Fraud Detection and Prevention

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Abstract: Developing economies have and will always face political and economic challenges. Since 2019, Lebanon has been facing one of the worst crises in its history. Because of the current hyperinflation, the Lebanese Pound is losing its value against the US dollar daily, while commodities prices are rocketing. In this research, we try to provide and justify solutions for two ever-persisting problems: corruption and fraud. To prevent corruption and detect fraud, external auditors are required to play an important role. We aim to study from an external auditor's point of view the reasons for fraud and the role of forensic accounting. A questionnaire was sent to Lebanese external auditors and we received 54 feedbacks. We used linear regression to test our data and the three hypotheses were validated. We can conclude that fraud will persist if Lebanese government controls are not enforced. Currently, Lebanon has a corrupt system and forensic accounting can be a vital tool to help the Lebanese government reduce corruption and fraud. However, in case the weaknesses of the laws and accounting principles persist and the cost of detecting fraud continues to be high, fraud will always exist. There is an urgent need to rely on forensic accounting, but it won't be effective to prevent or reduce fraud only by itself; it should be coupled with improvements in laws and regulations.

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INTRODUCTION

Since the beginning of 2000, we've witnessed financial scandals and the collapse of many big companies due to fraud. Several examples include WorldCom, Parmalat, Enron, Credit Swiss and the global financial crisis in 2007 [1]. Since 2019, Lebanon has experienced the biggest financial crisis in its history, coupled with a rising unemployment, a depreciating local currency and skyrocketing inflation of 122% as of December 2022. In depth studies are needed to understand the reasons for the collapse fully, but the existing fraud at all levels could be one of the major reasons. The collapse of the banking sector, which was the country's most important and leading sector, raised many questions about the management and financial information published in the past for most of the companies operating in the country [2]. Did these management groups try to “beautify” their financial statements to improve their financial situations, whether in their profits or financial positions? In order to avoid taxes, did the auditing firms manipulate the companies’ accounts to misrepresent the revenue information? To do so, management, auditors and employees rely on a creative accounting practice by taking advantage of the weaknesses in the accounting standards, which negatively affects the purpose of those statements, to provide relevant and reliable information on one hand and as recently witnessed causes an increase in the rate of lawsuits on the other hand.
This paper will conduct an explanatory study on the reasons for the existing fraud and misrepresentation of financial information. We elaborated on the urgent need for experts or accounting professionals who can use their expertise, ethics, skills and investigations to limit these fraudulent activities and the misrepresentation of financial statements, known as forensic accounting.

**Fraud:** Fraud is one of the main reasons for the improvements in accounting. For the past decade, we have witnessed positive advancements and expansions in accounting. However, this expansion may sometimes lead to new forms of fraud. The word fraud originates from the Latin Oxford dictionary and is defined as:

"Wrongful or criminal deception intended to result in financial or personal gain."

The most widely used explanation for the causes of fraud is known as the Fraud Triangle, developed by Donald Cressey in 1953 [3]. The Fraud Triangle hypothesizes that a person will most likely pursue a fraudulent activity if all three components are present: financial pressure, perceived opportunity and rationalization. The first aspect is the pressure in general caused by financial problems. A potential fraudster must feel that the pressure is not shareable and must deal with it alone. The second aspect of the triangle is opportunity, in which the potential fraudster would have the necessary knowledge, information, or inadequate internal controls. Finally, we have the third component, rationalization. From the fraudster's point of view, the fraud is justified by situations and reasons, usually personal reasons. A fraudster who steals to relieve financial pressure may be tempted to steal more and get extra money and an accidental fraudster can turn into a regular fraudster [3].

Since Enron and WorldCom scandals in 2001 and 2002, respectively, accounting fraud has been widely mediated as a major concern worldwide. Vast literature discusses that bribery, manipulating financial records and embezzling cash are the main types of fraud detected, especially in developing economies [1].

Frauds are made with the intention of not being detected. Sometimes the reason is the greed of some individuals to falsify records and or modify the transactions to obtain their own benefit [4]. A classic example of fraud is the Enron tax fraud scandal. Evidence and deliberations found that the company's founder, Kenneth Lay and the ex-president, Jeffrey Skilling, conspired to inflate the profits and hide the millions of losses to hide the company's true financial condition. These actions led to diverting the company’s money for personal use.

