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Effects of Corporate Governance on Fraud Prevention:
The Case of Lebanon

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Dedication Page

To my caring parents, sister, boss, and beloved friends. This thesis wouldn’t be done without the non-ending care and understanding.
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Effects of Corporate Governance on Fraud Prevention: The Case of Lebanon

Lea F. Chaoul

Abstract

Fraudulent financial reporting and dishonesty in financial statements decrease credibility in audited financial reports. Reducing fraudulent activities can be achieved by implementing compliance mechanisms such as good corporate governance practices. Recent studies concluded that corporate governance structures should be improved in developing countries, particularly in Lebanon where corporate governance is weak in terms of application. This study aims to determine fraud prevention impacted by corporate governance dimensions, transparency of financial data and ownership structures, efficiency of the board of directors, and proactive corporate social responsibility measures and audit committee initiatives. This survey-based study uses data collected from employees working in different Lebanese corporations and who are familiar with corporate governance structures and financial performances the companies. Data analysis shows that the effectiveness and independence of the board of directors followed by the audit committee effectiveness, and the transparency of financial data have the highest impact on limiting fraudulent activities.

Keywords: Board of Directors, Audit Committee, Ownership Structure, Transparency of Financial Data, Corporate Social Responsibility.
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LIST OF ABBREVIATIONS

TRSS: Transparency of Financial Data Score

OWN: Ownership Structure Score

BRDS: Board of Directors’ Score

CSRS: Corporate Social Responsibility Score

CEO: Chief Executive Officer

ADTS: Audit Committee Score

FRDS: Fraud Score

OECD: Organization for Economic Cooperation and Development

IIA: Institute of Internal Audit

IOD: Institute of Directors

SAS: Statement on Auditing Standards

LCCG: Lebanese Code of Corporate Governance

MENA: Middle East and North Africa

BCCI: Bank of Credit and Commerce International
Chapter I

INTRODUCTION TO CORPORATE GOVERNANCE & FRAUD

This chapter consists of an overview and background of corporate governance, the study need, the research problem, the relevance of the study and the limitation for the study.

1.1 Overview and Background

The concept of corporate governance is a worldwide phenomenon that has gained great momentum ever since corporate scandals of bankruptcy erupted during the early 2000’s. The Corporate governance’s importance was amplified in 1998 when the financial crisis erupted in Russia, Asia and Brazil (Claessens & Horen, 2006). Later on, corporate governance practices were used in the United States and Europe. This practice drove many corporations out of business (Claessens et al., 2006). The economic disasters lead to good corporate governance implementation which in turn will achieve a strong economic base (Becht, Bolton, & Roell, 2003). In fact, corporate scandals were the main driver for eliciting changes in corporate governance practices (United Nations, 1999). Corporate governance describes the relation between a company’s chief executive officer, shareholders, board of directors, and stakeholders (employees, creditors, suppliers, customers), and the extent to which the board monitors the manager.
Moreover, corporate governance controls the board of directors’ degree of accountability
to the shareholders and the company (Arjoon, 2005). Good corporate governance
positively impacts the firm itself, the whole marketplace and the entire company
(Claessens et al., 2006).

The board of directors supervises management using corporate governance
practices which guarantees tactical supervision and useful administration. The board is
considered liable to the corporation and its stakeholders (Cornford, 2010). Even though,
corporate governance has no single definition, Cadbury states that it is a system which
structures, operates and controls a company with the ultimate objective to satisfy
shareholders and creditors. It also takes care of employees’ interests, maintains
outstanding relations with customers and suppliers, and properly complies with the
regulatory mandates and requirements (Cadbury, 2000). When firms exercise corporate
governance, companies will outperform their competitors since there is a strong
relationship between abiding to corporate governance practices and firm’s value
(Gompers, Ishii & Metrick, 2003). There is a link of causality between corporate
governance and a small interest of capital, high yield on investment, high productivity
and better treat for shareholders. However, the direction of causality isn’t always
transparent (Claessens et al., 2006). Corporate governance specifies the ones who are in
charge of corporate decisions, the categories of the decisions to be made and the
distribution of resources and revenues (O’Sullivan, 2000).

Corporate governance’s five dimensions contribute to fraud prevention. The
fives dimensions were as follows: transparency of financial data, ownership structure,
board of directors and management, corporate social responsibility and audit committee
(Dahawy, 2007). Those cited tools contribute to fraud prevention in corporations. This
study aims to test the tools of corporate governance in the Lebanese market and how it impacts fraud. There is little research on corporate governance application in Lebanon. Implementation of good corporate governance is not easy because many small and medium size enterprises manage their corporation alone and do not follow the general corporate governance’s rules and regulation (El-Kassar, Messarra & Elgammal, 2015). The disclosure of information in Lebanon is low (Elgammal, Assad & Jourdi 2014). There is a need to ameliorate corporate governance practices in order to monitor the chances of fraud in Lebanon.

1.2 Need for the Study

Fraud may be defined as planned dishonesty and stealing committed against: depositors, creditors, clients or government and others (Weirich & Reinstein, 2000). Corporate governance is important for the development and growth of all organizations. Also, corporate governance structure should be improved in developing countries. In developed economies, corporate governance insures the movement of investments to organizations and the return of income to lenders (Shleifer & Vishny, 1997). In Lebanon, corporate governance’s role is undervalued because it is not implemented by the legal rules and regulations.

Now that we understand that corporate governance is a must to every company in order to succeed, the aim of this thesis is the test the relationship of corporate governance’s dimensions with fraud. Fraudulent financial reporting and dishonesty cause a decline in investors’ confidence in audited financial reports. The function of corporate governance’s dimensions which evolved significantly during the last three
decades is one example of compliance tools promoting a strong governance base in organizations. Many recent studies conducted in developing countries prove that there is a must to ameliorate corporate governance structure. This research examines the likelihood of corporate governance to prevent and detect fraud in companies. First, Audit committee, board of directors, and management constitute the corporate governance members. Second, audit committee is very important in corporate governance. Audit committee identifies, display and regulate the business practices of the company. They assure effective management procedures. Then, the board of directors is a stakeholder in the company so the interest between its members which leads to conflicts. The audit committee is highly needed in order to control and limit such conflict between the members of boards of directors. Moreover, management has a major duty to fairly control the interaction between stakeholders. If management succeeds to allow what is beneficial and restricts what might harm the common interest of the organization, it will diminish the likelihood of fraud. Also, corporate social responsibility reduces the waste disposed to the society as a whole which in turn decreases fraud.

Finally, transparency of financial data eliminates the likelihood of fraud occurrence. All of the mentioned members work in collaboration in order to avoid fraud. SAS No. 82 states that there are 2 fraud types: fraudulent financial reporting and misappropriation of assets. Fraudulent financial reporting is called management fraud that is aimed to embellish the financial statements. Management Fraud is when the administration tries to embellish reported gains and overstates assets and revenues or to understates expenses and liabilities. Misappropriation of assets, also called employees fraud, is when employees steal cash or other assets from the organization.
By finding that there is a positive relationship between corporate governance and fraud, an advanced research is needed to examine the Lebanese case. This thesis will show whether there is a direct versus an indirect or positive versus negative relation between corporate governance and fraud. Moreover, recommendation and advices concluded from this research will be offered to readers who will use the provided information. The Lebanese society should take benefits of such information and work hard to ameliorate the actual situation. The Lebanese society faces fraud in its organizations so there is a need to work on testing corporate governance dimensions.

1.3 Research Problem

Specialists in the management accounting major recommend that the company’s corporate governance test the existence of fraud and control for it. In particular, corporations face a significant amount of fraud in the structure. Research testing the relationship between fraud and corporate governance proves that corporate governance and its structure contribute to achieve less fraud. The Lebanese institution faces the problem of weak corporate governance which leads to fraud problem. The Lebanese society faces many internal complications such as the lack of political strategies that control corporate governance, and the size of the company that might not afford the corporate governance structure. Other problems could be the political and social problems, the lack of fraud testing instrument and improper handling of employees who commit fraud.

Also, a good corporate governance application minimizes fraud occurrence that’s why the Lebanese companies should try to ameliorate corporate governance in general.
After applying corporate governance in Lebanon, a study of how corporate governance components lead to less fraud should be conducted.

### 1.4 Research Objective & Relevance of the study

The Research objective is to examine how corporate governance dimensions achieve less fraudulent financial reporting in corporation. After finding how corporate governance and fraud are related, it is essential to which corporate governance dimension impacts fraudulent financial reporting the most. At the end of the research a highlight of positive relationship between corporate governance structure that are: transparency of financial data, ownership structure, board of directors, corporate social responsibility, audit committee on one hand and fraud occurrence on the other hand. This study will constitute a good base for reference and further research. Corporate governance implementation is weak in Lebanon. Also, fraud is Lebanon is very widespread and there is a bad reputation about Lebanese companies. In Lebanon, this study should be used in order to ameliorate the actual case and implement corporate governance. Also, it contributes to fraud prevention in Lebanese companies. Thus, it affects the credibly of the Lebanese market as a whole. After finding how corporate governance practices help avoiding fraud, it should be noted that there is always kind of limitation to the study.

### 1.4 Limitations of the study

The research constituted of 115 surveys whereby 80 responded and 75 were actually usable so it is a small sample. It is a convenient sample. The questions test the
different point of view of companies in Lebanon. Moreover, the employees who responded to the surveys needed to know about corporate governance topic. Some employees were uninterested by the study and simply ignored the surveys. International studies tackled a similar issue of low respondents because employees fear to report any type of fraud because reporting fraud incorporation might cause punishment by the higher level managers. While collecting the data, employees’ were hesitant to report fraud in the company where they work. The low response rate is a limitation to the study. Moreover, there was another limitation, that is, the uninterested employees which made the data collection a more complex process. Then, collecting data from employees was time consuming. Another limitation of this research is that it relied only on the opinion of the Lebanese market leaders without taking into consideration any other area. Finally, other factors can be included such as code of ethics and government regulation. Before delving into the research, it is important to look at previous studies on corporate governance and fraud.
Chapter II

Literature Review and Hypotheses Development

This chapter includes: a literature review of corporate governance, transparency of financial data, board of directors, ownership structure, corporate social responsibility, audit committee and fraud. Moreover, a list of hypotheses to be tested is also included in this section. The literature review includes the relationship between corporate governance dimensions including: transparency of financial data, board of directors, ownership structure, corporate social responsibility and audit committee on one hand and fraud occurrence on the other hand.

2.1 Literature Review

In the following, a view of previous studies of corporate governance, its dimensions, and its influence on fraudulent financial reporting will be presented.

