

Application of Forensic Accounting to Investigate Scams in India

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Abstract

Economic crimes have increased dramatically in the past decade. Forensic accounting has come into limelight due to rapid increase in financial frauds and white collar crimes which is evident from newspaper reports, which on almost daily basis report of economic crimes committed in communities across the country. The present study discusses about issues like scope of forensic accounting in India, role of forensic accountants in fraud examination and various techniques employed for detecting and preventing financial frauds. The study is a theoretical analysis of the role of forensic accountant as watchdog who may keep an eye on the financial operation of the firms so as to minimize the occurrences of financial frauds in future. The analysis is being supported by the secondary data in the form of available literature on forensic accounting and its application in modern corporate world.

Keywords: *Forensic accounting, financial fraud, corporate scandals, white collar crimes.*

1. INTRODUCTION

Cracking down on fraud is critical for a country that needs investment. According to KPMG Fraud Survey white-collar crime in corporate India has witnessed a substantial increase over the last two years. The incidence of fraud had increased by 10% from 2010 to the same survey in 2012. It has adverse impact on international investors and entrepreneurial spirit in India. Corruption in Indian business is endemic and greasing the palms of business associates is the norm. An estimate by CK Prahalad, a management expert at the University of Michigan, puts the cost of corruption to the Indian economy at up to 2.5 trillion rupees a year. According to the latest report by Transparency International, a UK-based anti-corruption organization, India ranks 84 out of 180 countries in terms of corruption.

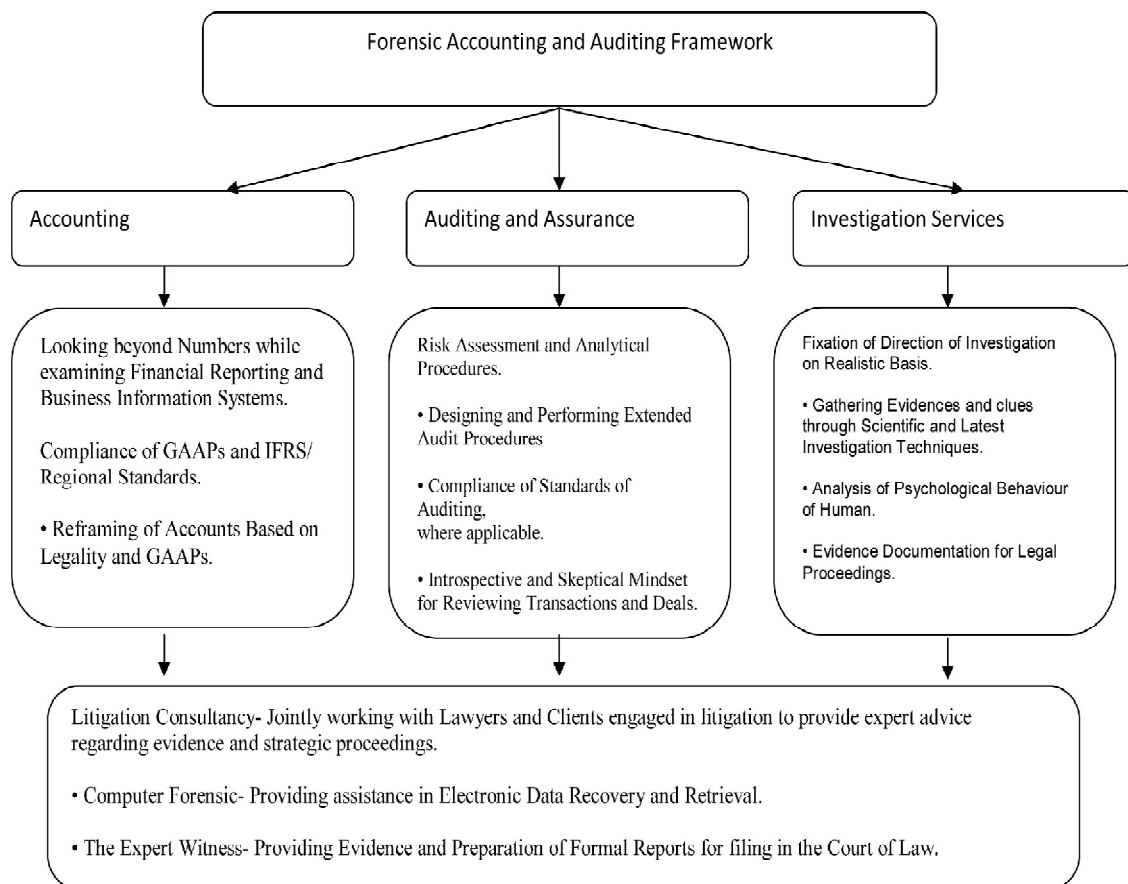
Forensic accounting is the field which is called upon to address the issues of prevention and

