The Devil Made Me Do It: Environmental Factors Leading to Corporate Financial Fraud

Sohail Rizwan[*], Junaid Ahmed[†] and Rajah Rasiah[‡]

Abstract

The study aimed to settle on differing characteristics of fraud and no-fraud firms based on a fraud-triangle model, agency theory, and literature on corporate illegal activities and governance mechanisms. Seventy-sevenfirms, where fraud was detected, as determined by the Securities and Exchange Commission of Pakistan, were selected. The selected firms were tested against a matched sample of firms of equal number based on size, industry, and time period where fraud was not detected. The data were collected for three years prior to fraud revelation. There were twenty-nine environmental factors examined in the model, of which eight were internal antecedent factors, five were external antecedent factors and sixteen were monitoring variables. Probit regression analysis, post probit regression analysis, data-mining techniques and related descriptive statistics were used in the study. Three models were employed in estimating results under probit regression and post regression analysis. The first model incorporated internal and external antecedent factors, second involved monitoring variables and the third integrated model captured resultant significant factors from preceding models. Findings from the integrated model revealed twelve factors that contribute to establishing a favorable environment for firms to commit a fraudulent activity. The study advances understanding of how firms indulge in fraudulent activities and suggest managerial, governance and strategic implications.

Keywords: Financial fraud, Antecedent factors, Governance mechanisms, Concentrated ownership structure

Introduction

Corporate fraud has long been a topic of continuous debate, that has received a wide attention from different parties; as it is an issue which has no boundaries, and encapsulates all size of companies, industries, and countries(Aghghaleh, Iskandar, & Mohamed, 2014; Bucy, 2007; Clinard & Yeager, 2011; Hajek & Henriques, 2017). The complexity and volume of fraud have increased massively and presently, it has influenced the livelihood of people along the globe (Bishop, Hermanson, & Riley Jr, 2017; Clinard & Yeager, 2011; Daily, Dalton, & Cannella, 2003; Rapp, 2007). PricewaterhouseCoopers (2014), discloses this fact

* Sohail Rizwan, PhD Scholar, Capital University of Science and Technology, Islamabad, Pakistan. Email: sohaildotrizwan@gmail.com

† Dr. Junaid Ahmed, Assistant Professor, Capital University of Science and Technology, Islamabad, Pakistan

‡ Prof. Dr. Rajah Rasiah, University of Malaya, KualaLumpur, Malaysia.

that one of the most challenging issues that businesses face globally is fraud and one out of every two companies on average is engaged with fraudulent activity. The intensity of corporate frauds and the associated non-financial and financial damages remain unchanged (Bonini & Boraschi, 2010; Rezaee, 2005; Vlad, Tulvinschi, & Chiriţă, 2011). These scandals deteriorate the impression of firm relentlessly in the market. The literature provides support for this fact that markets put significant reputational penalties in addition to legal charges on fraudulent companies (Gande & Lewis, 2009; Karpoff, Lee, & Martin, 2008). Corporate frauds, in the framework ofKlein and Leffler (1981) and Jarrell and Peltzman (1985), damage companies' reputation in terms of changing conditions for doing business by different stakeholders and result in higher information asymmetry observed by outsiders in a way that outsiders don't trust the cheaters(Kreps & Wilson, 1982; Milgrom & Roberts, 1982).Following the fraud revelation, customers and suppliers revise their terms with fraudulent firms with which they used to do business or even can terminate doing business with them. It weakens company's competitive position and enhances uncertainty about its operations, which consequently, forms an uncertain situation to realize standard performance and future cash flows(Dyck, Morse, & Zingales, 2013; Wang & Winton, 2012). Moreover, revelation of fraud puts doubts on firm's accounting and disclosure credibility, investors become more cautious of disclosures by fraudulent firms, and undertakes other views to inspect firm performance, thus enhancing risk in predicting the future performance(Graham, Li, & Qiu, 2008; Khanna, Kim, & Lu, 2015).

There are different motivations to trust this wedge. To start with, there are related exchange costs with outside financing choices. Second, debt carries more prices when added with the cost of being defaulted. Such costs can be relevant in creating operational problems, for instance, lawful penalties in addition to reputational penalties. Agency cost may also play a role in the story in respect of availing external financing(Jensen & Meckling, 1976), due to the mater of the fact the controlling shareholders along with top management are of the toe in getting higher returns on riskier investments while engaging less with debt facility (paying regular interest payments).Financial scams are the apprehension of universal botheration and hitch. It has long been a problem of continuous debate and received a wide attention from various parties because of its wide sphere and scope. Regardless of firm's size, nature of the industry or an economy, it is evident as a boundless crisis(Bucy, 2007; Clinard & Yeager, 2011; Huang, Lin, Chiu, & Yen, 2017; Mohamed, 2014).Literature has addressed both aspects, that is monetary and non-monetary, of it [see for example,(Agrawal & Cooper, 2017; Anginer, Warburton, & Yildizhan, 2011; Chen, Zhu, & Wang, 2011; Dyck et al., 2013; Goldman, Peyer, & Stefanescu, 2012; Graham,

Harvey, & Rajgopal, 2005; Graham et al., 2008; Kuvvet, 2014; Velikonja, 2012; Wells, 2017)] and global surveys likeCooper (2017)and Association of Certified Fraud Examiners (ACFE), 2016 also put a focus on it.

Following the extensive research of Coffee (2005), various forms of corporate frauds describe numerous systems of corporate governance. In specific, frauds disrupting in dispersed ownership structures of governance are different from frauds in concentrated ownership structures. Unlike dispersed ownership structure of companies in the USA and UK, where shares are diffusely held, a typical Asian corporation contains one or several members of a family tightly holding shares and characterizing ownership as concentrated. The increased concentrated structure of Asian corporations raises the risk of expropriation of minority rights [see for example, (Bae, Baek, Kang, & Liu, 2012; Bany Ariffin, 2009; Chang, 2003; Djankov, Fan, & Lang, 2000; Ehrhardt & Nowak, 2001; Jensen & Meckling, 1976; Qian, Pan, & Yeung, 2011; Tribo & Gutiérrez Urtiaga, 2004)]. The 2014 report by Association of Certified Fraud Examiners has pointed that higher the perpetrator's level of authority, the greater are fraud losses. This inclination and power to expropriate minority rights encourage firms to do fraudulent activities(Alves, 2012; Beasley, 1996; Chang, 2003; Fan & Wong, 2002; Faulkender & Wang, 2006; Leuz, Nanda, & Wysocki, 2003). Added by Coenen (2008), not every financial fraud is alike. Contingent uponnature, many facets of it prevail in the corporate sector of Pakistan[§].

Shreds of evidence clearly depict the fact that, in Asia, frauds or similar economic crimes are problematic issues in the way of economic prosperity. To prevent or curtail its occurrence, it is a dire need to provide a deep understanding of climate factors contributing fraud. Therefore, this study will prove helpful in providing an insight on examining the relevant driving factors that form an environment favorable to undergo a financial fraud. Mokhiber (2007)asserted that corporate frauds inflict far more damages on the economy than all street crimes together, whether in body injuries or dollar terms. For the purpose, this research will use the evidence of Pakistani companies in an effort to contribute to the concept of exploring the motives of corporate misconduct in order to control potential frauds in future, hence

[§] Pursuant to Securities and Exchange Commission of Pakistan (SECP) Companies Ordinance 2016, violation of registered firms may be categorized into a) financial statement fraud, b) asset misappropriation, c) cash skimming and its larceny, d) misuse of firm's assets, e) larceny of intellectual property and trade secrets, f) bogus insurance claims and fraudulent bankruptcy, and g) consumer fraud.

contributing to the Pakistan economy. It would assist external auditors to objectively buttress their decision in arriving at going-concern opinion (Asare, 1990)concerning the presence of financial fraud in an organization. Role of auditing profession in exposing and reporting corporate wrongdoing yields assurance to the public that auditing profession is responding to the problem(Elliott & Willingham, 1980; Lail, MacGregor, Marcum, & Stuebs, 2017). It would further assist the stakeholders in taking certain control measures to deter fraudulent activities, hence increasing investors' confidence in the financial markets of Pakistan.

The literature on corporate frauds in Pakistan is not sufficient. Smaller number of studies on financial scandals are conducted in order to draw fraud motives in Asian perspective [(Hasnan, Rahman, & Mahenthiran, 2012; Kamarudin, Ismail, & Mustapha, 2012; Kwan & Kwan, 2011; Mohamed, 2014; Voon, Puah, & Entebang, 2008; Zaimee, 2007)]. Coffee (2005), proposed that nature of financial scandals observed in concentrated ownership is not the same as found from dispersed ownership. Variations in the structure of share ownership portray differences in corporate scandals, in context of nature of the scandal, the identity of the executioner, and the apparent difference in the number of frauds at any given time. In dispersed ownership systems, corporate managers tend to be the rogues of the story, while in concentrated ownership systems; it is controlling shareholders who play the corresponding role. As a result, governance mechanisms being followed in one structure type is not similar to the one being practiced in another. Concentrated ownership invites the low-visibility extraction of private benefits by controlling shareholders. Therefore, the study also contributes to the literature on corporate frauds in context of Pakistan having concentrated ownership structure. The study, in addition, focuses on determining the drivers of committing a financial scam with respect to local environment around listed companies of Pakistan.

