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## Corporate Governance and Forensic Accountant: An Exploratory Study

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### Abstract

An increasing number of researchers are finding that ‘poor’ corporate governance (CG) is a leading factor in “poor performance, manipulated financial reports, and unhappy stakeholders.” The recent accounting scandals (Enron, WorldCom, Madoff, Satyam, etc.) have induced a crisis of confidence in financial reporting practice and effectiveness of CG mechanisms. Corporations and regulatory bodies are, therefore, trying to analyze and correct any existing defects in their reporting system. In the current reporting environment, forensic accountants (FA’s) are in great demand for their ‘niche’ accounting, auditing, legal, and investigative skills. Influenced by business, government, regulatory authorities and the courts, there is evidence that a higher level of expertise is now required to analyze present-day complicated financial transactions and events. As a result, forensic accounting has been thrown in the forefront of the crusade against financial deception and accounting scandals.

This paper investigates through a survey study, which was conducted in the National Capital Region of India during 2011-12, “if there are differences in the views of the relevant skills of FA’s among accounting practitioners, academics, and users of forensic accounting services.” In all, nine questions were asked to 40 practitioners, 80 academics and 80 users of forensic accounting services that pertain to solicit their views of “what skills are deemed inherently important to FA’s?” At present, some Universities in India are considering adding forensic accounting course to their curriculum. The results of the present study may provide some guidance to educators for the development of forensic accounting curriculum by identifying the pertinent skills to accompany a program of study.

**Keywords:** corporate governance, forensic accountant, exploratory study, Asian country, accounting frauds, forensic accounting, required skills, academics, practitioners, users of services.

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### I. INTRODUCTION

A corporation is a ‘congregation’ of various stakeholders, namely, customers, employees, investors, vendor-partners, government and society. The relationship between shareholders and corporate managers is fraught with ‘conflicting’ interests that arise due to the ‘separation’ of ownership and control, divergent management and shareholder objectives, and information ‘asymmetry’ between managers and shareholders. Due to these conflicting interests, managers have the incentives and ability to maximize their own utility at the expense of corporate shareholders. As a result, corporate governance (henceforth, CG) structures have evolved that helps in mitigating these “agency” conflicts (Dey, 2008). Simply stated, CG is the system by

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which businesses are directed and controlled. It provides a principled process and structure through which the objectives of the corporation, the means of attaining the objectives, and systems of monitoring performance are set. Indeed, CG is a set of accepted principles by management of the inalienable rights of the shareholders as a true owner of the corporation and of their own role as trustees on behalf of the shareholders. Accountability, transparency, fairness and disclosure are the four “pillars” of the modern corporate regulatory system.

The CG system first came into vogue in the 1970s in the United States. Within 25 years, the CG philosophy and system had become the subject of debate world-wide by academics, regulators, executives and investors (Cheffins, 2012). An increasing number of researchers are finding that ‘poor’ CG is a leading factor in “poor performance, manipulated financial reports, and unhappy stakeholders.” In addition, the corporate scandals of the last few years came as a shock not just because of the enormity of failures, but also because of the discovery that questionable accounting practice was far more insidious and widespread than previously envisioned. Thus, a definite link between the various accounting failures and poor CG is beginning to emerge. For instance, Badawi and Fitzsimon (2003) have very aptly observed: “Adelphia was given a very low 24 percent rating by Institutional Shareholder Services on its CG score. In Europe, Parmalat and Royal Ahold were ranked in the bottom quartile of companies in the index provided by Governance Metrics International.” Similarly, the Corporate Library had issued early failure warnings in respect of both WorldCom and Enron. Thus, an increasing number of researchers now are finding that poor CG is a leading factor in poor performance, manipulated financial reports, and unhappy stakeholders. Corporations and regulatory bodies are currently trying to analyze and correct any existing defects in their reporting system. The recent financial crisis has been a trigger for regulators, policy-makers, investors, and others to consider what improvements could be made to the corporate reporting system.

The recent accounting scandals have induced a crisis of confidence in financial reporting practice and effectiveness of CG mechanisms. No doubt, fraudulent financial reporting can have significant consequences for the ‘organization’ and its ‘stakeholders,’ as well as, for ‘public-confidence’ in capital markets. For instance, according to COSO Report (2010), “Periodic high-profile cases of fraudulent financial reporting raise concerns about the credibility of the US financial reporting process and call into question the roles of management, auditors, regulators, and analysts, among others.” According to a study of organizations world-wide, 30 percent of companies were victims of an economic crime (fraud) in the last year (Murphy & Dacin, 2011). From Enron, WorldCom, Madoff, and Satyam, it appears that corporate accounting fraud is a major problem that is increasing, both in its frequency and severity. According to The Association of Certified Fraud Examiners’ (ACFE, 2012) ‘Report to the Nations,’ “the cost of fraud to the US organizations is extensive—5 percent of annual revenues, despite increased emphasis on anti-fraud controls and recent legislation to combat fraud.” Indeed, the ACFE survey found that whistle-blowing is the single most common method of fraud detection (Robinson and Robertson, 2012). Although it is generally accepted that the Sarbanes-Oxley (SOX) Act of 2002 has improved CG and decreased the incidence of fraud, recent studies and surveys indicate that investors and management continue to have concerns about financial statement fraud, as summarized in Table 1.

**Table 1**  
**Magnitude of Losses Suffered due to Frauds-A Global Scenario**

<b>Reporting Authority</b>	<b>Main Findings</b>
<b>The ACFE “Report to the Nations on Occupational Fraud and Abuse” (2010)</b>	The Association of Certified Fraud Examiners’ (ACFE) found that financial statement fraud, while representing less than 5 percent of the cases of fraud in its report, was by far the most costly, with a median loss of \$1.7 million per incident. Survey participants estimated that the typical organization loses 5 percent of its revenues to fraud each year. Applied to the 2011 Gross World Product, this figure translates to a potential projected annual fraud loss of more than \$3.5 trillion. The median loss caused by the occupational fraud cases in our study was \$140,000. More than one-fifth of these cases caused losses of at least \$1 million. The frauds reported to us lasted a median of 18 months before being detected.
<b>The COSO Fraud Report (2010)</b>	The Committee of Sponsoring Organizations of the Treadway Commission analyzed 347 frauds investigated by the U.S. Securities and Exchange Commission (SEC) from 1998 to 2007 and found that the median dollar amount of each instance of fraud had increased three-times from the level in a similar 1999 study, from a median of \$4.1 million in the 1999 study to \$12 million. In addition, the median-size of the company involved in fraudulent financial reporting increased approximately six-fold, from \$16 million to \$93 million in total assets, and from \$13 million to \$72 million in revenues.
<b>The KPMG Survey (2009)</b>	A Survey of 204 executives of U.S. companies with annual revenues of \$250 million or more found that 65 percent of the respondents considered fraud to be a significant risk to their organizations in the next year, and more than one-third of those identified financial reporting fraud as one of the highest risks.
<b>Deloitte Forensic Center Webcast</b>	Fifty-six percent of the approximately 2,100 business professionals surveyed in a webcast about reducing fraud risk predicted that more financial statement fraud would be uncovered in 2010 and 2011, as compared to the previous three years. Almost half of those surveyed (46 percent) pointed to the recession as the reason for this increase.
<b>National Fraud Authority (U.K.), Annual Fraud Indicator (2012)</b>	The scale of fraud losses in 2012, against all victims in the U.K., is in the region of £73 billion per annum. In 2006, 2010 and 2011, it was £13, 30 and 38 billions, respectively. The 2012 estimate is significantly greater than the previous figures because it includes new and improved estimates in a number of areas, in particular against the private sector. Fraud harms all areas of the UK economy.
<b>The Ernst and Young’s “India Fraud Indicator report” (2012)</b>	The losses suffered due to fraud amount to INR 66 billion. Delhi witnessed the largest number of fraud cases and suffered the highest aggregate losses by fraud (as compared to the rest of the country) in 2011–12. The financial-services sector was the worst hit, with more than 63 percent of the total fraud cases reported in 2011–12, followed by technology and transportation. In the financial-services sector, banking was the major victim with 84 percent of the total number of reported fraud cases. According to the data compiled by the Reserve Bank of India (RBI), the money lost by banks due to scams and fraud has doubled in the past four years. Losses incurred by banks due to fraud increased by 88 percent in 2010-11 to exceed INR 37.9 billion (more than INR 20.1 billion in 2009–10).

