

CORPORATE FRAUD PREVENTION AND DETECTION: REVISITING THE LITERATURE

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Abstract *Fraud has become a worldwide phenomenon and prime issue of concern. It dwells in all countries and affects all types of organisations irrespective of their size, profitability or industry. The primary objective of this paper is to provide an in-depth understanding of literature related to corporate fraud in order to understand 'why' fraud occurs and 'how' to combat it. Research studies published during the period commencing from the year 1984 to 2014 have been reviewed. The study aims to provide an in-depth discussion on significant red flags that may exist before fraud occurrence. It, also, provides a comprehensive view about fraud detection and prevention methods. Findings reveal that red flag is an important mechanism to prevent fraud. Application of single fraud detection technique will not curb the fraud effectively. Also, the top executives were found to be responsible for implementing anti-fraud policies and techniques within business organisation. Further, the present study tries to discern the research gap in existing literature and explore the area of future research.*

Keyword: *Corporate Fraud, Forensic Accounting, Red flag, Fraud Detection, Fraud Prevention.*

INTRODUCTION

Schmallegger (1991) says, "More money has been stolen at the point of a pen - than at the point of a gun"¹ which directly shows the seriousness of corporate fraud. Fraud has become a challenge to the business organisations in today's dynamic environment. Globalisation has induced intense competition among the business houses that are fighting for profits and market share. Stock prices are considered as benchmark of the corporate performance which drive the managers to panic and resort to unwanted intentional acts leading to fraud. Standard on Auditing (SA 240)² defines fraud as, "an intentional act by one or more individual among management, those charged with governance, employees and third parties, involving the use of deception to obtain an unjust and illegal advantage." Fraud is a willful act to obtain money, property or any other advantages that recipient otherwise is not lawfully authorised to own. Corporate fraud is committed

for or against business firm by fraudsters (Singleton & Singleton, 2010). Generally, fraud and error are mistaken as similar terms and used interchangeably. However, both the words have different connotation. Fraud is a deliberate act while an error occurs unintentionally. Golden *et al.* (2006) stated four elements necessary for a fraudulent act:

- False statement of material nature
- Knowledge to fraudster of the false statement
- Victims belief on false statement
- Results in financial damage

Association of Certified Fraud Examiners (ACFE, 2014) classified fraud as asset misappropriation, corruption and financial misstatement. Conversely, Statement of Auditing Standard³ (SAS) and Standard on Auditing used two corporate fraud categories namely asset misappropriation and financial statement fraud⁴. Assets misappropriation (also called employee fraud) relates with theft or misuse of company's assets and takes place against organisation while financial statement fraud (management fraud) is intentional material misstatement through revenue manipulation, concealed liabilities and improper disclosure which is ultimately committed for the benefit of the organisation. Razaee (2005)

1 Source: Frank Schmallegger, Ph.D. (1991), *Towards a Sociology of Organizational Crime*, <http://www.financialexecutives.org/KenticoCMS/getattachment/Communities/Chapters/Indianapolis/news---announcements/FEI-Indianapolis-December-16th-Presentations/Indy-FEI-fraud-deck-Crowe-Horwath.pdf.aspx>

2 Institute of Chartered Accountants of India set up Audit Practices Committee (renamed as Auditing and Assurance standards Board) in 1982. It issues Statement on Standard Auditing Practices (known as Standard on Auditing) in line of integration with International Standard on Auditing.

3 American Institute of Certified Public Accountants issued Statement of Auditing Standards that has been included into United States Generally Accepted Auditing Standards (US-GAAS).

4 In present paper, corporate fraud has been categorized into assets misappropriation and financial misstatement.

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acronym financial statement fraud with CRIME i.e. C for Cooks, R for Recipes, I for Incentives, M for monitoring, E for End result. Direct control of management over financial statements makes financial statement fraud difficult to detect.

Worldwide examination of fraud cases guarantees its presence in every type of organisation like Enron (USA) in energy, Parmalat (Italy) in dairy manufacturing, Barings Bank (United Kingdom) in banking, HIH (Australia) in insurance, Olympus (Japan) in manufacturing, Comroad AG (Germany), Satyam (India) in information technology, WorldCom (USA) in telecommunications and 2G spectrum (India) in government. Association of Certified Fraud Examiners (ACFE, 2014) equalizes fraud loss to an iceberg and found that most of the companies lose about five per cent of their revenue due to fraudulent activities. Satyam, the biggest corporate scandal in Indian history, not only caused a loss of Rs. 14,162 crore⁵ as per Central Bureau of Investigation (CBI) but also harmed the investors' confidence in capital market. Speak Asia was also a big corporate swindle in Indian history causing loss of Rs. 2,000 crore. Moreover, Reebok India fraud was uncovered with an estimated amount of Rs. 870 crore. Two subsidiaries of Sahara India group, named, Sahara India Real Estate and Sahara India Housing Investment duped investor by not returning Rs. 24,000 crore.