2.1.1 Corporate Governance

A good corporate governance structure is required in order to protect stakeholders' investments (D’Silva & Ridely, 2007). The worldwide expanding market and the change in the companies’ ownership structures also require good corporate governance structure (Aguilera & Cuervo-Cazurra, 2004). A Cadbury’s corporate
governance report testing the late 80’s crisis costs and causes for companies’ liquidations, defined corporate governance as scheme which administers and gears the organizations. This scheme represents the board of directors who are elected by the companies’ shareholders (Cadbury Report, 1992). Similarly, OECD that handed out the principles of corporate governance states that corporate governance achieves a strong basis in order to reach the organization’s objective and control its transactions. OECD also states that all stakeholders should collaborate to achieve a good company’s performance (OECD, 2004).

An international movement for creating rules and standards for a good corporate governance erupted. Corporate governance encouraged governmental and specialized companies to publish a number of reports and researches. Those movements pushed companies to create corporate governance rules and standards. The LCCG (2006) issued by the Lebanese Transparency Association concluded that a well governed organization achieves a better internal governance structure which insures higher profits for the company. LCCG attracts investors and allows the company to achieve higher returns (LCCG, 2006). LCCG, which mostly studies the Lebanese joint stock, associates classifications and explanations from different global best governance applications for example the OECD. The LCCG states that corporate governance is structure which oversees and supervises the firm. This code also assesses the job of those who are accountable for directing and controlling management (LCCG, 2006). The LCCG was also used as a base for other codes in the MENA area.

Another corporate governance definition states that corporate governance is the procedure that administer and controls firms globally (Gao & Cling, 2008). Most of these descriptions consider the board of directors, audit committee, transparency of
financial data, ownership structure, and corporate social responsibility as the dimensions for good corporate governance structure.

The lack of corporate governance structure will lead to fraud (Mensah, Addo & Buatsi, 2003). Companies who implement corporate governance in its structures are less likely to face fraudulent financial activities (Belay, 2007). Global corporations became more interested about corporate governance topic (Khanchel, 2007). It was concluded by Campos & Coricelli (2002) that in Eastern Europe and Africa, investors are willing to pay a premium up to 30% for corporations having good corporate governance. Similarly, a study conducted in Lebanon showed that more than 84% of international investors prefer to invest in a company having strong corporate governance and pay more for its share but are reluctant to invest in companies having the same financial situation with no corporate governance structure (LCCG, 2006). The LCCG states that the Lebanese corporations started using new governance structures to attract investors instead of pushing them away for investment. In addition, there are many points of views that tackle the number of contributors to corporate governance. The Guidance for Auditors specified that the corporate governance structure includes the board of directors, the management and audit committee (IIA, 2006). Some researches stated that the board of directors and the audit committee alone compose the governance structure of a company (Goodwin-Stewart & Kent, 2006; Gramling, 2004).

First, researchers found that there is a link between corporate governance and the board of directors. According to the King II principals, the board of director’s independence is the number one principal that proves the existence of strong corporate governance within the organization (OECD, 2004). Also, board independence is crucial in overseeing and controlling the firm’s management. The board members have to be
ready for unscheduled meetings in case of emergency such as the need for high supervision and control (Shivdasani & Zenner, 2004). The king II report states that 1 to 4 board meetings should be done yearly for the purpose of assuring a good control of the company’s transactions (OECD, 2002). So, the board of directors has an important role in the firm’s governance. On the other hand, strong governance relies on other factors and dimensions.

The section above tackles the notion of corporate governance and its history. It is a must to identify the main attributes that measure board of directors’ effectiveness. Improving those attributes participates in the development of the practices of corporate governance. Therefore, it is a must to find the mechanisms and tools that are directly linked to each dimension of corporate governance.

Due to the large amount of companies’ failure in the 80s combined with other factors, corporations became more interested in corporate governance practices. Particularly, business stakeholders are stressing the importance of applying corporate governance in order to protect their investments (D’Silva & Ridely, 2007). A more specific explanation defines corporate governance as the management and control of corporation around the globe (Gao et al.2008). Many arrangements state that the board of directors and the audit committee are the base for a good corporate governance performance. Other classifications such as The King II principals states that board of directors independence is the number one criteria that reflects a good corporate governance (OECD, 2002). Therefore, the boards of directors have an important part in corporate governance structure. After defining corporate governance and its dimensions, each one of these components will be thoroughly discussed.
2.1.2 Transparent Financial Data

Transparent financial data is a requirement for every company in order to survive in the long run. The Capital market uses corporate governance to assure that their financial reports are transparent (Rezaee, 2002). Transparency of financial data means that every transaction should be reported as it is regardless of its value. Usually, the accountant’s work is reviewed by auditors. Transparent financial statements show the gains and losses incurred and paid. It is the stakeholders’ right to have accurate financial information in their hands. The company should work internally and externally in order to make such financial statements available.

Financial statement transparency was interpreted as the appropriateness and timeliness of financial statements disclosure and their analysis by outsiders (Bushman, Piotroski & Smith, 2004). Financial reporting standards are defined as an array of commonly used framework and regulations used in the creation of financial statement. Those commonly agreed upon standards permit a corporation to disclose information to investors whether potential or existing ones. It also helps management and other stakeholders in making some company related decisions.

Financial transparency allows stakeholders to easily comprehend the company’s financials. Transparency of financial data has an important role in retrieving capital and lowering the cost of borrowing capital because it lowers information risk such as the loss due to lack of information or vagueness. Then, allowing employees’ access to financials will create a feeling of ownership and commitment which in turn reduces fraud. When deciding on a company’s budget, transparency of financial data necessitates clearness, accuracy and extensiveness (Tomann, 2000). Transparent financial data guarantees shareholders’ right and profits (Atabey & Çetin, 2012). Corporate transparency requires
the use of internationally accepted principals and other useful accounting principles for example the International Financial Reporting Standards (IFRS) (Atabey & Cetin., 2012).

Good Corporate governance practices are perceived as a preventer of capital waste, assurer of financial data transparency, supervisor of business transaction, and provider of social responsibility (Atabey & Cetin., 2012). Transparent financial data is a tactic that pushes people, administration, workplace and governments to be accountable for their transactions (Atabey & Cetin., 2012). In this framework, transparent financial data are described as management revelation of all financial information based on which their job will be judged by the public (Florini, 1999).

2.1.3 Board of Directors

Elected members of the board of directors cooperate and oversee the business operations. The Board of directors is also called board of governors, board of managers, board of regents, board of trustees, and board of visitors. The stockholders of the company are represented by the board of directors who are interested in increasing the profit to the highest level possible. They try to motivate stakeholders in order to increase profits while assuring a good company reputation. They play a major role in fraud prevention. A successful board of directors achieves the organization’s prosperity. They measure and influence the company by recognizing, detecting and using controlling fraud risk program (McNeal, 2011). The Board of directors nominates the CEO or general manager of the company and defines the track and business plan of the company. The CEO or general manager hires the staff and supervises their daily business transactions. Usually problems and conflicts begin when employees override
the rules and regulations. Conflicts also arise when directors interfere in every daily business transaction. On the other hand, management is not the only one authority to dictate the rules and decisions of the corporation but also the board of directors appoints officers for the board. The office of the president, also called the chair of the board is the most important office. The main Board of directors’ roles are as follows: Employ new people, oversee transaction, retain employees, assess employee’s performance, compensate managers, create directions for the company, Oversee the Company and the relationship with the CEO, and control Fiduciary responsibility to safeguard the company’s assets and shares. The Board of directors’ roles also include: Screening and regulating the company’s business functions.

2.1.4 Ownership Structure

Ownership structure is defined as the dispersal of equity ownership. A company’s ownership structure is defined as equity sharing in relation with capital and votes. It is a vital corporate component upon which incentives are distributed to directors who make decisions regarding the company’s financial efficiency. When shares ownership is independent, directors are able to control the firm more accurately and make better decisions (Heubischl, 2006). The ownership structure of a company is the endogenous result of shareholders’ business choice (Demsetz & Villalonga, 2001). Ownership structure has huge effect on corporate governance application (Shleifer & Vinshy, 1997). Limited liability corporations are more competent than proprietorships when it comes to splitting losses and risks. Corporate form of organization permits the organization to enlarge and increase capital from different stakeholders (Cole & Wuh 2000). There is a positive connection between ownership structure and stakeholders’
worth and profitability. The holders of large numbers of shares influence the company’s
tactic and effort (Thomsen & Pedersen, 2000). The joint work of management and
shareholders could lead to conflict in the company. This joint work could lead to what is
called agency theory but sometimes, large number of owners influences the
administration by minimizing diversification and maximizing profits (Jensen, 1986).
Ownership structure and company’s performance are directly related. However, when
ownership concentration reaches its limit, it will affect the company’s performance
negatively (Morck, Shleifer & Vishny, 1988). In addition, there are two types of
ownership structures: one with voting right and the other without voting right. The
ownership structure discloses the owners of the corporation’s equity. Large Corporations
have the problem of highly dispersed ownership structure and that’s what separates
ownership right and controls right of shareholders (Demstez & lehn, 1985).

2.1.5 Corporate Social Responsibility

Corporate social responsibility (CSR), called social citizenship, is when the
company takes responsibility of the effects of its products on the environment. It is a
recent topic of interest to the public (Huang, 2010). Companies interested in corporate
social responsibility are considered ecofriendly. These companies use the 3R’s that is
reduce, reuse and recycle. Corporate social responsibility cares not only about itself but
also about the society as a whole (Griesse, 2005). Corporate social responsibility
contributes to the efficient use of the limited economic resources. An effective Corporate
Social Responsibility takes into consideration many factors including the consumers, the
staff, the dealers, the public, and the situation. Corporate Social Responsibility should be
applicable in small and large corporations (Thornton, 2008). It pushes employees to abide by the rules, regulations and ethics and that’s what assures a better life quality.