investigation of white collar crimes. Needless, to mention the case of Harshad Mehta, Hiten Dalal, Batliwala & Karani, M/s V.B. Desai, N.K. Aggarwal & Co., Mukesh Babu, Ketan Parekh and Ramalingam Raju's Satyam etc. which have put question mark on the efficacy of the existing regulation regime of Indian financial market. In spite of so called regulatory mechanism, the significance of Forensic investigation of accounts has come to limelight due to rapid increase in financial frauds and white collar crimes.

Forensic accounting is a rapidly growing area of accounting concerned with the detection and prevention of financial fraud and white collar criminal activities. 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 integration of accounting, auditing and investigative skills yields the specialty known as Forensic Accounting which focuses very closely on detecting or preventing accounting fraud. "What the use of finger prints was to the 19th century and DNA analysis was to the 20th, forensic accounting will be to the 21st century," In other words forensic accounting includes the use of accounting, auditing, and investigative skills to assist in legal matters. It consists of two major components:

- a) In case of litigation, 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 interpret and communicate findings.



Source: Saha A (2014), A multidimensional approach to investigating frauds and scams: A study in global and Indian context, Management Accountant-Journal for CMAs, Vol.49, No.9

2. LITERATURE REVIEW

Maurice E. Peloubet is credited with developing the term forensic accounting in his 1946 essay

"Forensic Accounting: Its Place in Today's Economy." By the late 1940s, forensic accounting had proven its worth during World War II; however, formalized procedures were not put in

place until the 1980s when major academic studies in the field were published (Rasey 2009).

Forensic accounting is the specialty area of the accountancy profession which describes engagements that result from actual or anticipated disputes or litigation. "Forensic" means "suitable for use in a court of law," and it is to that standard and potential outcome that forensic accountants generally have to work (Crumbley et al. 2005).

Joshi (2003) ascribed the origination of forensic accounting to Kutilya, the first economist to openly recognize the need for the forensic accountant whom he said, mentioned 40 ways of embezzlement centuries ago. He, however, stated that the term "forensic accounting was coined by Peloubet in 1946. Crumbley (2001) wrote on same when he stated that a form of forensic accounting can be traced back to an 1817 court decision. He stated also that a "young Scottish accountant issued a circular advertising his expertise in arbitration support in 1824" but that Peloubet was probably the first to publish the phrase forensic accounting. Investigation of fraud and corruption is confirmed thus, not to be new, even in Nigeria. It is only gaining prominence because of the growing wave of the crime under the seemingly new nomenclature the last five years.

Coenen (2005) stated that forensic accounting involves the application of accounting concepts and techniques to legal problem. It demands reporting, where the accountability of the fraud is established and the report is considered as evidence in the court of law or in the administrative proceeding (Joshi). It provides an accounting analysis that is suitable to the court, which will form the basis of discussion, debate and ultimately dispute resolution (Zysman, 2001).

3. STATEMENT OF THE PROBLEM

The failure of statutory audit to prevent and reduce mis-appropriation of corporate fund and an increase in corporate crime has put pressure on the

professional accountant and legal practitioner in find a better way of exposing fraud in business world. A nationwide study conducted by Kessler International showed that 39 percent of organizations have considered the need for a forensic accountant. This study intends to find out how the knowledge of forensic accounting techniques can reduce corporate fraud and mismanagement along with discussing the scope and role of forensic accounting.

4. OBJECTIVES

- 1) To understand the scope of forensic accounting in India and its uses.
- 2) To understand the significance of forensic accounting through the discussion of various scams in India
- 3) To identify the role of forensic accountants in fraud examination.
- 4) To understand various techniques employed in forensic accounting for detecting and preventing frauds.