An alarming increase in number of frauds has raised the concern of management to combat fraud. Management, employees and auditors should consider early warning signals, famous as red flags to detect and prevent fraud occurrence. Strong internal control, efficient corporate governance, zero-tolerance fraud policy, whistle blowing and surveillance equipment are examples of prominent tools applicable to combat frauds. Forensic accounting, also, has emerged as a new tool for fraud prevention and detection. It deals with financial matter of fraud and provides expert testimony (Singleton & Singleton, 2010). Forensic accountants integrate accounting, auditing and investigative skills and perform work with skeptical attitude (Mukoro *et al.*, 2013). They audit accounting records in order to find out fraud evidence and to analyze anti-fraud tools. In developed countries, forensic accounting is backbone of investigation. On the other hand, it is at infancy stage in India. CBI, police etc. are major law enforcement agencies against fraud. Nevertheless, these agencies lack specialisation in forensic accounting. Government of India took first step towards it by setting up of Serious Fraud Investigation Office (SFIO) in October, 2003. SFIO is a multidisciplinary organisation including experts from financial sector, company law, taxation, information technology, forensic audit and investigation. Whistleblower Protection Act got its shape

in the year 2011. Every company accepting public deposit or has borrowings from banks or financial institutions of more than fifty crore rupees is required to implement whistle blowing policy. They, further, need to mention their whistle-blowing activities over their websites and in annual reports.

The layout of the remaining paper is as follows. The next section describes objective of the study and research methodology used while the following section provides extensive review of past research on red flags and fraud prevention and detection techniques. The final section concludes with implication of the paper, highlighting research gaps and providing direction for future research.

OBJECTIVES AND METHODOLOGY

The primary objective of this paper is to provide in-depth understanding of literature related to corporate fraud in order to understand 'why' fraud occurs and 'how' to combat it. The study, also, aims to provide a platform for identification of future research avenues in order to provide guidelines to prevent and detect fraud. Research studies published during the period 1984-2014 have been used. Data have been obtained from various research papers and articles published in various international or national journals; conference proceedings and from books available online and in print form.

THEORETICAL FRAMEWORK

A number of conceptual and empirical studies have been conducted on corporate fraud. This section provides a brief review of available relevant literature divided into two sub-sections. The first sub-section deals with extensive work on red flags while the second summarizes research studies on corporate fraud prevention and detection methods.

Red Flags: The Fraud Indicators

Most of earlier research on corporate fraud has addressed the issue of red flags. Worldwide examination of various fraud incidents reveal that fraud occurs after some symptoms (Deloitte, 2012). A global survey of 1,483 occupational fraud cases, conducted by Association of Certified Fraud Examiners in 2014, reported that ninety-two per cent of fraud cases exhibit some warning signals. These symptoms/signals are known as red flags (Mohamed & Jomitin, 2014). Red flags are specific indicators representing potential theft occurrences and psychology of committing fraud. Red flags are events and conditions indicating motivation and opportunity for potential or actual fraud occurrences (SA 240). It is important mechanism for early fraud detection but found to be infrequently used by auditors (Njanike *et al.*, 2009; Yucel, 2013). SAS 99 enhanced auditors'

⁵ <http://cbi.nic.in/fromarchives/satyam/satyam.php> Retrieved on 12 December 2014.

responsibility and required that auditors should focus over red flags while auditing. Primary duty for fraud detection remains with management while auditors have secondary role. Auditors should conduct brain storming sessions for better understanding of client's business and possible occurrence of fraud. One must note that mere presence of red flags does not ensure presence of fraud. They are just the indicators. In order to behave proactively, identification of such indicators is must (Ruankaew, 2013). Presence of even a single red flag increases auditors' sensitivity towards fraud presence (Krambia-Kaparis, 2002; Hassink *et al.*, 2010) and helps in understanding the root cause of fraud.

