Impact of Internal Control Regulations on the Financial Reporting Quality

Seyed Ebrahim Mahdavian
Ph.D. Candidate., Department of Accounting, Central Tehran Branch, Islamic Azad University, Tehran, Iran.
semahdavian@yahoo.com

Zahra Lashgari
Assistant Prof., Department of Accounting, Central Tehran Branch, Islamic Azad University, Tehran, Iran.
(Corresponding Author)
z_lashgari@iauctb.ac.ir

Negar Khosravi Pour
Assistant Prof., Department of Accounting, Central Tehran Branch, Islamic Azad University, Tehran, Iran. n-khosravipour@yahoo.com

Ali Esmaelzadeh Moghari
Associate Professor, Department of Accounting, Central Tehran Branch, Islamic Azad University, Tehran, Iran.
Ali.esmaelzadeh@iauctb.ac.ir

Mohammadreza yeganegi
Assistant Professor, Department of accounting, Central Tehran Branch Islamic Azad University, Tehran, Iran.
m.yeganegi@iauctb.ac.ir

Submit: 26/12/2022 Accept: 11/04/2023

ABSTRACT

An Effective Internal Control System Features that Demonstrate the Evaluation and Improvement of Existing Internal Control Systems by Highlighting Areas Where the Practical Application of Such Guidelines often Fails in many Organizations. Lack of Organizational Success Leads to the Requirements of Internal Controls to Support the Organization to Achieve its Goals, While Adhering to the Rules and Regulations and Organizational Policies. Hence, in This Study, The Effect of Internal Controls Regulation in order to Prevent the Occurrence of Mistakes and Deviations on the Quality of Financial Reporting.For this purpose, this study was conducted with 90 companies in a period of 12 years from 2007-2018 . In order to evaluate the strength and reliability of the research results from the sensitivity analysis test AND direction investigate the differences between the coefficients for determining a pattern between the two groups before and after the regulation of internal controls , the cramer z-test was conducted at the level of sample companies.The results showed that the regulation of current internal controls has not been able to improve the quality of financial reporting. The results of this study can highlight the need for the competent authorities to pay attention to the review of internal control regulations.

Keywords:

Regulation Establishment , Internal Control, financial reporting quality

1. Introduction

Over the last decade, as the accounting defeats and scandals increased in organizations, an increase in enactment of new laws, standards, and regulations was observed. The goal of these enactments was to improve the management principles in organizations. Despite the fact that these standards and regulations originate from different sources, they all have a common principle, i.e., appropriate corporate leadership. Demand for productive internal control systems lies in the nature of this principle. New laws, standards, and regulations were issued in order to address this need, including the Sarbanes-Oxley (SOX) Act of 2002, Section 404 of which requires companies registered by the US Securities and Exchange Commission (US-SEC) to report their internal controls associated with financial reporting. These regulations are mandatory, with an emphasis on compliance and accountability.

After the approval of this law, several regulations on provision of reports on the adequacy of corporate internal controls were enacted for companies, including managers and independent auditors. In Iran, in accordance with this law and protecting investors' rights, the Securities and Exchange Organization (SEO) has issued internal control regulations for issuers listed the Tehran Stock Exchange (TSE) in 2013. With the aim of implementing this responsibility, this article requires companies' board of directors to at least annually re-evaluate the internal control system according to the internal control framework mentioned in the second chapter of these regulations and include the outcomes in a report called the internal control report. The company's independent auditor is also required to comment on the establishment and use of the appropriate and productive internal control system by the company based on the internal control framework (SEO, 2013). If there are significant weaknesses in the internal control system governing the company's financial reporting, which has not been disclosed in the board of directors' internal control reporting or has been incompletely disclosed, that weakness must be declared in the auditor's report. According to the second article of the second chapter of the internal control regulations, one of the goals of establishing the internal control system is to achieve a reasonable assurance of the financial reporting quality. In other words, the implementation of internal control regulations in the company is expected to enhance the financial reporting quality.

According to the definition provided by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) (1994), the internal control structure of an organization refers to a process that is implemented by the board of directors, management and other employees of an institution with the aim of achieving a reasonable assurance of achieving efficient and productive operations, reliability of financial reporting, and adherence to the current laws and regulations (Soleimani and Moghaddasi, 2014).