During the last few decades, there have been numerous financial frauds and accounting scandals, which were “milestones with historical significance.” The media had reported scandals and bankruptcies in companies both from the ‘developed’ and ‘developing’ countries. The recent high-profile accounting scandals involving major companies worldwide, such as, Enron, WorldCom, Parmalat, and most recently, India’s Satyam, along with recent outcries over the excessive remuneration paid to some CEOs have raised questions about the relationship between ethical leadership, financial incentives and financial misreporting (Chen, 2010). Unfortunately, the corporate collapses of recent times have suggested that there are major ‘systemic’ problems facing the way in which corporations and CG systems operate across the globe. On a number of occasions, over the past few decades, major public companies have experienced financial reporting frauds, resulting in sudden turmoil in the US capital markets, a loss of shareholder value, and, in some cases, the bankruptcy of the company itself. During the recent series of corporate fraudulent financial reporting incidents in the US, “almost all cases of foreign corporate accounting frauds were committed by the entities that conducted their businesses in more than one country, and most of these entities are also listed on U.S. stock exchanges.” The list of corporate financial accounting scandals in the US is very extensive, and each one was the result of one or more “creative accounting” irregularities. For example, Table 2 identifies a sample of US companies that committed such fraud and the nature of their fraudulent financial reporting activities (Badawi, 2003). Overseas, nine major international companies, based in eight different countries have also committed financial accounting frauds. Table 3 identifies these nine international companies and the nature of the accounting irregularities they committed.

**Table 2****A Sample of Cases of Corporate Accounting Frauds in the USA**

<b>Adelphia Commu.</b>	Founding family collected \$3.1 billion in off-balance-sheet loans backed by company. Earnings were overstated by capitalization of expenses and hiding debt.
<b>AOL Time Warner</b>	Barter deals and advertisements sold on behalf of others were recorded as revenue to keep its growth rate high. Sales were also boosted via “round-trip” deals with advertisers and suppliers.
<b>Bristol-Myers Squibb</b>	Inflated 2001 revenues by \$1.5 billion by “channel stuffing”, forcing or giving inappropriate incentives to wholesalers to accept more inventory than they needed, to enable company to meet its 2001 sales targets.
<b>CMS Energy</b>	Executed “round-trip (buy and sell)” trades to artificially boost energy trading volume and revenues.
<b>Enron</b>	Tops the list of biggest US corporate collapses. Company boosted profits and hid debts totaling over \$1 billion over several years by improperly using partnerships. It also manipulated the Texas power and California energy markets and bribed foreign governments to win contracts abroad.
<b>Qwest Communications</b>	Inflated revenues using network capacity “swaps” and improper accounting for long-term deals. The SEC is investigating whether the company was aware of his actions, and possible improper use of company funds and related-party transactions, as well as improper merger accounting practices.
<b>World-Com</b>	To cover losses, top executives overstated earnings by capitalizing \$9billion of telecom operating expenses and thus overstating profits and assets over 5 quarters beginning 2001. Founder Bernard Ebbers received \$400million in off-the-books loans
<b>Xerox</b>	Overstated earnings for five years, boosting income by \$1.5 billion, by misapplication of various accounting rules.

The wave of financial scandals at the turn of the 21st century elevated the awareness of fraud and the auditor's responsibilities for detecting it. Unfortunately, the frequency of financial statement fraud has not seemed to decline since the passage of the Sarbanes-Oxley Act in July 2002 (Hogan, Rezaee, Riley, & Velury, 2008). The high-incidence of fraud is "a serious concern for investors as fraudulent financial reports can have a substantial negative impact on a company's existence, as well as, the market value." For instance, the lost market capitalization of 30 high-profile financial scandals caused by fraud from 1997 to 2004 is more than \$900 billion, which represents a loss of 77 percent of market value for these firms, while recognizing that the initial market values were likely inflated as a result of the financial statement fraud. Despite intense efforts to stamp out corruption, misappropriation of assets, and fraudulent financial reporting, it appears that fraud in its various forms is a problem that is increasing in frequency and severity.

As pointed out by Black (2010), "Financial statement fraud was a contributing factor to the recent financial crisis and it threatened the efficiency, liquidity and safety of both debt and capital markets." Furthermore, it has very significantly increased 'uncertainty' and 'volatility' in financial markets, shaking 'investor' confidence worldwide. It also reduces the creditability of financial information that investors use in their investment decisions (Rezaee & Kedia, 2012). When taking into account the loss of investor confidence, as well as, reputational damage and potential fines and criminal actions, it is clear why financial misstatements should be every manager's worst fraud-related nightmare. Undoubtedly, fraud is a world-wide phenomenon that affects all continents and all sectors of the economy. From time-to-time, corporations and regulatory bodies have tried to analyze and correct any existing defects, if any, in their reporting systems. In addition, discussion on the relevance of "forensic accounting" in detecting accounting scandals has emerged in recent years. All these cases imply that the corporations have failed to supply accurate information to their investors, and to provide appropriate disclosures of any transactions that would impact their financial position and operating results. The recent accounting scandals have induced a crisis of confidence in financial reporting practice and effectiveness of CG mechanisms. No doubt, recent corporate accounting scandals and the resultant outcry for transparency and honesty in reporting have given rise to two disparate yet logical outcomes. First, forensic accounting skills have become crucial in untangling the complicated accounting maneuvers that have obfuscated financial statements. Second, public demand for change and subsequent regulatory action has transformed CG scenario (Bhasin, 2012; 2007). Therefore, more and more company officers and directors are under ethical and legal scrutiny. In fact, both these trends have the common goal of addressing the investors' concerns about the transparent financial reporting system. However, the failure of the corporate communication structure has made the financial community realize that there is a great need for skilled professionals that can identify, expose, and prevent structural weaknesses in three key areas: poor CG, flawed internal controls, and fraudulent financial statements. Forensic accounting skills, therefore, are becoming increasingly relied upon within a corporate reporting system that emphasizes its accountability and responsibility to stakeholders.

Table 3

**A Sample of Cases of Corporate Accounting Frauds Overseas**

<b>Adecco International (Switzerland)</b>	The world's largest international employment services company, it was formed in Switzerland in 1996. The company confirmed existence of weakness in internal control systems and accounting of Adecco staffing operations in certain countries, especially in the U.S. Manipulation involved IT system security, reconciliation of payroll bank accounts, accounts receivable and documentation in revenue recognition. These irregularities forced an indefinite delay in the company's profit figures, which eventually caused a significant decline in the company's stock prices in Switzerland and the U.S.; and intervention of the SEC.
<b>Ahold NV (The Netherlands)</b>	Company is the world's third largest food retailer and food services group after Wal-Mart and Carrefour. Ahold U.S.A. is the regional office in the U.S. On July 27, 2004, the Dutch parent company announced that the SEC brought charges against four former executives of its U.S. food services operations relating to accounting fraud and conspiracy. U.S. executives were accused by the SEC of orchestrating an accounting fraud that battered the food distributor and its Dutch parent company by inflating the company's earnings by roughly \$800 million over a two-year period. The invented cost savings technique recorded fictitious rebates know as "promotional allowances" that never existed, to give the appearance of cost savings, which in turn boosted profits. Executives also faced charges of filing false documents with the SEC.
<b>Asea Brown Boveri (Sweden)</b>	The Swedish-Swiss firm Asea Brown Boveri was seen as "a paradigm of European capitalism at its best." In 2002, it suddenly turned into a "Swedish version of Enron." Company discovered that after CEO Percy Barnevik resigned, he secretly cashed in a \$148 million severance package for himself and his successor, Goran Lindahl.
<b>Elan (Ireland)</b>	A pharmaceutical company listed on Nasdaq. In January 2004, company admitted improperly using off-balance-sheet vehicles, placing it under SEC investigation. It also suffered a setback on a drug developed to treat Alzheimer's disease. The CFO and Chairman left the company, but were retained as consultants.
<b>Global Crossing Ltd (Bermuda)</b>	One of the hottest telecom companies and only five years old, it engaged in "network capacity swapping activities" with other carriers to inflate revenues. It then shredded documents related to these accounting practices.
<b>Nortel Networks Corp. (Canada)</b>	The Canadian company, headquartered in Ontario, is the largest telecom equipment maker and provider in North America. Company remained tied up in a long SEC review of its financial results for 2001-2003, and the first-half of 2004, due to material weaknesses in internal controls. Several top executives were fired as securities regulators performed investigations. In 2004, the company delayed restating its financial results for the third time, as it underwent investigations. Former top executives are suspected of committing accounting irregularities, aimed at inflating earnings, which helped make the company the largest telecom equipment supplier. Under investigation is the appropriateness of the company's reserve accounts, whether there was an intentional inflation of reserves, which would be released to earnings in later years and the company's questionable bonus program.
<b>Parmalat (Italy)</b>	Parmalat, a global food and dairy conglomerate, is Italy's eighth-largest company and the No. 3 provider of dairy (and cookie-maker) in the US. In Dec. 2003, a bank account with Bank of America holding 3.9 billion was revealed not to exist. More than 50 individuals were investigated. They were suspected of committing fraud and false financial accounting, which contributed to the company's bankruptcy. The company acknowledged a multi-billion-dollar gap in its balance sheet accounts. Parmalat's jailed founder estimated the size of deficiency in its finances at \$10 billion, and admitted that he shifted \$620 million from the company's coffers to unprofitable travel businesses that were controlled by his family.
<b>Royal Dutch/Shell Group</b>	Shell, the third largest oil company, is a global group of energy and petrochemical companies, operating in more than 145 countries. In July 2004, the company reported paying a total of \$150 million in fines to the SEC and its British counterpart, the Financial Services Authority, following investigations into the company's overstatement of its oil and gas reserves. Since Jan. 2004, the company was subject to intense criticism and scrutiny when executives made the first of four restatements related to its oil and gas reserves. Shell agreed with Britain's FSA's findings that it abused the provisions of the FSM Act. It paid 17 million pounds in fines, the largest the regulator has ever levied. Shell also agreed to an SEC order that finds that the company violated antifraud reporting, record-keeping and internal control provisions of US federal securities laws. The company also was investigated by the US Department of Justice and by Netherlands regulators
<b>Vivendi Universal (France)</b>	The SEC accused this Paris-based company of misleading investors in its news releases and financial statements. Management was engaged in misconduct trying to meet earnings goals and intentionally violated certain accounting principles to inflate profits. For 18 months, senior executives refused to acknowledge the company's liquidity problems and earnings shortfalls. Its former CEO transformed the company from a water utility into a film and media empire but saddled it with huge debts (33 billion), which were difficult to pay. On Dec. 23, 2003, the company agreed to pay \$50 million to settle accusations by the SEC and it did not have to revise any financial statements