Cataloging of red flags is must as a specific class of fraud factors alerts auditors about fraud possibilities (Krambia-Kaparis, 2002). There are different ways to classify red flags. Cressey presented the most famous approach of red flags classification known as fraud triangle in 1953 (Omar & Din, 2010; Singleton & Singleton, 2010). Cressey interviewed two hundred prisoners who were involved in embezzlement to understand factors responsible for white-collar crimes and presented them in form of fraud triangle. Fraud triangle represents three red flag categories that induce a person to commit fraud, namely, 'pressure', 'rationalisation' and 'opportunity'. Pressure refers to a situation or happening that builds up stress and raises the need to commit fraud. Rationalisation is developing the mindset to justify fraud under present circumstances. Opportunity is the situation responsible for fraud occurrence (Mohamed & Jomitin, 2014). Fraud triangle represents psychology of fraud (Murphy & Dacin, 2011; Dellaportas, 2013). SAS 99 has used the same approach to classify red flags. Fraud triangle serves as a good guide for fraud identification (Hegazy & Kassem, 2010; Chong, 2011; Yucel, 2013). Wilks & Zimbelman (2006) favoured separately probing each element of fraud triangle. Jessup & Noblet (2012) conducted ethnographic study of fraud and non-fraud stories of financial institutions and noted 58 fraud factors that can be set into fraud triangle. Wolfe & Hermanson (2004) expanded fraud triangle by including fourth element 'capability' to form fraud diamond and stated that personal characteristics and ability play an important role in explaining fraudulent behaviour. Capability acts as a convertor of opportunity into reality. It involves power to take decisions, technical knowledge and trust (Omar & Din, 2010). Further, Marks (2009) formed fraud pentagon by including fifth element that is 'arrogance'. It represents greedy nature and superiority of oneself over corporate policies. Contrarily, Dellaportas (2013) did not support extension of fraud triangle into fraud diamond or fraud pentagon.

Fraud risk assessment hierarchy divided financial statement related red flags into three categories, namely, management characteristics and influence over control environment, industry factors and operating and financial stability

characteristics was propagated by Apostolou & Hassell, (1993); Apostolou *et al.* (2001). Some studies (KPMG, 2010; ACFE, 2014) did not categorise red flags. Razaee & Riley (2010) presented 3C's model to categorise red flags for financial statement fraud as condition (representing benefit from fraudulent act should outweigh its cost), corporate culture (corporate governance mechanism) and choices (depends upon management strategic intention). Different red flags categories and their relevant components have been represented in Table 1.

In nutshell, red flags have been categorised in numerous ways. In the present study, financial statement fraud indicators have been discussed as per categorisation of fraud risk assessment hierarchy and red flags related to assets misappropriation in two categories, namely, susceptibility of assets to misappropriate and inadequacy of control.

Management Characteristics and Influence over Control Environment

Management characteristics signify managements' ability, attitude and motives that force management to commit fraud. These red flags were found to be a primarily responsible for financial statement fraud (Hegazy & Kassem, 2010; Gullkvist & Jokipii, 2013). Many researchers (Apostolou & Hassell, 1993; Apostolou *et al.*, 2001; Carpenter & Reimers, 2005; Hegazy & Kassem, 2010) examined the influence of management characteristics over fraud occurrence. Compensation pattern like failure to receive promotion motivates management to commit fraud (Jessup & Noblet, 2012; Mohamed & Jomitin, 2014). Linking remuneration to profitability stimulates them to misstate financial reports (Apostolou & Hassell, 1993; Apostolou *et al.*, 2001; Mesquita & Smith, 2004; Moyes *et al.*, 2006; Moyes *et al.*, 2013). While Erickson (2006) found no significant impact of linking managers' remuneration to stock price over their involvement in fraudulent act, a range of studies have focused on understanding the linkage of behavioural characteristics of managers with fraud possibilities. Criminal background, uncooperativeness with auditors and high turnover of top management enhance fraud possibilities (Apostolou *et al.*, 2001; Smith *et al.*, 2005). Sometimes, the management under monetary and non-monetary pressure indulges into fraudulent act. To achieve unexpected profit target, management indulges in manipulating practices (Moyes *et al.*, 2013). Fear of losing job, also, pressurizes a manager to get involved into such illegal actions. Majid *et al.* (2001) and Carpenter & Reimers (2005) claimed that attitude is the most influencing red flag. Heiman-Hoffman *et al.* (1996) and ACFE (2012, 2014) found negative attitude such as aggressiveness and dishonesty, increases the probability of fraud occurrence. Management's hostile attitude towards regulatory bodies may represent their