Although in the internal controls directive, the regulations are clearly declared and separately explained for all the components of the internal control system, and each company is required to implement effective internal controls based on their size and type of activities, the question arises that can the process of documenting, evaluating, and testing all the internal controls and reporting on them give rise to the claim that these controls enhance the financial reporting quality?

Internal control regulations have been enacted and enforced with an emphasis on financial reporting and with the aim of protecting the investors' rights, preventing violations, as well as organizing and developing a transparent and fair securities market (TSE Organization, 2013; Gol Alizadeh Farutagha, Bagherpour Lashani, and Noghani, 2015). Given the fact that the companies listed in the Over-The-Counter (OTC) Market and the Stock Exchange Organization (SEO) of Iran are required to establish and use the internal control system in accordance with the provisions of the aforementioned regulations, the aim of this study is to investigate whether the financial reporting quality is influenced by the enactment of regulations that require auditors to comment on internal controls. Our results will answer the question that: whether the legislators have achieved their goal by the enactment of the aforementioned regulations or not?

Although legislators and auditors argue that the enactment of internal control regulations should bring about a financial reporting with a higher quality and consequently decrease the cost of capital (Ching Weng, Yi Chi, and Zheng Chen, 2015; Donaldson, 2005), there are different research results on successful achievement of these goals. After the approval of

Auditing Standard No. 5, the Public Company Accounting Oversight Board (PCAOB) announced its intention to monitor the implementation of this standard, and as part of their ongoing oversight activities, they continue monitoring the implementation this standard. In 2013, the PCAOB revealed that 15% of the inspected internal control audits were ineffective. In fact, the inspection staff found that due to one or more audit weaknesses identified by the inspection staff, when the company published their audit report, they did not achieve sufficient evidence to prove their opinion about the effectiveness of the internal control, and also failed to provide adequate evidence for gaining support for their opinion in the financial statement. In fact, the decrease in the disclosure of significant weaknesses could not be considered as a sign of improvement in the internal control quality and that the current standard of internal control audit was not sufficient to improve the of internal control quality (Schroeder and Shepardson, 2016). In fact, weaknesses in the internal control audit can also affect auditing of the financial statements. In integrated audits, auditors often rely on controls in order to reduce actual tests of financial accounts and disclosures. Therefore, weaknesses in internal control testing and evaluation can lead to inadequate testing of accounts and financial statement audit disclosures. Meanwhile, the significant weaknesses in the internal control audit, which are repeatedly mentioned in the inspection reports, include the lack of identification and sufficient testing of controls that are considered in order to omit the significant misstatement mistakes. In this case, the application of the specific requirements of Auditing Standard No. 5 and the other standards of the PCAOB discuss the specific aspects of the internal control audit in the light of recent observations of audit weaknesses (PCAOB, 2013).

The PCAOB discusses specific aspects of internal control auditing considering the recent observations of audit weaknesses (PCAOB, 2013). On the other hand, given the fact that in recent years, the financial markets have undergone changes (online or futures transactions) leading the internal control system to be no longer responsive in the traditional way (Aghaei et al., 2014), it is likely that in the absence of strong internal controls, not only the probability of fraud in companies will increase, but auditors' procedures will be influenced as well. In fact, in the presence of a quality internal control system, deliberate manipulation in reporting as well as the risk of random procedural and estimation errors decrease (COSO, 1992), and as a result, the accounting records become more accurate and the profit quality increases. High-quality internal control also plays a vital role in the proper allocation of resources (D'Mello, Gao, and Jia, 2017), making real profit management more difficult. Accordingly, the enactment of internal control regulations (e.g. in Germany, France, England, Canada, Australia, and Japan) indicates that high quality internal controls can help ensure the financial reporting quality (Hu, Weng, and Wong, 2020).