However, the opponents of Corporate Social Responsibility suggest that a corporation should ignore Corporate Social Responsibility because doing so is more beneficial for the company (Kim, Park, & Wier, 2011). No business will adopt Corporate Social Responsibility unless there is a direct or indirect benefit for the corporation itself. This is most important in developing countries. A company can ameliorate the society’s needs by creating employment opportunities, developing the social standards, and creating goods that make employees’ life easier. CSR is a proactive approach that overcomes the business protocol of making profits and abiding by the law (Wicks & Harrison, 2013). Even though there are many factors that push to apply CSR, it is still not fully applicable because it is not fully comprehended (Freeman & Hasnaoui, 2011). Corporations need to follow the rules and regulations of Corporate Social Responsibility which is required by the Canadian government (Hasselback, 2014). CSR planning is a challenge to managers because of the conflict of interest between them and the company. Being socially responsible allows the corporation to gain a better relation with stakeholders and ameliorate the company’s reputation (Tuan, 2011). It is easier for large corporations to apply Corporate Social Responsibility because they possess the needed resources, but it is harder for smaller corporations. Corporate Social Responsibility pushes businesses to use their conscience while doing business (Legg’s, 2014). In order to survive in the competitive business environment, companies must be engaged in the society (Legg’s, 2014). CSR assures a good reputation for the corporation who applies it in its systems (Zulhamri & Yuhannis, 2013). Some forms of corporate social responsibility are sponsorship, environment care and financing
important events (Mitchell R, 1992). CSR implies that companies consider themselves accountable for the result of their transactions on the public and the society. CSR embraces four major parts: instrumental which implement a plan to assure profits, political which is used in order to achieve political goals, integrative which is created to achieve the societal needs, and ethical which is used to apply the company’s duty toward the society. Corporate social performance (CSP) helps to examine the performance and the application of corporate social responsibility (Huang, 2010). In order to maximize the company’s profits, a company must combine all the stakeholders’ interest and satisfy them (Jensen, 2002). There two types of stakeholders: primary stakeholders are those whose existence affects the performance of the corporation; if one of the secondary stockholders involved isn’t satisfied, they would leave for the sake of other opportunities, and that’s what affects the company negatively (Clarkson, 1995). Therefore, in order to retain employees, managers should treat them fairly.

2.1.6 Audit Committee

The Audit committee is a working board of directors that works with financial reporting. It should be active in order to be effective (Menon & Williams, 1994). The Audit committee is composed of the board of director’s member, and its job is to review financial statements process, pick outside auditors and receive interior and exterior transactions. It increases the credibility and quality of auditing (Piot & Janin, 2007). The Audit committee’s job is to help in diminishing fraud occurrence. Misleading financial statements are disclosed by the coordinated work of external and internal auditors (McMullen, 1996). In the capital market, the audit committee’s job is very important because it protects stakeholders by reviewing the financial statements process.
and procedures. Moreover, the audit committee is not only responsible for financial statement reviewing but also for appointing, compensating, overseeing, commanding and augmenting knowledge and experience of the employees (Lander & Auger, 2008). External auditors, internal auditors, managers, audit committee and the board of directors are all individuals who are responsible for the company’s corporate governance. In a corporation, the board appoints the managers who are responsible to overlook the agreed upon company’s goal. For the financial statement to be published publicly, it should be transparent and accurate. The financial statement is prepared by the internal auditors which will make it easier for external auditors’ review. The top accounting companies who are considered to have the biggest market share provide large number of external auditors. These companies include Ernest and Young, Price Water House Cooper, Deloitte and Touch and Klynveld Peat Marwick Goerdeler. Those companies insure the accuracy and transparency of financial statements. The external auditors are outsiders who visit the company to validate the accuracy and accountability of the financial statements. The significance of corporate governance becomes important when one considers its effect on fraud.

2.1.7 Fraud

According to the Association of Certified Fraud Examiner (ACFE), fraud includes 3 types which are assets misappropriation, corruption and financial statements fraud. First, assets misappropriation includes money and inventory taken to the employee’s own pocket. Then, corruption includes bribery that is when the customer pays money for the job to be done. Bribery includes kickbacks which is the commission
taken by employees in order to perform the job and bid rigging which is the payment of money to get the bid.

Moreover, corruption includes conflict of interest, economic extortion and illegal gratuities. Conflict of interest is when the employee hires or helps one of his family members or friends and this is not directly related to money. Then, economic extortion is when employees ask for money to finish their jobs. Finally, illegal gratuities are when customers give a present for an employee to perform the job. Finally, financial statements fraud is an intentional deception and falsification of financial statements. Financial statements fraud is the topic of this research paper. It is done usually by collusion among management, employees or third party (Zimbelman & Albrecht, 2012).

Fraud occurs when management tries to overstate its revenues or assets by augmenting assets and profits or decreasing expenses and liabilities to ameliorate the current financial situation. Fraud is deceit that is done by stakeholders which includes creditors, customers and other users (Weirich & Reinstein, 2000). Many corporations went bankrupt because of fraudulent action conducted by managers. Fraud is costly for corporations, and it affects companies of all sizes and occurs in a variety of industries. The case of Enron is the best example of the company which went bankrupt because of the misrepresentation of the financial statements. Thus, corporate governance is a way to detect and diminish fraudulent acts in financial reporting.

Many studies were conducted to examine the effects of corporate governance on fraud prevention. The reasons behind fraud are clarified by Albrecht et al. (1994) who stated that the factors influencing fraud are as follows: the situational pressure which is a low income and a hard work, the plausible opportunity that is the lack of regulations and rationalization which is viewed as plausible but false reasons (Moyes & Hasan, 1996).
The BBCI and Enron are an illustration of company’s disasters. The BCCI storm of July 1991 was attributed to involvement of top management and other parties in fraudulent loans and playing with financial statements (Vanasco, 1998). This latter drove to an international lawsuits because investors wanted to recover their investments on one hand and the ones who committed fraud were imprisoned (Truell & Gurwin, 1992). In addition, the failure of the English Baring Bank in February 1995 was attributed to the unlawful and unapproved transactions of Nick Leeson who is a trader in Singapore. Leeson deceived the public by showing that the bank was earning high profits but in reality, it was incurring huge losses (Drummond, 2002). Leeson pushed Baring Bank, which is considered a very prestigious English bank, out of business with almost £850 million as debts (Strategic Direction, 2002). Moreover, the failure of Enron in 2001 resulted in the collapse of Arthur Anderson auditing company (Vinten, 2003). The case of Enron is a sample of the fraudulent activities committed while both management and auditors were aware of it. The tread way Commission clarifies fraud as a planned act, by adding or removing financial information, that creates deceptive financial statement (Lutz, 2015).

Beasley (1996) stated that outside board members limits the probability of fraudulent financial statements. Also, he stated that an audit committee alone does not affect the likelihood of fraud occurrence. However, it can be concluded that audit committee’s performance is determined by the way the audit committee operates. Thus, an effective audit committee will assure less fraudulent financial reporting. Independent audit committee who meet at least 2 times per year will face less fraudulent financial reporting (Abbott et al., 2000). Sometimes, audit committee’s judgement for fraud may depend on internal auditors’ data because audit committee lack information based on
which they can make an independent judgement. According to Cox & Weirich (2002), the burden of complying or exceeding analysts’ expectations may push companies to fraudulent activities. Usually, the CEO contributes to inflating gains or hiding liabilities in the company’s financial statements and this is the case of Enron (Vinten, 2003).

Fraud is a costly problem for organizations (Burnaby, Abdol Mohammadi, Hass, Sarens & Allegrini, 2009), which affects companies of all sizes and occurs in a variety of industries (Beasley, Carcello, Hermanson & Neal, 2010). Traditionally, each business is always susceptible to internal fraud or corruption from its management and non-management employees (Phua, Lee, Smith & Gayler, 2010). For users of financial reports to perceive effective protection from fraudulent reporting, they should believe that any attempted fraud can be detected and reported (James, 2003). Organizations that discover fraud, including embezzlement, asset misappropriation, and manipulation of financial statements are usually surprised that the incident occurred and the auditors failed to uncover it (O’Reilly-Allen & Zikmund, 2009). Hemraj (2004) has also explained fraudulent behavior as a deliberate step made by one or more individuals to deceive or mislead with the objective of misappropriation of assets, distorting an organization’s apparent financial performance or strength to outsiders, or otherwise obtaining an unfair advantage. It encompasses white-collar crime, defalcation, irregularities, and embezzlement.

Furthermore, corruption is an action that is penalized by law in many countries. The Penalty for committing fraud depends on the country where the fraud is committed. Corruption takes many forms such as bribery, embezzlement, theft, extortion and blackmail. Wide spread example of corruption is bribery. Fraud injures organizations and it affects the company socially, politically and ethically. Countries around the globe
are investing effort to combat corruption (Argandona, 2003). Individuals who are interested in social control and domination are less aware of fraud because their concern is more focused on power which can be a kind of manipulation to others (Rosenblatt, 2012). Theft is another type of corruption that occurs in organizations and affects all levels of employees starting from the CEO extending to gatekeepers; it leads 3 out of 4 organizations out of business (Scjaefer, Trigilio, Negus & Ro, 2000).

Blackmail, one of the many methods of corruption has led pharmaceutical organization to less corporate creation and improvement (Miles, Munilla & Covin, 2002). When the same person is at the same time manager and owner, there is a higher probability of corruption than when the owner and the manager are different persons (Ramdani & Witteloosuijn, 2011). Corruption is a widespread threat to organizations that weakens competitive advantage (Boukouras & Koufopoulos, 2015). In the case where board of directors comes from diverse background, there is a higher chance of corruption which in turn will depreciate shareholder’s equity (Fellow & Safra, 2013).

Corruption, which is considered normal in some places, can take many forms such as despotism, favoritism and selfishness (Esarey, 2013). A diverse board of directors will help to achieve higher revenues and appreciated shares (Triana, Miller & Tzebiatowski, 2014). Fraud worsens the efficacy of resources which leads to less corporate progress (UNDP, 2014). In Indonesia, Citigroup Inc. was banned from launching new branches and was sanctioned because of fraud (WSJ, 2011).

2.1.8 Corporate Governance and Fraud

Razali and Arshad (2014) tackled the issue of corporate governance and its relationship with fraudulent reporting, and found that there is a direct positive relation
between both. The study was conducted in Malaysian companies during the period of 2010 -2011. They concluded that corporate governance assures less deceit in financial reporting and guarantees more transparent financials. The lack of transparent financial data leads to fraudulent financial data which is considered a crime (Rezaee, 2005). Corporate governance has pushed auditors and accountants to follow higher standards in accounting in order to assure more credible financial statements.

Dalnial, Kaaluddin, Sanusi and Khairuddin (2014) studied the variations in financial ratio between corporations with financial deceit and corporations with no financial deceit. They found that there is a huge difference in the financial ratio numbers. Also, they went further to test which ratios are more likely to change with fraud occurrence. Moreover, they found out that the following ratios such as debt to equity, account receivables to sales are the most affected ratios in accounting when there is fraud in the financial reports.

Abdul Rahman and Anwar (2014) proved in their study that there are programs and applications used to prevent deceptive financial statements. The study was conducted in Malaysia, specifically Malaysian Islamic banking. They learnt that in order to prevent fraud, a company should use software to detect them and treat them before they become red flags. Also, they proposed that bank settlement, keyword security and internal audit are the best ways by which company use its software to detect and prevent fraudulent financial reporting.