In general, it can be claimed that the above accounting scandal occurred because of integrated factors, such as, lack of auditor independence, weak law-enforcement, dishonest management, poor internal-control and inability of CG mechanisms in monitoring top-management behaviors. The SOX 2002 imposes potentially serious penalties on firm executives with fines of up to \$5 million and/or imprisonment up to 20 years. At the same time, this legislation requires that these firms tighten their internal controls over financial reporting (Barra, 2010). Unfortunately, it is also true that most frauds are perpetrated by people in positions of trust in the accounting, finance, and IT functions (Carpenter, Durtschi, & Gaynor, 2011). Consequently, there should be alternative tools to detect the possibility of financial frauds. Forensic accounting can be seen as one of such tools. An understanding of effective fraud and forensic accounting techniques can assist forensic accountants (henceforth, FA's) in identifying illegal activity and discovering and preserving evidence (Bhasin, 2011). According to Christensen, Byington, and Blalock (2005), "Some regulators have apparently noticed the need for forensic accounting." For example, the Sarbanes-Oxley Act (SOX), the Statement on Auditing Standards-99 (SAS 99), and the Public Company Accounting Oversight Board (PCAOB) have not removed the pressures on CFOs to manipulate accounting statements. The PCAOB recommends that "an auditor should perform, at least, one walk-through for each major class of transactions." However, SAS 99 does not require the use of forensic specialists but does recommend brainstorming, increased professional skepticism, and unpredictable audit tests. The PCAOB has raised concerns about auditors' fraud judgments and the quality of their brainstorming sessions (Chariri, 2009; Brazel, 2010).

India has been amongst the fastest growing economies in the world in the last decade. In India, the question of CG has assumed importance mainly in the wake of economic liberalization, deregulation of industry and business, as also the demand for a new corporate ethos and stricter compliance with the legislation. Periodic high-profile cases of 'fraudulent' and 'creative' financial reporting in India have raised concerns about the credibility of the financial reporting process, and called into question the roles of management, auditors, regulators, and analysts, among others (Bhasin, 2012). The need for improving "CG and ethical culture across public and private sector companies has never been felt as acutely as is being felt now." This resounding sentiment is echoed in the 'KPMG India Fraud Survey (2012)' as: "The last few years have seen increased number of frauds reported in India, as well as, globally. From Satyam, Adidas-Reebok, Common Wealth Games and OnMobile in India to LIBOR manipulation, securities trading, over-riding international sanctions on the global front, we have seen some of the more sophisticated and large frauds coming to light." India is a 'developing' economy where corporate-sector is contributing a major part in national income. Most of the Indian corporations are spreading their wings all over the world where they get lots of opportunities to go for "creative" accounting since all countries have different accounting systems which creates ambiguity in investor's mind. Thus, the number of accounting scandals is increasing in India. Table 4 highlights some 'glaring' examples of Indian companies practicing creative accounting from 1996-97 to 2008-09.



**Table 4****Creative Accounting and Fraudulent Practices followed by the Indian Companies**

<b>Company</b>	<b>Years</b>	<b>Nature of Fraud</b>
WIPRO Ltd.	1996-97 to 1999-2000	Transfer of land to stock creating capital reserve with the fair value and using it to neutralize the effect on profit of reduction of land value.
Bombay Dyeing and Manufacturing Company Limited	2003-04 and 2004-05	Creating provisions for possible loss on firm purchase contract and subsequent write-back of such provision thereby converting operating losses into operating profit.
Larsen and Toubro Limited	1999-2000 and 2001-02	Income recognition through transfer of loan liabilities at a lower consideration.
Apollo Tyres Ltd.	2004-05	Debiting profit and loss account with additional excise duty payable to the government and transferring equivalent amount from general reserve to neutralize the effect.
Asian Electronics Ltd.	2004-05	Impairment of assets: treatment of deferred tax.
Oil and Natural Gas Commission, Mukund Ltd., Torrent Power ACE Ltd. and Tata Motors Ltd.	2004-05	Capitalization of interest as well as other intangible assets to show fixed assets value upward and understating revenue expenses.
Hindustan Zinc Limited	2003-04 and 2004-05	Reclassifying assets in the balance sheet.
Tata Motors, Bombay Dyeing, Mahindra and Himachal Futuristic	2001-02	Direct write-offs from reserves.
Satyam Computers Services Limited	2008-09	Fraudulently incorporated a non-existent cash component by inflating the bank balances, fudging bills, accounts receivables, interest, and liabilities.

(Source: Jones, M. (2011) 'Creative accounting, fraud and international accounting standards,' John Wiley and Sons, London, page 235)

This paper is organized as follows. Section 2 summarizes the repercussions of the poor CG systems, leading to accounting frauds, and related problems within the reporting systems. Section 3 defines forensic accounting, and the core knowledge and personal skills required on the part of FA's. Section 4 highlight the contribution which can be made by the FA's to improve CG of a company. The review of literature that motivates this study is performed in section 5. Section 6 discusses the research methodology followed and procedures used in gathering and analyzing the survey data for the study. Section 7 presents the main findings, discussion and analysis of results, and implications of the study. Last section summarizes the conclusions.

## **II. 'POOR' CORPORATE GOVERNANCE, PROBLEMS WITHIN CG AND REPORTING SYSTEMS**

The interests of investors and other stakeholders are usually protected by a three-tier security system. At the top-level is the company's "Corporate Governance Code", which is directed toward enforcing company policies, achieving company objectives, monitoring company performance, and ensuring adequate disclosure of the company's activities. At the other end are the "reporting system", which is regulated

by various public and private institutions, such as, the Securities and Exchange Commission (SEC), the Public Company Accounting Oversight Board (PCAOB), and Financial Accounting Standards Board (FASB), Securities and Exchange Board of India (SEBI), etc. These regulatory agencies require public companies to follow various accounting and disclosure standards, such as, Generally Accepted Accounting Principles (GAAP), and their auditors to audit as per Statement on Auditing Standards (SAS) like independence, ethical, and quality control standards. Linking the two extremes, however, is a company's "system of internal controls", which provides reasonable 'assurance' on the effectiveness and efficiency of operations, the 'reliability' of financial reporting, and 'compliance' with applicable laws and regulations. This system, however, seems to have been inadequate in many companies. As corporations scramble to realign their interests with those of their stakeholders, three main areas of weaknesses are emerging. They are summarized below.

- **Lack of a well-developed and Implemented Policy of Corporate Governance:** The primary goal of CG is to enhance the value of a company through ethical behavior, espousing a policy of openness and fairness and ensuring informed decision-making throughout the company. Unfortunately, the centre of corporate ethics (viz., board of directors) in certain cases became a magnet for unethical practices. Blinded by the glare of a rapidly growing stock market, pressured by stockholders for ever-increasing returns, and led by executives seeking to maximize bonuses based on stock performance, certain boards of directors and audit committees failed to constrain "creative" accounting to keep up their earnings numbers. It must have seemed to some directors that the investing public really did not care about issues (such as executive compensation) as long as they made their double-digit returns. The ratio of executive pay to that of the average worker ballooned to 600 to 1 in 2000, from 100 to 1 in 1990. Closed, entrenched boards magnified the problem as directors rewarded themselves for "quality" performance until, finally, the bubble burst.
- **Lack of Honesty and Transparency in Reporting:** The financial reporting standards in the U.S. are the most "highly specified" in the world. But falling stock markets, corporate failures, dubious accounting practices, abuses of corporate power, and criminal investigations indicate that the system is under stress. Some corporations have grown dramatically through acquisitions funded by inflated stock prices and promises of an even brighter future. In others, it seems as if the checks and balances that should protect shareholder interests were pushed to the side, driven by pursuit of the bottom line. It has traditionally been an auditor's responsibility to express an opinion on whether financial statements are presented according to GAAP. Contrary to the expectations of many in the public, the auditor does not have an absolute duty to uncover fraud, although Statement on Auditing Standard (SAS-99 2002) prescribes steps for auditors to take in order to ensure that they have planned and implemented their audits in a way that responsibly addresses fraud considerations.
- **An Inefficient and Ineffective System of Internal Control:** A good system of internal control will usually help a company to achieve its objectives of profitability and minimize loss of resources. Internal control cannot, however, change an inherently weak management system, or provide absolute assurance as to the reliability of financial reporting. Companies are now facing increasing levels of legal