Although before the enactment of internal control regulations, independent auditors used to evaluate internal controls (and based on the case, the necessary points were informed to the board of directors of the company through a management letter), the extent of this evaluation was based on the balance between the content tests and the control tests with the aim of commenting on the financial statements. In other words, before the enactment of these regulations, independent auditors could decide to express their opinions on financial statements based on the content tests and focus less on the internal controls, but after the enactment of these regulations, auditors have to check the internal controls to the extent that they can comment on them. Therefore, the presence of mechanisms such as a proper internal control system with the capability of improving companies' financial reporting quality can play a major role in increasing the users' trust levels and the task of ensuring financial statements by auditors.

The study of internal controls provides valuable information on the costs of internal control regulations and the market response to them and the relationships between internal control weaknesses and audit costs as well as between corporate characteristics and accruals. However, those studies provide little evidence on whether the enactment of internal control regulations has help the legislators to achieve the goal of improving the financial reporting quality. Thus, this study seeks to compare the impact of the enactment of internal control regulations on the financial reporting quality.

2.Research Theoretical Foundations

The purpose of enactment of the Sarbanes-Oxley (SOX) Act of 2002 was to help revive public confidence in capital markets after audit scandals. One

of the controversial aspects of this law is the requirement of Section 404 that both management and independent auditors are obligated to formally comment on the effectiveness of the company's internal controls over financial reporting in the annual report. While research literature has paid attention to the various consequences of this issue (Zhang, 2007; Gao, Wu and Zimmerman, 2009), there is still a limited understanding of the effectiveness of the internal control regulations of the TSE in identification of the weaknesses of the internal controls. Moreover, despite the valuable and unique role of effective internal controls in the efficient management of economic units, the legal regulations proposed for the implementation, evaluation, and reporting of the internal controls governing financial reporting, and the legal responsibilities of management and independent auditors in this regard, there has not been a proper evaluation of the state of internal controls in terms of design, implementation, and evaluation of reporting in Iran’s current situation due to many reasons (Saedi and Dastgir, 2017). However, commentators have questioned the reliability of internal control reports, noting to the failure in identification of their weaknesses (SEC, 2009; Management Accounting Association, 2008). The focus of literature has been primarily on the consequences of implementing internal control regulations (Ashbaugh-Skaife et al., 2008; Doyle, Ge, and McVay, 2007; Schroeder and Shepardson, 2016), but there is little evidence of the impact of internal control regulations on the financial reporting quality (Brown, Pott, and Weompener, 2014; Dutilleux, Francis, and Willekens, 2016). According to some studies in the US, the SOX Act has successfully encouraged companies to have stronger internal controls, improve the accuracy of corporate information disclosures, and operational efficiency (Ashbaugh-Skaife, 2008; Feng, McVay, and Skaife, 2015; Patterson and Smith, 2007; Schroeder and Shepardson, 2016). The reporting quality has also been influenced by the internal control regulations in other countries such as Belgium (Dutilleux, Francis, and Willekens, 2016), Germany (Brown, Pott, and Weompener, 2014), and Japan (Enomoto and Yamaguchi, 2017).

On the other hand, according to the Agency Theory, considering the differences in interests between the two parties (owner-manager), there is a need for a monitoring mechanism. Therefore, internal control regulations play a critical role in monitoring management actions (Monitor Hypothesis).

Using the Agency Theory, Cao Thi Thanh and Cheung (2010) studied the relationships between the financial reporting quality and the internal, observing that high-quality internal controls can minimize the information asymmetry, and a high-quality internal control system can enhance the reporting transparency and reduce the agency costs (Ajao and Oluwadamilola, 2020). From a theoretical perspective, compliance with internal control regulations can help companies to strengthen and maintain their effective controls (Hermanson, 2000).