Grambling and Myers (2003) suggested that auditors and other employees can discover fraud in financial reports and that the audit should also cover the operational activities in order to prevent deceptive financial reporting.
Companies all over the world face fraud and it may range from single to billions of dollars. This may cause bankruptcy on one hand, and employee losing their jobs on the other hand, which will negatively effect on the country’s economy as a whole. Corporate governance is one way to avoid such consequences. In all companies the main aim of the management is to make profit. Some companies may use fraud in order to increase their profits, and this is illegal. Management works hard on its team in order to detect all traces of theft of the company. In Lebanon, the companies face fraud in their financial reporting. For different organizations, a different kind of fraud will take place, but the management should be wise while dealing with it. Alzoubi and Selamat (2012) suggested that board members are important components in corporate governance because these members are in charge of putting the company’s objectives and tactics while considering the concern of stakeholders. In addition audit committee plays a role in influencing fraud. According to Abbott and Parker (2000), the existence of an audit committee that achieves the minimum requirement to be effective and independent will lead to less fraudulent financial. Likewise, ownership structure has an impact on diminishing fraud. However, a study conducted in China shows that ownership structure is insignificant in achieving less fraudulent financial reporting in the corporation (Chen & Firth, 2006).

Moreover, Erturk, Froud, Johal and Williams (2004), stated that corporate governance links stockholders and supervision interest by writing a descriptive text describing organizational problems and giving solutions. Furthermore, Bekiris and Doukakis (2001) claimed that corporate governance requirements diminish the propensity of supervisors to manipulate financial and that is more credible in terms of financial statements. In Addition, Zhijun (2007) discussed that the data regarding fiscal
and operative issue is perceived as an important base for effective corporate governance: information release permits unrestricted depositors to control companies, and thus backs up investment market expansion. Inspecting is the best tool for data release.

Not to mention that, fraud is a major problem that most companies face. In Lebanon, corporations face fraud because of the irresponsible, greedy and untrustworthy management, shareholders or employees. Razali and Arshad (2014), described that fraudulent cases had erased the trust towards the fiscal markets, fiscal data and the inspection job in general. Dalnial, Kamaluddin, Sanusi and Khairuddin (2014) suggested that fraud can take 2 forms: one is misrepresentation of ownership and the second misrepresentation of financial statements in order to show that the company is making profits and avoiding losses. Rahman, according to Amat, Blake and Dowds (1999), suggests that creative accounting is a technique by which employees wisely change the financial picture of fiscal reports. Abd Hadi, Paino, Ismail and Dhiyauddin (2014), suggested that any individual who will have knowledge about a fraudulent action happening will be held responsible for such actions and he/she will be considered either an immoral or public violation.

Those outcomes prove that corporate governance contributes to fraud elimination and prevention. The presence of outside board members considerably affect fraud occurrence in corporations (Beasley, 1996). Further analysis proved that including women in board of directors assures fraud prevention and detection. That’s why the corporate governance of any company should be well constructed and well diversified. Corporate governance requires a lot of effort and money to be implemented, but it is an essential for a company’s success. Implementing corporate governance allows a
company’s development and reduces employees’ turnover because the company is more regulated.

Corporate governance ensures success in the long run that’s why companies should use all of their resources in order to implement it and erase fraud. In short, all of these previously stated articles allowed the understanding the effects of corporate governance on fraud detection and inhibition. To enrich our knowledge about this topic, questionnaires were distributed to students working in different corporations. Since the topic is concerned about the Lebanese society, the knowledge gained from this research will be invested in Lebanese work advancement. The purpose of this thesis is to study the effect of corporate governance on fraud prevention, in particular the issue of corporation. The remainder of this thesis is organized as follows: in section (2): The methodology of the study is presented. Also, a descriptive sample is shown. A preliminary analysis of the results is presented in section (3). A discussion, conclusion, recommendation and managerial implication are provided.

2.2 Hypotheses

As previously stated the main purpose of this study is to examine the compelling effects of corporate governance on fraud prevention. Several hypotheses are suggested, and they will be examined in this study.

Audit committees, who are responsible of the precision of financial data, and the efficiency of external and internal auditing are all important components of corporate governance that lead to less fraud. A study was conducted by Davies (2009) to test the efficacy of audit committee and internal audit when they work together.
H1: There is a positive relationship between good corporate governance practices and prevention of fraudulent financial reporting.

Financial data should be reported in their face value regardless of the money’s value. Numbers presented in financial statements shouldn’t be understated or overstated.

H1a: There is a positive relationship between transparency and prevention of fraudulent financial reporting.

Ownership structure determines the ID of the corporation’s equity holders. It divides shareholders as voting: there is a positive relationship between ownership and prevention of fraudulent financial reporting.

H1b: There is a positive relationship between ownership and prevention of fraudulent financial reporting.

The board of directors represents the stockholders of the company whose goal is to increase profit as much as possible. Boards of directors should be wise enough in order to increase their profit while keeping a good reputation for the company. The board of directors is an important player who contributes to fraud prevention and detection. A keen board will help achieve an increase in the company’s performance. Board members can have a quantifiable, positive effect on an organization by recognizing, determining and performing a fraud risk controlling program (McNeal, 2011).

H1c: There is positive relationship between board of directors and prevention of fraudulent financial reporting.

Corporate social responsibility is the extent to which a company cares about the exterior environment. Companies should invest part of their profits in order to ameliorate the society as a whole. The national public policy requires that employees
balance between the shareholders on one side and the environment and employees on the other side (Carroll, 1991)

H1d: There is a positive relationship between corporate social responsibility and prevention of fraudulent financial reporting.

Finally, the audit committee is the board of directors’ members who oversee financial reports and disclose them. The importance of the audit committee was developed in Sarbanes-Oxley Act of 2002.

H1e: There is a positive relationship between audit committee and prevention of fraudulent financial reporting.

In chapter III the methodology used will be presented and in chapter IV the data analysis will be detailed.
Chapter III

METHODOLOGY

The methodology used to conduct the data analysis is presented in this chapter. The composition of this chapter is as follows: definition of variables, measurement methods and techniques, sample data, data collection and statistics. Data is collected through questionnaires distributed to students who are employed in various companies operating in Lebanon.

3.1 Variables’ Definition

The measured variables are used to test the hypotheses stated above. The questionnaire was designed to measure corporate governance and fraudulent financial reporting. They consist of 8 sections whereby the first section tackles the demographics of the respondents. Moreover, the demographic sections consist of questions related to age, education, gender, years of experience and qualifications. The remaining sections tackle corporate governance and fraud. The second section measures the level of transparency in the financial statement. The third section examines the level of ownership structure and control privileges. The fourth section is about the level of board of directors and management in term of risk management and executive versus non-executive members. The fifth section tackles the level of corporate social responsibility.
The sixth section verifies the existence and effectiveness of auditing committee. Finally, the seventh examines the usual transactions that most likely face fraud.

3.2 Measurement Techniques

The first 15 questions, D 1 to D 15, constitute the demographics section of the questionnaire. The second section, TRSS 1 to TRSS 9, is used in order to test transparency dimensions. The third section, OWNS 1 to OWNS 9, test the ownership structure dimension. The fourth sections, BRDS 1 to BRDS 19, test the board of directors’ dimension. The fifth section, CSRS 1 to CSRS 7, test the corporate social responsibility dimension. The sixth section, ADTS 1 to ADTS 9 tests the audit committee dimension. The seventh section, FRDS 1 to FRDS 16, tests fraud occurrence. Five steps of Likert scale ranging from strongly disagrees to strongly agree are used from the second to the seventh section. All the sections are extracted from El-Kassar, Elgammal and Bayoud (2014) questionnaires that were used for other studies except for the survey questions related to fraud that were self-developed based on research papers read such as: (In'airat, 2015) and (Gramling & Myers, 2003). The questionnaire needed 10-15 minutes to be answered.

3.3 Sample

The questionnaire was distributed to alumni and graduate students (MBA, LLM, and EMBA) at the Lebanese American University. Out of the 115 surveys distributed, 80 responded. A total of 75 returned questionnaires were deemed usable. The participants were well informed of the purpose of the study. The process was done with the utmost confidentiality and anonymity.
3.4 Data Collection

The different items of the questionnaire were used to construct the variables measuring the corporate governance dimensions as well as the fraudulent financial reporting. These variables are used to examine how corporate governance dimensions contribute to detect and limit fraud. The convenient sampling method was used to collect the data. Items related to corporate governance dimensions and fraud were used to construct a score based on averaging. To test the hypotheses, scores were constructed from each corporate governance dimensions (transparency, ownership structure, board of directors and management, corporate social responsibility and audit committee) and fraud. These scores are denoted by:

- TRSS is the Transparency of Financial Data Score.
- OWNS is the Ownership Structure Data Score.
- BDRS is the Board of Directors’ Data Score.
- CSRS is the Corporate Social Responsibility Data Score.
- ADTS is the Audit Committee Data Score.
- FDRS is the Fraud Data Score.

These corporate governance scores are used as independent variables while the fraud score is the dependent variable. The scores are obtained based on averaging responses to items related to each corporate governance dimension as well as those related to fraud section. Higher scores indicate better corporate governance practices.
Higher fraud scores indicate higher tendencies of fraudulent financial reporting. A copy of the questionnaire distributed is provided in Appendix A.

3.5 Statistical Methods

For the statistical analysis to be done, the different scores are obtained and used in order to test the relationship between corporate governance dimensions and fraud tendencies. The statistical methods used in the analysis include: Analysis of Variance (ANOVA), regression and correlation, allowed us to explore the relationship between corporate governance and fraud.

In chapter IV the analysis and discussion used will be presented.
Chapter IV

ANALYSIS AND DISCUSSION

In this chapter, the statistical methods and techniques used to test the previously stated hypotheses are presented. The techniques used are descriptive statistics, correlation analysis, multiple regression, and backward elimination regression.

4.1 Descriptive Statistics

The various demographic questions are first analyzed. Descriptive analysis revealed the following outputs:

**Size**

First, the number of employees in the company is tested and the output of the SPSS is presented below.

<table>
<thead>
<tr>
<th>Size</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-9</td>
<td>11</td>
<td>14.7</td>
<td>14.7</td>
<td>14.7</td>
</tr>
<tr>
<td>10-19</td>
<td>8</td>
<td>10.7</td>
<td>10.7</td>
<td>25.3</td>
</tr>
<tr>
<td>20-50</td>
<td>14</td>
<td>18.7</td>
<td>18.7</td>
<td>44.0</td>
</tr>
<tr>
<td>&gt; 50</td>
<td>42</td>
<td>56.0</td>
<td>56.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>75</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>
In the table above, the organization size is presented out of 75 companies, 11 are between 1 and 9 representing 14.7% of the sample. Eight companies have between 10 and 19 employees, representing 10.7% of the sample. Fourteen companies are between 20 and 50 representing 18.7% of the sample. Forty-two companies with more than 50 employees represent 56% of the sample.