regulatory, and economic reporting requirements, because of the Sarbanes-Oxley Act of 2002 (SOA). Companies are spending millions of dollars examining their existing systems, and adopting or improving their CG and internal controls to meet the standards set by SOA sections 403 and 404. Undoubtedly, there will be lot of growth opportunities for various professionals to contribute to improve the corporate world. In today's rapidly changing business landscape, it is now necessary for accountants and companies to step away from the 'traditional' approach that emphasized mere compliance with the GAAP and the annual ritual involving check-box of items around legal requirements. Instead, they should focus on the study and investigation of the traits and follow the right spirit of various laws so as to improve performance, underlying corporate and management behavior in the long-term. This could be the key to preventing future meltdowns, and to guaranteeing the two important qualities of corporate reporting, namely, transparency and honesty.

### III. FORENSIC ACCOUNTING PROVIDES THE CONNECTING LINK

What the use of fingerprints was to the 19<sup>th</sup> century, and DNA analysis was to the 20<sup>th</sup> century, so financial information and forensic accounting has come to be one of today's most powerful investigative and intelligence tools available. Worldwide, we consider Sherlock Holmes to be the first Forensic Accountant. However, the contribution of some historic characters in India cannot be ignored. 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 FA's. Similarly, '*Birbal*' was the scholar in the time of '*King Akbar*'. He used various 'tricks' to investigate various types of crimes. Some of his stories gave the fraud examiner a brief idea about the litmus test of investigation (Bhasin, 2007).

The definition of forensic accounting is changing in response to the growing needs of corporations. Bologna and Lindquist (1995) had defined forensic accounting as "the application of financial skills, and an investigative mentality to unresolved issues, conducted within the context of rules of evidence. As an emerging discipline, it encompasses financial expertise, fraud knowledge, and a sound knowledge and understanding of business reality and the working of the legal system." According to the definition developed by the AICPA's Forensic and Litigation Services Committee (2011), "forensic accounting may involve the application of special skills in accounting, auditing, finance, quantitative methods, the law, and research. It also requires investigative skills to collect, analyze, and evaluate financial evidence, as well as the ability to interpret and communicate findings. FA encompasses litigation support, investigation, and dispute resolution and, therefore, is the intersection between accounting, investigation and the law."

Forensic accounting includes the use of accounting, auditing and investigative skills to assist in legal matters. According to Golden (2011), "Forensic accounting consists of two major components: litigation services that recognize the role of an accountant as an expert consultant, and investigative services that use a forensic accountant's skills and may require possible courtroom testimony." This implies that the forensic accountant should be skilled not only in financial accounting, but also in internal control systems, the law, other institutional requirements, investigative

proficiency, and interpersonal skills. Corporations can rely on these skills for developing a consistent system of CG, disseminating such information within and outside the company, ensuring that governance policies and objectives are interwoven into the internal control system, setting up fraud prevention systems, and investigating any existing fraud.

#### **IV. 'CORE' KNOWLEDGE AND 'PERSONAL' SKILLS REQUIRED BY FORENSIC ACCOUNTANTS**

There is no doubt that “qualified, trained and mature accounting professionals, possessing forensic skills, can prove to be a valuable asset to the corporate-sector, and gradually help to improve their CG systems.” Initially, Forensic Accountants (henceforth, FA's) were used by government agencies (such as, the CIA, the FBI, and the IRS), to uncover and investigate leading frauds. They became financial detectives; independent experts employed by management to uncover fraudulent financial reporting and misappropriated assets (Bhasin, 2011). In the current reporting environment, FA's are in great demand for their accounting, auditing, legal, and investigative skills. They can play a vital role in coordinating company efforts to achieve a cohesive policy of ethical behavior within an organization.

FA's are expected to be 'specialist' in accounting and financial systems. Yet, as companies continue to grow in size and complexity, uncovering fraud requires FA's to become 'proficient' in an ever-increasing number of professional 'core' skills and competencies. Here, are some of the broad areas of useful expertise for FA's:

- An in-depth knowledge of financial statements and the ability to critically analyze them. These skills help forensic accountants to uncover abnormal patterns in accounting information and recognize their source.
- A thorough understanding of fraud schemes, including but not limited to asset misappropriations, money laundering, bribery, and corruption.
- The ability to comprehend the internal control systems of corporations, and to set up a control system that assesses risks, achieves management objectives, inform employees of their control responsibilities, and monitors the quality of the program so that corrections and changes can be made.
- Proficiency in computer and knowledge of network systems. These skills help forensic accountants to conduct investigations in the area of e-banking and computerized accounting systems.
- Knowledge of psychology in order to understand the impulses behind criminal behavior and to set up fraud prevention programs that motivate and encourage employees.
- Interpersonal and communication skills, which aid in disseminating information about the company's ethical policies and help forensic accountants to conduct interviews and obtain crucially needed information.
- Thorough knowledge of company's governance policies and the laws that regulate these policies.
- Command of criminal and civil law, as well as, of the legal system and court procedures.

With this background, the FA is distinctly positioned to explore the design of CG systems, the role of the financial reporting system in corporate governance, the effect of the governance board on employee and managerial behavior, and the efficacy of the internal control system.

So what ‘personal’ skills are required to become a FA? In addition to the ‘specialized’ knowledge about the techniques of finding out the frauds, one needs patience and analytical mindset. One has to look beyond the numbers and grasp the substance of the situation. It is basically the work of the intelligent accountants. There is a need for the same basic accounting skills that it takes to become a good auditor plus the ability to pay attention to the smallest detail, analyze data thoroughly, think creatively, possess common business sense, be proficient with a computer, and have excellent communication skills. A “sixth” sense that can be used to reconstruct details of past accounting transactions is also beneficial. A photographic memory helps when trying to visualize and reconstruct these past events. The forensic accountant also needs the ability to maintain his composure when detailing these events on the witness stand. Finally, a forensic accountant should be insensitive to personal attacks on his professional credibility. According to Wells (2011), “A fraud accountant (forensic accountant are sometimes called) should also observe and listen carefully. By this, you can improve your ability to detect lies whether they involve fraud or not. This is so because “not all liars are fraudsters, but all fraudsters are liars.”

In addition to these personal characteristics, accountants must meet several additional requirements to gain the position of forensic accountants, say a Certification, acknowledging his competence. One can learn forensic accounting by obtaining a diploma given by the Association of Certified Fraud Examiners (ACFE, see [www.acfe.org](http://www.acfe.org)) in the US. The Indian chapter of ACFE offers the course based on the white-collared crimes prevalent in US, based on their laws. However, it is most unfortunate that till now there is no formal body that provides formal education of the frauds in India. We can follow the good example shown by the Canada. The Canadian Institute of Chartered Accountants (CICA) had taken initiative in this direction and issued guidelines and pronouncements regarding investigative accounting (Rosen, 2007). Besides the formal certificate, one can deepen his knowledge and sharpen his skills in forensic accounting by undergoing training under experienced forensic accountant, participating in various international conferences, reading relevant journals, books and other literature on forensic accounting.

As Bhasin (2011) emphatically stated, “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 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. “Fraud Today” is the next generation of the fraud examinations in India. They plan to develop and market software, and develop resources for various world-class universities. Recently, 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.”