According to the reported standards of the SOX Act, internal controls associated with financial reporting are considered as effective only if there are no significant weakness in the financial statements. In this way, cases with significant weaknesses include those in which the probability of not proving a significant misstatement in the financial statements is at least reasonable (Auditing Standard No. 5). Based on this, companies are required to present their financial restatements after the occurrence of misstatement. The audited financial statements are restated in the circumstances including: first, significant misstatement in a company have occurred due to some types of inherent risks (e.g., reckless accounting procedures, incorrect application of accounting principles and procedures, and staff problems). Second, the misstatemen is not prevented or detected by the company's internal control system. Third, the independent auditors fail to identify the misstatement and finally, after publishing the financial statements, it is identified, and if it is significant, there is a need to correct, restate, and re-assure the financial statements. has it. In most cases, the financial restatements indicate that there some problems in the company's internal control system and management system (Rezazadeh, Abdi and Kazemi Ulum, 2017). Hence, it is likely that there is positive correlation between the restatement and the internal control weaknesses. In addition, a significant weakness can lead to major misstatements in the financial statements (PCAOB, 2004). In other words, after the enactment of internal control regulations, it can become feasible to decrease the misstatement in companies’ financial statements (Nagy, 2010). A fundamental principle in auditing is that if internal control regulations are ineffective, the probability of significant misstatement

in financial statements will be higher (SAS[1] No. 55, AICPA[2], 1988; SAS No. 78, AICPA, 1997; SAS No. 110, AICPA, 2006).

On the other hand, an effective internal control cannot help decrease intentional misstatements, as managers are likely to overlook misstatements that are difficult to be detected. Previous studies provide evidence that many companies did not disclose fundamental weaknesses before restatement of their financial reports (Rice and Weber, 2012). Similarly, Scholz (2014) investigated the disclosures of the weaknesses of internal controls over financial reporting before and after restatements. He found that within the period 2009-2012, only about 18% of the restatements were associated with the disclosure of weaknesses of internal control over financial reporting. In fact, financial restatements indicate that even after enactment of the internal control regulations, there were significant weaknesses that have not been reported. The presence of a significant weakness implies that either the management and the auditor do not recognize the weakness, or they recognize it but prefer not to disclose it (Ashbaugh, Collins, and Kinney, 2007).

Rice and Weber (2011) believe that a large number of companies with significant weaknesses in their internal controls cannot report them on time. Only 32.4% of the companies that subsequently provide their financial restatement declare significant weaknesses during the restatement period. This ratio has been decreasing with the passage of time and in the last year, i.e., 2009, it reached the lowest level 13.6%. In other words, most of the companies that have provided their financial restatements have reported the weaknesses in their internal controls only after submitting their financial restatements. These results partially support the criticisms made about the ineffectiveness of reporting the weakness of internal controls (Turner and Welrich, 2006).

Altamuro and Beatty (2010) suggest that internal control has long been advocated as a mechanism for providing high quality financial reporting. Internal control is naturally considered as one of the most critical factors for financial reporting quality in order to decrease restatement (Wang, 2013).

According to Section 69 of American Auditing Standard No. 5, financial restatements can be considered as one of the signs of internal controls with significant weaknesses. According to Section 7 of Iran's Auditing Standard No. 265, an instance of signs of significant weaknesses in internal controls are the restatements of previously published financial statements in order to reflect the modification made regarding significant misstatement caused by mistakes or fraud. Many studies have confirmed this relationship, finding that the company's internal control conditions influence the possibility of restatement of financial reports (Hammersley, Myers and Shakespeare, 2008; Plumlee and Yohn, 2010). In general, an effective change in the internal control systems can decrease the probability of making unintentional or intentional mistakes, resulting in a decrease in restatements. Thus, it seems that enactment of internal control regulations plays an effective role in detecting and preventing mistakes in financial reports. Accordingly, it is reasonable to accept that there exist internal control problems when facing with financial scandals.

According to Saei et al. (2012), most of the studies on measuring the financial restatements abroad have been carried out in societies where the number of companies with financial restatements was very small. Meanwhile, the companies listed in the TSE have a lot of restatements. Some studies indicate that the financial statements of 85% of the companies listed in the TSE have adjustments due to the mistake modifications (Nikbakht and Rafiei, 2012). 9% of the companies listed in the American Stock Exchange have had financial restatements in 2006, raising it as a concern. In fact, adjustments resulting from mistake modifications and financial restatements of the previous periods are associated with many negative consequences. For example, earnings per share and price-to-earnings ratio are among the indicators used by analysts and investors. In case of incorrect statement of the earnings and their modifications in the following periods, the adjusted earnings figure will be presented with a delay and after taking previous economic decisions. Therefore, in many cases, it is not possible to review the past decisions or modify cash flows based on this information. Another negative consequence of adjustments resulted from mistake modifications is their impact on auditors' credibility. The auditors’ purpose is to give credit to financial

