits may be defined or analyzed from the available data if not defined. If there is any stray instance of that is way beyond the normal range, then there is a need to examine further into it. It helps in better
discovery of anomalies or outliers. In records that fall outside the prescribed range are suspected of errors or fraud. These records or fields need to relate to other variables or factors in order to locate the relationship, thus establishing the truth.

iii. **Computer Assisted Auditing Tools (CAATs)**
CAATs are computer programs that an auditor use as part of the audit procedures to process significant auditing data contained in a client’s information systems, without depending on him. CAAT helps auditors to perform various auditing procedures such as: (a) Testing details of transactions and balances, (b) locate inconsistencies or significant fluctuations, (c) Testing general as well as application control of computer systems. (d) Sampling programs to extract data for audit testing, and (e) Redoing calculations performed by accounting systems.

iv. **Data Mining Techniques**
It is a set of statistical techniques designed to automatically mine large volumes of data for new, hidden or unexpected information or patterns. Data mining techniques are categorized in three ways: Discovery, Predictive modeling and Deviation and Link analysis. It discovers the usual knowledge or patterns in data, without a predefined idea or hypothesis about what the pattern may be, i.e. without any prior knowledge of fraud. It exhibits various affinities, association, trends and variations in the form of conditional logic. In predictive model, patterns identified from the database are used to forecast the outcome and to guess data for new value items. In Deviation analysis the norm is found first, and then those items are detected that deviate from the usual within a given threshold (to find anomalies by extracted patterns). Link discovery has emerged recently for detecting a doubtful pattern. It mostly uses deterministic graphical techniques, Bayesian probabilistic casual networks. This method involves “pattern matching” algorithm to ‘extract’ any uncommon or suspicious cases.

v. **Ratio Analysis**
Another useful fraud detection technique is the computation of data analysis ratios for key numeric fields. Like financial ratios that indicate the financial health of a company, data analysis ratios locate the fraud by identifying possible symptoms of fraud. Three important ratios are -

1. The ratio of the highest value to the lowest value (max/min);
2. The ratio of the highest value to the second highest value (max/max2); and
3. The ratio of the current year to the previous year.

Using ratio analysis, a financial expert identify the relationships between specified costs and measure of production, such as units sold, dollars of sales or direct labour hours. For example, overhead costs per direct labour hour may be find out by dividing total overhead costs by total direct labour hours. Ratio analysis may help in approximation of expenses.

7 **Forensic Accounting Profession in India**

With the current economic downturn, there is an increased demand for forensic accounting services worldwide especially in developed countries; forensic accounting in developing countries like India, Pakistan etc. is niche field. While forensic accounting developed as early as 1995 in USA, it put its first step in India just few years back (Ghosh 2011). Many are of the opinion that forensic accounting is an extension of investigative auditing. In India forensic accounting is still considered a new inclusion into the field of fraud detection. Forensic accounting has not got its due recognition in this country even after alarming increase in the complex financial crimes due to dearth of qualified accountants with adequate technical know-how on forensic issues and lack of properly trained professionals to investigate and report on the complex financial crimes. The task of Forensic accountants is handled by Chartered Accountants who apart from handling traditional practice of
auditing as required under the Companies Act, 1956 or Income Tax Act are engaged by the law enforcement agencies or the companies or private individuals to assist in investigating the financial crime or scam. The CA or CWAs in India are best suited for this profession due to their financial acumen acquired during their rigorous training which can be further honed by introducing post qualification degree or diploma in investigating and forensic accounting similar to one introduced by CICA. The CA or CWA who acquire post qualification in investigative & forensic Accounting can use the designation CA-IFA or CWA-IFA and be legally recognized as the forensic accounting experts to handle the investigation of financial crimes and give specialist testimony in the Court of Law. However, no efforts has so far been made by the ICAI and ICWAI, the two leading statutory accounting professional bodies to move in this direction and set up a institute which can offer the post qualification diploma in investigative and forensic accounting to its members.

Following are the major problems in successful implementation of the profession of forensic accounting in India:

8 Due to the complex and traditional judicial system and political fancy, forensic accountants are facing a stiff challenge in gathering information against such big shots (politicians and/or bureaucrats) that is admissible in the court of law.

9 It will be quite costly if any issues on financial defalcation or fraud were brought to court and where it involves expert witnessing. Thus, most companies prefer to settle the issue outside the court to shun the expensive cost and the risk of bad publicity on their corporate image.