5. METHODOLOGY

The study is based on secondary data and few cases of corporate sector have been discussed. The study is a theoretical analysis of the role of forensic accountant as watchdog who may keep a watchful eye on the financial operation of the firms so as to minimize the occurrences of financial frauds in future. The analysis is being supported by the secondary data in the form of available literature on forensic accounting and its application in modern corporate world. However, forensic accounting covers a wide range of operations of which fraud examination is a small part where it is most prevalent.

6. SIGNIFICANCE OF FORENSIC ACCOUNTING

Forensic accounting in India has come to limelight only recently due to rapid increase in white-

collar crimes and the belief that our law enforcement agencies do not have sufficient expertise or the time needed to uncover frauds. It is being used in banks, insurance companies and even police agencies (Preethi Singh, 2012). But India has witnessed hundreds of scams since independence. Some of the scams worth mentioning here are - HaridasMundhra (1957), Nagarwala (1971), Antulay and cement (1982), Bofors (1989), Harshad Mehta (1992), palmolein oil imports in Kerala (1992), Telgi (1995), SNC Lavalin in Kerala (1995), Sukhram and telecom (1996), fodder in Bihar (1996), Jain hawala (1997), Ketan Parekh (2001), the Barak missile (2001), Kargil coffins (2002), the Taj corridor

(2003), the PDS scam in Arunachal (2004), oil for food (2005), Scorpene submarine deal (2006), stamp papers (2005), cash for votes (2008), Satyam (2008), MadhuKoda and mining (2009), 2-G (2010), Commonwealth Games (2010), Adarsh Housing Society (2010), housing loans by banking and financial institutions (2010), Belekiri port in Karnataka (2010), foodgrains in Uttar Pradesh (2010) and Bellary mines (2011) (Debroy&Bhandary).

For the purpose of the study, seven alleged scams were selected which are political, financial, corporate etc. Entries are arranged in chronological order by year.

Table 1: List of Scams in India

Scandal	Year Reported	Scope	Key Players	Summary
Stamp Paper scam	2005	Rs.600 billion	Abdul Karim Telgi& his associates,Police officers, Govt employees & politicians	Counterfeiting of stamp papers. Selling fake to bulk purchasers like banks, insurance companies & stock broking firms. Sentenced to 30 years of rigorous imprisonment.
Satyam Scam	2009	Rs.14000 crore	Ramalinga Raju & his family, CFO & other top level management, Auditors & Board of Directors	Inflated figures of cash & bank balance, operating profit artificially boosted from 61 crores to 649 crores, fictitious names of employees
2G Spectrum	2010	Rs. 1760 billion	A Raja, MK Kanimozhi, NiraRadia,Many Telecom Cos.	Irregularities in awarding spectrum licences. License issued on first cum first serve basis instead of auction. Advancing of cutoff date which is illegal.
Common-wealth games	2010	Rs. 35000 crores	Suresh Kalmadi& other organizing committee members, 2 private companies &Govt officials	Allegations of corruptions and mismanagement by the organizing committee, delay in the construction of main venue leading to misuse of funds, infrastructural compromise, hefty payments made in the name of non-existing parties

Adarsh Housing Society scam	2010	Not known yet	Top Army officials, IAS officers, politicians & legislators	Originally meant to be a six-storey structure to house Kargil war heroes and widows, got converted into a 31-storey and allotted to bureaucrats, top defence officers, a former environment minister and legislators. The market rate was 6-8.5 crores & was allotted at a throw away price of 60-85 lakhs. Violations in environment rules.
Coal gate	2012	Rs. 1.86 lakh crore	Govt of India, private & public sector companies	Govt of India allocating coal blocks in an inefficient manner leading to windfall gain to allottees (chose not to go through the competitive bidding process)
VVIP Chopper deal scam	2013	Rs. 362 crores	Augusta Westland Company, Former IAF chief SP Tyagi & his cousins, politicians, Govt officials & several middlemen.	It has been alleged that former IAF chief has accepted bribes to win contract worth Rs. 36 billion. Two Indian firms played key role in the controversy.

Source: Biswas et.al(2013), *Forensic Accounting in Indi, 5th International Conference on Financial Criminology 2013*

Forensic accounting has played a major role in all the above scams. It has been used as an investigative tool (rather than a preventive tool) where the documents pertaining to the scams are sent to the forensic laboratory. Many scams could have been detected and prevented in the early stages if forensic auditing is made mandatory in India.