The study outlaid the factors contributing fraud in listed companies of Pakistan. The findings of this analysis may bring the valuable information to the key stakeholders of these fraudulent companies involving governance bodies like Securities and Exchange Commission of Pakistan (SECP), stock exchange, the regulatory body of auditors and financial institutions in particular. The process of monitoring can be enhanced through considering the resultant factors contributing financial scam for governance bodies. Financial institutions can incorporate this information into their credit policy in making or extending the loans to potential fraudulent companies.

Review of Extant Literature

Corporate Financial Frauds

A financial fraud is resultant of intentional manipulations in recording false accounting transactions or that of misapplication of certain accounting principles. Either way, the financial disclosures are deliberately inaccurate. Noticeably, frauds are different from the mistakes or errors committed to misstating accounts. Frauds, relatively, always are backed by intent to do something wrong(Wells, 2017). Managing earnings is one of the outlays of such intentions. The most frequent form of it is manipulations done in sales. Considering the expectations of shareholders, particularly in public limited companies, managers may overstate the financial picture of the business. Complicated the rules or transaction size is, greater is the risk of unfair recording in sales. Along the same lines not recording the accrued expenses may overstate the business earnings, during a period of depressed sales in particular. Characterizing recurring expenses as non-recurring is also a way to understate expenses in the operations(Gee, 2014). Overstating assets can also be a technique to manipulate balance sheet. Most of the overstatement in assets is evident in current assets in order to articulate important ratios to attract investors. Another way to make balance sheet more attractive is to understate the liabilities. Booking low reserves against the risky accounts like accounts receivables, inventory obsolescence, warranties and sale returns may also work as a pathway to inflate company's earnings (Coenen, 2008).

A fraud has almost the same line of attack to every company irrespective of the nature and size of it. Dishonesty in personnel is not the reason to propagate it. It is independent of the case whether the company has a misfortune to hire a dishonest CEO or CFO. Likewise, it is not plausible to argue that frauds breed out from a grand conspiracy or plan. Unfortunately, frauds generate out of an environment where honest individuals are put under pressure to do fundamentally dishonest activities(Wells, 2017). Moreover, financial frauds usually take a start with smaller intensity. Rarely does a fraud in corporate environment start out massive. Though it is true that some personnel are dishonest by nature, but they get elbow out after some course of time and cannot survive for long-run in the company. A fraud begins with the unclear areas of financial reporting. For instance, the concerned finance individuals may exploit ambiguities related to revenue recognition, grey areas in applying GAAP (Generally Accepted Accounting Principles) rules and the like. In addition, a massive financial fraud grows over the time and once it is deeply grown, it becomes irreversible(Young, 2014).

Deterring financial frauds depends on the accuracy of monitoring activities performed by shareholders. As the course varies along the life cycle, shareholders tend to change their monitoring activities as well.

Also, the environment becomes fraud-friendly the time when a company wishes to generate more external financing. The frequency of fraud depends on the overall business conditions prevailing in the economy. If the shareholders perceive the business conditions as poor they tend to perform due diligence with every given company in their portfolio for investment purpose. In this way, the scam firms are likely to be weed out of their investment choices. But, if business conditions are perceived good by the shareholders, they reduce their evaluation level in the due diligence, increasing thereby the potential for fraud(Povel, Singh, & Winton, 2007).

When investor convictions are examined with respect to short and long run compensation at the top level, the results suggest that managers prone to indulge with fraudulent activities while realizing compensation based on company's short-run performance. As per study's framework, the shareholders set this compensation on the basis of company's short-run performance and long-run performance. The manipulations induced in long-run performance are not evident and the long-run performance discourages managers to conceal the poor short-run performance(Hertzberg, 2005). Moreover, consistent with Povel et al. (2007), the study asserts that likelihood of a company to commit a financial scandal is dependent on the level of investors' conviction they carry about business conditions. Elaborating further, if the managers find their company performing poor, short-run incentives become high letting managers manipulating the reports and commit a fraud. Conversely, when the managers rank their firm performing good, long-run incentives are high, thereby lowering the chances of manipulations and fraud. Hertzberg (2005), parallel to it confirms that the probability of committing a scandal depends on the shareholders' conviction about business conditions.

Factors Contributing Corporate Financial Frauds

Several types of research in the literature focus on exploring the factors that led companies to commit fraud. Certain characteristics of managerial manipulations are observed in this regard, for example, earnings management captured through discretionary accruals, regulators' accounting enforcement steps and investors' monitoring activities. For instance,Crutchley, Jensen, and Marshall (2007) and Dechow, Ge, Larson, and Sloan (2011)associate growth rates and outside financing to be the antecedent of a financial scam. One string of the literature addresses internal factors in relation to financial fraud. Series of studies investigate the management compensation structure and frauds in one setting [for instance,(Bergstresser & Philippon, 2006; Burns & Kedia, 2006; Efendi, Srivastava, & Swanson, 2007; Johnson, Ryan, & Tian, 2009; Peng & Röell, 2008)]. They build a consensus on their

findings that managerial performance-based compensation directly affects the likelihood of scandal.

Apart from a range of measures that capture financial scandals, another part of the literature lays importance on the usefulness of models designed for identifying a scam and on factors affecting the effectiveness of such models. Dyck, Morse, and Zingales (2010) make a comparison between regulatory and market-based monitoring models to find out which one is better in rooting out scandal. As opposed to the traditional perception, they dig out that standard economic representatives expected to serve a corporate governance role do not play a considerable role in detecting scandals. Rather, identification of a scandal depends more on nonconventional agents like employees, media, and nonfinancial sector regulators. In addition, a few studies focus on the part played by certain whistleblowers and examine the incentives that either smooth the path of or debase the coherence of such models in rooting out scandal. Among the key corporate governance agents pinpointed byDyck et al. (2010), there is a part of accounting literature that addresses auditors' performance in preventing and exposing scandal (Francis, 2004). Chung, Firth, and Kim (2002) verify the responsibility of institutional shareholders.Yu (2008) studies the role of financial practitioners in bringing down earnings management, where as Karpoff and Lou (2010) exhibit that short sellers foresee the ultimate exposure of financial manipulation and its severe effects. Short selling is linked with a rapid time-to-discovery and reduces the inflated stock prices that are resultant of earnings management.

Having the capacity to identify scam in a timely manner is a sign of the overall effectiveness of a corporate governance framework. Generally, uncovering a scam is completed by looking into red flags and different signs of fraud. One arrangement of academic studies, therefore, concentrate on different measures that discover scam. Misstatement in practicing accounting framework breeding out financial maneuvering can be captured through several measures as reported by Beneish (1999) and (Dechow, Ge, Larson, & Sloan, 2011).Fich and Shivdasani (2007), describe that governance characteristics do play a role in the occurrence of fraudulent activities. Rezaee (2005) argues in wake of the study results that financial scandals can be prevented through better governance mechanism, improved accounting system, effective internal audit and due analysis of fair financial disclosures. The governance characteristics, when provided with a poor structure, become a key catalyst for fraud initiation.Fich and Shivdasani (2007), conclude that management is often associated with doing artificial accounting in different financial indicators particularly in earning quality.

Theoretical studies to substantially explore the managerial incentives drawn out of maneuvering company's information are not

common. Goldman and Slezak (2006) and Peng and Röell (2014) investigate such incentives along with top-management compensation leading a firm commending fraud. Goldman and Slezak (2006) report that firms offering equity-based compensation may likely indulge in fraud ignited by managers as this sort of compensation not only attracts managers but it tempts those manipulating earnings in order to disclose increased market share price. In specific, offering performance-based compensation, the structure can lead to a point where managers become rogues of the story and commit certain fraud. Peng and Röell (2014) undertake both short-run and long-run share prices in relation to managers' salary compensation and empirically compare the impact of fraud on them through rational expectations mechanism. The reported findings exhibit that maneuvering short-run share prices are more common in compelling managers to increase compensation, on top-level in particular. However, long-run pay is not associated with maneuvering share prices, yet it is found more expensive to the company if it is attributed to any malfunctioning.

By using asymmetric information model,Peng and Röell (2014) and Fischer and Verrecchia (2000) observe managerial compensation benefits attached to maneuvering company's stock prices. They report that the market is not certain about reporting objectives of managers. Thus, the market cannot absorb fully the manipulations triggered by managers in the financial statements. The reporting objectives are expressed as the marginal rewards obtained from maneuvering the stock price. The results depict that under a substantial amount of uncertainty the estimated rewards of maneuvering are positive with respect to reporting objectives of the managers. Moreover, it is concluded that this maneuvering decreases to the level at which share prices outlay all possible information.

Rather than analyzing monitoring activities of shareholders [for instance,(Povel et al., 2007)] and top management compensation plan [for example,(Goldman & Slezak, 2006)] individually,Pagano and Immordino (2012) propose a situation where investors carry lesser information than the managers and where the auditors play a controlling role in shielding the fair financial reporting from manipulations. In addition, they suggest a compensation structure selected optimally by the investors. They depict that management compensation acts as an alternative to the quality of monitoring in the way that rigorous audit mechanism decreases pay-performance sensitivity. However, it increases the quality of audit and that increase in investor's protection enhances the effect of the pay-performance but lowers the dependence on audit quality.