[1] Statement of Auditing Standards
[2] American Institute of Certified Public Accountants

statements, and when the audited financial statements of previous periods are presented several times due to significant accounting mistakes, the community's trust in the auditors' opinion decreases (Mearajipour and Pour Bahrami, 2017), because according to Kachelmeier (2010), the figure of net profit is considered as the basis for several calculations such as the board of directors' bonus, tax, and dividends among shareholders. In addition, most of the investors considered the figure of net profit as the basis for making decision buying or selling the companies' shares, and restatement of this figure can lead to legal problems for the companies and their auditors and legal inspectors, as the auditors are responsible for crediting the financial figures, which can be damaged by financial restatements (Mearajipour and Pour Bahrami, 2017). Gallemore and Labro (2015) claim that the most important reason for financial restatements is the incomplete information. Thus companies with higher quality of internal controls are less likely to have restatements.

Presence of strong internal controls in companies' financial and administrative structures can systematically decrease management's opportunistic behavior and as consequently the misstatement caused by conflict of interest and moral hazard, and at the same time have a positive impact on the firm's management style by improving the financial reporting quality. Developing confidence in internal controls can decrease the information asymmetry as well as the conflict of interests between the stakeholders of the company, because the flow of information is provided in a complete and transparent manner, and internal processes do not allow management involve in an opportunistic behavior due to the weaknesses in the internal control system. As a result, internal controls can firstly improve the financial reporting quality, secondly, increase the information symmetry, and thirdly, decrease the conflict of interests and better monitor the management (Razavi Iraqi, Jahanshad and Mostofi, 2017). Accordingly, managers are always trying to design and establish the best internal controls in their organization. On the other hand, Ogneva, Subramanyam and Raghunandan (2007) found that if internal controls have weaknesses, the financial reporting quality of the economic sectors decreases. Kinney and Shepardson (2011) expressed that requiring managers to report internal controls governing financial reporting can be play a vital role in improving the financial reporting quality. Bedard and Graham (2011) pointed to the effective role of the independent auditor's report in identification of significant weaknesses in the company's internal control system. In this regard, proponents of Section 404 of the SOX Act believe that managers will seriously evaluate and disclose the effectiveness of their companies' internal controls only if auditors are present. The SEC also acknowledges the importance of auditor oversight, stating that "there is strong evidence that auditors' role in auditing the effectiveness of internal controls improves the reliability of internal control disclosures and financial reporting and is useful for investors" (SEC, 2011, p. 8). In terms of the importance of auditor oversight, Bedard and Gendron (2009) provide evidence that the auditor's intervention can increase disclosure of significant weaknesses in internal control. Hence, when managers identify and fix defects with any degree of severity, they improve the quality of internal controls as a whole. Thus, the quality of financial reports that are extracted based on improved internal controls will increase.

Based on Article 17 of Chapter 3 of the internal control regulations, "the company' independent auditor of is required to report to the General Meeting of Shareholders regarding the establishment and use of an appropriate and effective internal control system by the company and give his/her comments according to the framework of internal controls mentioned in Chapter 2 of the regulations". Considering the importance of the auditors' crediting role and their opinion in creating reliability towards the financial statements and finally decreasing the information asymmetry of the company, it is expected that the auditor's intervention will bring about the effectiveness of internal control regulations.

Given the fact that so far the audit standard with the subject of internal audit integrated with the audit of financial statements (similar to Auditing Standard No. 5) has not been approved by the Audit Organization, auditors' opinion about the adequacy and effectiveness of internal controls is often based on the checklist of compliance with internal controls regulations of the Stock Exchange and Securities Organization, known as the "72-question checklist". It is possible that auditors are not able detect significant weaknesses in internal controls due to the inherent limitations of implementing internal controls and the tools for gathering information about internal controls. In this

case, they are likely to present reports with incorrect evaluation regarding the adequacy of internal controls (Khorramabadi et al., 2020).