Table 2: Percentage of Companies Affected by Listed Frauds

	2012	2011
Theft of physical assets	24%	25%
Information theft	21%	23%
Management conflict of interest	14%	21%
Vendor, supplier or procurement fund	12%	20%
Internal financial fraud	12%	19%
Corruption and bribery	11%	19%
Regulatory or compliance breach	11%	11%
IP Theft	8%	10%
Market collusion	3%	9%
Money laundering	1%	4%

Source: *Global Fraud Report, Key Facts and Figures, Annual Edition: 2012/2013*

7. TECHNIQUES OF FORENSIC ACCOUNTING FOR EXAMINING FRAUDS

Some of the techniques involved in Forensic

Accounting to examine the frauds are:

- 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 or frauds. Use of parametric test called the Z test is carried to measure the significance of variance between two populations i.e. Benford's percentage numbers for first digit and observed percentage of first digit for a particular level of confidence. Benford's Law is not affected by scale invariance and is of help when there is no supporting document to prove the authenticity of transactions.

- b) **Theory of relative size factor:** It highlights all unusual fluctuations, which may be routed 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 limit (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 investigate further into it. It helps in better detection 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 find the relationship, thus establishing the truth.
- c) **Data Mining Techniques:** It is a set of assisted 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 explains various affinities, association, trends and variations in the form of conditional logic. In predictive modeling, patterns discovered from the database are used to predict 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 suspicious pattern. It mostly uses deterministic graphical techniques, Bayesian probabilistic casual networks. This method involves "pattern matching" algorithm to 'extract' any rare or suspicious cases.

- d) **Ratio Analysis:** Another useful fraud detection technique is the calculation of data analysis ratios for key numeric fields. Like financial ratios that give indications of the financial health of a company, data analysis ratios report on the fraud health by identifying possible symptoms of fraud. Three commonly employed ratios are: (a) Ratio off the highest value to the lowest value (b) Ratio of highest value to second highest value (c) Ratio of current year to previous year. Using ratio analysis, a financial expert studies relationships between costs and some measures of production, such as units sold, dollar of sales or direct labor hours. For example, to arrive at overhead costs per direct labor hour, total overhead costs might be divided by total direct labor hours. Ratio analysis may help a forensic accountant to estimate expenses.

8. FINDINGS AND CONCLUSION

It has been observed that the financial scams in India are unbridled due to lack of stringent surveillance authority. If we consider the quantum of loses from these scams. They are an eye opener. Satyam's scam was a fraud involving about Rs. 8000 crore. Harshad Mehta triggered a securities scam diverting funds to the tune of Rs. 4000 crore. KetanPareskh followed Hrashad Mehta's footsteps to swindle crores of rupees from banks. CR Bhanshali scam resulted in a loss of over Rs. 1200 crore. Dinesh Dalmia was the managing director of DSQ Software Limited when CBI arrested him for his involvement in stock scam of Rs. 595 crores.

Adbul Karim Telgi scam resulted in loss of Rs. 171.33 crore.

On the basis of above mentioned facts and figures, we have learned that, India has already faced substantial losses due to rapid increase in white-collar crimes and the belief that our law enforcement agencies do not have sufficient expertise or the time needed to uncover frauds. Moreover, the Forensic Accounting is in an infancy state in India. It is still an untrodden area in India. But due to ever increasing cases of bank & cyber-frauds its growing importance cannot be denied. The immediate landmark creation is "Forensic Research Foundation". They provide support for investigation of fraud. They publish one bimonthly journal named as "White Crimes". It relates to forensic and economic crimes. Another international organization named as KPNG has set up investigation detection centre in India. Networks Limited, a Delhi based organization, working in the similar field, they are also trying to innovate ways and means to detect financial irregularities and crimes in India. Serious Investigation Fraud Offices (SIFO), has been established in India for the same reason, i.e. detection and prevention of economic irregularities and crimes. The need for such bodies and the importance of Forensic Accountants have been highlighted by L.N. Roy Committee, Lenin Parekh Committee has also expressed the view that one "fraud detection committee" need to be established. The main aim of such boards should be to prevent the interest of the stakeholders. To combat the frauds effectively one needs the active support of government at every stage. There are three-four such agencies in India, which are dedicated to the mission of combating frauds. Serious Fraud Office looks into violations of Income Tax, FEMA, RBI Act, etc.; CBI (Economic Office Wing) deals with big financial frauds; Central Vigilance Commission deals with corruption. These are the major government agencies that combat frauds of different types. Unfortunately, there is no specialized