## V. ROLE OF FORENSIC ACCOUNTANT IN IMPROVING CORPORATE GOVERNANCE

Companies need a centralized program and an established system to measure and monitor internal controls effectiveness and the alignment between CG, internal control, and external reporting activities. Many are setting up “Governance Officers or Governance Committees” to meet the demand for corporate integrity. The governance committee must be active in every area of corporate activity to ensure that the company is operating as a synergistic whole. As part of the CG Committee, FA’s can make a significant contribution in each of the following areas:

- **Corporate Governance:** With a strong background knowledge of the legal and institutional requirements of CG, a forensic accountant can help to formulate and establish a comprehensive governance policy that: ensures an appropriate mix of management and independent directors on the board; sets out the appropriate responsibilities of the board and the audit committees; has a fair allocation of power between owners, management, and the board; and ensures there is a company code of ethics for employees and management. Ethical behavior is reinforced when top management shows, through its own actions, that questionable behavior will not be tolerated.
- **Preventing Fraud:** Forensic accountants understand that the best way to prevent fraud is to establish an efficient control system that encompasses: a good control environment determined by management’s philosophy of ethical behavior and strong CG policies; a superior accounting system that ensures the proper recording, classification, and reporting of all relevant transactions; and strong procedural controls that provide for safeguarding of assets, proper authorizations, audit mechanisms, and proper documentation.
- **Creating a Positive Work Environment:** A good fraud prevention program also accompanies a positive work environment where highly motivated employees are not tempted to abuse their responsibilities. Forensic accountants can ensure that CG policies are formulated to avoid high-risk environments where management is apathetic, pay is inadequate or too high, there is a serious lack of proper training and compliance, or there are unreasonable profit and budget goals. It is also necessary to have well-defined hiring policies that result in honest, well-qualified employees.
- **Establishing Effective Lines of Communication:** Communication is a key element in ensuring that employees and other stakeholders are aware of their rights and responsibilities. Committee of Sponsoring Organizations of the Treadway Commission (COSO) has very categorically stated: “Effective communication must flow not just from the top to lower levels, but also across employee lines of responsibility.” Forensic accountants can, no doubt, support the dissemination of the required information about governance and ethics policies to interested parties within and outside the organization. Adequate reporting is also necessary to meet the compliance requirements of the SEC and the stock markets.
- **Vigilant Oversight:** Any system needs to be constantly monitored and evaluated to make sure that it is functioning well. A forensic accountant can monitor not only compliance at the top levels of corporate power, but also management procedures and employee activity. Information gathered as a result of the

monitoring can be used to readjust and reformulate governance, ethics, and control policies.

- **Establishing Consequences:** Fraud deterrence should also include an expectation of punishment. The forensic accountant can help in creating policies that clearly state the company's intent to take action against any criminal activities, and that such action will apply to all levels of employees.
- **Fraud Investigations:** A forensic accountant can ensure the integrity of financial statements by actively investigating for fraud, identifying areas of risk and associated fraud symptoms, pursuing each anomaly aggressively, and delving into the minute's details of accounting and financial anomalies. By helping companies to prevent and detect fraud, therefore, the forensic accountant's role can easily evolve into a key component in the CG system.

All of the larger accounting firms, as well as, many medium-sized and boutique firms have 'specialist' forensic accounting departments. Within these groups, there may be further sub-specializations: some forensic accountants may, for example, just specialize in insurance claims, personal injury claims, fraud detection, construction, or royalty audits. Nearly 40 per cent of the top 100 US accounting firms are expanding their forensic and fraud services, according to "Accounting Today." If this data is an indicator of Indian scenario, then the day is not far away when forensic accounting practice will contribute significantly to the total revenue of the Indian CA firms. In short, these services are in great demand and rendered at a premium in current context of flourishing business and rising instances of frauds and litigations.

## VI. THE LITERATURE REVIEW

The literature on forensic accounting and its adoption in accounting and finance curriculum is rather limited and they are US centric. However, our objective in this section is to highlight the core findings in the few relevant current studies rather than an extensive examination of tangential issues to forensic accounting and its adoption in accounting and finance curriculum. In fact, related literatures on the subject matter are briefly reviewed with a view to showing vividly the gap in knowledge. Many researchers have indicated that "technical skills are regarded as implicit in the skills base of a person entering an accounting career, but that it is a range of broader personal characteristics that facilitate career success and make accounting graduates more valuable to employers." Furthermore, long-back Lee and Blaszczynski (1999) suggested that "employers expected accounting students to learn a multitude of skills, not simply how to generate and use accounting information. These skills include being able to communicate, work in a group environment, solve real world problems, and use computer and Internet tools." Aderibigbe (2000) in his study suggested that "FA's requires high-level of competence, integrity and honesty to perform his job." Moreover, he is of the opinion that FA's must be thoroughly trained, must prove his competence by passing all relevant examinations to become a member of a recognized accountancy body, should always be outstanding in terms of integrity, honesty and probity, and must maintain a professional attitude in the performance of his responsibilities." Similarly, Harris and Brown (2000) have identified "specialized skills and technical abilities of FA's." FA's are usually familiar with criminal and civil law, and understands the courtroom procedures and expectations. These researchers also stressed investigative skills, including theories,

methods, and patterns of fraud abuse. FA's think creatively to consider and understand the tactics that a fraud perpetrator may use to commit and conceal fraudulent acts. Additionally, they need to clearly and concisely communicate findings to various parties, including those with less knowledge of accounting and auditing.

In 2002, Rezaee examined a sample of under-graduate and graduate accounting students, and the results indicated that "the students believed that forensic accounting is a viable career option but is not getting the proper attention in Colleges and Universities." However, Grippo and Ibex (2003) illustrated that "the most important skills of FA's come from experience in accounting and auditing, taxation, business operations, management, internal controls, interpersonal relationships, and communication." Furthermore, Akers and Porter (2003) advocated that "the AICPA and the Institute of Management Accountants recognize emotional intelligence skills as critical for the success of the accounting profession." Similarly, Messmer (2004) stated that "successful FA's must have analytical abilities, strong written and verbal communication skills, a creative mindset, and business acumen. They must be able to interview and elicit information from potentially uncooperative people and possess a strong amount of skepticism." The challenge of delivering graduates with a more extensive and special skill sets is highlighted in a recent 'European' study (Hassall et al., 2005). Their research points to similar employer demands for non-technical skills, but reported at the same time that employers were unsympathetic with claims from Universities that they had limited capacity to deliver on these greater demands. Consequently, a special training process can be fashioned out to give interested accounting graduates an opportunity to acquire these special skills that will make them specialists.

Ramaswamy (2005) believed that "FA's are distinctively positioned to be able to uncover financial deceptions", his prominent skills being an in-depth knowledge of financial statements, the ability to critically analyze them, and a thorough understanding of fraud schemes. He also believed that FA's should have the ability to comprehend the internal-control systems of corporations and be able to assess their risks. The knowledge of psychology helps FA's to understand the impulses behind criminal behavior that motivate and encourage financial deception. Also, interpersonal and communication skills that aid in disseminating information about the company's ethics and an understanding of criminal and civil law and of the legal system and court procedures are skills that aid FA's. Moreover, Rezaee, Crumbley and Elmore (2006) surveyed opinions of practitioners and academics regarding the importance, relevance, and delivery of forensic accounting education. Their results indicated that "the demand for and the interest in forensic accounting will continue to increase." Their study further shows that both practitioners and academics viewed accounting education as relevant and beneficial to accounting students. However, the groups differed in opinions regarding topical coverage of forensic accounting. In searching for the skill area of FA's, DiGabriele (2008, 2009), in a US study found that "both academics and practitioners agreed that critical thinking, unstructured problem-solving, investigative flexibility, analytical proficiency, and legal knowledge are important and core skills for FA's."

Ahadiat (2010) conducted a study in which he asked respondents to rate the skills expected of an accountant and the auditor. The results from his study shows that "accounting curricula across the United States were revised to include instructions



aimed at improving students' knowledge, skills, and abilities, which would go beyond their technical knowledge. These skills included, communication skills, analytical skills, presentation skills, team orientation, critical thinking, among others." However, a study conducted by Sugahara and Coman (2010) attempted to compare the differences in 'Japanese' accounting faculty and practitioners' perceived importance of generic skills for CPAs in order to assess the CPA Law Amendment of 2003. It was found that "Japanese accounting faculty and practitioners commonly perceived the information skill type as the most important, and the behavioral skill type as the second most important, but they tended to regard the interpersonal skill type as less important." Several implications are also raised from the findings to improve the quality education of Japanese CPAs and also to facilitate the international harmonization of accounting education. Studies by scholars, such as Davis, Farrell and Ogilby (2010), and Ekeigwe (2011), highlighted that "analytical skill remains the foremost trait that FA's are expected to possess." Their results also revealed that the skill sets of FA's are eclectic. These include general civilization, communication, accounting, business, auditing, technology, psychology, criminology, courtroom behavior, and meta-thinking skills are critical to the effectiveness of a FA. Similarly, in a study conducted by Chukwunedu and Okoye (2011) revealed that "forensic accounting techniques injected in an audit and given cost/benefit considerations is capable of increasing the ability of the auditor to detect fraud and thus help bridge the audit expectation gap. This finding has implications for both accounting education and accounting practice.

The Institute of Chartered Accountants of India (ICAI) has taken the challenge of training some Chartered Accountants to become Certified Forensic Accountants (CFAs). It is providing a "Certificate Course on Forensic Accounting and Fraud Detection using IT and CAATs", with 100 hours spread over 6 weekends. This challenge is yet to be embraced by most of the Indian Universities providing higher education. At present, very few academic institutions are offering a full course on forensic accounting, either at undergraduate or graduate level, despite the high need for this category of professionals. For example, India Forensic (Pune) is one of the few, which conducts a Certificate course in Bank Forensic Accounting (CBFA), Certified Anti Money Laundering Expert (CAME), and Certified Forensic Accounting Professional (CFAP). The Institute of Chartered Financial Analysts of India University (Tripura) also offers a "Postgraduate Diploma in Forensic Accounting." However, some colleges/universities are providing "Forensic Science" courses in India. Most probably, this is on account of lack of information about universally accepted skill-mix of FA's. Both academics and professionals should agree on the required skill-mix of FA's, which could be embedded in their course structure. This scenario highlights "a gap between forensic accounting practice and education in the country." As academic institutions contemplate the addition of fraud and forensic accounting into their curricula, there is a need for an in-depth examination of the knowledge, skills and abilities necessary for individuals to function in these fields. In spite of the fact that forensic accounting is offered by some professional accountancy bodies and Universities in the United States, Canada, United Kingdom etc., controversies are still looming the academic environment on the best skills needed for this crucial function. The international academic community has tried to address the question: who are the right people to suggest forensic accounting skills?