Conceptual Framework

The study framework is developed that is commensurate with underlying theory relating agency theory framework, fraud-triangle model, and literature on corporate illegal activities and governance mechanisms to the occurrence of corporate fraud. Agency theory is grounded on the perspective that enterprises are legal fictions functioning as a nexus against a chain of relationships among self-concerned personnel whereby ownership and control are not the same(Alchian & Demsetz, 1972; Fama, 1980; Jensen & Meckling, 1976). Such segregation emerges when the principal(s) employ an agent to comply some services on the behalf of the principal(s) fulfilling the purpose of existence of that legal fiction(Keeler, Spence, & Zeckhauser, 1971). The theory advocates the mind trip toward risk is different to each party. Managers are supposed to be risk averse whereas owners are assumed to be neutral to risk. However, the divergence could be adversely provided with the pressure to accomplish challenging financial objectives. Such pressure, to keep the firm afloat along with self-interest assumption, breeds out a managerial driven fraud. Nevertheless, fraud may be conceived by the shareholders as suggested by Coffee (2005).

It is believed that as long as there is a possibility that a firm will go unexposed, it carries a choice in hand whether or not to abide by Generally Accepted Accounting Principles (GAAP) preconditions (Geriesh, 2003). Given this probability in a fraud triangle framework, a motivation towards wrongdoing in the corporate sector may exist due to opportunity, pressure, and rationalization(Cressy, 1953). Further besides these factors, happening of a fraudulent activity on the part of a manager depends in large on the effectiveness of monitoring system employed in target firm. An inefficient monitory system would motivate a manager to undergo fraudulent activity.

Literature concerning corporate illegal activity and governance mechanism illustrates environmental characteristics surrounding a firm that may lead to a corporate fraud. It has captured certain moderating pressures rising from internal and external factors that somehow contribute to the commencement of management fraud. The effectiveness of monitory system deployed in a firm would greatly influence these factors alongside behaviour of the manager. Several studies have reported the fact that an organization culture towards deviance from serving shareholders' purpose is defined through antecedent factors [see for instance,(Baucus & Near, 1991; Clinard & Yeager, 1980; Hill, Kelley, Agle, Hitt, & Hoskisson, 1992; Karpoff & Lou, 2010; Peng & Röell, 2014; Perols & Lougee, 2011; Szwajkowski, 1985; Wells, 2017; Yeager, 1986)].

Hypotheses of the Study

The relationships between the environmental factors and corporate wrongdoing have been hypothesized in the extant literature. Internal antecedent factors in this study, videlicet, firm performance, organizational slack, organizational size, cash effective tax ratio reflecting tax aggressiveness, chief executive officer compensation, discretionary accruals reflecting earning management, and prior violations are hypothesized following the literature [see for instance,(Altman, 2000; Beaver, 1966; Boyd, 1994; Cohen, Dey, & Lys, 2008; Daboub, Rasheed, Priem, & Gray, 1995; Geriesh, 2003; Richardson & Lanis, 2007; Stanwick & Stanwick, 1998)]. Consonantly, hypotheses concerning external antecedent factors are formulated based on prior literature [see for example,(Beasley, Carcello, Hermanson, & Lapides, 2000; Correia, 2014; Huang & Thiruvadi, 2010; Zahra, Priem, & Rasheed, 2005)]. In addition, monitoring variables expressly transient institutional investors, outsiders on board of directors, board size, chief executive officer tenure, inside stock ownership and auditor change are hypothesized by the same token [see for instance,(Abbott, Park, & Parker, 2000; Abbott, Parker, & Peters, 2004; Beasley, 1996; Beasley et al., 2000; Chen, Firth, Gao, & Rui, 2006; Chhaochharia, Kumar, & Niessen-Ruenzi, 2012; McCahery, Sautner, & Starks, 2016; Uzun, Szewczyk, & Varma, 2004; Wang, 2006)]. Anticipated relationships derived from the extant literature are produced as under (see table 1).

Table 1: Hypotheses

Variable	Hypotheses
Internal Antecedent Factors	
Financial Performance	**H_1:** Financial performance of a firm experiencing management fraud will be inferior to that of a non-fraud firm.
Threat of Insolvency	**H_2:** The threat of insolvency will be greater in the case of a firm experiencing management fraud to that of a non-fraud firm.
Organizational Slack	**H_3:** Organizational slack of a firm experiencing management fraud will be lower than that in a non-fraud firm.
Organization Size	**H_4:** An organization experiencing management fraud will be larger in size than a non-fraud organization.
Tax Aggressiveness	**H_5:** Tax aggressiveness of a firm experiencing management fraud will be positively associated with fraud, other things being equal
Chief Executive Officer Compensation	**H_6:** CEO's compensation is positively associated with the probability of committing fraud.
Earning Management	**H_7:** Earning management practices increase the likelihood of fraudulent financial reporting.

Prior Violations	**H_8:** The firms with a prior history of violations are more inclined to commit fraud.
External Antecedent Factors	
Dynamic Environment	**H_9:** An entity experiencing management fraud will be characterized by more dynamic environment as compared to an entity where fraud was not detected.
Hostile Environment	**H_{10}:** An organization experiencing management fraud will be characterized by more hostile environment as compared with an organization where fraud was not detected.
Heterogeneous Environment	**H_{11}:** There An organization experiencing management fraud will be characterized by greater heterogeneity as compared with a no-fraud organization.
Industry Membership	**H_{12}:** There exists an association between industry membership and fraud.
Political Connections	**H_{13}:** Keeping other things equal, firms having political connections have a high probability to commit fraud.
Monitoring Variables	
Institutional Investors	**H_{14}:** The presence of institutional investors reduces the likelihood of the fraud.
Dedicated Investors	**H_{15}:** Ceteris paribus, dedicated institutional ownership has a negative impact on the likelihood of fraud.
Transient Investors	**H_{16}:** Ceteris paribus, transient institutional ownership has a positive impact on the likelihood of financial statement fraud.
Number of Years Audited	**H_{17}:** The number of years an audit firm has audited an entity is inversely related to the existence of management fraud.
Active Audit Committee	**H_{18}:** An entity where fraud is present will be characterized by no audit committee or an inactive committee.
External Auditor	**H_{19}:** The quality of the audit firm will be better in entities where management fraud is not present and worse where management fraud is present.
Financial Expertise of Audit Committee	**H_{20}:** The presence of a financial expert in Audit Committee reduces the likelihood of fraud.
Family Ownership	**H_{21}:** Family ownership has a positive influence on the likelihood of fraudulent financial reporting.
Outsiders on the Board of Directors	**H_{22}:** The proportion of outside directors on the board of directors will be lower for firms in which management fraud is detected as compared to no-fraud firms.
Board Size	**H_{23}:** Board size is significantly negatively related to

	the likelihood of fraudulent financial reporting.
Female on Board	**H_{24}:** The firms with a female(s) on their board have a lower probability to commit fraud.
Founder on the Board	**H_{25}:** Ceteris paribus, the presence of founder on the board increases the likelihood of fraudulent financial reporting.
Chief Executive Officer Duality	**H_{26}:** CEO is also chairman of the board in an entity where management fraud is present as compared to an entity where fraud is not present.
Average Tenure of the Chief Executive Officer	**H_{27}:** The tenure of the CEO is greater in an entity where management fraud is present as compared to no-fraud firms.
Inside Stock Ownership	**H_{28}:** The percentage of insider stock ownership is inversely related to the existence of management fraud.
Auditor Change	**H_{29}:** Ceteris paribus, the firms with high auditor switching have a higher chance of committing fraud.

Materials and Methodology

Sample Selection

This study focused on all listed firms thatwere revealed fraudulent financially in Pakistan equity market. Following criteria for selecting fraud and control sample fromBeasley (1996), the study defined sampled firms in which they breached the regulations of Securities and Exchange Commission of Pakistan (SECP). Seventy-seven companies, where fraud was detected, as determined through the SECP, were tested against a control sample of companies of equal number based on size, industry, and time period where fraud was not detected. The data were collected for three years before the fraud revelation. The studyobtained a list of firms' violations[**], which were of serious nature and highlighted by SECP. The sample collected covers the time period from 2000 to 2016. Table 2 demonstrates the identification of sampled firms, classification of fraud and industrial segmentation.

Table 2: Identification of fraud sample

Panel A: Firms Identified from Securities and Exchange Commission of Pakistan	
Number of fraud firms	121
Private listed companies	-23

[**] Various sections counter punishable offense under any of the violations involved. Pointedly section- 26, 75, 158, 160, 164, 171, 174, 177, 178, 180, 186, 193, 196, 204, 208, 214, 215, 216, 218, 226, 227, 229, 235, 237, 241, 244, 245, 246, 255, 257, 259, 260, 473, 476, 484, 492, 495 and 496 of companies ordinance deal with all violations subject to their nature and intensity.

Incomplete data	-21
Total cases	**77**
Panel B: Classification of frauds	
Insider trading	09
Financial statement fraud	61
Asset misappropriation	17
Panel C: Industrial classification	
Construction	12
Basic materials	08
Technology	13
Cement	02
Consumer goods	14
Consumer services	18
Oil &Gas	02
General industrials	08
Source: SECP, Pakistan	

Variables Measurement

Variables applied in the model, their measurement and acronym as cited from the literature are mentioned below in table3.

