

Study on the Correlation Between Accounting Fraud and Accounting Software

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Abstract: This paper aims to explore the impact of accounting software on accounting fraud cases. This study explores the impact of artificial intelligence on accounting fraud cases. The results of this paper are helpful for business owners and managers to understand the importance of using accounting software to achieve performance. Efficiency, reliability, ease of use, data quality and accuracy affect the use of accounting software, thus affecting the number of accounting fraud cases. Literature and research results show that the efficiency, reliability, ease of use, data quality and accuracy of accounting software have a significant impact on accounting fraud cases. Previous studies have shown that in the increasingly competitive enterprise environment, in addition to improving the management ability and efficiency of enterprises, the use of accounting software is an important means to ensure the survival and sustainable development of enterprises. This study is one of the few studies that can clarify how the use of accounting software affects corporate performance. In this study, the author believes that the dimension of using artificial intelligence is important for improving organizational performance.

Keywords: Accounting software, Accounting fraud, Accounting.

1. Introduction

1.1. What is fraud?

Fraud is a global phenomenon that affects all continents and all sectors of the economy. Fraud includes all kinds of and illegal behaviors, including intentional deception or misrepresentation. According to the association of registered fraud examiners (ACFE), fraud is "a fraud or false statement made by an individual or entity when he knows that a false statement may bring unauthorized benefits to an individual, entity or other party". In other words, mistakes are not frauds. In fact, in fraudulent activities, a group of immoral people manipulate or influence the activities of the target company in order to make money or obtain goods by illegal or unfair means. Fraud can deceive the legitimate spouse of the target organization, resulting in property loss, even goodwill and reputation loss. Fraud usually uses unethical or unfair means. The process, procedures and control measures of organization construction must not unnecessarily make employees in a state of fraud, and effectively detect fraud when fraud occurs. Fraud involving leaders is called "management fraud", and fraud involving only physical employees is called "employee association fraud".

1.2. Who Commits Frauds?

Every day, the organization is exposed in a shameful way. Generally speaking, there are three types of businessmen engaged in financial fraud. They include senior managers (CEO and CFO), middle and low-level managers and organized criminals. The chief executive officer (CEO) and chief financial officer (CFO) conduct accounting fraud to cover up real business performance, maintain personal identity and control, and maintain personal income and wealth. Low and middle level employees forge financial statements related to their responsibilities (subsidiaries, departments or other departments) to obtain performance bonus by concealing poor performance. Organizing criminals

to forge financial statements to obtain loans. Although many changes in the process of financial audit are caused by financial fraud or manipulation, history and related studies have repeatedly shown that financial audit can not find fraud at any important level.

1.3. What are types of accounting software?

There are four different types of accounting software. The first one is Spreadsheets. A fairly small business can only use spreadsheets to run its accounting software. Spreadsheet software is cheap and the system can be configured in any way. However, the electronic form is easy to make mistakes, because the information may be input in the wrong place, wrong, or not input at all, resulting in inaccurate financial statements. As a result, spreadsheets are usually used only by very low volume organizations.

The second one is Commercially-available software (CAS). Commercially-available software (CAS) is the most widely used accounting software in the world. It can be configured according to business needs, including multi-layer error detection to prevent input error information, and generate standard reports that can be configured according to user needs. Some software packages are industry specific and have additional features to meet the needs of their target market. CAS software may need the services of a consultant to install, and may require a long installation process and on-site personnel to maintain the software. A variant of this concept is the accounting software provided as an online service, which requires users to log on to the supplier's website to access the software. The latter method requires each user to pay a monthly fee instead of buying the software in advance.

The next one is Enterprise resource planning software(ERP). ERP software integrates information from all departments into a single database. This approach eliminates the problems associated with independent department-specific software that does not share information. However, it is also very expensive and can take more than a year to install. Such software typically requires only the largest and most

complex organizations.

The last one is Custom accounting software. This software is customized for an organization. This method is usually only used when the requirements of an entity are so specific that cots or ERP package cannot meet these requirements. However, this approach is rarely used because custom software is often flawed and requires more maintenance than commercial software packages.