It is apparent that the “academic literature has identified some of the forensic accounting courses and course contents, whereas the practitioner literature suggests core skills necessary in practice.” However, the literature has not yet empirically identified the views of three major stakeholders—accounting academics, forensic accounting practitioners, and users of forensic accounting services—regarding which skills are important for FA’s. All the three stakeholders will be significant in shaping the future of forensic accounting. An attempt is made here “to uncover the basic skills needed for traditional accounting and auditing services, and the ones required for specialized services in the areas of fraud investigations, forensic accounting and forensic auditing.”

## **VII. RESEARCH METHODOLOGY USED**

The current study complements the two prior studies undertaken by Razaee, Crumbley and Elmore (2004, 2006) by surveying “forensic professionals for their perceptions of the necessary skills and characteristics for FA, as well as the education requirements.” We prepared and pre-tested our survey instrument before sending it out to all our respondents. Participants were asked the extent to which they agreed with statements addressing each of the nine competencies that were deemed by previous researchers to be important skills of FA’s (FA). The agreement ratings were made on 5-point Likert-type scale ranging from 0 (strongly disagree) to 4 (strongly agree). We asked the views of our respondents on what they think should be the ‘core’ skills of FA’s. The responses from this aspect of the survey instrument enabled us to assess their views on the core skills of FA’s and the extent of differences in views about these skills between current and previous research. Knowledge of what skills are important for success can help Universities in India (or elsewhere) to design and select courses to be completed by forensic accounting students.

In the present study, we have used a survey methodology “to investigate whether differences exist in the views of the relevant skills of FA’s among accounting/professional accounting practitioners, accounting academics/educators, and users/potential users of forensic accounting services, which include lawyers.” Some Universities in India are currently considering incorporating forensic accounting courses to their curriculum. This evolution has unearthed an absence regarding the significant skill-set outcome that should accompany forensic accounting education. The main objective of this study is to examine the necessary skills that will be required by would-be FA’s for the purpose of recommending them to Indian Universities for possible inclusion in their syllabi. To fully achieve this objective and to certify part of the conditions for empirical studies, a propositional statement is formulated, thus: “Special skills are not required for forensic accounting investigations.” This statement will either be proven or otherwise in our later discussions.

During 2011-12, we conducted a survey in the NCR region (viz., Delhi, Gurgaon and Ghaziabad) of India using a random sample of 600 accounting academics, potential FA’s (all external auditors are used in this study), and potential users of forensic accounting services. For this study, we classified lawyers as the potential primary users of forensic accounting services. We asked potential practitioners, academics and potential users of forensic accounting services “nine questions that attempted to solicit their views about what skills are inherently important for being a FA?” Despite number of reminders and follow-up visits, just

200 respondents completed the questionnaire. Thus, a total of 200 respondents fully completed the survey instrument, of these 40 (20%) were professional/FA's, 80 (40%) accounting academics, 80 (40%) were users of forensic accounting services. The overall response rate was 33 percent, which is slightly below average.

We prepared and sent out the survey questionnaire by e-mails and/or by post, where respondents were asked the extent to which they agreed with the statements addressing each of the nine competencies that were deemed by prior literature, to be important skills of FA's. In fact, nine questions were asked to practitioners, academics and, users of forensic accounting services that pertain to their views of "what skills are deemed inherently important to FA's?" These questions are summarized in Table 5. The ratings were made on a 5-point Likert-type scale, ranging from 4 (strongly agree), 3 (agree), 2 (neutral), 1 (disagree) to 0 (strongly disagree). Finally, we used correlation analysis to test the hypothesis that says, "Special skills are not required for forensic accounting investigations." This test of statistics was subsequently validated with a t-test at 10% level of significance.

**Table 5**  
**Important Skills of a Forensic Accountant**

No.	Questions asked to respondents
1.	An important skill requirement of a forensic accountant is Deductive Analysis: the ability to aim at financial contradictions that do not fit in the normal pattern of an assignment.
2.	An important skill requirement of a forensic accountant is Critical Thinking: the ability to decipher between opinion and fact.
3.	An important skill requirement of a forensic accountant is Unstructured Problem Solving: the ability to approach each situation (inherently unique) and be prepared to solve problems with an unstructured approach.
4.	An important skill requirement of a forensic accountant is Investigative Flexibility: the ability to move away from standardized audit procedures and thoroughly examine situations for a typical warning signs.
5.	An important skill requirement of a forensic accountant is Analytical Proficiency: the ability to examine for what should be provided rather than what is provided.
6.	An important skill requirement of a forensic accountant is Oral Communication: the ability to effectively communicate in speech via expert testimony and general explanation; the bases of opinion.
7.	An important skill requirement of a forensic accountant is Written Communication: the ability to effectively communicate in writing via reports, charts, graphs, and schedules; the bases of opinion.
8.	An important skill requirement of a forensic accountant is Specific Legal Knowledge: the ability to understand basic legal processes and legal issues including the rules of evidence.
9.	An important skill requirement of a forensic accountant is Composure: the ability to maintain a calm attitude in pressured situations.

## VIII. DISCUSSION OF MAIN FINDINGS AND ANALYSIS OF RESULTS

In fact, ten questions were asked to a total of 600 practitioners, academics, and users of forensic accounting services that pertain to "soliciting their views on what skills are deemed inherently important to a forensic accountant." Unfortunately, just 200 respondents completed the questionnaire, of these 40 (20%) were professional/FA's, 80 (40%) accounting academics, 80 (40%) were users of forensic accounting services. The overall response rate was 33 percent, which is little below average.

The first question is: “An important skill requirement of a FA is Deductive Analysis—the ability to aim at financial contradictions that do not fit in the normal pattern of an assignment.” An expert witness must be able to discern fact from fiction to maintain ‘credible’ testimony. Courses developed in this area should emphasize the ability to remove any non-corroborated opinions from expert reports and testimony. This skill was rated as one of the more important ones. Not surprisingly, 87.5% academics and practitioners agreed that this is an important skill of FA’s. In consideration of the barrage of recent financial reporting scandals across the globe, this skill appears to be necessary and essential for FA’s to meet the objective of uncovering a potential financial fraud. Thus, forensic accounting courses taking aim at financial misrepresentations should incorporate course objectives to meet this ability.

The second question is: “An important skill requirement of a FA is Critical Thinking—the ability to decipher between opinion and fact.” The essence of being an expert witness is to be able to perform the task of discerning fact from fiction in order to maintain a credible testimony. Critical thinking skills are essential to understanding, applying, and adapting concepts and principles in a variety of contexts and circumstances. The FA’s professional skepticism of questioning management’s responses involves critical thinking that entails an attitude of examining and recognizing emotion-laden and explicit or hidden assumptions behind each question. FA’s must master critical thinking skills because business organizations continue to evolve in response to new IT and greater worldwide competition. Fundamentally, computer fraud is people fraud, and the required computer skills will vary greatly depending on the type of fraud being perpetrated. Frauds such as data diddling require only basic skills; on the other hand, theft of information in a secure database will require more advanced computer skills from the fraudster (Bawaneh, 2011). In addition to rendering of ‘traditional’ accounting services, FA’s are nowadays involved in fast evolving services, such as, attestation reviews, forensic accounting, and fraud examinations. Today’s FA’s must thus, possess the knowledge to remain updated and the skills to critically analyze various problems. Courses developed in this area should emphasize to students the ability to remove any non-corroborated opinions from expert reports and testimony. While critical thinking is necessary for FA’s in today’s business world, cultivating students’ critical thinking skills in an accounting classroom can be a challenge (Camp & Schnader, 2010). Table 6 illustrates this skill was rated as one of the more important (100%) by all.

The third question is: “An important skill requirement of a FA is Unstructured Problem Solving—the ability to approach each situation (inherently unique) and be prepared to solve problems with an unstructured approach.” Academics and practitioners agreed (70%) that problem-solving is an important skill of a FA. Accounting education has been based around concentrating on compliance with rules and procedures. However, forensic accounting is different because problem-solving becomes more of an ‘improvised’ approach rather than a ‘structured’ plan. This skill type is in direct opposition to the traditional accounting skills. It can be argued that a shortcoming of auditors is “not seeing the proverbial forest beyond the trees.”