Years of Experience

Second, the years of experience is tested and the SPSS output is presented below.

Table 2: Descriptive Table of Years of Experience

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;5 years</td>
<td>17</td>
<td>22.7</td>
<td>22.7</td>
<td>22.7</td>
</tr>
<tr>
<td>5-10 years</td>
<td>23</td>
<td>30.7</td>
<td>30.7</td>
<td>53.3</td>
</tr>
<tr>
<td>&gt;10 years</td>
<td>35</td>
<td>46.7</td>
<td>46.7</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>75</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>
Companies that have less than 5 years of experience are 17 respondents represented 22.7% of the sample. 23 respondents have 5 to 10 years of experience represented 30.7% of the sample. Finally, those who have more than 10 years of experience are 35 companies which represent 46.7% of the sample.

The board size

Then, the board size is considered and the SPSS output is presented below.

**Table 3: Descriptive Table of Board Size**

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-4</td>
<td>12</td>
<td>16.0</td>
<td>16.4</td>
<td>16.4</td>
</tr>
<tr>
<td>5-10</td>
<td>35</td>
<td>46.7</td>
<td>47.9</td>
<td>64.4</td>
</tr>
<tr>
<td>&gt;10</td>
<td>26</td>
<td>34.7</td>
<td>35.6</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>73</td>
<td>97.3</td>
<td>100.0</td>
<td></td>
</tr>
<tr>
<td>Missing</td>
<td>System</td>
<td>2</td>
<td>2.7</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>75</td>
<td>100.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
16% of the sample is represented by 12 companies which have 1 to 4 board members. 35 companies have 5 to 10 boards’ members which represent 46.7% of the sample. Finally, large companies that have more than 10 employees were a total of 26 and represent 34.7% of the sample.

**Board of Directors Meeting**

Moreover, the Board of Directors item is tested and the SPSS output is presented below.

**Table 4: Descriptive Table of Board Meeting**

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td>1-3</td>
<td>16</td>
<td>21.3</td>
<td>22.5</td>
</tr>
<tr>
<td></td>
<td>4-6</td>
<td>25</td>
<td>33.3</td>
<td>35.2</td>
</tr>
<tr>
<td></td>
<td>&gt;6</td>
<td>30</td>
<td>40.0</td>
<td>42.3</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>71</td>
<td>94.7</td>
<td>100.0</td>
</tr>
<tr>
<td>Missing System</td>
<td>4</td>
<td>5.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>75</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>
The Board of 16 companies meets between 1 to 3 times annually representing 21.3% of the sample. The Board of 25 companies meet between 4 to 6 times yearly represents 33.3% of the sample. Finally, 40% of the sample was represented by 30 companies which their Board meets more than 6 times per year.

Figure 4: Descriptive Figure of Board Meetings
Sales

In Addition, Sales is tested and the SPSS results are presented below.

Table 5: Descriptive Table of Companies’ Sales

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid &lt;100000</td>
<td>8</td>
<td>10.7</td>
<td>11.9</td>
<td>11.9</td>
</tr>
<tr>
<td>100000-499000</td>
<td>20</td>
<td>26.7</td>
<td>29.9</td>
<td>41.8</td>
</tr>
<tr>
<td>500000-1000000</td>
<td>8</td>
<td>10.7</td>
<td>11.9</td>
<td>53.7</td>
</tr>
<tr>
<td>&gt;10000000</td>
<td>31</td>
<td>41.3</td>
<td>46.3</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>67</td>
<td>89.3</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Missing System | 8         | 10.7    |               |                    |

Total          | 75        | 100.0   |               |                    |

Figure 5: Descriptive Figure of Companies’ Sales

10.7% of the sample was represented by 8 companies which have sales of less than $100,000. Companies that have revenues between $100,000-499,000 represent 20
respondents equivalent to 26.7% of the sample. Firms that have sales between $500,000-1,000,000 were 8 companies represented 10.7% of the sample. Companies that have sales more than $1,000,000 were 31 companies represented 41.3% of the sample.

**Average Annual Sales over the Last 5 Years**

Then, the average annual sales over the last 5 years is tested and the SPSS output is presented below

<table>
<thead>
<tr>
<th>Table 6: Descriptive Table of Change in Sales</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid percentage</td>
</tr>
<tr>
<td>Frequency</td>
</tr>
<tr>
<td>-----------</td>
</tr>
<tr>
<td>decreased significantly</td>
</tr>
<tr>
<td>decreased slightly</td>
</tr>
<tr>
<td>no change</td>
</tr>
<tr>
<td>increased slightly</td>
</tr>
<tr>
<td>increased significantly</td>
</tr>
<tr>
<td>Total</td>
</tr>
<tr>
<td>Missing System</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>
3 companies of which experience a significant decrease in sales in the last five years, represents 4% of the sample. 6 companies experience a slight decrease in sales over the past 5 years represent 8% of the sample. 14 companies experience no change in sales over the past 5 years represents 18.7% of the sample. 24 companies experience a slight increase in sales over the past 5 years represent 32% of the sample. 20 companies experience a significant increase in sales over the past 5 years represent 26.7% of the sample.
Debt

Moreover, company debt is tested and the SPSS output is presented below.

Table 7: Descriptive Table of Companies’ Debt

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-25%</td>
<td>28</td>
<td>37.3</td>
<td>40.0</td>
<td>40.0</td>
</tr>
<tr>
<td>26-50%</td>
<td>35</td>
<td>46.7</td>
<td>50.0</td>
<td>90.0</td>
</tr>
<tr>
<td>&gt;50%</td>
<td>7</td>
<td>9.3</td>
<td>10.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>70</td>
<td>93.3</td>
<td>100.0</td>
<td></td>
</tr>
<tr>
<td>Missing</td>
<td>5</td>
<td>6.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>75</td>
<td>100.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 7: Descriptive Figure of Companies’ Debt

37.3% of the sample, which is equivalent to 28 companies, has debt that is between 1 and 25% of assets. 35 companies have a debt between 26 to 50% represent
46.7% of the sample. Those that have a debt greater than 50% were 7 respondents and represent 9.3% of the sample.

### 4.2 Reliability Analysis

First, statistical analysis were conducted to test the reliability of each component of corporate governance and fraud. The output of the five components and fraud are as follows.

- **Transparency of Financial Statements**

RELIABILITY
/VARIABLES=TRS1 TRS2 TRS3 TRS4 TRS5 TRS6 TRS7 TRS8 TRS9
/SCALE('ALL VARIABLES') ALL
/MODEL=ALPHA.

**Table 8: Reliability of Transparency of Financial data and Fraud.**

<table>
<thead>
<tr>
<th>Case Processing Summary</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cases Valid</td>
<td>75</td>
<td>100.0</td>
</tr>
<tr>
<td>Excluded</td>
<td>0</td>
<td>.0</td>
</tr>
<tr>
<td>Total</td>
<td>75</td>
<td>100.0</td>
</tr>
</tbody>
</table>

a. Listwise deletion based on all variables in the procedure.

**Table 9: Cronbach’s Alpha of Transparency of Financial data**

<table>
<thead>
<tr>
<th>Cronbach's Alpha of Items</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>.939</td>
<td>9</td>
</tr>
</tbody>
</table>

The reliability statistics above shows that Cronbach’s Alpha of transparency is 0.939 which is greater than the threshold 0.7. Thus, further statistical analysis can be conducted.
Ownership Structure

RELIABILITY
/VARIABLES=OWN1 OWN2 OWN3 OWN4 OWN5 OWN6 OWN7 OWN8 OWN9
/SCALE('ALL VARIABLES') ALL
/MODEL=ALPHA.

Table 10: Cronbach’s Alpha of Ownership Structure

<table>
<thead>
<tr>
<th>Cronbach's Alpha</th>
<th>N of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>.878</td>
<td>9</td>
</tr>
</tbody>
</table>

The Cronbach’s Alpha for ownership structure is 0.878 which indicated that there is a statistical reliability.

Board of Directors

RELIABILITY
/VARIABLES=BRD1 BRD2 BRD3 BRD4 BRD5 BRD6 BRD7 BRD8 BRD9 BRD10 BRD11 BRD12 BRD13 BRD14 BRD15 BRD16 BRD17 BRD18 BRD19
/SCALE('ALL VARIABLES') ALL
/MODEL=ALPHA.

Table 11: Cronbach’s Alpha of Board of Directors

<table>
<thead>
<tr>
<th>Cronbach's Alpha</th>
<th>N of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>.959</td>
<td>19</td>
</tr>
</tbody>
</table>

Alpha is equal to 0.959 for the board of directors which is above 0.7; therefore, additional analysis could be done.
Corporate Social Responsibility

RELIABILITY
/VARIABLES=CSR1 CSR2 CSR3 CSR4 CSR5 CSR6 CSR7
/SCALE('ALL VARIABLES') ALL
/MODEL=ALPHA.

Table 12: Cronbach’s Alpha of Corporate Social Responsibility

<table>
<thead>
<tr>
<th>Cronbach’s Alpha</th>
<th>N of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>.907</td>
<td>7</td>
</tr>
</tbody>
</table>

The results show a Cronbach’s Alpha value of 0.907 higher than the threshold (0.7) which means that it is reliable.

Audit Committee

RELIABILITY
/VARIABLES=ADT1 ADT2 ADT3 ADT4 ADT5 ADT6 ADT7 ADT8 ADT9
/SCALE('ALL VARIABLES') ALL
/MODEL=ALPHA.

Table 13: Cronbach’s Alpha of Audit Committee

<table>
<thead>
<tr>
<th>Cronbach's Alpha</th>
<th>N of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>.936</td>
<td>9</td>
</tr>
</tbody>
</table>

The value of 0.936 shows that further statistical research can be conducted for the audit committee.
Fraud

RELIABILITY
/VARIABLES=FRD1 FRD2 FRD3 FRD4 FRD5 FRD6 FRD7 FRD8 FRD9 FRD10 FRD11 FRD12 FRD13 FRD14 FRD15 FRD16
/SCALE('ALL VARIABLES') ALL
/MODEL=ALPHA.

Table 14: Cronbach’s Alpha of Fraud

<table>
<thead>
<tr>
<th>Cronbach's Alpha</th>
<th>N of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>.881</td>
<td>16</td>
</tr>
</tbody>
</table>

The statistical reliability of fraud is 0.881 greater than the threshold of Alpha which is 0.7. This indicates that further statistical analysis can be concluded.