2. Detailed Facts

2.1. How can accounting software decrease fraud?

Fraud is a significant issue for small businesses. About 31% of all fraud cases are reported by small enterprises, which is much higher than that of large enterprises. While small businesses tend to experience organizational fraud more often, they are often the ones most affected by fraud and recovery may take longer.

Where smaller businesses are the most vulnerable. Report fraud and asset abuse are two of the three most common types of fraud experienced by small businesses. However, it is often theft that causes most problems, from stealing money to unreasonable expense claims, and examples of employees stealing property from companies. Correct accounting software plays an important role in reducing the chances of such fraud and ensuring that it does not get out of control.

There are many different way to decrease fraud by using accounting software. The first one is Making accounting systems more transparent. A key factor of fraud in small businesses is that only one employee is responsible for all accounting and bookkeeping functions. If these accounting and bookkeeping functions are either not online or managed through a chaotic system of documents and spreadsheets, the risk will increase significantly. Accounting software introduces transparency to ensure that it is almost impossible to try to hide or disguise fraud.

The following one is Introducing robust, versatile controls. The use of accounting software provides an opportunity to introduce control when it comes to systems and information. For example, you can restrict employees' access to financial data, or to inventory or stock information. Processes that are most likely to be the target of fraud may require multiple signatures, including cost claims or overtime claims.

And the next is Easier auditing. One of the main advantages of accounting software is the simplicity it introduces in auditing accounts and financial statements. This makes the detection of fraud a much simpler task, as audits and reports can be conducted on a regular basis without much effort. Some areas are high risk and should be regularly inspected and audited, including cash accounts and accounting and bookkeeping processes.

Then is Accountability and deterrence. Accounting software provides a clear line of responsibility, which makes it easier to trace the origin of fraud or behavior. This usually has a deterrent effect on employees, who may feel that without such a system, a small fraud can "get away with it".

The last one is Training staff to help spot fraud. When it comes to fraud, employees can be the biggest threat, and they can also be the most effective defense. When you work with clear and simple accounting software, you can more easily provide your employees with tools to detect fraud. So it's less likely to be ignored.

2.2. How can accounting software increase fraud?

Generally speaking, there are two reasons for accounting fraud. One is that accounting software is wrong when probability is almost zero, and the other is the immorality of accountants.

Accounting software is a double-edged sword. Because of the simple operation, it also provides great convenience for the preparation of financial statements and audit accounts to a certain extent. And the security of accounting software also makes many bosses believe their company's financial statements. However, the bosses trust accounting software too much, which makes accounting fraud more difficult to find. Another reason for the increase in the number of accounting fraud is the unethical attitude of accountants. And, this is also the main reason why accounting fraud cases occur.

Taking Enron fraud as an example, Enron was not an immoral enterprise at first. As we can see in this case study, the reason it becomes immoral is that it can rapidly increase wealth. This leads to a rather extreme way to attract and encourage people who are very smart and have a strong desire for money, which in turn leads to the neglect of short-term benefits. Of course, the next step is to study how to adjust the profit and achieve the goal of rapid profit. Enron soon lost the ability to borrow money, because disguised profit growth figures still led to a shortage of cash. But the issuance of additional shares will cause the share price to fall sharply, which is the basis of most incentive plans. So, to start planning secret fund-raising, the money has to be hidden. In this way, Enron has formed an immoral culture, misleading and using customers, suppliers and even colleagues to achieve their goals. People who like two peas will be rewarded for their top management. They boasted that it was a pure, market driven spirit that pushed Enron to glory. And deceive oneself, think this is moral behavior. Senior management ray even accused the California authorities of cheating on Enron, saying Enron was a model of business ethics. In the end, the respected Mr. Andersen put his greed for cost above the strong business ethics tradition of his founder, and gave in to the distortion and suspension of his professional standards, resulting in fatal consequences.

3. Case Study

3.1. Enron Fraud

3.1.1. Review of Enron's rise and fall

Throughout the late 1990s, Enron was almost universally regarded as one of America's most innovative companies -- a New Economy maverick who abandoned the hard-asset old business of free e-commerce into the world. The company continues to build power plants and operate natural gas, but it is known for its unique trading business. As well as buying and selling gas and electricity futures, new markets have been created for strange "commodities" such as advertising time, weather futures and Internet bandwidth.