Table 3: Variables measurement

Variable	Acronym	Measurement	Prior Studies
Internal Antecedent Factors			
Financial Performance	FP	Multiple financial performance measures relative to the industry.	(Daboub et al., 1995)
Threat of Insolvency	TI	Altman Z-score	(Altman, 2000)
Organizational Slack	OSL	Quick Ratio of the firm, Quick Ratio of the industry.	(Beaver, 1966)
Organization Size	OS	Multiple measures of size.	(Stanwick & Stanwick, 1998)
Tax Aggressiveness (Cash Effective Tax Rate)	CETR	CETR is computed as the ratio of cash tax expense to pre-tax income	(Richardson & Lanis, 2007)
Chief Executive Officer Compensation	CEOC	Amount change in the value of a CEO's stock and options holdings that would come from a one percentage point increase in the company stock price.	(Boyd, 1994)
Earning management (Discretionary Accruals)	DACC	Discretionary Accruals (DACC) reflecting Earning Management using the Modified Jones Model with Book-to-Market and Cash Flow.	(Cohen et al., 2008)

Prior Violations	PRV	Dummy PRV, that takes the value of 1, if the firm has made some prior violations revealed by Bursa Malaysia or Security Commission of Malaysia, 0 otherwise.	(Geriesh, 2003)
External Antecedent Factors			
Dynamic Environment	DE	Percentage change in sales from the period prior to the period in which fraud was alleged.	(Zahra et al., 2005)
Hostile Environment	HOE	Research & Development expense relative to sales.	(Huang & Thiruvadi, 2010)
Heterogeneous Environment	HEE	Operations in the number of four-digit industries.	(Zahra et al., 2005)
Industry Membership	IMD	A dummy variable is used to capture industry membership, wherein a firm alleged to fraud by 1, otherwise 0.	(Beasley et al., 2000)
Political Connections	PCD	PCD is an indicator variable that equals one if the insider (i.e. the CEO or chairman of the board) has political connections, and zero otherwise.	(Correia, 2014)
Monitoring Variables			
Institutional Investors	INS	Sum of a total number of shares held by Pension funds, government-managed unit trust funds (PNB) and government-managed pilgrims fund (LTH) to the total number of shares outstanding.	(McCahery et al., 2016)
Dedicated Investors	DED	Sum of a total number of shares held by Banks, private managed mutual funds, and insurance companies to a total number of shares outstanding.	(Chhaochharia et al., 2012)
Transient Investors	TRA	Auditor identity (Big-Six and Non-Big-Six)	(Chhaochharia et al., 2012)
Number of Years Audited	YEAR	A number of years auditor employed.	(Uzun et al., 2004)
Active Audit Committee	AAUD	The presence of an audit committee that met at least once during the year taken as 1, otherwise 0.	(Abbott et al., 2000)
External Auditor	AUDD	The presence of Independent Non-Executive Directors in Audit Committee taken as 1, otherwise 0.	(Abbott et al., 2000)

Financial Expertise of Audit Committee	FEXP	Dummy Variable, coded 1 if the board has at least one director with a backgroundin accounting, 0 otherwise.	(Abbott et al., 2004)
Family Ownership	FOWN	The percentage of family ownership among the top ten largest shareholders.	(Wang, 2006)
Outsiders on the Board of Directors	OUTDIR	The proportion of outside members on the Board of Directors.	(Beasley et al., 2000)
Board Size	BS	A total number of directors (executive and non-executive) currently serving on the board.	(Uzun et al., 2004)
Female on Board	FEOB	Indicator variable with the value of 1 if there is at least one female director on the board, 0 else.	(Abbott et al., 2004)
Founder on the Board	FOOB	A dummy variable, that takes the value of 1, if the founder is present on the board, 0 else.	(Beasley et al., 2000)
Chief Executive Officer Duality	CEOD	An Indicator variable with a value of 1 if the CEO is also the Chairman of the board, 0 else.	(Chen et al., 2006)
Average Tenure of the Chief Executive Officer	CEOT	The average tenure of the CEO within the entity.	(Beasley, 1996; Uzun et al., 2004)
Inside Stock Ownership	INSTK	Insider stock ownership.	(Beasley, 1996; Chen et al., 2006)
Auditor Change	ACH	ACH is equal to 1, if there is any change in auditor 2 years prior to fraud commission, 0 otherwise.	(Abbott et al., 2004)

Estimation Technique

When the latent variable is unobserved or the dependent variable is binary, the model cannot be estimated using ordinary least squares. In this situation, logit and probit models are widely used and are members of the family of generalized linear models. The extant literature typically uses the probit regression model to examine the likelihood of different types of accounting irregularities, including earnings management, where sample size is small in particular (see for instance(Dechow et al., 2011).

Multivariate probit regression analysis is used to test hypothesized relationships as it assumes perfect detection. In parallel with prevailing literature(Beasley, 1996; Uzun et al., 2004), three models are executed to explain in spite of predicting the relationships. To

overcome functional constraints in probit regression analysis, multiple models are employed in accordance with the variables classified. Model-1 and 2 are the primitive models that incorporate antecedent factors (internal and external) and monitoring variables respectively. The third model is formulated after obtaining the outcomes of primitive models. The model performs as an integrated model considering only significant variables resulting from the primitive models. The models applied in three distinct compositions, based on possible computation, are stated mathematically as under.

$$Fraud_{it} = \alpha_0 + \beta_1 FP_{i(t-1)} + \beta_2 TI_{i(t-1)} + \beta_3 OSL_{i(t-1)} + \beta_4 OS_{i(t-1)} + \beta_5 CETR_{i(t-1)} + \beta_6 CEOC_{i(t-1)} + \beta_7 DACC_{i(t-1)} + \beta_8 PRV_{i(t-1)} + \beta_9 DE_{i(t-1)} + \beta_{10} HOE_{i(t-1)} + \beta_{11} HEE_{i(t-1)} + \beta_{12} IMD_{i(t-1)} + \beta_{13} PCD_{i(t-1)} + \varepsilon_{i(t-1)} \quad (1)$$

$$Fraud_{it} = \alpha_0 + \beta_1 INS_{i(t-1)} + \beta_2 DED_{i(t-1)} + \beta_3 TRA_{i(t-1)} + \beta_4 AUDD_{i(t-1)} + \beta_5 NYEAR_{i(t-1)} + \beta_6 AAUD_{i(t-1)} + \beta_7 FEXP_{i(t-1)} + \beta_8 FOWN_{i(t-1)} + \beta_9 OUTDIR_{i(t-1)} + \beta_{10} BS_{i(t-1)} + \beta_{11} FEOB_{i(t-1)} + \beta_{12} FOOB_{i(t-1)} + \beta_{13} CEOD_{i(t-1)} + \beta_{14} CEOT_{i(t-1)} + \beta_{15} INSTK_{i(t-1)} + \beta_{16} ACH_{i(t-1)} + \varepsilon_{i(t-1)} \quad (2)$$

$$Fraud_{it} = \alpha_0 + \beta_1 FP_{i(t-1)} + \beta_2 OSL_{i(t-1)} + \beta_3 OS_{i(t-1)} + \beta_4 CETR_{i(t-1)} + \beta_5 CEOC_{i(t-1)} + \beta_6 DACC_{i(t-1)} + \beta_7 PRV_{i(t-1)} + \beta_8 DE_{i(t-1)} + \beta_9 IMD_{i(t-1)} + \beta_{10} PCD_{i(t-1)} + \beta_{11} OUTDIR_{i(t-1)} + \beta_{12} BS_{i(t-1)} + \beta_{13} TRA_{i(t-1)} + \beta_{14} CEOT_{i(t-1)} + \beta_{15} INSTK_{i(t-1)} + \beta_{16} ACH_{i(t-1)} + \varepsilon_{i(t-1)} \quad (3)$$

Where fraud is a dummy variable in the above equations (1, 2 &3), taking the value of 1 in case of fraud firms and 0 for no-fraud firms. The acronyms reflecting internal antecedent factors, external antecedent factors and monitoring variables are stated in above table 3.

Results and Findings

Descriptive Statistics and Uni-variate Analysis

Table 4 presents the descriptive statistics along with a univariate analysis of a set of environmental factors categorized into internal antecedent factors, external antecedent factors, and monitoring variables. On average, financial performance for fraud firms is higher than no-fraud firms. The means of threat of insolvency, organizational slack, chief executive officer compensation, discretionary accruals reflecting earning management, prior violations, political connections, female on board, founder on board and chief executive officer duality in case of fraud firms are found also higher than those in no-fraud firms. For the rest of all environmental factors, no-fraud firms possess larger average.

The uni-variate comparison shows that among the variables proxied under internal antecedent factors, the means of firm performance, organization size, tax aggressiveness, chief executive officer compensation and a prior violation for fraudulent firms are statistically different from non-fraudulent firms. However, means of threat of insolvency, organizational slack and earning management are insignificantly different in two groups. Comparing the same to external antecedent factors illustrates that means of a hostile environment and political connections only are significantly different for fraud firms relative to a matched sample of no-fraud firms. Monitoring variables, while undergoing from the univariate comparison, demonstrates that

means of family ownership and inside stock ownership exclusively are not significantly different in both groups of firms.