Since all the Chronbach’s Alpha values are way larger than the minimum acceptable value of 0.7. From this, we can conclude that the questionnaire is reliable and further analysis can be conducted.
4.3 Correlation Matrix

The correlation analysis was conducted to determine the strength of the relationship between corporate governance and fraud. The following results are given in table 4.3

Table 15: Correlation Matrix

The correlation matrix reveals that there is a strong negative correlation between the fraud score and each corporate governance score. The scores vary from -0.376 to -0.447. The least effect corresponding the relationship between fraud and CSR followed by Ownership and Fraud (-0.391). Both correlation coefficients of these relationships are below the -0.4 level. All the correlation of corporate governance and fraud are significant at 0.01. Hence, the results support hypotheses H1a to H1e.

From this, a good practice to reduce fraud is to enhance corporate governance practices. In particular, the above table shows that Board of Directors practices have the highest influence on reducing fraud practices with a -0.447 score. The Audit Committee with a score of -0.435 also has a positive influence on reducing fraud after the board of
directors. The transparency of financial data occupies the third place in reducing fraud practices with a -0.415 score. The least influencing factors of corporate governance on fraud practices are Ownership Structure with a score of -0.391 and Corporate Social Responsibility with a score of -0.376.

According to the correlation analysis traced, financial reporting is impacted the most by the board independence and effectiveness. This was consistent with the study done by Beasley (1996) which indicated that the presence of outside board members decreases fraud occurrence in corporations. Then, the effectiveness of audit committee also decreases fraud but to a lesser extent of than that of board of independence and effectiveness. This was consistent with the study of Abbott and Parker (2000) signifying that an effective and independent audit committee assures less fraudulent financial reporting. Effective of audit committee is followed by the transparency of the financial reporting influencing in terms of decreasing fraudulent acts. This was consistent with the study done by Rezaee (2005) who indicated that the lack of transparent financial data leads to fraudulent financial data which is considered a crime. These dimensions of corporate governance are important to limit fraudulent activities since they are directly tied to overseeing, controlling and monitoring the financial activities.

On the other hand, the ownership structure and corporate social responsibility practices, although found significant, have less impact on reducing fraudulent activities as these dimensions are not directly related to financial reporting. This contradicts with a study done in China which found that ownership structure is insignificant in reducing fraud (Chen & Firth, 2006). However, the results found about corporate social responsibility supports the study that was conducted by (Legg, 2014) stating that
corporate social responsibility increases consciousness among stakeholders and thus decreases fraud.

To explain why good corporate governance practices is shown to have impact in reducing fraudulent activities, a direct association could be attributed to employees being engaged in corporate social responsibility activities and less dealing with fraudulent acts. Also, companies who are engaged in good corporate governance practices are likely to have employees believing in doing well to the environment and society so that they value ethical standards more such employees are less likely to involve in fraudulent activities.

4.4 ANOVA

Analysis of variance ANOVA is used below to tests whether there is significance between corporate governance and fraud within the different categories of the demographic variables: size of the company, board size, sales, difference in sales, debt, and years of experience.
4.4.1 Size of the company and fraud

Table 16 and 17 below present the ANOVA test output of the different category of sizes of company and fraud.

### Table 16: Descriptive Table of the Effect of the Company’s Size on Fraud

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error</th>
<th>95% Confidence Interval for Mean</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Lower Bound</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-9</td>
<td>11</td>
<td>2.155</td>
<td>.7034</td>
<td>.2121</td>
<td>1.682</td>
<td>1.0</td>
<td>2.7</td>
</tr>
<tr>
<td>10-19</td>
<td>8</td>
<td>2.875</td>
<td>.7667</td>
<td>.2711</td>
<td>2.234</td>
<td>1.7</td>
<td>3.7</td>
</tr>
<tr>
<td>20-50</td>
<td>14</td>
<td>1.964</td>
<td>1.2858</td>
<td>.3436</td>
<td>1.222</td>
<td>1.0</td>
<td>4.3</td>
</tr>
<tr>
<td>&gt; 50</td>
<td>42</td>
<td>2.660</td>
<td>1.0768</td>
<td>.1662</td>
<td>2.324</td>
<td>1.0</td>
<td>4.7</td>
</tr>
<tr>
<td>Total</td>
<td>75</td>
<td>2.479</td>
<td>1.0754</td>
<td>.1242</td>
<td>2.231</td>
<td>1.0</td>
<td>4.7</td>
</tr>
</tbody>
</table>

### Table 17: ANOVA of the Effect of the Company’s Size on Fraud

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>7.490</td>
<td>3</td>
<td>2.497</td>
<td>2.270</td>
<td>.088</td>
</tr>
<tr>
<td>Within Groups</td>
<td>78.096</td>
<td>71</td>
<td>1.100</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>85.586</td>
<td>74</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Significance is at 0.05. By using One Way ANOVA to test the effect of the company’s size on fraud practices, 11 companies that have 1 to 9 employees have an average fraud of 2.15. The average fraud increased to 2.87 as the company size increased to 10-19 employees. However, average fraud decreased to 1.96 as the size of the company increased to reach 50 employees after which fraud increased again to reach 2.66 with a number greater than 50 employees. In general, the size of the company does not have a huge significance on fraud practices. Overall, small and large companies do not have high fraud practices relative to middle sized companies.

Dependent variable: Fraud
Independent variable: Transparency of financial data, ownership structure, audit committee, board of directors and corporate social responsibility.

4.4.2 Board size

Table 18 and 19 below present the ANOVA test output of the different category of board size and fraud.

Table 18: Descriptive Table of Board Size and Fraud

<table>
<thead>
<tr>
<th>BOD size</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error</th>
<th>95% Confidence Interval for Mean</th>
<th>Lower Bound</th>
<th>Upper Bound</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-4</td>
<td>12</td>
<td>2.325</td>
<td>.9827</td>
<td>.2837</td>
<td>1.701</td>
<td>2.949</td>
<td>1.0</td>
<td>4.3</td>
<td></td>
</tr>
<tr>
<td>5-10</td>
<td>35</td>
<td>2.491</td>
<td>1.1094</td>
<td>.1875</td>
<td>2.110</td>
<td>2.873</td>
<td>1.0</td>
<td>4.3</td>
<td></td>
</tr>
<tr>
<td>&gt;10</td>
<td>26</td>
<td>2.546</td>
<td>1.1427</td>
<td>.2241</td>
<td>2.085</td>
<td>3.008</td>
<td>1.0</td>
<td>4.7</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>73</td>
<td>2.484</td>
<td>1.0899</td>
<td>.1276</td>
<td>2.229</td>
<td>2.738</td>
<td>1.0</td>
<td>4.7</td>
<td></td>
</tr>
</tbody>
</table>

Table 19: ANOVA of Board Size and Fraud

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>.406</td>
<td>2</td>
<td>.203</td>
<td>.167</td>
<td>.847</td>
</tr>
<tr>
<td>Within Groups</td>
<td>85.115</td>
<td>70</td>
<td>1.216</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>85.520</td>
<td>72</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Companies that have 1-4 board members have an average fraud of 2.32. This average increased to reach 2.49 as a number of board member increased to reach to reach 10. As the members of the board increase to become greater than 10 members, the average fraud increases to become 2.54.
4.4.3 Sales

Table 20 and 21 below present the ANOVA test output of the different category of sales and fraud.

**Table 20: Descriptive Table of Sales and Fraud**

<table>
<thead>
<tr>
<th>Sales</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error</th>
<th>95% Confidence Interval for Mean</th>
<th>Minim Lower Bound</th>
<th>Upper Bound</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;100,000</td>
<td>8</td>
<td>2.475</td>
<td>.4200</td>
<td>.1485</td>
<td>2.124 to 2.826</td>
<td>1.7</td>
<td>2.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>100,000-499,000</td>
<td>20</td>
<td>2.115</td>
<td>1.0499</td>
<td>.2348</td>
<td>1.624 to 2.606</td>
<td>1.0</td>
<td>4.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>500,000-1,000,000</td>
<td>8</td>
<td>2.600</td>
<td>1.1097</td>
<td>.3923</td>
<td>1.672 to 3.528</td>
<td>1.0</td>
<td>3.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&gt;1,000,000</td>
<td>31</td>
<td>2.806</td>
<td>1.0902</td>
<td>.1958</td>
<td>2.407 to 3.206</td>
<td>1.0</td>
<td>4.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>67</td>
<td>2.536</td>
<td>1.0469</td>
<td>.1279</td>
<td>2.280 to 2.791</td>
<td>1.0</td>
<td>4.7</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Table 21: ANOVA of Sales and Fraud**

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>5.875</td>
<td>3</td>
<td>1.958</td>
<td>1.856</td>
<td>.146</td>
</tr>
<tr>
<td>Within Groups</td>
<td>66.459</td>
<td>63</td>
<td>1.055</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>72.334</td>
<td>66</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Entities that have sales less than $1,000,000 have an average fraud of 2.47. However, entities that have sales between $1,000,000 and 499,000 have an average fraud of 2.11. Similarly, companies that have sales between $500,000 and $1,000,000 have an average fraud of 2.6. Average fraud increases to 2.8 for the companies that have annual sales greater than $1,000,000. It is concluded that in general there is no
significance between the annual sales of the company and its fraud practices with
significance less than 0.05. The increase in average fraud with an increase in sales is due
to the different number of sample companies in each category.