Founded in 1985, Enron Corporation was one of the world's leading power, natural gas, communications and pulp companies, with annual revenues growing from \$9 billion in 1995 to more than \$100 billion in 2000, before its bankruptcy at the end of 2001. By the end of 2001, the company's financial position was essentially maintained through an institutionalized, systematic, and creative approach to accounting fraud. According to Thomas' 2002 study, Enron's

stock price fell from \$90 a share in mid-2000 to less than \$1 a share by the end of 2001, costing shareholders nearly \$11 billion. Enron revised its previous financial statements and found a loss of \$586 million. Enron Corporation went bankrupt on December 2, 2001.

One of the lessons of the Dotcom boom is that it is often hard for analysts to understand and value the business of new content types. Investment banks make more money from underwriting or mergers than from brokers' commissions. Analysts at these companies often face conflicting loyalties. You can put them in the context of whether or not the CEO found the report unpleasant, he was also worried that investors might find it helpful.

3.1.2. The Causes of Enron's bankruptcy

The management's understanding of the company's operation is lack of authenticity. Executive director, Markkula Center for applied ethics. These executives believe that Enron must be the most important. Everything they do is the best, they have to protect their reputation and their salary, because it's the most important thing successful executives in the United States.

The responsibility is one of integrity and full disclosure. There is no evidence that Enron's chief executive employees who thought the share price might rise said he also revealed that he was selling shares. and usually, employees will not be informed of the stock sale in a few days or weeks. only the investigation into Enron's bankruptcy led shareholders to learn that the CEO's shares had been sold off. February 14, 2002, which is the time when the selling should have been disclosed. Why the delay? shares the sale to the company is to repay the CEO's debt to Enron, and the sale of the company's shares is eligible exceptions to disclosure requirements for ordinary directors and officers. Do not report until 45 days after the end of the company's accounting year.

Some people believe that conflicts of interest and Enron's lack of independent supervision of management led to the company's collapse. In addition, some people believe that Enron's compensation policy has led to concerns about earnings growth and stock prices. In addition, recent regulatory changes also focus on strengthening the accounting treatment of special purpose entities and strengthening internal accounting and control systems. We started to review these issues from the Enron Board of Directors. There is a conflict of interest between the two roles played by Arthur Andersen as auditor and Enron consultant. While the investigation continued, Enron tried to save its business by divesting various assets. It has filed for Chapter 11 bankruptcy, allowing it to reorganize without the protection of creditors. Former CEO and chairman Kenny Lay has resigned, and restructuring expert Stephen Cooper has been appointed as interim CEO. Enron's core business, the energy trading department, has reached a complex agreement with UBS Warburg. The bank has not paid the transaction unit fees, but will share part of the profits with Enron.

The enlightenment of Enron's accounting irregularities in the third quarter of 2001 has aroused the attention of the regulatory authorities and the media to Arthur Andersen. The severity of the so-called accounting errors, combined with Andersen's role as Enron auditor and extensive media attention, is to explore the influence of the auditor's reputation on the market price of customers before and after the audit failure. The CP survey shared the price reaction of Andersen customers to various information events, which may cause

investors to change their views on Andersen's reputation.

Perhaps the biggest damage to Andersen's reputation was that they admitted on January 10, 2002 that Andersen's employee company destroyed documents and letters related to Enron's engagement. For the S&P 1500 sample company, CP reported that within three days after the announcement, Arthur Andersen customers had a significant market reaction of -2.03%, and the negative impact of this reaction was significantly greater than 4 customers. The Arthur Andersen Houston office where Enron's headquarters is located has a strong customer experience, and the market response is not as good as that of Andersen's non-Houston customers. In general, CP concluded that the announcement had a significant impact on Andersen's perception of audit quality and the resulting losses, and the decline in reputation had a negative impact on the company's other customers' market value.

In this research, we report new findings, which are the events of research evidence and the reputation effects of auditors. In this case, we do not recommend that the auditor's reputation does not matter. As mentioned above, there is sufficient evidence that reputation is very important to auditors and their clients. Rather, our purpose is to determine whether customers are rewarded near Arthur Andersen's detailed announcements and related events (these are considered evidence of reputational impact), or whether the results are confused with other impacts.