Table 1: Categorisation of Red Flags

Dimension	Propounded by	Constituents	Used Further
Fraud Triangle	Cressey (1953)	<ul style="list-style-type: none"> • Pressure • Opportunity • Rationalisation 	Albrecht & Romney (1986); Heiman-Hoffman (1996); Wilks & Zimbleman (2002); Stalebrink & Sacco (2007); Kassem & Higson (2012); Murphy & Dacin (2011); Dellaportas (2013); Moyes et al. (2013); Yucel (2013); Mohamed & Jomitin (2014); SAS 99; SA 240
Fraud Risk Assessment Hierarchy	Apostolou & Hassell (1993); Apostolou et al. (2001)	<ul style="list-style-type: none"> • Management characteristics and influence over control environment • Industry condition • Operating and financial stability characteristics 	Apostolou & Hassell (1993); Apostolou et al. (2001); Smith et al. (2005); Hegazy & Kassem (2010); Gullkvist & Jokipii (2013);
Fraud Diamond	Wolfe & Hermanson (2004)	<ul style="list-style-type: none"> • Incentive • Opportunity • Rationalisation • Capability 	Omar & Din (2010); Anandarajan & Kleinman (2011); Tugan (2012); Dilla et al. (2013); Gbegi & Adebisi (2014); Yusof & Lai (2014)
Fraud Pentagon	Marks (2009)	<ul style="list-style-type: none"> • Pressure • Opportunity • Rationalisation • Competence • Arrogance 	Tugas (2012)
3 C's Model	Razaee & Riley (2010)	<ul style="list-style-type: none"> • Condition • Corporate culture • Choice 	Zhou & Kapoor (2011); Gupta & Gill (2012)

Source: Review of Literature

crooked behaviour (Hegazy & Kassem, 2010). On the same track, many more studies (Apostolou *et al.*, 2001; Smith *et al.*, 2005; Gullkvist & Jokipii, 2013; Yucel, 2013) stated that lack of management's cooperate with auditors signals fraud potentiality. Unreasonable demand of managers from auditors or continuous dispute between them indicates fraud occurrence (Moyes *et al.*, 2013).

Few other studies aimed to identify the nature and presence of red flags by comparing sample of fraud and non-fraud firms. Beasley (1996) found that presence of outside directors (both independent and grey directors) reduces fraud probabilities. Their presence results in effective monitoring of management resulting in reduction of fraudulent financial statements. These findings are in line with Beasley *et al.* (2000); Zhong *et al.* (2007). Uzun *et al.* (2004) favored Beasley (1996) about effect of independent director but differed in his opinion about grey directors. These studies found no relationship of chief executive officer's tenure with likelihood of fraud occurrence. Summers & Sweeney (1998) concluded that insider trading is a useful element for developing a model to differentiate between fraud and non-fraud companies. Insiders start reducing their holding in company's stock in presence of fraud.

INDUSTRY CONDITION

Industry condition combines effects of economic and legal environmental factors outside to a business organisation. Some studies (Apostolou *et al.*, 2001; Smith *et al.*, 2005; Moyes *et al.*, 2006) found that industry conditions related variables are least significant. However, Apostolou & Hassell (1993) claimed that industry characteristics are more influencing than operating characteristics. New and adverse regulatory environment in a country positively influence involvement of business firm in fraudulent activity (Moyes *et al.*, 2006). Furthermore, high degree of competition and rapid change in industrial environment as contributing factors to fraud (Apostolou *et al.*, 2001). However, Moyes *et al.* (2013) found different opinion of internal and external auditors about important risk factors. Internal auditors pay more attention to competition level than external auditors do, as an important fraud indicator. In addition, continuous changes in techniques indicate significantly fraud possibility (Majid *et al.*, 2001; Smith *et al.*, 2005). Wang *et al.* (2010) studied effect of investors' belief over fraud propensity. They concluded that investors are highly concerned about interest plan rather than fraud prevention so low level of investors'

belief leads to less fraud possibilities and vice versa.

Operating and Financial Stability Characteristics

These fraud risk indicators deal with nature, financial condition and profitability of a business firm. Smith *et al.* (2005) found operating and financial stability as significant indicators of financial statement fraud. Close relationship with supplier(s) and third party transaction significantly predict fraud occurrence (Gullkvist & Jokipii, 2013). Complex organisational structure such as difficulty in determining control enhances fraud chances. Company which is being controlled by an individual or small group of members may face more fraud occurrence (Apostolou & Hassell, 1993; Majid *et al.*, 2001). Similarly, restricting the auditors to access required information increases fraud susceptibility (Hegazy & Kassem, 2010). Further, Beasley *et al.* (2000) claimed that there was more presence of internal audit department in most of the non-fraud companies than in fraudulent companies. Mironiuc & Robu (2012) studied effect of nature of auditor's fees over fraud risk and examined that less audit fees with more non-audit fees put negative effect over auditors' independence and increases fraud risk.