4.4.4 Difference in Sales and Fraud

Table 22 and 23 below present the ANOVA test output of the different category of
difference in sales and fraud

<table>
<thead>
<tr>
<th>Diff in sales</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error</th>
<th>95% Confidence Interval for Mean</th>
<th>Lower Bound</th>
<th>Upper Bound</th>
<th>Minim.</th>
<th>Maxim.</th>
</tr>
</thead>
<tbody>
<tr>
<td>decreased significantly</td>
<td>3</td>
<td>3.733</td>
<td>1.6743</td>
<td>.9667</td>
<td>-.426</td>
<td>7.893</td>
<td>1.8</td>
<td>4.7</td>
<td></td>
</tr>
<tr>
<td>decreased slightly</td>
<td>6</td>
<td>3.067</td>
<td>.4967</td>
<td>.2028</td>
<td>2.545</td>
<td>3.588</td>
<td>2.7</td>
<td>3.7</td>
<td></td>
</tr>
<tr>
<td>no change</td>
<td>14</td>
<td>2.586</td>
<td>1.1562</td>
<td>.3090</td>
<td>1.918</td>
<td>3.253</td>
<td>1.0</td>
<td>4.3</td>
<td></td>
</tr>
<tr>
<td>increased slightly</td>
<td>24</td>
<td>2.333</td>
<td>.9407</td>
<td>.1920</td>
<td>1.936</td>
<td>2.731</td>
<td>1.1</td>
<td>4.3</td>
<td></td>
</tr>
<tr>
<td>increased significantly</td>
<td>20</td>
<td>2.610</td>
<td>1.0518</td>
<td>.2352</td>
<td>2.118</td>
<td>3.102</td>
<td>1.0</td>
<td>4.3</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>67</td>
<td>2.597</td>
<td>1.0478</td>
<td>.1280</td>
<td>2.341</td>
<td>2.853</td>
<td>1.0</td>
<td>4.7</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>4</td>
<td>1.718</td>
<td>1.624</td>
<td>.180</td>
</tr>
<tr>
<td>Within Groups</td>
<td>62</td>
<td>1.058</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>66</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Firms that have experienced a significant decrease in sales have an average fraud
of 3.73. However, those that experienced a slight decrease in sales have an average fraud
of 3.06. This average decreased to 2.58 for those companies that did not experienced any
change in sales. Companies that experienced a slight decrease in its sales have an
average fraud of 2.33. Finally, companies that experienced a significant increase in sales have an average fraud of 2.61. This means that in general there is no direct relation between change in sales and fraud with a significance of less than 0.05 (0.18).

### 4.4.5 Debt and Fraud

Table 24 and 25 below present the ANOVA test output of the different category of Debt as a percentage of total assets and fraud.

**Table 24: Descriptive Table of Debt and Fraud**

<table>
<thead>
<tr>
<th>Debt</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error</th>
<th>Lower Bound</th>
<th>Upper Bound</th>
<th>Minimu m</th>
<th>Maximu m</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-25%</td>
<td>28</td>
<td>2.72</td>
<td>1.1553</td>
<td>.2183</td>
<td>2.281</td>
<td>3.177</td>
<td>1.1</td>
<td>4.7</td>
</tr>
<tr>
<td>26-50%</td>
<td>35</td>
<td>2.44</td>
<td>1.0388</td>
<td>.1756</td>
<td>2.089</td>
<td>2.803</td>
<td>1.0</td>
<td>4.3</td>
</tr>
<tr>
<td>&gt;50%</td>
<td>7</td>
<td>1.86</td>
<td>.7955</td>
<td>.3007</td>
<td>1.121</td>
<td>2.593</td>
<td>1.0</td>
<td>2.7</td>
</tr>
<tr>
<td>Total</td>
<td>70</td>
<td>2.50</td>
<td>1.0833</td>
<td>.1295</td>
<td>2.242</td>
<td>2.758</td>
<td>1.0</td>
<td>4.7</td>
</tr>
</tbody>
</table>

**Table 25: ANOVA of Debt and Fraud**

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>4.459</td>
<td>2</td>
<td>2.229</td>
<td>1.952</td>
<td>.150</td>
</tr>
<tr>
<td>Within Groups</td>
<td>76.521</td>
<td>67</td>
<td>1.142</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>80.980</td>
<td>69</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Companies that have Debt between 1 and 25% have an average fraud of 2.72. As the percentage of debt increases between 26 to 50%, average fraud decreases to reach 2.44. Finally, as Debt rise above 50%, average fraud decreases till 1.77. It can be concluded that there is a slight significance between debt and fraud. Whenever the level of loans increases in the company there will be more monitoring on all the firms’
activities. This will make it harder for fraud occurrence.

### 4.4.6 Years of experience and Fraud

Table 26 and 27 below present the ANOVA test output of the different category of years of experience and fraud.

#### Table 26: Descriptive Table of Years of Experience and Fraud

<table>
<thead>
<tr>
<th>Company's age</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error</th>
<th>95% Confidence Interval for Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Lower Bound</td>
</tr>
<tr>
<td>&lt;5 years</td>
<td>17</td>
<td>2.253</td>
<td>1.0519</td>
<td>.2551</td>
<td>1.712</td>
</tr>
<tr>
<td>5-10 years</td>
<td>23</td>
<td>2.404</td>
<td>1.1507</td>
<td>.2399</td>
<td>1.907</td>
</tr>
<tr>
<td>&gt;10 years</td>
<td>35</td>
<td>2.637</td>
<td>1.0415</td>
<td>.1760</td>
<td>2.279</td>
</tr>
<tr>
<td>Total</td>
<td>75</td>
<td>2.479</td>
<td>1.0754</td>
<td>.1242</td>
<td>2.231</td>
</tr>
</tbody>
</table>

#### Table 27: ANOVA of Years of Experience and Fraud

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>1.872</td>
<td>2</td>
<td>.936</td>
<td>.805</td>
<td>.451</td>
</tr>
<tr>
<td>Within Groups</td>
<td>83.714</td>
<td>72</td>
<td>1.163</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>85.586</td>
<td>74</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Entities that have been operating for less than 5 years have an average fraud of 2.25. Those that have been operating for 5 to 10 years have an average fraud of 2.40. The average fraud increases to 2.63 for companies that have been operating for more than 10 years. Even though there is an increase in the average fraud as years of experience increase, there is no relation between fraud and years of experience with a significance of less than 0.05.
4.5 Regression

In this section, a regression model is constructed to further test hypotheses H1a-H1e. The independent variables are the corporate governance scores and the dependent variable is the fraud score. The SPSS output is summarized in the tables below.

Table 28: Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
</table>

a. Predictors: (Constant), ADTS, OWNS, CSRS, TRSS, BRDS

The model summary showed a correlation coefficient of 0.458 and a correlation of determination of 0.210 indicating that the corporate governance dimensions explained an acceptable percentage of the variation in the observed fraudulent activities.
The results of the ANOVA test for the regression model indicated that the model is highly significant, p-value = 0.05. Hence, corporate governance practices can be used as predictors of fraudulent financial reporting.

The regression equation can be written as:

\[
\text{FRDS} = 5.533 + 0.011 \text{TRSS} - 0.206 \text{OWNS} - 0.276 \text{BRDS} - 0.151 \text{CSRS} - 0.220 \text{ADTS}
\]
Since all coefficients are negative, the regression model gives some indications to support H1a-H1e. However, none of these coefficients was found significant as seen in the p-value column of Table 30. Independence and efficiency of the board of directors was found to have the highest impact on reducing fraudulent activities while transparency of financial reporting was found to have no impact.

Note: when all components of corporate governance are considered, the regression equation did not signal out one dominant component

To investigate further, stepwise regression analysis was conducted. The computer output is shown below. The results show that a regression model with BRDS as the only independent variable explains most of the variations in the FRDS values, 17.2% compared to the 21.0% for the full model.

Table 31: Stepwise Regression Analysis

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.415a</td>
<td>.172</td>
<td>.161</td>
<td>.98351</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), BRDS
ANOVA

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>14.688</td>
<td>1</td>
<td>14.688</td>
<td>15.185</td>
<td>.000b</td>
</tr>
<tr>
<td>Residual</td>
<td>70.612</td>
<td>73</td>
<td>.967</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>85.300</td>
<td>74</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: FRDS
b. Predictors: (Constant), BRDS

The overall model is highly significant at p<0.01.

Coefficients

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td>T</td>
</tr>
<tr>
<td>1 (Constant)</td>
<td>4.824</td>
<td>.617</td>
<td></td>
<td>7.815</td>
</tr>
<tr>
<td>BRDS</td>
<td>-.656</td>
<td>.168</td>
<td>-.415</td>
<td>-3.897</td>
</tr>
</tbody>
</table>

a. Dependent Variable: FRDS

The model used as the BDRS as the only insignificant variable and the following equation came out:

\[ FRDS = 4.824 - 0.656 \times BRDS \]

The equation is significant at 0.656, so BRDS by itself can explain most of the variability explained by all corporate governance dimensions.
**Excluded Variables**

<table>
<thead>
<tr>
<th>Model</th>
<th>Beta In</th>
<th>T</th>
<th>Sig.</th>
<th>Partial Correlation</th>
<th>Collinearity Statistics</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Tolerance</td>
</tr>
<tr>
<td>1</td>
<td>TRSS</td>
<td>-.068$^b$</td>
<td>-.478</td>
<td>.634</td>
<td>-.056</td>
</tr>
<tr>
<td></td>
<td>OWNS</td>
<td>-.160$^b$</td>
<td>-1.261</td>
<td>.211</td>
<td>-.147</td>
</tr>
<tr>
<td></td>
<td>CSRS</td>
<td>-.143$^b$</td>
<td>-.930</td>
<td>.355</td>
<td>-.109</td>
</tr>
<tr>
<td></td>
<td>ADTS</td>
<td>-.221$^b$</td>
<td>-1.523</td>
<td>.132</td>
<td>-.177</td>
</tr>
</tbody>
</table>

*a. Dependent Variable: FRDS*

The stepwise checks if any of the excluded variables should enter. None of the variables were found significant since all p values are higher than 0.05.
Chapter V

Conclusion

In this chapter, we present the summary of the study, conclusion, recommendation and future research.

5.1 Summary

This study tested the relationship between corporate governance dimensions and fraud prevention. Data collected from Alumni and graduates of LAU is used in order to determine the relationship between corporate governance dimensions and fraud. These participants are currently working in Lebanese firms and are knowledgeable in the topic of corporate governance.

The results indicated that corporate governance dimensions lead to lower fraud occurrence. Based on an extensive literature review, the hypotheses were developed. Studies were used in order to suggest the study’s hypotheses. Those hypotheses were tested. Independent and dependent variables, measurement techniques and the sample size were completely described. The statistical techniques used to test the hypotheses include: One Way ANOVA, correlation, reliability, regression and descriptive statistics. First, descriptive statistics were used to test the relationship between size, board size, board meetings, sales, annual sales, debt, years of experience and fraud occurrence.
Second, the cronbach’s reliability analysis showed that the corporate governance dimensions and fraud were reliable which allowed for further researches.

Then, correlation was tested using One Way ANOVA showed that middle sized companies are more likely to be subject to fraud than small and large companies. There is a positive correlation between company size and fraud occurrence. Then, the data collected showed a positive relationship between board size and fraud. In addition, the effectiveness and independence of board of directors is the most impacting factor that leads to less fraud followed by the audit committee, the transparency of financial data. The less influential dimensions were ownership structure and corporate social responsibility.

Most of the respondents worked in companies that have more than 50 employees. The companies have been operating in the market for more than 10 years and which board of directors meets more than 6 times per year. Also, the regression model showed that the corporate governance dimensions explained an acceptable percentage of the variation in the observed fraudulent activities. Hence, corporate governance practices can be used as predictors of fraudulent financial reporting. Finally, the results revealed that a regression model with board of directors’ independence and effectiveness as the only independent variable explains most of the variations in the fraud values.