3.Research Background

Investigating the impact of the Sarbanes-Oxley law on the reporting quality, Bajra and Asllanaj (2021) found that the financial reporting quality increased after the SOX Act became imperative. While Section 302 of the SOX Act improves the financial reporting quality significantly, Section 404 of the Sarbanes-Oxley Act does not play such a role.

Hu, Weng, and Wong (2020) investigated the effects of the internal control regulations on the financial reporting quality in China, showing that the internal control regulations have a positive effect on the financial reporting quality.

Schroeder and Shepardsen (2016) investigated the question that: whether internal control audits and management evaluations under Section 404 of the SOX Act result in an overall improvement in the quality of the internal control system? They showed that auditing of internal controls subject to Section 404 has increased the quality of internal controls. They also obtained limited evidence that management evaluations influence the quality of internal controls.

By investigating the evaluations of the SOX Act, Section 404: Costs, Benefits and Earnings Management, Fischer, Gral and Lehner (2014) found that the SOX Act has a positive impact on increasing the quality of earnings and improving internal control systems. Although the SOX Act has been largely debated in the literature, there is a consensus that it has helped improve the financial reporting quality.

Myllymäki (2014) investigated the stable relationship between Section 404 of the SOX Act (Internal Control) and the financial reporting quality, finding that in many cases future restatements are not associated with significant internal control weaknesses disclosed by the management. But the results of the research generally emphasize the importance of detecting and disclosing significant weaknesses of internal controls governing financial reporting.

In a research on the impact of the SOX Act on financial reports, Nagy (2010) indicated that there is a negative and significant relationship between the SOX Act and inaccurate financial statements. The showed that The regulations of the SOX Act fulfill their purpose of improving the financial reporting quality.

Investigating the explanation and prioritization of the factors influencing the evaluation of the effectiveness of internal controls in companies listed in the TSE with a fuzzy approach, Khorramabadi et al. (2020) found that the results of the prioritization of the factors indicate that among the main criteria, the most important factor in evaluating the effectiveness of internal control is the internal auditor’s characteristics, followed by the structure of the board of directors, the independent auditor’s characteristics, and the process factors, respectively. Also, the ownership structure was the least important criterion, being placed in the eighth priority. Therefore, identifying, explaining, and considering the importance of the priorities of the factors affecting the evaluation of internal controls provides a basis for improving the effective evaluation of internal controls.

In a study on the effectiveness of internal control regulations of the Stock Exchange Organization in the cement listed companies, Birami et al. (2018) showed that in order to answer the hypotheses, the impact of internal controls on three independent variables of risk management, financial reporting quality, and shareholder rights from corporate governance perspective has been tested. The regression analyses indicated that internal control has a positive and significant impact on the three mentioned variables. As a result, it can be said that internal control influences the criteria of financial reporting and risk management, which is of particular importance, and can also positively affect the shareholder rights from the corporate governance perspective, resulting in their satisfaction.

In a study on the effects of the implementation of internal control regulations on the users’ level of trust in financial statements, Gol Alizadeh Farutagha, Bagherpour Lashani, and Noghani (2017) investigated all the factors and dimensions in the internal control guidelines, ultimately finding that the entire regulations of internal controls have had an increasing (positive) impact on trust from the users' point of view.

Investigating the event analysis of the requirements of internal controls governing financial reporting, with an emphasis on the role of the Audit Committee, Bazrafshan, Hijazi, and Rahmani (2015) showed that the enactment of internal control regulations and the formation of the Audit Committee have improved the reliability and timeliness of

financial reporting, while not having a significant impact on the relevance of financial reporting.

4.Research Hypotheses

With the enactment of the internal control regulations, companies were required to check the effectiveness of internal controls and disclose the related reports. From a theoretical perspective, complying with the internal control regulations can help companies to strengthen or maintain their effective controls. Previous studies have indicated that ineffective internal control can damage the financial reporting reliability (Ashbaugh-Skaife et al., 2008) and increase less accurate information, leading to deviation from optimal decisions (Darrough, Huang, and Zur) and a decreased operational efficiency (Cheng, Goh, and Kim, 2018). Proponents of internal control regulations argue that restricting the management authorizations can enhance the financial reporting quality. Although this argument is potentially true for firms with significant internal control weaknesses, restricting the management authorizations cannot always result in improvement of financial reporting on average for all regulated firms and can potentially reduce the effectiveness of financial reporting. For example, Bagnoli and Watts (2005) claim that managers with conservative reporting powers can reveal good news in the future by disclosing private information.