If a company is facing bankruptcy threat then chance of occurrence of fraudulent activity increases (Majid *et al.*, 2001; Smith *et al.*, 2005; Gullkvist & Jokipii, 2013; Yucel, 2013). Furthermore, a company which is showing shortage of cash balances along with reporting of profits also increased concern about presence of fraud (Smith *et al.*, 2005). Distressed business is more susceptible to fraud occurrence (Dellaportas, 2013). Similarly, projected pessimistic consequences of poor reporting also motivate management to involve in misstating financial position (Moyes *et al.*, 2006; Gullkvist & Jokipii, 2013). In case of poor profits, management guarantees to company's lender leads to occurrence of fraud cases (Apostolou *et al.*, 2001; Smith *et al.*, 2005). Inability of company to raise funds from market or heavy amount of debt forces management to manipulate financial statements in order to falsify company's position (Smith *et al.*, 2005). Similarly, continuous growth, abnormal profitability, complex business transactions, and ineffective accounting system are found to be prominently contributing factors to fraud (Apostolou *et al.*, 2001; Deloitte, 2012; Yucel, 2013). Continuous complains against company also points towards higher probability of fraud occurrence (Jessup & Noblet, 2012).

To the contrary, Apostolou & Hassell (1993); Hegazy & Kassem (2010) found firm characteristics as least important fraud indicators. Infrequent meeting of audit committee, rapid growth and unusual profitability of firm are found to be insignificant indicators of fraud occurrence. Further, sensitivity of organisation results, continuous difficult transactions and subjective judgments were found to be least

important red flags (Apostolou & Hassell, 1993).

Susceptibility of Assets to Misappropriation

It deals with nature of entity's assets and its degree of susceptibility. Different researchers opined that most trusted person commit more fraud. Trust is professionally dangerous. In order to cover an illegal action, chances of assets misappropriation increase (Gullkvist & Jokipii, 2013). Poor segregation of duties and inadequate record keeping system provides opportunity to take away assets illegally (Omar & Din, 2010; Jessup & Noblet, 2012; Moyes *et al.*, 2013). In addition, studies revealed that employees within business firm commit most of fraud. Lack of adequate job screening may lead to recruitment of inefficient and dishonest employees. Such wrong selection makes assets more fraud vulnerable (Omar & Din, 2010; Jessup & Noblet, 2012). Delay in reconciliation of accounts makes assets more susceptible to fraud (Moyes *et al.*, 2013).

Inadequate Internal Control System

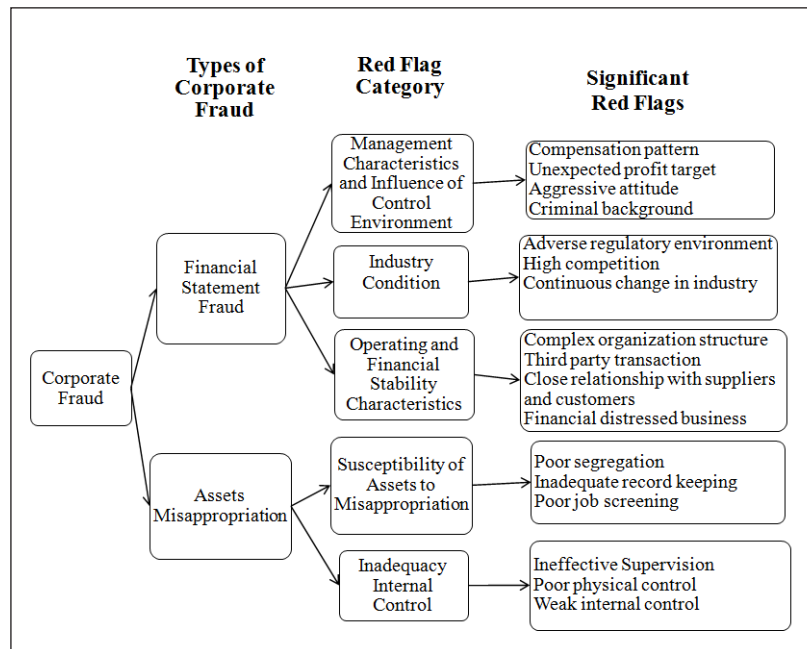
It incorporates variables related to poor internal control which contribute to assets misappropriation in an organisation. Research has revealed that poor internal control is one of the most important factors in case of presence of fraud (Moyes *et al.*, 2006; ACFE, 2012; Mohamed & Jomitin, 2014). An organisation's internal control system is an important tool to combat fraud (Jessup & Noblet, 2012). Weak internal control provides an opportunity to commit fraud without any hesitation. Okoye *et al.* (2009) claimed that ninety five percent of total respondent under study accepted internal control as a prominent factor responsible for financial misreporting. Management plays an important role in setting up efficient internal control system. Mohamed & Jomitin (2014) opined that ineffective supervision and lack of physical control over assets contribute to weak controlling system. Caplan (1999) claimed that strength of internal control helps in determining extent of focus by auditors with suspicious attitude over potential fraudulent act. Study, further, showed that auditors will not focus over red flags in case of strong internal control. However, weak internal control acts as red flag. Inadequacy of management review contributes towards inefficient control (Chong, 2011; Deloitte, 2012).