Table 4: Descriptive statistics and uni-variate analysis

Variable	Fraud Mean	No-Fraud Mean	Difference	t-value	p-value
Internal Antecedent Factors					
FP	2.7139	11.8987	-9.1848	-8.885	.000
TI	15.4127	13.7741	1.6386	.980	.328
OSL	-0.2128	-0.2274	0.0146	.477	.634
OS	0.2667	0.4211	-0.1544	-8.150	.000
CETR	0.2172	0.4114	-0.1942	-8.349	.000
CEOC	2.8415	0.7619	2.0796	5.788	.000
DACC	0.0267	0.0127	0.0140	1.372	.171
PRV	0.1299	0.0000	0.1299	5.859	.000
External Antecedent Factors					
DE	0.0390	0.2152	-0.1762	-.173	.863
HOE	0.0546	0.0733	-0.0186	-14.078	.000
HEE	0.0331	0.0438	-0.0107	-1.254	.211
IMD	0.8571	0.9870	-0.1299	-.769	.442
PCD	0.2727	0.0260	0.2468	-5.355	.000
Monitoring Variables					
INS	0.0807	0.4528	-0.3721	7.913	.000
DED	0.0291	0.3125	-0.2834	-36.499	.000
TRA	0.0486	0.0913	-0.0427	-29.042	.000
NYEAR	2.3519	4.1866	-1.8346	-12.548	.000
AAUD	0.8918	1.0000	-0.1082	-7.839	.000
AUDD	0.5714	0.9870	-0.4156	-5.283	.000
FEXP	1.0000	1.0000	0.0000	-12.415	.000
FOWN	17.7718	19.2178	-1.4461	-1.114	.266
OUTDIR	45.8196	71.5366	-25.7170	-45.061	.000
BS	7.4069	10.3766	-2.9697	-27.946	.000
FEOB	0.3333	0.1212	0.2121	5.611	.000
FOOB	0.6926	0.0000	0.6926	22.766	.000
CEOD	0.6407	0.1082	0.5325	14.128	.000
CEOT	2.3671	4.1052	-1.7381	-19.937	.000
INSTK	17.7718	19.2178	-1.4461	-1.114	.266
ACH	0.5300	0.0300	0.48100	13.790	.000
Observations	231	231			

Results obtained from probit regression analysis of primitive model-1 are reported in table5. Estimates depict the likelihood of fraud detection becomes evident when observed the environmental factors namely, firm performance, organizational slack, organizational size, cash effective tax ratio reflecting tax aggressiveness, chief executive officer compensation, discretionary accruals reflecting earning management, prior violations, dynamic environment, industry membership and political connections.

Table 5: Model 1[††]

		Probit		Marginal effect	
	Expected sign	Parameter estimate	z statistics	Parameter estimate	z statistics
D _cons		2.707	(5.65)**		
FP	-	-0.052	(4.62)**	-0.00946	(-5) **
TI	+	0.003	(0.51)	0.00045	(0.51)
OSL	-	-0.832	(2.79)**	0.15067	(-2.87) **
OS	+	-2.659	(5.47)**	-0.48136	(-6.06) **
CETR	+	-0.930	(4.08)**	-0.16835	(-4.18) **
CEOC	+	0.225	(3.07)**	0.04066	(3.19) **
DACC	+	0.557	(1.99) *	0.10079	(1.99) *
PRV	+	0.811	(2.73) **	0.00753	(2.81) **
DE	+	-4.964	(7.85)**	-0.89856	(-10.48) **
HOE	+	-0.452	(0.85)	-0.08190	(-0.85)
HEE	+	-0.160	(0.28)	-0.02905	(-0.28)
IMD	+	-0.846	(2.04)*	-0.15326	(-2.07) *
PCD	+	1.431	(4.09)**	0.25912	(4.39)**
Model χ2		*321.14*			
p-value		*0.0000*			
Pseudo R2		*0.5381*			
N		*432*			

* $p<0.05$; ** $p<0.01$

Table 6 demonstrates the results obtained from primitivemodel-2.The findings reveal that monitoring variables namely transient institutional investors, outsiders on board of directors, board size, chief executive officer tenure, inside stock ownership and auditor change formulate a favorable environment for fraud commitment when processed alone.

Table 6: Model 2

		Probit		Marginal effect	
	Expected sign	Parameter estimate	z statistics	Parameter estimate	z statistics
D _cons		20.346	(2.88)**		
INS	-	-5.812	(1.76)	-.00869	(-1.76)
DED	-	-3.927	(0.83)	-.00680	(-0.83)
TRA	+	-23.548	(2.82)**	-.04333	(-2.82)**
NYEAR	-	-0.773	(1.85)	-.00328	(-1.85)
AAUD	-	0.003	(0.51)	.00046	(0.51)
AUDD	-	-2.693	(0.94)	-.00949	(-0.94)
FEXP	-	0.816	(0.89)	.00021	(0.89)
FOWN	+	0.031	(1.11)	-.00003	(1.11)

[††]The results of model- 1 and 2 reported in table- 5 and 6 respectively are not final results. The significant factors from both preliminary models are used in model-3, which then are explained in detail.

OUTDIR	-	-0.225	(2.84) **	-.00086	(-3.64) **
BS	-	-2.577	(2.54)**	-.00359	(-3.53)**
FEOB	-	-2.150	(1.37)	.00469	(-1.37)
FOOB	+	0.013	(0.61)	.00032	(0.61)
CEOD	+	0.861	(0.96)	-.01730	(0.96)
CEOT	+	-1.811	(2.73) **	-.00754	(-3.32) **
INSTK	-	0.084	(2.09) *	.03802	(2.47) *
ACH	+	4.167	(2.74) **	.00528	(3.04) **
Model χ2		*310.05*			
p-value		*0.0000*			
Pseudo R2		*0.9413*			
N		*432*			

* $p<0.05$; ** $p<0.01$

Results obtained from integratedmodel-3 are demonstrated in table 7. The model incorporates all significant outcome variables retrieved from primitive models 1 and 2. Firm performance loads negatively, reflecting fraudulent firms exhibit low financial performance before fraud revelation. Their probability to commit fraud is inversely related to financial performance, consistent with Dunn (2004), O'Connor, Priem, Coombs, and Gilley (2006) and Skousen, Smith, and Wright (2009). Organizational slack, capturing excess that remains once firms have paid out its internal and external operational needs(Baucus & Near, 1991), is found negatively related to fraud happening. The result is consistent withFerris, Jagannathan, and Pritchard (2003) and Saksena (2001). Organization size is negatively associated with forming a favorable environment for the firms prone to commit financial fraud. It seconds the finding of Bishop, Hermanson, and Riley (2017) and Yang, Jiao, and Buckland (2017). Particularly, in case of similar ownership structure sampled in China (Yang et al., 2017), firms carry lower size relatively in their resources before committing financial misstatements.

Fraudulent firms are observed as low tax aggressive comparatively in reporting financial statements. It supports the finding reported byLennox, Lisowsky, and Pittman (2013). Executive compensation, in this case, is found positively associated with the likelihood of fraud, as consistent withEfendi et al. (2007), Ge, Li, Liu, and McVay (2017), Harris and Bromiley (2007) and Huang et al. (2017). Dynamic environment played a negative role in chances of fraud commitment. The firms found to manipulate their statements in stable business conditions prevailing around. This finding uncovers the intent of committing fraud for serving the motives that are not translated by the dynamic business environment. It goes against the recent finding reported in concentrated ownership structure (Shi, Connelly, & Hoskisson, 2017). One of the possible explanations may be a difference

of ownership structure as reasoned by Chen et al. (2006). The intimate ties between business elite and political leaders enhance the chances of fraud occurrence (Faccio, 2006). The same is evident in this case and is consistent with the recent studies reported [for instance,(Liedong & Rajwani, 2017; Tee, Gul, Foo, & Teh, 2017)].

Transient institutional investors, against the hypothesized relationship, are observed to impact negatively on the likelihood of fraud. Putting differently in this case, when firms are found increasing shares of all institutional investors over the time, the environment becomes less favorable to the commitmentto fraud. Presence of outsiders on board of directors is observed as creating an environment that is not conduciveto happening of financial misappropriation. It strengthens the internal control system (Cohen, Krishnamoorthy, & Wright, 2017; Judge & Talaulicar, 2017; Padachi, Ramsurrun, & Ramen, 2017), thereby lowering the likelihood of firms to cook the books. Board size, on the contrary, is found in establishing a negative significant relationship with the detection of fraud. Smaller the board size, greater is the probability of firms engagement into illegal activity. A possible explanation of such relationship can be associated with the weak board structures. In the context of developing economy, smaller boards may have more possibility of possessing weak board characteristics, assisting consequently to the happening of fraud(Kaur Virk & Kaur Virk, 2017).

It is also observed that tenure of a chief executive officer for the sampled firms is negatively associated with the likelihood of fraud. Expressly, the environment becomes favorable for fraud when firms are found engaging with a variety of executives in their course of action over time. Changing executives and board of directors frequently may breed out any illegal activity(Rezaee, 2005). Change of auditor, on the other hand, is found directly connected with the detection of fraud. Frequent change of auditor is considered as one of the relevant factors involved in constructing a conducive environment for firms to play with their financials (Agrawal & Cooper, 2017; Avci, Schipani, & Seyhun, 2017; Klein, 2002; Yang et al., 2017).

Computing marginal effects for the same model, results reveal that organizational slack, organization size, dynamic environment, political connections, transient institutional investors and auditor change carry relatively stronger connection with the detection of fraud. On the other contrary, firm performance, board size, chief executive officer compensation and outsider on board of directors hold weaker association, whereas tax aggressiveness and tenure of chief executive officer possess relatively moderate relationship as a climate factor to happening of financial fraud. Results summary of entire set of hypotheses is reported in table 8.