The fourth question is: “An important skill requirement of a FA is Investigative Flexibility—the ability to move away from standardized audit procedures and thoroughly examined situations for a typical warning signs.” The results of this study indicate that practitioners and academics agree (80%) on the importance of this skill,

thus, further illustrating the need in accounting for a more ‘open-minded’ skill set. The results of the present study indicate that potential practitioners and academics agreed on the importance of FA’s moving away from a ‘narrow’ approach and applying a more ‘holistic’ technique. These findings further illustrate the need for a more open-minded skill set in accounting. Considering the post-financial-fraud regulatory environment, researchers can infer that the ability to solve a financial puzzle with an incomplete set of pieces is an extremely important characteristic for FA’s. Practitioner and academics agree on the importance of this skill.

The fifth question is: “An important skill requirement of a FA is Analytical Proficiency—the ability to examine for what should be provided rather than what is provided.” Analytics can be of use to FA’s because they often reveal unusual relationships that need to be carefully examined. Consequently, the post-financial fraud regulatory environment, solving a financial puzzle with less than a complete set of pieces appears to be the direction the current business environment is heading. Practitioners and academics agree (75%) on the importance of this skill.

Question six is: “An important skill requirement of a FA is Oral Communication—the ability to effectively communicate in speech via expert testimony and general explanation; the bases of opinion.” Part of the job of the FA is to go into the field and speak to company personnel, who may or may not be involved with the suspected fraud. In addition, they are often called to be expert ‘witnesses’ and testify during litigation, presenting often complex evidence to the jury in an understandable manner (Sanchez & Trewin, 2004). Almost 95% of all respondents strongly agree that oral communication is an important skill of a FA.

The seventh question is: “An important skill requirement of a FA is Written Communication—the ability to effectively communicate in writing via reports, charts, graphs, and schedules; the bases of opinion.” Indeed, a FA needs to document their work. A well-written report by a FA can be a vital tool in litigation, and may help to impress the judge/jury (Crumbley, Heitger, & Smith, 2007). All groups ‘agreed’ (100%) on the importance of this skill, with 60% of all respondents ‘strongly agreeing’. Almost 95% of all respondents strongly agreed that oral communication is an important skill for FA’s, as shown above in Table 6. This skill is particularly important in expert testimony when a FA explains findings to a judge and panel of judges. Each group agreed on the importance of FA’s possessing the ability to effectively communicate in writing, and 100% of all respondents agreed strongly. Expert reports are routinely scrutinized and the need to convey findings properly is of paramount importance. The ability to communicate effectively, in both oral and written forms, is essential for today’s practitioners.

The eighth question is: “An important skill requirement of a FA is Specific Legal Knowledge—the ability to understand basic legal processes and legal issues including the rules of evidence.” Academics and practitioners agreed and strongly agreed (97.5%) that this is an important skill of FA’s. One of the interesting results of this study is the fact that ‘users’ of forensic accounting services did not view this as an important skill. The reason for this can only be speculated. Since the users were attorneys, they may have read too far into the question possibly thinking FA’s may practice law without proper licensing. However, the main point of the question was to emphasize the need for FA’s to understand certain legal issues. Academics and potential practitioners agreed that FA’s should have a working knowledge of the legal

process and the rules of evidence. As pointed out by DeZoort, Harrison and Schnee (2012), “Despite a traditional advocacy role, tax professionals face growing pressure to help manage the tax-fraud problem.”

The ninth question is: “An important skill requirement of a FA is Composure—the ability to maintain a calm attitude in pressured situations.” The groups did not differ in opinion of this skill. All groups ‘agreed’ (100%) on the importance of this skill, with 75% of all respondents ‘strongly agreeing’. The most prevalent area where this is necessary is expert testimony in either deposition or court. The composure of an expert can be an integral component in the ultimate case outcome. From our test of hypothesis, it has been discovered that accountants require special skills to work as FA’s and fraud investigators. Perhaps, this is so in view of the prevalent nature of corruption and scandals in the country. The tenth question asked the participants to identify themselves as a practitioner, academics, or a user of forensic accounting services. All the respondents agreed that maintaining composure is an important skill for FA’s.

**Table 6**  
**Percentage of Respondents Choosing Each Competency Skill Item**

Item	Strongly Disagree		Neutral	Total	Strongly Agree		Total
	(0)	(1)			(2)	(0, 1, 2)	
Deductive Analysis	0.0	5.0	7.5	12.5	30.0	57.5	87.5
Critical Thinking	0.0	0.0	0.0	0	25.0	75.0	100
Unstructured Problem Solving	8.3	8.3	13.4	30	22.5	47.5	70
Investigative Flexibility	0.0	0.0	20.0	20	16.6	63.4	80
Analytical Proficiency	0.0	16.7	8.3	25	16.7	58.3	75
Oral Communication	0.0	8.3	8.3	5	41.7	41.7	95
Written Communication	0.0	0.0	0.0	0	41.7	58.3	100
Specific Legal Knowledge	0.0	0.0	8.3	2.5	50.0	41.7	97.5
Composure	0.0	0.0	0.0	0	25.0	75.0	100

Source: Survey Results compiled by the author

A total of 200 individuals completed the survey questionnaire after series of follow-up actions. Of these, 40 were practitioners, 80 were users, and 80 were academics. Descriptive statistics for the nine areas of competencies are shown in Table 6. The items rated as “the most important were critical thinking, written communication and composure (100% each), followed by specific legal knowledge (97.5%), oral communication (95%) and deductive analysis (87.5%).” However, the items rated as the least important were “investigative flexibility (80%), analytical proficiency (75%) and unstructured problem solving (70%).” The findings of our study are, more or less, similar to a survey conducted by McMullen and Sanchez

(2010), which concluded as “The skill ranked highest in terms of importance is analytical skills, followed closely by basic accounting skills, problem-solving skills, and data analysis skills. The characteristics ranked highest in terms of importance are persistence and skepticism, followed closely by puzzle and people skills.” Thus, the identification of relevant skills of FA’s illustrated in the results of this study would contribute to progress the literature in forensic accounting education by identifying the necessary proficiencies to be merged with the accounting course contents.

The correlation analysis, as shown in Table 7, which was subsequently validated by t-test, became a prerequisite for either accepting our null hypothesis that says, “Special skills are not required for forensic accounting investigations”, or rejecting it and accepting the alternative hypotheses that says in the affirmative direction.

**Table 7**  
**Testing of Hypothesis**

Item	Total (Ag)	Total (Ng)	Rank Y	Rank X	Di (X Y)	Di <sup>2</sup>	X <sup>2</sup>	Y <sup>2</sup>	X <sup>2</sup> Y <sup>2</sup>
1.	175	25	4	4	0	0	16	16	256
2.	200	0	1	7	-6	36	1	49	49
3.	140	60	7	1	6	36	49	1	49
4.	160	40	5	3	2	4	25	9	225
5.	150	50	6	2	4	16	36	4	144
6.	200	10	3	5	-2	4	9	25	225
7.	200	0	1	7	-6	36	1	49	49
8.	195	5	2	6	-4	16	4	36	144
9.	200	0	1	7	-6	36	1	49	49
<b>Total</b>						<b>184</b>	<b>142</b>	<b>238</b>	<b>1190</b>

Source: Based on Survey Results

The general set up for the testing of this hypothesis, using the correlation coefficient, is as follows: Null Hypothesis (H<sub>0</sub>); Alternative Hypothesis (H<sub>1</sub>); and the Statistical Test:

$$r_{xy} = (\sum X^2 + \sum Y^2 - \sum Di^2) / \{2\sqrt{(\sum X^2 \times \sum Y^2)}\}$$

while  $t = r_{xy} \sqrt{(n-2)} / \sqrt{\{1 - (r_{xy})^2\}}$

Hence,  $r_{xy} = (\sum X^2 + \sum Y^2 - \sum Di^2) / \{2\sqrt{(\sum X^2 \times \sum Y^2)}\}$   
 $= (142 + 238 - 184) / \{2\sqrt{(142 \times 234)}\} = \frac{196}{2 \times 182}$

Therefore,  $R_{xy} = 0.5385$

But  $t = \frac{r_{xy} \sqrt{(n-2)}}{\sqrt{1-r_{xy}^2}} \dots\dots\dots t\text{-distribution} = \frac{0.5385 \times \sqrt{(9-2)}}{\sqrt{1-0.5385^2}} = \frac{1.4247}{0.8426}$

$t = 1.6908$

Decision Rule at 0.10 (α) significance level or 90% confidence level is given thus: Reject H<sub>0</sub>: if /t/ - calculated ≥ t-tabulated (t), and /t/ = 1.6908. While t(t) at (n-2) df = 1.415, where n=9. But 1.6908 > 1.415, that means, t-test calculated is greater than t-test tabulated. Therefore, our H<sub>0</sub> is rejected while the alternative hypothesis

(H<sub>1</sub>), which says, “Special skills are required for forensic accounting investigations” is upheld. Again, our test statistics for the second hypothesis shows that there are significant differences in the relevant skills of FA’s, as given by previous researchers with the current research. This is a confirmation to the result obtained from testing the first hypothesis which shows that core skills are not enough requirements for forensic accounting practice. Most of the early researchers, such as DiGabrille (2008), who has researched in this area focused on core skills of FA’s. Finally, our test of hypothesis clearly states that necessary skills of FA’s, as identified by both academics and professionals, will hopefully meet employers’ expectations too. Employers, who include lawyers and anti-graft agencies personnel, are the ultimate users of forensic accounting services, and if they concur with what accounting academics and professionals say should be the skill requirement of FA’s, then academic and professional institutions should not hesitate to incorporate these skills in their curricula.