10 India economy has been opened up to the world and some financial scandal involve corporate from other countries. Globalization of the economy and the fact that a fraudster can be based anywhere in the world has led to the problem of inter-jurisdiction. That again aggravated the problem for forensic accountants. Forensic accountants find it difficult to prosecute fraudster from other countries in Indian jurisdiction. (e.g. VIP Chopper deal scam).

11 The fast-changing world of information technology and the exponential increase in the use of computer systems intimidate the forensic accounting profession. The technology used by criminals and fraudsters is changing constantly and forensic accounting need to stay on top of their game to stop and detect these fraudulent practices. All Indian accountants are not information technology savvy. Again accountants with good experience also find it difficult to detect and prosecute computer related fraud.

12 Forensic accounting is an expensive service in comparison to investigative auditing. Moreover, it is not mandatory for companies to appoint forensic accountant unlike internal/external auditors in order to prevent/detect irregularities in their financial transactions.

13 So far, there is no specific guideline or act on forensic accounting practices frame by the authorities.

However, growing financial fraud cases, recent stock market scams, failure of non financial banking companies, phenomena of vanishing companies and plantation companies and failure of the regulatory mechanism to curb it has forced the Government of India to form Serious Fraud Investigation Office (SFIO) under Ministry of Corporate Affairs which can be regarded the first step of the Central Government to recognize the importance of forensic accountants. The SFIO is a multidisciplinary organization having experts from different fields like financial sector, capital market, accountancy, forensic audit, taxation, law, information technology, company law, customs and investigation. These specialists have been taken from various organizations like banks, Securities & Exchange Board of India, Comptroller and Auditor General and concerned organizations and departments of the Government.
The following steps may be taken for successful implementation of the profession of forensic accounting in India –

i. In order to bring awareness or make people understand the significance of forensic accounting as a preventive-detective-investigative tool to check on irregularities in financial transaction, new legislation should be enacted.

ii. To develop the necessary skills to be forensic accountant one must have thorough knowledge in criminology, psychology, accounting practices, auditing practices, various laws, good communication – oral and written and litigation procedures. Conferences, seminars and training programmes need to be organized in a wide manner to enhance the skills and ability of professional accountants in forensic issues.

iii. Forensic accounting may be integrated into the academic curriculum of various tertiary institutions as a means of increasing awareness of the subject matter. More research should be undertaken in the area of forensic accounting so that adequate information on the subject-matter could be gathered for the expansion of knowledge.

iv. It should be made mandatory to recruit a forensic accountant in all the companies especially in public sector companies and large scale companies.

v. It’s time for India to give a thought for modifying its present judicial system which is traditional and complex. It has to free herself from bureaucratic and red-tapism system. A regulatory body of forensic accounting needs to be set up to govern the role, duties, responsibilities and power of forensic accountant.

vi. There is also a need to make a new Law for the prosecution of fraudsters, irrespective of their domicile and such Law should always be drafted keeping in mind the uses of information technology in fraudulent practices. In order to tackle the problem of prosecution of fraudster from different domicile other than India, the issue needs to be taken up to international regulatory body. In this regard, international co-operation needs to be sought to achieve some form of ‘legislative consistency’.

8 Conclusion

The failure of corporate communication structure has made the financial community realize that there is a great demand for skilled professionals that can identify, expose and prevent structural weaknesses in three key areas: poor corporate governance, flawed internal controls and fraudulent financial statements. Forensic accounting skills are becoming increasingly relied upon with a corporate reporting system that emphasizes its accountability and responsibility to stakeholders. So far forensic accounting in India is being used as an investigative tool, rather than a preventive tool. There is an acute shortage of forensic accounting skill sets in India. A huge demand for forensic accountants has come up in the wake of the requirements from the investors after the Satyam fiasco. There are only about 400 forensic accountants in the country though India loses approximately $40 billion because of frauds. If forensic auditing is made mandatory in financial and corporate sector many of the scams involving thousands of crores can be avoided. With the above objectives in mind, some of the initiatives taken by regulatory bodies show a positive sign in preventing scams. SEBI has decided to “create a forensic accounting cell to improve the quality of the financial information disclosed and to assist in detection of financial irregularities so as to serve as an effective early warning mechanism.” Reserve Bank of India has also made forensic accounting audit compulsory for banks in India. These all shows a healthy prospect for forensic accounting profession in India.
9 References

14. www.indiaforensic.com