5.2 Conclusion and Recommendations

Nowadays, corporations focus on practicing corporate governance dimensions and communicating the role of its dimensions in order to reduce fraud occurrence. This
study was conducted to prove the relationship between audit committee, the board of directors, the ownership structure, transparency of financial data and corporate social responsibility on one hand, and fraud occurrence on the other hand. This relationship pushes corporations to pay more attention to corporate governance dimensions in order to achieve less fraud. In addition, we need more regulations of corporate governance in Lebanon. The results of a study conducted in Lebanon show that effective and efficient board of directors is the dimension that influences corporate fraud the most. Then, audit committee and transparency of financial data come in the second and third place. Corporations should have independent and effective board of directors who can take decisions without external influence and which contribute to diminish fraudulent financial reporting. Moreover, since audit committee operates under the supervision of board of directors, an effective board of directors will lead to an effective board of directors and thus to less fraud occurrence. In addition, transparency of financial data should be presented in companies so that stakeholders will know the actual financial situation and can act accordingly. Furthermore, companies should also give attention to Ownership structure and corporate social responsibility in order to prevent fraud. For instance, companies can engage in social activities.

5.3 Future Research

Future investigations should be done to examine the corporate governance dimensions efficacy on fraud occurrence. Each of the five components of corporate governance which are audit committee, the board of directors, the ownership structure, transparency of financial data and corporate social responsibility could be a separate set
of questionnaires based on which future researches could be conducted. Conducting a separate study allows getting involved in more details thus allows for a more detailed investigation about each separate corporate governance dimensions. In addition, this study should be conducted on a bigger pool of sample than the convenient one conducted in this research. Then, this research was limited to the Lebanese case. This same topic could include different countries which allow for a broader opinion thus permits for new research topics that aim to compare Lebanon’s case versus other countries.
Bibliography


Gramling, A., Maletta,M., Schneider, A., & Church, B. (2004). The role of the


Appendix “A”

Questionnaire

The purpose of this survey is to test the relationship between corporate governance and fraud occurrence. The questionnaire is voluntary and the data collected is strictly confidential. All participants will NOT be identified and you have the option not to answer a particular question. The data collected will be analyzed and used to identify any educational needs which can then be implemented as appropriate. Please note if you don’t know the answer or don’t want to answer a particular question then leave it blank. You agree to take part in this survey by completing questions below.

If you have any questions, you may contact:

<table>
<thead>
<tr>
<th>Name (PI)</th>
<th>Phone number</th>
<th>Email address</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr. Abdulnasser Kassar</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

If you have any questions about your rights as a participant in this study, or you want to talk to someone outside the research, please contact the:

IRB Office,
Lebanese American University
3rd Floor, Dorm A, Byblos Campus
Tel: 00 961 1 786456 ext. (2546)

Please tick or circle the appropriate answer:

1) Your organization size:  
a) 1 - 9 employees  
b) 20 - 50 employees  
c) 10 - 19 employees  
d) > 50 employees

2) Your organization’s board of directors size:  
a) 1 - 4 members;  
b) 5 - 10 members;  
c) > 10 members

3) How many times does the board meet per year?  
a) 1 - 3 times  
b) 4 - 6 times  
c) > 6 times
4) CEO compensation:
   a) < $ 50,000                       b) $ 50,000 - 99,000 $   c) $ 100,000 - 149,000
   d) $ 150,000 - 250,000           e) > $ 250,000

5) How often do family members who are not members of the legal board attend the
   meeting?
   a) Always                            b) Sometimes                        c) Never

6) Do family members engage and participate in board decisions?
   a) Yes                                   b) No

7) Approximately what are the sales revenues per year?
   a) < $ 100,000                b) $ 100,000 - 499,000        c) 500,000 - 1,000,000 $    
   d) > $ 1,000,000

8) Over the past five years the average annual sales revenue has:
   a) Decreased significantly   b) Decreased slightly   c) No change
   d) Increased slightly       e) Increased significantly

9) Combined long term and short term debt is approximately what % of equity?
   a) 0 - 25%                      b) 26 - 50%                      c) > 50%

10) Qualifications: a) No degree   b) Graduate

11) Specialization: a) Accounting and auditing   b) Banking science
    c) Business Administration    d) Another set
12) Years of experience: a) < 5 years     b) 5-10 years     c) > 10 years

13) Professional certificate: a) CA      b) CPA        c) CIA

   d) Another set                          e) Nothing

14) Age: a) < 30 years       b) 30-40 years      c) > 40 years

15) Gender: a) Male            b) Female

For each of the questions, please tick the most appropriate answer where SD represents strongly disagree; D represents disagree; N represents Neutral; A represents agree and SA represents strongly Agree. There is an ample level of transparency of financial data in terms of

<table>
<thead>
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<th>A</th>
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<tbody>
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<td>1) Financial results</td>
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<tr>
<td>2) Objectives of the company</td>
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<tr>
<td>3) Accounting evaluations</td>
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<tr>
<td>4) Related party transactions: elements and nature</td>
<td></td>
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<tr>
<td>5) Related party transactions: practices and disclosure (under control)</td>
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<tr>
<td>6) Board’s duties and financial communications</td>
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<td>7) Extraordinary transactions regulations</td>
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<tr>
<td>8) Alternative accounting decisions: impact and analysis</td>
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<tr>
<td>9) The process for decision making and approval of transactions with related parties</td>
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</table>
For each of the questions, please tick the most appropriate answer. There is an ample level of Ownership structure and control privileges

<table>
<thead>
<tr>
<th>Question</th>
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<th>D</th>
<th>N</th>
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<tbody>
<tr>
<td>1) Structure of ownership</td>
<td></td>
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<tr>
<td>2) Control organization</td>
<td></td>
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<td>3) Control and equity stake</td>
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<td>4) Control privileges</td>
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<tr>
<td>5) Existence of meeting agenda</td>
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<td>6) Procedures for holding annual meetings</td>
<td></td>
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<tr>
<td>7) Shareholders diversity</td>
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<tr>
<td>8) Actions for Anti-Takeovers</td>
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<tr>
<td>9) Regulations that cover and guide the corporate control</td>
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For each of the questions, please tick the most appropriate answer. There is an ample level of Structure of Board of Directors and Management in terms of
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<tr>
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<th></th>
<th>SD</th>
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<th>N</th>
<th>A</th>
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<tbody>
<tr>
<td>1)</td>
<td>Structure and goals of risk management</td>
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<td>2)</td>
<td>Board of directors structure: non-executives versus executive</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>3)</td>
<td>Information about board members such as qualifications and biographical information</td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>4)</td>
<td>Responsibilities and positions of outside board members</td>
<td></td>
<td></td>
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<tr>
<td>5)</td>
<td>Position held by the executives and the number of outside board members</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>6)</td>
<td>Checks and balances instruments</td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<td>7)</td>
<td>Presence of a succession plan</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>8)</td>
<td>Conflict of interest prevention through committees and governance procedures</td>
<td></td>
<td></td>
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<td>9)</td>
<td>Governance committee composition and main task</td>
<td></td>
<td></td>
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<td>10)</td>
<td>Board of directors: function and role</td>
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<td>11)</td>
<td>Length of contracts for directors</td>
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<td>12)</td>
<td>Composition of the remuneration of directors and its determinants</td>
<td></td>
<td></td>
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<tr>
<td>13)</td>
<td>Number of independent board members</td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>14)</td>
<td>Professional activities for training and development</td>
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<td></td>
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<tr>
<td>15)</td>
<td>Reimbursement plan for senior managers in special cases such as merger and acquisition</td>
<td></td>
<td></td>
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<tr>
<td>16)</td>
<td>Presence of procedures covering conflicts of interest among board members</td>
<td></td>
<td></td>
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<tr>
<td>17)</td>
<td>Existence of advisors during reporting period</td>
<td></td>
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<td>18)</td>
<td>Process for evaluating performance</td>
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<tr>
<td>19)</td>
<td>Management and board members’ material interests</td>
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</table>
For each of the questions, please tick the most appropriate answer. There is an ample level of corporate Social Responsibility in terms of

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<td>1) Performance based on social responsibility and environmental awareness</td>
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<tr>
<td>2) Firm’s sustainability as a function of social responsibility guidelines</td>
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</tr>
<tr>
<td>3) Regulations to protect the rights of all business stakeholders</td>
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</tr>
<tr>
<td>4) Code of Ethics for board members</td>
<td></td>
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<tr>
<td>5) Ethical code of conduct for all the employees</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>6) Awareness of all the employees about corporate governance and their role in implementing it</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7) Strategy to protect employees against whistle blowers</td>
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For each of the questions, please tick the most appropriate answer regarding the existence and effectiveness of the following elements (Auditing committee)

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<tr>
<td>1) Procedures governing collaboration with external auditors</td>
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<td>2) Procedures and responsibilities for appointing internal auditors</td>
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<td>3) Reliability of external auditors and board’s confidence</td>
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<td>4) Procedures governing collaboration with internal auditors</td>
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<td>5) Decision making procedure for appointing external auditors</td>
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<td>6) Internal control systems</td>
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<td>7) Period of auditor contracts</td>
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<td>8) Audit partner rotation process</td>
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<td>9) The remuneration of auditors and involvement in other services non-audit work</td>
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For each of the questions, please tick the most appropriate answer related to your corporation

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<tr>
<th>Question</th>
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<tbody>
<tr>
<td>1) Some impaired non-operating assets are not recorded</td>
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<td>2) A higher discount rate is utilized when applying purchase accounting</td>
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<td>3) A higher discount rate is utilized when determining pension liability</td>
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<td>4) A lower pension liability is resulted because of the earlier situation</td>
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<td>5) Revenues and cost of sales are recorded when segregated</td>
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<td>6) Provision for loan losses are overvalued</td>
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<td>7) A cost estimate is increased to complete long term contracts</td>
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<td>8) Accounting policies are changed to writing off all debt issue costs as</td>
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<td>incurred rather than amortizing them over the related debt period</td>
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<td>9) Stockholders guarantee an increase in the quarterly earnings per share</td>
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<td>10) There are some particular types of transaction where you believe a</td>
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<td>higher risk of fraud exist</td>
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<td>11) Stakeholders communicate sound business practices</td>
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<td>12) Stakeholders communicate ethical behavior to employees</td>
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<td>13) Have you learned an unusual activity relating to financial statements</td>
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<td>14) The financial reports are constantly checked by independent auditors</td>
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<td>15) There are policies which penalizes fund</td>
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<td>16) Are the owners of the company involved in the process of financial</td>
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