Undoubtedly, there is a definite need for FA’s in the business world today, but not everyone possesses the many characteristics and qualities that comprise high-quality FA’s. To briefly recapitulate, FA’s need to possess strong written and oral communication skills. In this profession, it is very much imperative to have a strong accounting background; a thorough knowledge of auditing, risk assessment, control and fraud detection; and of course, a basic understanding of the legal system. It is important for FA’s to “possess the ability to interview and effectively elicit information from people who may not be willing to give truthful answers. Therefore, it is important for FA to be skeptical of those people that they deal with.” Knowledge and experience in financial planning and management techniques, as well as advanced computer skills, including an ability to understand and apply various information technology and accounting systems, are also key characteristics of any FA. It is also recommended by Wells (2010) that “an accountant that wants to become a fraud expert should go and work for a law enforcement agency. The experience of working on complex fraud cases in law enforcement for several years offers invaluable knowledge.”

## **IX. CONCLUSION**

In the 21st century, the corporate-sector all over the world is facing ‘rapidly’ increasing levels of regulatory and reporting requirements. They are ‘forced’ to spend millions of dollars annually examining their existing systems and improving their CG and internal control systems to meet the standards set by the Sarbanes-Oxley Act of 2002. It is, therefore, necessary for the professionals and companies “to shift their focus from mere compliance approach to study and investigate the behavior of board of directors, CG practices, and financial reporting systems.” FA’s are positioned to explore the design of CG systems, the role of the financial reporting system in CG, the effect of the governance board on employee and managerial behavior, and the efficacy of the internal control system. As part of the CG Committee, a FA can make a significant contribution in the areas of CG, fraud prevention and investigation, creating positive work environment, establishing effective lines of communication and vigilant oversight. Let us hope, these moves could ensure two important qualities of CG and corporate reporting—transparency and honesty.



When speaking about the ‘fight on terrorism’, Chancellor of the Exchequer Mr. Gordon Brown, former Prime Minister of the United Kingdom stated, “What the use of fingerprints was to the 19<sup>th</sup> century, and DNA analysis was to the 20<sup>th</sup> century, so financial information and forensic accounting has come to be one of today’s most powerful investigative and intelligence tools available”, (Muehlmann, Burnaby & Howe, 2012). There is no doubt that a “qualified, trained and mature accounting professionals, possessing forensic skills, can prove to be a valuable asset to the corporate-sector, and gradually help to improve their CG system.” Forensic accounting in India, of late, has come “to limelight due to the 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.” Forensic accounting, in fact, integrates accounting, auditing, and investigative skills to conduct an examination into a company’s financial statements. Broad-based knowledge (within the themes listed above) is crucial to the success of entry-level FA’s. In 2011, the AICPA conducted a survey to evaluate trends within the ‘Forensic and Valuation Services’ practice area. The vast majority of participating forensic accounting professionals reported “significantly increasing demand for their services in recent years. They also forecast greater demand in the next two to five years accompanied by an uptick in litigation and regulatory enforcement during the same period.” Moreover, DeLoach (2012) characterized forensic accounting as “somewhat of a ‘niche’ because it requires multi-disciplinary expertise that crosses the realms of accounting, criminal investigation, regulatory legislation and judicial litigation. FA’s are expected to understand the way small and large enterprises operate, prepare valuations in commercial and civil disputes, and provide insight into the darker-side of business.” We have seen growth in all areas of forensics, especially in computer forensics, which is being driven by the increasing use of technology and concerns about cyber-security. The FBI and Justice Departments are looking for FA’s because the reach of the profession has spread to areas such as money laundering and even terrorism cases (Brooks et al., 2005). KPMG, a large accounting firm, believe the market is sufficiently large to support an independent unit devoted strictly to ‘forensic’ accounting. All of the larger accounting firms, as well as, many medium-sized and boutique firms have recently created forensic accounting departments.

The recent wave of corporate fraudulent financial reporting has prompted global actions for reforms in CG and financial reporting, by governments and accounting and auditing standard-setting bodies in the US and internationally. The enactment of Sarbanes-Oxley Act (SOX) of 2002 was the US government’s response to the wave of fraudulent corporate financial reporting experienced during the 1980s and early 2000s, and represented a significant step in regaining investors’ confidence in the global financial reporting process. The Act created new and stricter statutes to avoid a repeat of previous corporate financial disasters. The arrival of the SOX, the subsequent formation of the Public Company Accounting Oversight Board (PCAOB), and the implementation of the Statement on Auditing Standards No. 99 (SAS 99) has presented the current auditing environment with a new paradigm that makes finding fraud a priority. According to Wells (2011), “SAS 99 is unique because it claims that there is a risk of fraud in every business. The new standard describes specific steps that the auditors must follow during an audit engagement. These steps include pre-audit brainstorming, increased professional skepticism, additional

inquiries, consideration of risk factors, a determination of the response to the risk factors, and extensive documentation.” SAS 99 also requires that the audit staff be evaluated to determine if they have enough fraud expertise. The degree of professional skepticism auditors currently employ differs from the level used by FA’s. This is primarily why the AICPA and education leaders have called for “more forensic accounting education for auditors” (Arens & Elder, 2006). In addition, the PCAOB has emphasized that the detection of fraud should be an important objective of an audit (Carpenter, 2007). Despite the depth and breadth of authoritative standards available to guide accountant and auditor conduct, numerous stories in the press, as well as, academic research indicate that these standards have not been completely successful in eliminating ethical violations by accountants. Because of these continued breaches, confidential reporting mechanisms have received significant attention in recent years.

The increasing demands in the current regulatory, legal, and business environments should stimulate accounting programs to emphasize and embrace forensic accounting. This research surveyed in 2011-12 200 potential practitioners, academics, and prospective users of forensic accounting services from NCR region (viz., Delhi, Gurgaon and Ghaziabad from India) as representative of the entire country to determine whether there are differences in views of the relevant skills suggested in the literature. The results indicate that “potential practitioners and academic agree that critical thinking, unstructured problem-solving, investigative flexibility, analytical proficiency, and legal knowledge are more important skills of FA’s. Potential practitioners of forensic accounting services rated analysis the more important than did academic staff. However, both groups agreed with prospective users, who viewed deductive analysis as very important. The groups did not differ on oral communication, written communication, or composure rankings.” These results show that some skills are relevant and important to the outcome of forensic accounting education. Educators can use these skills as a guide to direct academic curriculum with the proper learning outcome objectives. Accounting students need to be familiar with the role IT and the digital environment play. Knowledge and application of technology is increasingly essential in effective forensic accounting, anti-fraud programs, and fraud investigations. Accounting students need to be aware of IT-based schemes and have an appreciation for the need to use specialists to support the work of the accountant in auditing or investigating computer-based fraud and forensic accounting issues. Many higher education accounting programs are considering incorporating fraud examination and forensic accounting content in their curricula. Further research in this area could progress to classifying skills to identified courses. The auditing environment after the passage of SOA demands students with greater understanding of risk assessment (including business and fraud risks), forensic accounting skills, the ability to understand and document controls and link controls to assertions and audit evidence, and the competence to deal with CG and other PCAOB requirements. Acquiring these skills will require changes in the basic auditing course and one/more advanced auditing courses, as well as changes in the core business and accounting curriculum.

Particularly in this age of SOX, we require professional accountants to have curiosity and a healthy skepticism of the financial systems around them. They must be able to identify relevant facts, evaluate judgment and interpret intent; follow a clear,

ethical and logical path when performing their work; and communicate their thoughts to peers and clients. No doubt, one must be competent in critical thinking to be effective in life, especially in a competitive business environment. Indeed, while critical thinking is necessary for accountants in today's business world, cultivating students' critical thinking skills in an accounting classroom can be a challenge. The FA's being professional members of the CG and Audit Committees, can play a far greater role in coordinating company efforts to achieve a cohesive policy of ethical behavior within an organization (Bhasin & Shaikh, 2012). By helping companies to detect and prevent fraud, create a 'positive' work environment, establish 'effective' lines of communication, and be vigilant as a corporate 'watchdog', the FA's role can gradually evolve into a key component in the CG system. Let us hope that FA's, through their specialized knowledge, training and skills, will be able to improve CG scenario, still a work-in-progress, across the globe.

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