The extensive review of literature has helped us to identify significant red flags across various categories of corporate fraud as depicted in Figure 1.

Fraud Detection and Prevention

Fraud prevention methods help to predict fraud before its occurrence. To prevent fraud, one must start with fraud, that is, they must know about what fraud actually is, its

Figure 1. Category-wise significant red flags



Source: Review of literature

consequences, methods of committing and how to prevent. Moreover, information obtained should be put into the system to implement fraud prevention measures and monitoring should be done to prevent fraud from reoccurrence. Fraud detection is directly related to prevention. Detection methods help to detect fraud and report it to the appropriate authority. Prior studies show that ineffective corporate governance and poor internal control increases chances of fraud occurrence. Prevention of fraud ensures good quality of financial statement. Corporate managers are primarily responsible for fraud prevention and detection within business firm (PwC, 2008; Razaee & Riley, 2010) but employees, also, play an important role to control fraud (Copes *et al.*, 2006). Proper implementation of anti-fraud mechanism efficiently reduces fraud occurrence and their potentials impact. Board oversight, employee training, screening and internal control are important elements to prevent fraud (PwC, 2008). Fraud may be detected and prevented in an organisation through effective corporate mechanism, internal audit, external audit, whistle-blowing, forensic accounting, fraud risk assessment procedure, anti-fraud policies, firewall, and password protection.

Effective Corporate Governance Mechanism

Managers and board of directors are primarily responsible for fraud prevention and detection (SA 240). They set up tone of the top management that shows how organisation is committed to combat fraud. Ethical policies positively affect absence of fraud (Law, 2011). Such policies should be

clearly defined otherwise fraudsters may take lack of clear guidelines as an excuse (PwC, 2008). Corporate governance mechanism represents organisation's culture that establishes code of conduct for employees and motivates them to place high ethical values. If senior managers do not set appropriate tone and do not take proper action then fraud may have damaging effect. Inefficient corporate governance will lead to rise in financial statement fraud (Yucel, 2013). In addition, audit committee should be aware about fraud risk and should take appropriate action on fraud occurrence. Jessup & Noblet (2012) examined that qualified and active directors and strong management are common feature of non-fraud firms.

Internal Audit

Internal auditors, the first line of defense, have knowledge of business environment and internal control structure (Razaee, 2005). They are more likely (Coram *et al.*, 2006) and frequently employed to detect fraud (EY, 2012). Organisations greatly rely on internal auditors to detect fraud (Burnaby *et al.*, 2011). Deloitte (2012) found that 53 percent of fraud cases were detected by internal audit. PwC (2011) found internal auditing as effective method for both internal and external fraud detection while ACFE (2014) found internal auditing as efficient method for initial fraud detection. Organisation should employ internal auditors permanently rather than outsourcing their services, as they set up better internal control environment (Coram *et al.*, 2006). Moreover, they need to understand fraud risk within

organisations and their impact (Burnaby *et al.*, 2011).