As a listed company, Enron is subject to external governance, including market pressure, supervision by government regulators, and supervision by private entities (including auditors, stock analysts, and credit rating agencies). In this section, we will reiterate the key external governance mechanisms, focusing on External auditor. This method requires that after signing a long-term contract, the theoretical amount of assets sold in the future market should be reported in the current financial statements. In order to meet the needs of investors and create continuous profitability for the company, Enron's traders are forced to predict the high future cash flow and low discount rate of the long-term contract signed with Enron. The difference between the calculated net present value and the value originally paid is considered profit. In fact, in long-term contracts in the next few years, the net present value reported by Enron may not appear. There is no doubt that long-term income forecasts are too optimistic and exaggerated.

If the independent party controls the SPE, and the independent party owns at least 3% of the SPE, accounting standards allow the company to exclude the SPE from its financial statements. Enron needs to find a way to hide debt, because high debt levels will reduce investment levels and trigger bank divestment. SPE led by chief financial officer Faastow borrowed a large amount of Enron stock as collateral. The money was used to balance Enron's overvalued contract. As a result, SPE enables Enron to convert debt, loans and assets into income.

In addition, the acquisition of SPE allows Enron to transfer more inventory to SPE.

However, the debt and assets purchased by SPE actually bear heavy debt, which was not reported in Enron's financial report. Then, shareholders mistakenly believe that debt has not increased, but income has increased.

3.1.3. Enlightenment of Enron incident

In the United States, a country with relatively perfect legal system, big scams like Enron have taken place, which makes

people think deeply about what causes this. No matter how perfect the law is, it is also summed up from the continuous long-term legal struggle between the regulatory authorities and the regulated objects. With the continuous development of economy, our legal system will be more perfect. The reform and innovation of some enterprises should be restrained by corresponding legal measures, and the companies with accounting fraud cases should be thoroughly investigated and seriously dealt with. After Enron incident, the United States issued some new laws and regulations, which played a very positive role in the economic development of the United States, and at the same time, we also saw the darkest side of large enterprises.

3.2. Xerox Fraud

3.2.1. Review of Xerox's rise and fall

Xerox is a multinational company which has a long history of operating office equipment. In 2000, due to Canon competition, Xerox's share price fell again and again. In 2001, Xerox entered a serious loss state, and its assets shrank significantly. In April 2002, the securities and Exchange Commission questioned its recent income statements, accusing the company of being suspected of false accounts and a fine of 10million. On June 8, the same year, Xerox submitted its restated annual financial statements from 1997 to 2001, which recognized that the false income of the period was \$6.4 billion. Xerox's accounting fraud case was exposed immediately, and aroused a great wave in the capital market, which became a hot issue.

3.2.2. Motivation analysis

The main motivation of Xerox's financial fraud is interest driven, which can be summarized as follows:

First, meet the market profit expectation and promote the company's stock price to maintain a good trend; Change accounting treatment method and adjust book profit; One of the direct purposes of these means is to achieve or exceed the analysts' profit expectations and the company's internal profit targets. Through these accounting operations, the company inflated and smoothed the profit data, reached and exceeded market expectations, and maintained a good trend of the company's stock price.

Second, in order to make senior managers keep their positions and get high salary, Xerox uses accounting manipulation to achieve the company's internal profit objectives and market expectations, mainly because it is related to the company's management's vital interests, including salary and position. It is the salary determined by the company's operating performance and the stock income directly related to the stock price. It is also the motivation for the company's management to seek high returns through illegal accounting treatment. Because the market competition makes the managers who have not created excellent performance face the risk of being dismissed, and accounting profit is an important indicator to evaluate the performance of managers. Management is motivated to maintain its position by manipulating accounting profits.

Third, intermediaries retain important customers and obtain huge service revenue. Under the temptation of huge profits, KPMG, who provides accounting services for Xerox, succumbs to Xerox's illegal acts and loses its true colors in the face of professional norms and ethics.

3.2.3. Analysis of cheating methods

The accounting manipulation involved in Schiller's case can be divided into two categories: the recognition of lease

income in advance and the use of illegal reserves to adjust profits.