Most accounting frauds are for profit and this profit is made using false transactions. Some common and practical examples of this fraud are bribes, blackmail and conflicts of interest. Fraud in financial statements involves intentionally misrepresenting financial or nonfinancial information to mislead other stakeholders who depend on them in their economic decisions, such as over/underestimating income, liabilities, or expenses.

Fraud can occur in any sector, Enron was an energy company and Lehman Brothers was a global investment bank and provider of other financial services. Nevertheless, there are also some sector-specific frauds. Each sector has its own particular way of fraud, such as the case when health insurance companies create schemes related to false charges and adulteration of diagnoses. In the real estate sector, we can find fraudulent negotiations in a pyramid scheme that involves promises or false statements of high returns in a short period, also known as a Ponzi scheme. In financial institutions, we can find schemes for creating new mortgage accounts and loans [5].

A different type of fraud is corporate espionage. It occurs when information about business plans, customers, or products is transferred to unauthorized individuals. We can also find the risk of using sensitive information for personal profit or passing it to competing organizations [6].

Organizations adopt measures, such as internal controls and hiring forensic accountants, to prevent these frauds. Forensic accountants are requested by companies of all sizes and types, such as assurors, lawyers and government agencies, from small businesses to multinationals. They also provide an expert opinion in courts of law. They are vital and considered as export support in many cases of fraud and embezzlement, for example, matters involving insurance, business disputes and business interruption [7].

**Accounting & Control:** Fraud is the main source of human greed who are not satisfied with what they have or take advantage of a failure of control [8].

Accounting fraud is purposely manipulating a company’s accounting information, whether by sharing wrong information with investors and other stakeholders or omitting some information to reduce the profit and tax burden or benefit a third party or oneself [9].
The main function of accounting is to provide relevant and reliable information about the financial position of an organization and its activities. From an accounting point of view, the control activity’s role is to ensure that the accounting transactions are correctly recorded and that the financial statements are prepared and disclosed according to established criteria or generally accepted principles/standards. In recent years, numerous organizations have had their names coupled with fraud, implying that the currently adopted external and internal control systems have failed at national and even international levels, thus jeopardizing the relationship with investors. Corporate fraud is showing large and far-reaching consequences practically on all the firms’ stakeholders and the economy as a whole [10].

It is hard to identify fraud during audit work. Instead, auditors will assess the control environment to preserve the company’s image and reputation. Auditors will assess the internal controls to monitor and report what happens in the company, evaluate their effectiveness in avoiding errors and check the reliability of information delivered to stakeholders. Frauds can be found in material misstatements of information disregarding internal controls [11]. Understanding the control structure is necessary to find the system’s current and future loopholes. Wulandari and Nuryatno, in 2018, showed that the effectiveness of internal control systems would improve fraud prevention in the organization [12].

Internal audits aim to “help organizations carry out adequate controls, evaluating their effectiveness and efficiency and encouraging continuous improvement” (Sawyer et al., [13] by developing preventive measures to prevent the risk of fraud. Corporate fraud can be caused by a weak internal control system, weak corporate governance and unethical behavior of management and/or employees who aim for personal gain. A good internal audit will result in a better representation of financial statements and information, as all operations will be treated in compliance with the laws.

The internal control environment is a network of organized activities "that designs and implements the accounting processes and internal controls. The main resources of this environment are harmoniously coordinated so that they are effective and these are guided by strategies, policies, standards and business procedures” [14]. The Committee of Sponsoring Organizations of the Treadway Commission (COSO) defines internal control as “a process, effectuated by an entity’s board of directors, management and other personnel, designed to provide reasonable assurance regarding the achievement of objectives relating to operations, reporting and compliance” [15].

Fraud can happen in any organization, irrespective of the sector, type of business, or type of trade they are in. No matter how many controls exist, we can always find situations that can lead a person under pressure to resort to fraud, as described by Cressey in 1953 in his triangle of fraud model [3]. There is always pressure to avoid failure or to have a high standard of living, no matter the remuneration received. In general, employees who have been with the company for years and are considered trustworthy are those who take advantage of their knowledge of internal controls or their inefficiency. The quality of internal control on management guidance will potentially affect other management decisions [16].