External Auditing

External auditing is a frequently employed method for detecting fraud but is less effective. They were able to detect only three percent of fraud cases as per survey by ACFE (2014). Moreover, they detect fraud accidentally (Hassink *et al.*, 2010). To the contrary, the public thinks that auditors are able and responsible to detect fraud. Due to this difference in opinion of auditors and public, audit expectation gap increases. In order to reduce this gap, Indian accounting regulatory body, namely ICAI, has made it mandatory for the external auditors to provide reasonable assurance that the financial statement is free from any material misstatement caused due to either fraud or error. They are also required to perform brainstorming sessions to evaluate presence of fraud risk factors. Also, Firth *et al.* (2005) claimed that regulators expect auditors to detect material misstatement with professional skepticism. Proper training should be given to the auditors about various tools used for detecting fraud (Hassink *et al.*, 2010).

Whistle Blowing

Company's workforce and outsiders that primarily constitute customers and suppliers are valuable source for raising alarm against fraudulent activities going on in an organisation. Whistle blowing policies motivate them to report fraud. It is easiest and least expensive method (Deloitte, 2012). It helps to improve internal control and recover the embezzled funds (Waldron, 2012). Hotline is a common and efficient method to whistle blow (ACFE, 2014). Contrarily, Rahman & Anwar (2014) found hotline as less effective technique in a survey of bank officers. For successful functioning of whistle blowing program proper channel of communication, protection to whistle blower, staff awareness and staff trust is very important (PwC, 2008). Miceli & Near (1984) found that one would not report a fraud through an unknown channel. Therefore, such policies should be clearly defined (Waldron, 2012). Telephone, mail and e-mail are common channels to blow whistle. Near & Miceli (1985) presented a model for whistle-blowing process. Firstly, a person observes wrongdoing and its consequences. Then, with effect of personal and emotional characteristics, that person reports wrongdoing. Finally, organisation decides whether to act over report or not. Okoye & Okaro (2011) found significant agreement about inculcation of whistle blowing in organisation culture. Corrective actions taken on whistle blowing encourage whistle blowing and result in efficient organisational operation (Miceli & Near, 1984). Whistle blower may be external or internal but external whistleblowers are less fearful about its consequences. Sims

& Keenan (1998) found supervisor's support as influencing factor for blowing whistle but such employee would prefer to blow externally. There are self-help groups and voluntary organisations to promote whistle blowers (Waldron, 2012). In addition, various regulatory bodies are considering importance of whistle blowing. Security and Exchange Commission, an independent U.S. agency to protect security market and investors, started whistle blowing program in the year 2012. Andrew Ceresney, Director of the SEC's Division of Enforcement, said that SEC gave awards of thirty million dollar for blowing whistle against the fraud that was hard to detect otherwise⁶. Indian government passed Whistle Blowers Protection Act, 2011. Now, companies in India with public deposits or bank loan of more than fifty crore rupees need to establish vigilance committee. The main aim of this committee will be to promote whistle blowers for reporting against any wrongdoing.

Forensic Accounting

Nowadays continuously increasing fraud and inability of auditors to detect fraud has resulted in increasing demand of forensic accountants (Razaee & Burton, 1997). Forensic accountant improves auditor's ability to detect fraud and acts as a bridge to audit expectation gap (Okoye & Okaro, 2011). Emeh & Obi (2013) found that only presence of professionalised accountant will not reduce fraud but forensic accountant can reduce. Forensic accountants should be given participative role in preparation of audit plan rather than consultative role. They have ability to use the unique procedure in audit test. Emeh & Obi (2013) found that presence of forensic accountant and number of accountant possessing forensic accounting skill are in negative correlation with the extent of financial fraud. Forensic accountant is in a better position to detect fraud (Okoye & Okaro, 2011) but is not the only available tool for fraud detection (Modugu & Anyaduba, 2013). Chi-Chi & Ebimobowei (2012) argued that if perpetrator fears of being caught by forensic accountant then they would never think of committing crime. Forensic accountants work not only in fraudulent situation but they devote their most of time to non-fraud activities like contract agreement, finance advisory and mediation. They play an effective role against weak internal control and in improvement of financial reporting (Modugu & Anyaduba, 2013). Roles performed by forensic accountants differ according to size of firm. Large size firms employ them for fraud investigation while small firms appoint them mainly for the purpose of expert witness and valuation services (Akkeren *et al.*, 2013).

6 <http://www.fcablog.com/blog/2014/9/22/huge-payday-sec-whistleblower-awarded-record-30-million.html#> Retrieved on 26 September 2014.