First, recognize lease income in advance. Xerox's biggest false profit accounting trick is to sell the lease, and recognize the lease related income in advance at the beginning of the lease, so as to make its current profit target in line with Wall Street's expectations. In addition, Xerox specifically uses "return on net assets" and "profit standardization" to overestimate the fair value of leased assets. If the higher the book value of a leased asset, the greater its fair value, the greater the current sales profit that can be recognized on the lease start date.

Second, manipulate all illegal reserves. The second main form of Xerox accounting fraud is to use illegal reserves to adjust income to meet the income expectations of Wall Street. Illegal reserves in the U.S. capital market refer specifically to the pools or buffers that companies use to report performance. On the other hand, Xerox accumulated various illegal reserves by manipulating tax rebate income, "buffer reserve" and "profit yield reserve". During the critical period from 1997 to 2000, Xerox used this financial fraud to transfer back about 500 million yuan.

3.2.4. Analysis of cheating consequences

Self influence: It directly led to the bankruptcy of Xerox.

Xerox has been a steadily growing blue chip company since 1906. Over the past few decades, Xerox has created one myth after another, wearing many halos on its head, such as "king of copiers", the old top 500 enterprises, the "king of copiers" in the United States and "one of the 50 most trustworthy enterprises". However, after the 1990s, Xerox Technology began to lag behind and was eventually squeezed out of the top position in the United States, losing 1 / 3 of its market share. In addition, short-term bonds mature, there is no money to repay the debt, so in a comprehensive crisis. The company's revenue continued to decline and its profits plummeted. He finally went bankrupt because of financial fraud.

Social impact: The capital market encounters a serious trust crisis.

After the Xerox incident was exposed, World Com accounting scandal was exposed, which led to a sharp decline in the trust of American enterprises and a crisis in investor confidence. On the day of the Xerox case, the company's share price plummeted by 25%. Berger, founder of Wall Street pioneer fund, pointed out that this is an issue of integrity. Integrity refers to the fact that the disclosed accounting data truly reflect the reality, that the company operates in good faith, that Wall Street operates fairly, that investors are not hoodwinked, and that without integrity, the capital market can not operate at all. Now that the U.S. market has reached a critical moment, we must make real reforms to increase the confidence of most investors. Harvey Pitt, chairman of the SEC, also said in a speech at Stanford University: "we can no longer turn a blind eye to this issue. Restoring public confidence is our top priority, and what we need is more stringent legislation that will help the SEC monitor enforcement, which is exactly what we want the Senate to pass. What I want is the strictest and most practical way of law enforcement. "

4. Conclusion

In conclusion, I still think the use of accounting software will reduce the number of accounting fraud cases. Because

the ethics is not controllable, we can not control people's mind, we only can persuade them and check frequently. I think most companies begin to use accounting software to replace some unnecessary accounting personnel, because accounting software can provide more concise and clear work, high quality to complete the company's needs. The most important thing is that it greatly improves the efficiency, which most accountants can't do, so it is more and more popular with company executives. In addition, it is relatively safe because most accounting frauds are caused and initiated by accountants trusted by the company. In my opinion, the use of accounting software will reduce the number of accounting fraud cases.

In fact, I think whether the use of accounting software will increase or decrease the number of accounting fraud cases depends more on what people use it for. Enron uses market valuation rather than historical cost, but this valuation method is unethical. So even if the software has many functions, it makes auditing easier to execute, but if the auditor allows the ethical valuation method, the software is useless in detecting such fraud. As I said before, accounting software is a double-edged sword. Once used by people who are not ethic, selfish, and profit oriented, it may help to cheat. But if it is used by honest, kind and fair people, it will bring a lot of convenience and benefits to many companies. I think most companies begin to use accounting software to replace some unnecessary accounting personnel, because accounting software can provide more concise and clear work, high quality to complete the company's needs. The most important thing is that it greatly improves the efficiency, which most accountants can't do, so it is more and more popular with company executives. In addition, it is relatively safe because most accounting frauds are caused and initiated by accountants trusted by the company. In my opinion, the use of accounting software will reduce the number of accounting fraud cases.

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