Table 7: Model 3

		Probit		Marginal effect	
	Expected sign	Parameter estimate	z statistics	Parameter estimate	z statistics
D _cons		3.171	(4.85)**		
FP	-	-0.051	(-3.90)**	-.00670	(-4.12)**
OSL	-	0.826	(2.38)**	.10887	(2.43)**
OS	+	-2.761	(-4.84)**	-.36382	(-5.23)**
CETR	+	-0.495	(-2.03)*	-.06529	(-2.04)*
CEOC	+	0.154	(1.96)*	.02032	(2.00)*
DACC	+	1.718	(1.77)	.22629	(1.80)
PRV	+	0.203	(0.63)	.01140	(0.78)
DE	+	-4.132	(-5.92)**	-.54441	(-6.86)**
IMD	+	-0.565	(-1.10)	-.07448	(-1.11)
PCD	+	1.557	(3.37)**	.20514	(3.53)**
TRA	+	-16.751	(-5.11)**	-2.20716	(-5.69)**
OUTDIR	-	-0.251	(-5.09)**	-.00449	(-5.87)**
BS	-	-2.235	(-5.26)**	-.07480	(-9.02)**
CEOT	+	-1.352	(-7.36)**	-.08968	(-10.73)**
INSTK	-	-0.008	(-1.14)	-.00768	(-1.14)
ACH	+	1.3732	(4.71)**	.18092	(5.27)**
Model $\chi 2$		*393.83*			
p-value		*0.0000*			
Pseudo R2		*0.6599*			
N		*432*			

* $p<0.05$; ** $p<0.01$

Table 8: Summary of Hypotheses Tested

Variable	Hypotheses	Model 1	Model 2	Model 3
Internal Antecedent Factors				
Financial Performance	**H_1:** Financial performance of a firm experiencing management fraud will be inferior to that of a non-fraud firm.	Accepted	___	Accepted
Threat of Insolvency	**H_2:** The threat of insolvency will be greater in the case of a firm experiencing management fraud to that of a non-fraud firm.	Insignificant	___	___
Organizational Slack	**H_3:** Organizational slack of a firm experiencing management fraud will be lower than that in a non-fraud firm.	Accepted	___	Accepted

Organization Size	**H_4:** An organization experiencing management fraud will be larger in size than a non-fraud organization.	Accepted	___	Accepted
Tax Aggressiveness	**H_5:** Tax aggressiveness of a firm experiencing management fraud will be positively associated to fraud, other things being equal	Accepted	___	Accepted
Chief Executive Officer Compensation	**H_6:** CEO's compensation is positively associated with probability of committing fraud.	Accepted	___	Accepted
Earning Management	**H_7:** Earning management practices increase the likelihood of fraudulent financial reporting.	Accepted	___	Insignificant
Prior Violations	**H_8:** The firms with prior history of violations are more inclined to commit fraud.	Accepted	___	Insignificant
External Antecedent Factors				
Dynamic Environment	**H_9:** An entity experiencing management fraud will be characterized by more dynamic environment as compared to an entity where fraud was not detected.	Accepted	___	Accepted
Hostile Environment	**H_{10}:** An organization experiencing management fraud will be characterized by more hostile environment as compared with an organization where fraud was not detected.	Insignificant	___	___
Heterogeneous Environment	**H_{11}:** There An organization experiencing management fraud will be characterized by greater heterogeneity as compared with a no-fraud organization.	Insignificant	___	___

Industry Membership	**H_{12}:** There exists an association between industry membership and fraud.	Accepted	___	Insignificant
Political Connections	**H_{13}:** Keeping other things equal, firms having political connections have high probability to commit fraud.	Accepted	___	Accepted
Monitoring Variables				
Institutional Investors	**H_{14}:** The presence of institutional investors reduces the likelihood of the fraud.	___	Insignificant	___
Dedicated Investors	**H_{15}:** Ceteris paribus, dedicated institutional ownership has a negative impact on the likelihood of fraud.	___	Insignificant	___
Transient Investors	**H_{16}:** Ceteris paribus, transient institutional ownership has a positive impact on the likelihood of financial statement fraud.	___	Accepted	Accepted
Number of Years Audited	**H_{17}:** The number of years an audit firm has audited an entity is inversely related to the existence of management fraud.	___	Insignificant	___
Active Audit Committee	**H_{18}:** An entity where fraud is present will be characterized by no audit committee or an inactive committee.	___	Insignificant	___
External Auditor	**H_{19}:** The quality of the audit firm will be better in entities where management fraud is not present and worse where management fraud is present.	___	Insignificant	___
Financial Expertise of Audit Committee	**H_{20}:** The presence of financial expert in Audit Committee reduces the likelihood of fraud.	___	Insignificant	___
Family Ownership	**H_{21}:** Family ownership has positive influence on likelihood of fraudulent financial reporting.	___	Insignificant	___

Outsiders on the Board of Directors	**H_{22}:** The proportion of outside directors on the board of directors will be lower for firms in which management fraud is detected as compared to no-fraud firms.	___	Accepted	Accepted
Board Size	**H_{23}:** Board size is significantly negatively related to the likelihood of fraudulent financial reporting.	___	Accepted	Accepted
Female on Board	**H_{24}:** The firms with female(s) on their board have lower probability to commit fraud.	___	Insignificant	___
Founder on the Board	**H_{25}:** Ceteris paribus, the presence of founder on the board increases the likelihood of fraudulent finance reporting.	___	Insignificant	___
Chief Executive Officer Duality	**H_{26}:** CEO is also chairman of the board in an entity where management fraud is present as compared to an entity where fraud is not present.	___	Insignificant	___
Average Tenure of the Chief Executive Officer	**H_{27}:** The tenure of the CEO is greater in an entity where management fraud is present as compared to no-fraud firms.	___	Accepted	Accepted
Inside Stock Ownership	**H_{28}:** The percentage of insider stock ownership is inversely related to the existence of management fraud.	___	Accepted	Insignificant
Auditor Change	**H_{29}:** Ceteris paribus, the firms with high auditor switching have higher chance of committing fraud.	___	Accepted	Accepted

Conclusion

The study aimed to uncover the environmental factors that contribute to happening of financial fraud at the corporate level. The theories along with recent extant literature were used to develop twenty-nine hypotheses in three classes. The classes were internal antecedent

factors, external antecedent factors, and monitoring variables (see table 3). Cases of fraudulent activity were defined as instances where a breach of concerned laws is observed and declared thereafter by Securities and Exchange Commission of Pakistan. Next data were gathered for the variables of interest for three years before the detection or commitment of fraud from 2000 to 2016 following framework of Beasley (1996).Seventy-seven listed firms that were found fraudulent were taken into study sample along with the same number of no-fraud firms. Univariate analysis, probit regression analysis, and marginal effect analysis were employed to settle on the relationship between twenty-nine environmental factors and firm's fraud.

Three models were constructed capturing antecedent factors, monitoring variables and both. The firstprimitive model incorporated internal and external antecedent factors; the second involved monitoring variables whereas the third contained significant variables resulting from the two primitive models. Results reveal that there is strong support for the theory and how the variables relate to firm's fraud.The overall findings disclose that corporate financial fraud symbolizes complex behavior on the part of an entity. Numerous factors were found playing a significant role in constituting an environment conducive to the happening of fraud. The integrated model, in the end, revealed twelve factors in this regard that are observed relevant in the context of this study. Out of twelve, five climate factors belong to internal antecedent factors, videlicet firm performance, organizational slack, organization size, tax aggressiveness and chief executive officer compensation. Two climate factors, i.e. dynamic environment and political connections belong to the category of external antecedent factors, whereas five factors are classified under monitoring variables, named as transient institutional investors, outsider on board of directors, board size, the tenure of the chief executive officer and auditor change.

The primary contribution of this study is to have empirically tested fraud triangle model, agency theory framework and literature on corporate illegal activity. On practical milieu, it contributes to designing fraud deterrence strategies in the local context. It furthermore advances understanding of the role executives play in financial fraud and suggests managerial, governance and strategic implications. In the short-run as a policy implication, it would guide concerned managers of target firms to locate the real risks of fraud happening and breaches to the compliance. Despite this identification, it would require investigation of the illegal activities performed. While drafting a policy for a mid-run frame, study suggests setting up an effective internal control mechanism to deter fraudulent activities and ensuring independent continuous or interim audit programs. On top of that, for a long-run combat policy, it recommends updating ethical standards, allocating resources for effective

control, designing action plans, setting up a mechanism for encouragement and protection of whistleblowers, employee training and updating governance mechanism for the deterrence of such environmental factors.

References

Abbott, L. J., Park, Y., & Parker, S. (2000). The effects of audit committee activity and independence on corporate fraud. *Managerial Finance, 26*(11), 55-68.

Abbott, L. J., Parker, S., & Peters, G. F. (2004). Audit committee characteristics and restatements. *Auditing: A Journal of Practice & Theory, 23*(1), 69-87.

Aghghaleh, S. F., Iskandar, T., & Mohamed, Z. M. (2014). Fraud risk factors of fraud triangle and the likelihood of fraud occurrence: Evidence from Malaysia. *Information Management and Business Review, 6*(1), 1-7.

Agrawal, A., & Cooper, T. (2017). Corporate governance consequences of accounting scandals: Evidence from top management, CFO and auditor turnover. *Quarterly Journal of Finance, 7*(01), 1650014.

Alchian, A. A., & Demsetz, H. (1972). Production, information costs, and economic organization. *The American economic review, 62*(5), 777-795.

Altman, E. I. (2000). Predicting financial distress of companies: revisiting the Z-score and ZETA models. *Stern School of Business, New York University*, 9-12.

Alves, S. (2012). Ownership structure and earnings management: Evidence from Portugal. *Australasian Accounting, Business and Finance Journal, 6*, 57-74.

Anginer, D., Warburton, A. J., & Yildizhan, C. (2011). Corporate reputation and cost of debt. *Available at SSRN 1873803*.

Asare, S. K. (1990). The auditor's going concern decision: A review and implications for future research. *Journal of Accounting Literature, 9*(1), 39-64.

Avci, S. B., Schipani, C. A., & Seyhun, H. N. (2017). Do Independent Directors Curb Financial Fraud? The Evidence and Proposals for Further Reform.