In addition to the Fraud Triangle, criminal fraud causation is rooted in Rational Choice Theory. According to economist Adam Smith, most people rely on hard work to create success. However, there are also some people who, due to greed and immorality, will gravitate towards using illegal means to secure what they want. "These rational criminals weigh the potential benefits and consequences of their acts, choosing to commit a crime if they believe that doing so will yield immediate benefits without the threat of long-term risks” [17]. The decision to get involved with criminal activity, including fraud, is based upon considering the chances of getting caught and prosecuted, the potential psychological rush of committing the crime without detection and the perceived achievement of easy financial gains. "If the rewards are great, the perceived risk small and the excitement high, the likelihood of their committing additional crimes increases” [17].

**Mechanisms to Combat Fraud:** Studies involving deterrence and rational choice theory focus on situational crime prevention. To reduce crime, six variables can be manipulated: increasing the effort needed to commit the crime, reducing the costs of committing the crime, reducing the rewards for committing the crime, inducing shame or guilt, reducing provocation and reducing excuses or justification. We will focus on the first two variables here. First, the government can make it harder for criminals to commit crimes. This typically is accomplished by "hardening the target." In the world of corporate fraud, this would include upgraded firewalls, increased cyber security and established forensic accounting systems. Second, the government can increase the risks associated with committing a crime. In corporate fraud, this would include eradicating
corruption in the government and increasing the likelihood of regular forensic audits [18].

Good corporate governance and efficient internal control improve organizational performance and reduce the risk of fraud. Internally, an effective internal control system is essential to reduce organizational fraud. For example, the Sarbanes-Oxley Act (2002) requires an annual audit of public organizations that report to the Securities & Exchange Commission (SEC) in the United States. And those companies should also provide a management report that discusses their internal controls system. Whereas in Australia, the ASA 210 requires auditors to evaluate the design of the internal control systems to assess the risk of fraud [19]. This risk is faced internally by either preventive, detective, or corrective controls implemented by the management. Vaughan and Vaughan [20], in 2008, defined risk as:

“a condition in which there is a possibility of an adverse deviation from a desired outcome that is expected or hoped for whether physically, morally and ethically.”

Physical risks are related to actions or behaviors, moral risks are related to immoral behavior such as lies or fraud and moral hazards are related to conditions or circumstances that tend to lead people or institutions to adopt a more careless or reckless attitude. When neglected, risks could cause an enormously negative exposure for the company. To mitigate the fraud risk, adopting mechanisms to combat fraud is necessary.

In addition to the academic literature, audit firms conducted fraud surveys. In 2020, Deloitte conducted a survey on fraud surveillance [21]. The results showed that the mechanisms adopted are prevention, detection, investigation, correction and monitoring. In 2018, PwC conducted a survey on Global Research Report on Economic Fraud and Crime [22]. The study showed that technology works as an ally in combating fraud through predictive analysis, voice recognition, natural language generation, natural language processing and machine learning they found that the usage of passwords, antivirus and protection software is crucial for prevention, too. The system update and firewall role ensure that information is not defrauded by internal or external users through techniques such as phishing.

To conclude, it is up to companies to adopt other mechanisms, such as anti-fraud organizational training, in support of any employee's lack of awareness. Keeping employees always up to date and in line with their responsibilities is crucial, especially with confidential and sensitive information.

**Efficiency in Combating Fraud:** Fraud is a crime subject to a fine or penalty of imprisonment worldwide. Thus, organizations use measures to enforce their code of ethics in the work environment by respecting its values. These measures should include anonymous channels that enable whistle blowing with perfect protection for the person who reveals the fraud scheme.

Companies should be able to deal with and handle complaints with extreme secrecy in order to address any situation with appropriate responses. To be taken seriously, people considering fraud should know its consequences. Research on accounting fraud is extremely important because investors and external stakeholders depend on the relevance and reliability of information disclosed in financial reports [11].

For better management and control, companies should adopt a fraud prevention policy and a compliance and risk committee. Companies should also adopt general administrative policies, human resources policies, internal controls, and IT with special attention to security policy. These measures, policies and procedures need to be explained clearly to employees through workshops or training or by reading to each employee the regulation that they should read and be informed about the subject.