education provided by any of the Universities in the country. TCS has also come out with software to combat money laundering and Subex Systems have designed software to combat the telecom frauds. Thus, combating the frauds with software has started picking up in India, with few big companies like ACL and IDEA, joining the race. The government should take up the initiative to provide specialized education in this field of forensic accounting and well-designed course curriculum should be offered by all central and state universities in India to train and develop the required skills in students so that they may help in preventing financial frauds and scams as in future.

REFERENCES

1. Aderibigbe, P. (1997): Auditors Independence and Corporate fraud Nigeria journal of Research and Development in Higher Education (NIJORDHED), Ile-Ife External Communication (Nig).
2. Aderibigbe, P. (2000): The Role of the Forensic Chartered Accountant. in Nigeria Accountant July, 2000.
3. Agrawal, S. and Sharma, R. (2009), "Beat this: Satyam won awards for corporate governance, internal audit." VCCircle. Available at www.vccircle.com/news. American Institute of Certified Public Accountants (2002), "SAP-99: Consideration of Fraud in a Financial Statement Audit," Auditing Standard Board, AICPA, available at....
4. Ansari, K.M. (2005) "Corruption and Forensic Accounting" Ohio CPA Journal; July -September.
5. Arnold Shields, (2009) "History of Forensic Accounting?"
6. Bhasin, Dr. Madan, (2007) "Forensic accounting: A New Paradigm For Niche Consulting?," The Chartered Accountant, ICAI.
7. Biswas M, Hiremath G, Shalini R (2013),, Forensic Accounting in Indian Perspective, 5th International Conference on Financial Criminology
8. Crumbley DL, Heitger LE, Smith GS, (2005), "Forensic and investigative accounting?," CCH Group, Chicago, IL Debroy, Bibek & Bhandary, Laveesh, "Corruption in India",
9. Das Santanu Kumar, 2012, "Forensic Accounting: A tool of Detecting White Collar Crimes in corporate world", Indian Journal of Research, Vol.1, Issue 2, pp. 1-3
10. Enyi, Patrick Enyi, "Detecting Causes of Variances In Operational Outputs of Manufacturing Organizations: A Forensic Accounting Investigation Approach", SSRN-id1144783 "Forensic Accounting -An Investigative Approach of Accounting" SSRN-id1789123
11. Ghosh Dr. Indrani and Banerjee Dr. Kamal Kishore , (2011) "Forensic Accounting - Another feather in the Hat of Accounting" Chartered Accountant, ICAI

- "Lighting the Fraud Examination in India - Complete resource guide on Fraud Examination in India?", report by India forensic Research Foundation, www.indiaforensic.com/fraudsindia.pdf accessed on 28/04/2016
12. Moid.S. (2016), "Theoretical Assessment of Creative Accounting Practices In Indian Context", SME World Magazine,
 13. Nevis, Sherloc,(July 2012)"White collar crime?", Deloitte,
 14. Okoye Prof. Emma and Akenbor Cletus O, (2009)"Forensic accounting in developing Economies- Problems and Prospects", The University Advance Research Journal, Issue 1, , ISSN 1119 - 8125
 15. Oremade, T. (1988): Auditing and Investigations. Lagos: West Africa Books Publishers Limited.
 16. Rasey, Michelle, "History of Forensic Accounting?
 17. SahaA(2014),A multidimensional approach to investigating frauds and scams: A study in global and Indian context,Management Accountant-Journal for CMAs,Vol.49,No.9
 18. Satyanarayan, T. (2005): Forensic Accounting and Corporate Ill. The Chartered Accountant Vol. 53, No. 8.
 19. Singh, Preethi, (2012 "Forensic Accounting Concept in India", International Journal of Trade and Commerce-IIARTC January-June, Volume 1, No. 1, pp. 100-105
 20. Wadhwa, Lalith& Pal, Dr. Virender, (2012) , "Forensic Accounting & Fraud examination in India" International Journal of Applied Engineering Research, ISSN 0973-4562 Vol.7 No.11
 21. Wallace, A. (1991): The Role of The Forensic Accountant, Accountant November 1991.