Bae, K.-H., Baek, J.-S., Kang, J.-K., & Liu, W.-L. (2012). Do controlling shareholders' expropriation incentives imply a link between corporate governance and firm value? Theory and evidence. *Journal of Financial Economics, 105*, 412-435.

Bany Ariffin, A. N. (2009). Pyramidal ownership structure and agency problem: theory and evidence. *Research Bulletin of the Faculty of Economics and Management*, 9-18.

Baucus, M. S., & Near, J. P. (1991). Can illegal corporate behavior be predicted? An event history analysis. *Academy of Management Journal, 34*(1), 9-36.

Beasley, M. S. (1996). An empirical analysis of the relation between the board of director composition and financial statement fraud. *Accounting Review*, 443-465.

Beasley, M. S., Carcello, J. V., Hermanson, D. R., & Lapides, P. D. (2000). Fraudulent financial reporting: Consideration of industry traits and corporate governance mechanisms. *Accounting Horizons, 14*(4), 441-454.

Beaver, W. H. (1966). Financial ratios as predictors of failure. *Journal of Accounting Research*, 71-111.

Beneish, M. D. (1999). The detection of earnings manipulation. *Financial Analysts Journal, 55*, 24-36.

Bergstresser, D., & Philippon, T. (2006). CEO incentives and earnings management. *Journal of Financial Economics, 80*, 511-529.

Bishop, C. C., Hermanson, D. R., & Riley Jr, R. A. (2017). Collusive Fraud: Leader, Incident, and Organizational Characteristics. *Journal of Forensic Accounting Research, 2*(1), A49-A70.

Bishop, C. C., Hermanson, D. R., & Riley, R. A. (2017). Collusive Fraud: Leader, Incident, and Organizational Characteristics. *Journal of Forensic Accounting Research*.

Bonini, S., & Boraschi, D. (2010). Corporate scandals and capital structure. *Journal of business ethics*, *95*, 241-269.

Boyd, B. K. (1994). Board control and CEO compensation. *Strategic Management Journal, 15*(5), 335-344.

Bucy, P. H. (2007). Trends in corporate criminal prosecutions. *Am. Crim. L. Rev., 44*, 1287.

Burns, N., & Kedia, S. (2006). The impact of performance-based compensation on misreporting. *Journal of Financial Economics, 79*, 35-67.

Chang, S. J. (2003). Ownership structure, expropriation, and performance of group-affiliated companies in Korea. *Academy of Management Journal, 46*, 238-253.

Chen, G., Firth, M., Gao, D. N., & Rui, O. M. (2006). Ownership structure, corporate governance, and fraud: Evidence from China. *Journal of Corporate Finance, 12*(3), 424-448.

Chen, Y., Zhu, S., & Wang, Y. (2011). Corporate fraud and bank loans: Evidence from china. *China Journal of Accounting Research, 4*, 155-165.

Chhaochharia, V., Kumar, A., & Niessen-Ruenzi, A. (2012). Local investors and corporate governance. *Journal of Accounting and Economics, 54*(1), 42-67.

Chung, R., Firth, M., & Kim, J.-B. (2002). Institutional monitoring and opportunistic earnings management. *Journal of Corporate Finance, 8*, 29-48.

Clinard, M., & Yeager, P. (1980). Corporate crime: The first comprehensive account of illegal practices among America's top corporations: New York: Free Press.

Clinard, M., & Yeager, P. (2011). *Corporate crime* (Vol. 1): Transaction Publishers.

Coenen, T. L. (2008). *Essentials of corporate fraud* (Vol. 37): John Wiley & Sons.

Coffee, J. C. (2005). A theory of corporate scandals: Why the USA and Europe differ. *Oxford review of economic policy, 21*, 198-211.

Cohen, D. A., Dey, A., & Lys, T. Z. (2008). Real and accrual-based earnings management in the pre-and post-Sarbanes-Oxley periods. *The Accounting Review, 83*(3), 757-787.

Cohen, J., Krishnamoorthy, G., & Wright, A. (2017). Enterprise risk management and the financial reporting process: The experiences of audit committee members, CFOs, and external auditors. *Contemporary Accounting Research, 34*(2), 1178-1209.

Cooper, P. W. (2017). UK Economic Outlook.

Correia, M. M. (2014). Political connections and SEC enforcement. *Journal of Accounting and Economics, 57*(2), 241-262.

Cressy, D. R. (1953). Other people's money. *New York*.

Crutchley, C. E., Jensen, M. R. H., & Marshall, B. B. (2007). Climate for scandal: corporate environments that contribute to accounting fraud. *Financial Review, 42*, 53-73.

Daboub, A. J., Rasheed, A. M. A., Priem, R. L., & Gray, D. (1995). Top management team characteristics and corporate illegal activity. *Academy of Management review, 20*(1), 138-170.

Daily, C. M., Dalton, D. R., & Cannella, A. A. (2003). Corporate governance: Decades of dialogue and data. *Academy of Management review, 28*, 371-382.

Dechow, P. M., Ge, W., Larson, C. R., & Sloan, R. G. (2011). Predicting material accounting misstatements. *Contemporary Accounting Research, 28*(1), 17-82.

Dechow, P. M., Ge, W., Larson, C. R., & Sloan, R. G. (2011). Predicting Material Accounting Misstatements*. *Contemporary Accounting Research, 28*, 17-82.

Djankov, S., Fan, J. P. H., & Lang, L. H. P. (2000). *Expropriation of minority shareholders in East Asia*. Retrieved from

Dunn, P. (2004). The impact of insider power on fraudulent financial reporting. *Journal of Management, 30*(3), 397-412.

Dyck, A., Morse, A., & Zingales, L. (2010). Who blows the whistle on corporate fraud? *The Journal of Finance, 65*, 2213-2253.

Dyck, I. J., Morse, A., & Zingales, L. (2013). How pervasive is corporate fraud? *Rotman School of Management Working Paper*.

Efendi, J., Srivastava, A., & Swanson, E. P. (2007). Why do corporate managers misstate financial statements? The role of option compensation and other factors. *Journal of Financial Economics, 85*, 667-708.

Ehrhardt, O., & Nowak, E. (2001). *Private benefits and minority shareholder expropriation: Empirical evidence from IPOs of German family-owned firms*. Retrieved from

Elliott, R. K., & Willingham, J. J. (1980). *Management fraud: Detection and deterrence*: Petrocelli Books New York, NY.

Faccio, M. (2006). Politically connected firms. *The American economic review, 96*(1), 369-386.

Fama, E. F. (1980). Agency problems and the theory of the firm. *Journal of Political Economy, 88*(2), 288-307.

Fan, J. P. H., & Wong, T. J. (2002). Corporate ownership structure and the informativeness of accounting earnings in East Asia. *Journal of Accounting and Economics, 33*, 401-425.

Faulkender, M., & Wang, R. (2006). Corporate financial policy and the value of cash. *The Journal of Finance, 61*, 1957-1990.

Ferris, S. P., Jagannathan, M., & Pritchard, A. C. (2003). Too busy to mind the business? Monitoring by directors with multiple board appointments. *The Journal of Finance, 58*(3), 1087-1111.

Fich, E. M., & Shivdasani, A. (2007). Financial fraud, director reputation, and shareholder wealth. *Journal of Financial Economics, 86*(2), 306-336.

Fischer, P. E., & Verrecchia, R. E. (2000). Reporting bias. *The Accounting Review, 75*, 229-245.

Francis, J. R. (2004). What do we know about audit quality? *The British accounting review, 36*, 345-368.

Gande, A., & Lewis, C. M. (2009). Shareholder-initiated class action lawsuits: Shareholder wealth effects and industry spillovers. *Journal of Financial and Quantitative Analysis, 44*, 823-850.

Ge, W., Li, Z., Liu, Q., & McVay, S. E. (2017). When does internal control over financial reporting curb resource extraction? Evidence from China.

Gee, S. (2014). *Fraud and Fraud Detection: A Data Analytics Approach*: John Wiley & Sons.

Geriesh, L. (2003). Organizational culture and fraudulent financial reporting. *The CPA Journal, 73*(3), 28.

Goldman, E., Peyer, U., & Stefanescu, I. (2012). Financial misrepresentation and its impact on rivals. *Financial Management, 41*, 915-945.

Goldman, E., & Slezak, S. L. (2006). An equilibrium model of incentive contracts in the presence of information manipulation. *Journal of Financial Economics, 80*, 603-626.

Graham, J. R., Harvey, C. R., & Rajgopal, S. (2005). The economic implications of corporate financial reporting. *Journal of Accounting and Economics, 40*, 3-73.

Graham, J. R., Li, S., & Qiu, J. (2008). Corporate misreporting and bank loan contracting. *Journal of Financial Economics, 89*, 44-61.

Hajek, P., & Henriques, R. (2017). Mining corporate annual reports for intelligent detection of financial statement fraud–A comparative study of machine learning methods. *Knowledge-Based Systems, 128*, 139-152.

Harris, J., & Bromiley, P. (2007). Incentives to cheat: The influence of executive compensation and firm performance on financial misrepresentation. *Organization Science, 18*(3), 350-367.

Hasnan, S., Rahman, R. A., & Mahenthiran, S. (2012). Management motive, weak governance, earnings management, and fraudulent financial reporting: Malaysian evidence. *Journal of International Accounting Research, 12*, 1-27.