Asymmetry in information is another factor that allows a scenario for fraud to occur [23]. This asymmetry will allow fraudsters to take advantage and aim at personal advantages while causing problems for third parties. Good internal and external audits guarantee a reduction in information asymmetry and increase the monitoring of the company's activities which will help to prevent fraud cases and reduce the risk.

Suleiman and Ahmi [24] found that forensic accounting is an appropriate method for investigations conducted to reduce corruption in the public sector. They also found that the results of forensic accounting investigations are reliable and could be used in courtrooms.

Okoye and Ndah [10] proved an association between fraud investigation and fraud detection and prevention. They studied the relationship between fraud litigation practices and fraud prevention and found that fraud investigation and litigation practices are essential to avoid fraud in organizations. Dada [9] showed that there is a need to apply forensic accounting in order to examine and discover corruption cases. Rehman and Hashim, in 2021, investigated the role of forensic accounting in
fighting and decreasing financial corruption [25]. They showed that forensic accounting has become more important and that it is used in many areas, such as legal consulting, business valuation, money laundering, financial corruption, fraud prevention and many more. They argue that forensic accounting is a must and that higher education committees should include it in the curriculum of accounting majors in universities and colleges.

**Context-Based on the Lebanese Environment:** Corruption is a common kind of fraud committed worldwide. Corruption unfortunately remains widespread in Lebanon, especially in the public sector. The public sector employs many critical jobs designed to maintain a safe, productive community. Instead, these employees are using their positions for the wrong purposes, which is why the public loses faith in them. One of the reasons could be the inexistence of an anti-corruption education that should be taught from a young age. People commit fraud for numerous social, financial and ethical reasons. When people have the opportunity to commit a fraudulent act, they often do so in harmful ways.

The lack of an effective internal control system is a major contributor to fraud [26]. Due to absence of management or direction, dishonesty, sloppy procedures and low output, fraud may flourish with little fear of punishment. In the Lebanese case, this lack of effective control is topped by a dramatic currency devaluation, severe financial crisis and political instability. Because of the weak punishment system, private companies committed fraud, especially in their financial statements by reporting less revenues to decrease their taxes.

Lebanon has always suffered from corruption; the government has always stated that they will put a huge effort to restrict the financial corruption in Lebanon without any tangible results or outcomes! Consistent with rational choice theory, a vacuum is created for fraudsters to flourish when the government does not prosecute those involved in fraud - or worse yet, profits from the fraudulent activity. Additionally, the lack of prosecution creates a positive reinforcement for the criminal that the lack of risk of punishment will cause higher rates of recidivism. There is an increasing need for forensic accounting, especially during crises.

**Research Goal:** The main goal of this descriptive study is to discuss forensic accounting, elaborate on the systems currently employed in Lebanon and explain why they are inefficient. Literature affirmed that fraud is integral to every organization and its consequence. Previous studies showed that forensic accounting is a tool for fraud detection and prevention in the public sector [27]. In order to examine how the government control environments and curb corporate fraud, we relied on Lebanese external auditors' experiences, views and opinions in order to test the following hypothesis:

H1: Fraud is pervasive and will persist when government controls are not enforced.

H2: A system is corrupt when evidence of continuous fraud and tax evasion throughout the years is present.

H3: Forensic Accounting has a significant impact on fraud reduction.

**METHOD AND SAMPLE**

The study adopts a descriptive survey design. We collected our data from a questionnaire sent to Lebanese external auditors. In our survey we added demographic questions to cover the gender, age, educational level, position and years of experience in audit. In our measurements we used a 5-point Likert scale, chosen items ranged from 1 (strongly disagree) to 5 (strongly agree). We used Cronbach's Alpha to test our data's validity and reliability. This scale was found to be reliable and internally consistent with a Cronbach’s coefficient alpha value of 0.7204, based on a population of 54 Lebanese external auditors who filled out our questionnaire.

The data collected were analyzed through simple linear regression.

**RESULTS AND ANALYSIS**

As shown in Fig. 1, 92.59% of respondents are above 35. This is a good indicator as, in general, older external auditors, that supposedly more experienced, are more likely to encounter fraud and will have a better understanding of the weaknesses in Lebanese law. A possible explanation could be that the majority of young external auditors are leaving the country for better opportunities abroad.

However, our male respondents (70%) are much higher than female respondents (30%) as shown in Fig. 1, which could indicate an industry dominated by males.