Fraud Risk Assessment Procedure

The main objective of fraud risk assessment procedure is to assess risk of fraud (Knapp & Knapp, 2001). In a survey, PwC (2011) found that risk assessment procedure could detect 14percent of fraud cases under study. Fraud risk should be assessed properly otherwise company will not be able to defend against fraud. It requires knowledge about fraud, identification of red flags (Zimbelman, 2007) and participation of employees at all level (Deloitte, 2012). Instructions should be clearly defined in order to effectively assess fraud risk (Knapp & Knapp, 2001). Holistic or decomposed risk assessment approach may be used. Auditors following decomposed risk assessment pay more attention over red flags in case of high risk than other using holistic approach. Fraud risk should be assessed twice a year (PwC, 2011). In order to ensure effective implementation of such procedure, a formal procedure needs to be followed rather than an ad-hoc approach (Singleton & Singleton, 2010).

Anti-Fraud Policies

Organisations need to implement anti-fraud policies effectively in order to distinguish between fraud and misconduct. Employees often find themselves confused between difference in fraud and error (Deloitte, 2012). The main aim of such policies is to prevent fraud (Burnaby *et al.*, 2011). Zero tolerance policy needs to be followed for any kind of fraudulent act committed by any person working at any level of organisation. Only setting up a policy is not enough but requires proper follow up. Proper guideline should be circulated and acceptable and unacceptable behaviour should be categorized (Ceonon, 2008). Further, there is need of strict and timely action in case any suspicion arises.

Firewall and Password Protection

Firewall acts as an intermediate between organisational internal network and less secured external network. Firewall is an effective mechanism to protect our system from network interference. It controls traffic between two or more network for security purpose. It keeps corporate system safe from hackers. Bierstaker *et al.* (2006) found firewall and password protection as mostly used and most effective method to prevent fraud. On the same track, Rahman & Anwar (2014) claimed protection software as most effective category including password and firewall as most efficient techniques.

IMPLICATIONS

The present paper may be useful to regulators, accounting professionals, practitioners and researchers to better

understand the conceptual framework of corporate fraud. It focuses on theoretical foundation of corporate fraud and provides an overview of academic research in the area of corporate fraud. It provides background for further experimental and empirical research in the area of red flags and fraud prevention and detection methods. It may allow accounting and management researchers to develop and explore further research agenda for path-breaking research on corporate fraud.

The research has implications for society at large as corporate fraud and its financial and non-financial consequences affect a large group of corporate stakeholders and destroy investors' confidence on corporate financial reporting. Fraud has become a universal phenomenon and corporations across the world are vulnerable to fraud. Therefore, a basic knowledge of 'why' and 'how' of corporate fraud is essential for a manager to not only detect the fraud but also to know when to deduce it.

CONCLUSION

Research in the area of corporate fraud has gained thrust due to continuously increasing fraud. The present research focuses on 'why' and 'how' aspects of corporate fraud, i.e., the motives behind corporate fraud (red flags) and how fraud can be prevented and detected. Fraud causes economic and non-economic cost to a business firm. No business organisation is untouched by a fraudulent act (Rahman & Anwar, 2014). Every fraud occurs after some indication. If organisation could identify them at the early stage then fraud could be controlled or their results could be less harmful. The main causes of disastrous impact of corporate fraud are ignorance by victims about fraud risk and failure to take preventative actions at first sight. One must not think investment for fraud detection techniques as cost. In order to prevent fraud and its early detection, open eyes and questioning mind are necessarily the first step (Razaee & Riley, 2010). Firms should ethically motivate the employees that loss caused by fraud is not only a loss to the company but is also a loss to the employees. Detection techniques should be able to uncover new and historic frauds. Application of a single detection technique will not curb fraud effectively. The company should include anti-fraud policies into their culture. There is a need to put an effective vigilance system in business organisation due to severe consequences of fraud. Accountability should be fixed for employees at all level. Timely training to employees, managers and auditors should be given about anti-fraud policies and red flags. Collective efforts can fight against fraud effectively. Since, forensic accountant plays an important role in fraud detection and prevention, it needs to be incorporated in the course curriculum of accounting students and professionals at college/institution and university level so that they can

exploit abundant opportunities that exist in choosing forensic accounting as a carrier.

The findings of the present study intend to provide future research direction. Most of the research in the area of red flags and anti-fraud methods has been done in developed countries and only a few researches have been conducted in developing countries like India. Future researchers may consider perception of employers, employees and practitioners about efficiency of various red flags. Surveys may be conducted to know various fraud prevention and detection method used by corporate sectors. In short, it may be said that corporate fraud is a newly developing area of research that offers immense opportunities for researchers to contribute meaningfully in the area of corporate financial reporting and accounting.

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