Hertzberg, A. (2005). *Managerial incentives, misreporting, and the timing of social learning: A theory of slow booms and rapid recessions*. Retrieved from

Hill, C. W., Kelley, P. C., Agle, B. R., Hitt, M. A., & Hoskisson, R. E. (1992). An empirical examination of the causes of corporate wrongdoing in the United States. *Human Relations, 45*(10), 1055-1076.

Huang, H.-W., & Thiruvadi, S. (2010). Audit committee characteristics and corporate fraud. *International Journal of Public Information Systems, 6*(1).

Huang, S. Y., Lin, C.-C., Chiu, A.-A., & Yen, D. C. (2017). Fraud detection using fraud triangle risk factors. *Information Systems Frontiers, 19*(6), 1343-1356.

Jarrell, G., & Peltzman, S. (1985). The impact of product recalls on the wealth of sellers. *The Journal of Political Economy*, 512-536.

Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics, 3*, 305-360.

Johnson, S. A., Ryan, H. E., & Tian, Y. S. (2009). Managerial Incentives and Corporate Fraud: The Sources of Incentives Matter*. *Review of Finance, 13*, 115-145.

Judge, W. Q., & Talaulicar, T. (2017). Board Involvement in the Strategic Decision Making Process: A Comprehensive Review. *Annals of Corporate Governance, 2*(2), 51-169.

Kamarudin, K. A., Ismail, W. A. W., & Mustapha, W. A. H. W. (2012). Aggressive financial reporting and corporate fraud. *Procedia-Social and Behavioral Sciences, 65*, 638-643.

Karpoff, J. M., Lee, D. S., & Martin, G. S. (2008). The cost to firms of cooking the books. *Journal of Financial and Quantitative Analysis, 43*, 581-611.

Karpoff, J. M., & Lou, X. (2010). Short sellers and financial misconduct. *The Journal of Finance, 65*, 1879-1913.

Kaur Virk, G., & Kaur Virk, G. (2017). The influence of board characteristics on corporate illegality. *Journal of Financial Regulation and Compliance, 25*(2), 133-148.

Keeler, E., Spence, M., & Zeckhauser, R. (1971). The optimal control of pollution *Economics of natural and environmental resources. Routledge revivals*: Taylor & Francis Oxford.

Khanna, V., Kim, E., & Lu, Y. (2015). CEO connectedness and corporate fraud. *The Journal of Finance, 70*, 1203-1252.

Klein, A. (2002). Audit committee, board of director characteristics, and earnings management. *Journal of Accounting and Economics, 33*(3), 375-400.

Klein, B., & Leffler, K. B. (1981). The role of market forces in assuring contractual performance. *The Journal of Political Economy*, 615-641.

Kreps, D. M., & Wilson, R. (1982). Reputation and imperfect information. *Journal of economic theory, 27*, 253-279.

Kuvvet, E. (2014). Corporate Fraud and Liquidity. *Available at SSRN 2496151*.

Kwan, J. H., & Kwan, S. S. (2011). Violation of listing requirements and company value: Evidence from Bursa Malaysia. *International Review of Business Research Papers, 7*, 257-268.

Lail, B., MacGregor, J., Marcum, J., & Stuebs, M. (2017). Virtuous professionalism in accountants to avoid fraud and to restore financial reporting. *Journal of business ethics, 140*(4), 687-704.

Lennox, C., Lisowsky, P., & Pittman, J. (2013). Tax aggressiveness and accounting fraud. *Journal of Accounting Research, 51*(4), 739-778.

Leuz, C., Nanda, D., & Wysocki, P. (2003). Investor protection and earnings management: An international comparison. *Journal of Financial Economics, 69*, 505-527.

Liedong, T. A., & Rajwani, T. (2017). The impact of managerial political ties on corporate governance and debt financing: Evidence from Ghana. *Long Range Planning*.

McCahery, J. A., Sautner, Z., & Starks, L. T. (2016). Behind the scenes: The corporate governance preferences of institutional investors. *The Journal of Finance, 71*(6), 2905-2932.

Milgrom, P., & Roberts, J. (1982). Predation, reputation, and entry deterrence. *Journal of economic theory, 27*, 280-312.

Mohamed, N. (2014). *Financial statements fraud control: exploring internal control strategies in two Malaysian public interest entities.* Teesside University.

Mokhiber, R. (2007). Twenty things you should know about corporate crime. *Corporate crime reporter*.

O'Connor, J. P., Priem, R. L., Coombs, J. E., & Gilley, K. M. (2006). Do CEO stock options prevent or promote fraudulent financial reporting? *Academy of Management Journal, 49*(3), 483-500.

Padachi, K., Ramsurrun, V., & Ramen, M. (2017). Corporate Governance and Firms' Performance of Mauritian Listed Companies. *International Journal of Financial Management and Reporting Analysis, 1*(1), 1-26.

Pagano, M., & Immordino, G. (2012). Corporate fraud, governance, and auditing. *Review of Corporate Finance Studies, 1*, 109-133.

Peng, L., & Röell, A. (2008). Executive pay and shareholder litigation. *Review of Finance, 12*, 141-184.

Peng, L., & Röell, A. (2014). Managerial incentives and stock price manipulation. *The Journal of Finance, 69*, 487-526.

Perols, J. L., & Lougee, B. A. (2011). The relation between earnings management and financial statement fraud. *Advances in Accounting, 27*(1), 39-53.

Povel, P., Singh, R., & Winton, A. (2007). Booms, busts, and fraud. *Review of Financial Studies, 20*, 1219-1254.

PricewaterhouseCoopers, L. L. P. (2014). The economic significance of meetings to the US economy.

Qian, M., Pan, H., & Yeung, B. Y. (2011, 2011). *Expropriation of minority shareholders in politically connected firms.* Paper presented at the Finance and Corporate Governance Conference.

Rapp, G. C. (2007). Beyond protection: invigorating incentives for Sarbanes-Oxley corporate and securities fraud whistleblowers. *Boston University Law Review, 87*, 91.

Rezaee, Z. (2005). Causes, consequences, and deterence of financial statement fraud. *Critical Perspectives on Accounting, 16*, 277-298.

Richardson, G., & Lanis, R. (2007). Determinants of the variability in corporate effective tax rates and tax reform: Evidence from Australia. *Journal of Accounting and Public Policy, 26*(6), 689-704.

Saksena, P. (2001). The relationship between environmental factors and management fraud: An empirical analysis. *International Journal of Commerce and Management, 11*(1), 120-139.

Shi, W., Connelly, B. L., & Hoskisson, R. E. (2017). External corporate governance and financial fraud: cognitive evaluation theory insights on agency theory prescriptions. *Strategic Management Journal, 38*(6), 1268-1286.

Skousen, C. J., Smith, K. R., & Wright, C. J. (2009). Detecting and predicting financial statement fraud: The effectiveness of the fraud triangle and SAS No. 99 *Corporate Governance and Firm Performance* (pp. 53-81): Emerald Group Publishing Limited.

Stanwick, P. A., & Stanwick, S. D. (1998). The relationship between corporate social performance, and organizational size, financial performance, and

environmental performance: An empirical examination. *Journal of business ethics*, *17*(2), 195-204.

Szwajkowski, E. (1985). Organizational illegality: Theoretical integration and illustrative application. *Academy of Management review*, *10*(3), 558-567.

Tee, C. M., Gul, F. A., Foo, Y.-B., & Teh, C. G. (2017). Institutional Monitoring, Political Connections and Audit Fees: Evidence from Malaysian Firms. *International Journal of Auditing*, *21*(2), 164-176.

Tribo, J. A., & Gutiérrez Urtiaga, M. (2004). Ownership Structure and Minority Expropriation in Non-listed Firms: The case for multiple large shareholders. *ECGI-Finance Working Paper*.

Uzun, H., Szewczyk, S. H., & Varma, R. (2004). Board composition and corporate fraud. *Financial Analysts Journal*, *60*(3), 33-43.

Velikonja, U. (2012). Cost of Securities Fraud, The. *Wm. & Mary L. Rev.*, *54*, 1887.

Vlad, M., Tulvinschi, M., & Chiriță, I. (2011). The consequences of fraudulent financial reporting. *The USV Annals of Economics and Public Administration*, *11*, 264-268.

Voon, S.-L., Puah, C.-H., & Entebang, H. (2008). Corporate crime announcement effects on stock performance: An empirical study in Malaysia. *Journal of Economic cooperation*, *29*, 15-28.

Wang, D. (2006). Founding family ownership and earnings quality. *Journal of Accounting Research*, 619-656.

Wang, T. Y., & Winton, A. (2012). Competition and corporate fraud waves. *Available at SSRN 2103386*.

Wells, J. T. (2017). *Corporate fraud handbook: Prevention and detection*: John Wiley & Sons.

Yang, D., Jiao, H., & Buckland, R. (2017). The determinants of financial fraud in Chinese firms: Does corporate governance as an institutional innovation matter? *Technological Forecasting and Social Change*, *125*, 309-320.

Yeager, P. C. (1986). Analyzing corporate offenses: Progress and prospects. *Research in corporate social performance and policy*, *8*, 93-120.

Young, M. R. (2014). *Financial Fraud Prevention and Detection. Governance and Effective Practices*: John Wiley & Sons, Inc., Hoboken, New Jersey.

Yu, F. F. (2008). Analyst coverage and earnings management. *Journal of Financial Economics*, *88*, 245-271.

Zahra, S. A., Priem, R. L., & Rasheed, A. A. (2005). The antecedents and consequences of top management fraud. *Journal of Management*, *31*(6), 803-828.

Zaimee, A. (2007). Mini-Enrons shaking up Malaysia's corporate governance. *Accountants Today*, *20*, 21-23.