However, our male respondents (70%) are much higher than female respondents (30%) as shown in Fig. 2, which could indicate an industry dominated by males.
In Fig. 3 we summarize the highest degree received by Lebanese external auditors in our sample. Only one respondent holds a technical degree 1.85%. 25.93% hold a bachelor's degree and 72.22% have a graduate degree or a doctorate. It is a sign of a highly educated population, around 3 out of 4 auditors hold a graduate degree.

As shown in Fig. 4, none of our respondents is a junior, 43% are managers, 31% are supervisors, 15% are partners and 11% are senior auditors. This is an indicator of a sample with great experience in audit.

As expected, in Fig. 5, we found that our sample includes highly experienced auditors. 93% of external auditors have an experience of more than 6 years, while only 1 respondent have an experience between 1 and 3 years. In theory the longer the experience that you have the higher the probability that you have face and detected fraud [28].

Our purpose in this study is to test and discuss the following three hypothesis:

H1: Fraud is pervasive and will persist when government controls are not enforced.
H2: A system is corrupt when evidence of continuous fraud and tax evasion throughout the years is present.
H3: Forensic Accounting has a significant impact on fraud reduction.

We used the linear regression equation in Tables 1, 2 & 3 to test the three hypotheses.

To test the first hypothesis, linear regression is used in Table 1 to predict the value of our dependent variable (Fraud) for a given independent variable (government controls are not enforced).
controls, fraud detection cost & loopholes exist in Lebanese law). The results show a significance of 0.001 lower than 0.05 and a low R square indicating low correlations. Our results validate H1 and Fraud will persist when the Lebanese government's controls are not enforced.

To test the second hypothesis, linear regression is used in Table 2 to predict the value of our dependent variable (corrupt system) for a given independent variable (loopholes exist in Lebanese law, fraud detection cost & auditors' participation in fraud). The results show a significance of 0.005 lower than 0.05 and a low R square indicating low correlations. Our results validate H2, continuous fraud and tax evasion throughout the years indicates a corrupted Lebanese system.

To test the third hypothesis, linear regression is used in Table 3 to predict the value of our dependent variable (Forensic Accounting need) for a given independent variable (loopholes exist in Lebanese law). The results show a significance of 0.040 lower than 0.05 and a low R square indicating a low correlation. Our results validate H3, Forensic accounting is a vital tool that reduces fraud in Lebanon.

When we asked the Lebanese external auditors about forensic accounting, 96% (54 out of 56) consider that there is a need for forensic accounting in Lebanon, while only one auditor consider that there is no need (Fig. 6).

CONCLUSION, LIMITATION AND FUTURE STUDIES

There are many types of fraud and it has many reasons, in all cases it is a criminal unethical behavior. The main role of financial accounting is to provide relevant and reliable information. Publishing wrong financial information is a certain type of fraud.

Since 2019, Lebanon has been facing one of its history's toughest financial and economic crises. One of the main reasons for this crisis could be the ever-existing fraud and corruption. Fraud and corruption can be found everywhere in government, politics, the banking system, or public and private companies. Most of the Lebanese population lost most of their savings in banks, the currency is depreciating and losing its value on a daily basis and the hyperinflation rate is still increasing. At the same time, no actions have been taken to tackle the main reasons for this crisis: fraud and corruption [2].

We used a linear regression to test our data and the three hypotheses were validated, fraud will persist when the Lebanese government controls are not enforced, continuous frauds and tax evasion throughout the years is an indicator of a corrupted Lebanese system and forensic accounting is a vital tool that reduces fraud in the country. If the loopholes in laws and accounting principles stay and the cost of detecting fraud continues to be high, fraud will always exist. Forensic accounting is an important means to fight against corruption and fraud, but it will not be efficient to combat fraud and corruption.
only by itself. It should be coupled with improvements in the current Lebanese laws and accounting principles.

A limitation of this study is the focus on one type of respondent, the external auditors. Potential future research could overcome this limitation by repeating the same study in different public or private companies or asking for the feedback of internal auditors, for example. The results could be further improved by increasing the sample size or comparing the Lebanese results to other countries results. Other survey questions could be used to test different variables.

Further research is required to find preventive solutions for these fraud risks that occur and exist in all countries. And Finally, Ethics is not tested in this paper which could be an important variable.

REFERENCES