On the other hand, the financial reporting quality is likely to be influenced by the manipulation of financial statements, e.g., overstating profits and understating expenses or other accounting items, by managers through choosing accounting methods and estimates (Zhou, Xie, and Li, 2017). Accordingly, the corporate governance system and regulatory policies are considered as the two main mechanisms designed to prevent such manipulations and ensure high-quality financial reporting (Bradbury and Mear, 2017; Melis and Carta, 2010; Pereira and Alves, 2017).

The relationship between corporate governance and regulatory policies has been widely investigated by literature (Chang, Jackson, and Wee, 2017). However, a controversial issue that requires more studies in this field is the issue of improving the of financial reporting quality after the enactment of internal control regulations. From the corporate governance perspective, the most important parts of the SOX Act are associated to financial reporting and internal controls, which still is attracting researchers' attention widely, as the aforementioned regulations determine the financial reporting quality as well as its effectiveness as a whole (Ettredge, Sherwood and Sun, 2018; Fischer, Gral and Athmar, 2014). In fact, the focus of Section 302 of the SOX Act is on senior managers and their responsibility to ensure the presence of a reliable financial reporting system, while Section 404 of this Act and Articles 12 and 17 of Iran's Internal Control Regulations require management to evaluate internal control systems annually and independent auditors to comment on the reliability of financial reporting. It is obvious that the main goal of internal control regulations is to ensure the reliability of financial reporting (Brown, Pott and Wompener, 2014; Jarvinen and Myllymäki, 2016).

Regulatory policies impose specific requirements, restrictions, and regulations on companies with the aim of maintaining the integrity of financial reporting and internal controls governing them. Although it is difficult to conclude that the internal control regulations alone can be responsible for increasing the financial reporting quality, the alternative regulatory policies have increased the financial reporting quality (Fischer, Gral and Athmar, 2014).

Based on this logic, Lobo and Zhou (2010) showed that in the period after the implementation of the internal control regulations, companies become more conservative, as they provide financial reporting with a higher quality. They also claimed that this is due to internal control regulations and the associated benefits have improved the quality of financial reporting and internal control systems (Bajra and Asllanaj, 2021).

Therefore, in order to investigate the improvement of the financial reporting quality before and after the enactment of the internal control regulations, research hypotheses are proposed as follows:

H1: The companies' financial reporting quality in the period after the enactment the of internal control regulations is significantly different that in the period before their enactment.

H1a: The cases of restatement (in the next year) in the companies where the independent auditor has commented on the report of internal controls governing financial reporting in the period after the enactment of internal control regulations are significantly different from those the period before their enactment.

H1b: The cases of misstatement in the financial statements in the companies where the independent

auditor has commented on the report of internal controls governing financial reporting in the period after the enactment of internal control regulations are significantly different from those the period before their enactment.

H1c: The cases of non-compliance with the laws and regulations in the companies where the independent auditor has commented on the report of internal controls governing financial reporting in the period after the enactment of internal control regulations are significantly different from those the period before their enactment.

5.Research Methodology

The research data was extracted from the audited financial statements of the companies listed in the TSE, websites such as www.codal.ir and the official website of the SEO. To determine the statistical research population, the following restrictions were applied: 1) Their financial period ends at the end of March every year; 2) The financial year does not change during the desired periods; 3) The company's shares have been traded for at least six months a year; 4) They should not be among the investment, mediation and financial companies; 5) The information needed for conducting this study are available in the time period under review. Finally, the financial information related to 90 companies, e.g., in a 12-year period, 6 years before the introduction of the internal controls from 2007 to 2012, and 6 years after the introduction of these regulations from 2013 to 2018 was analyzed as the sample population by applying the above restrictions.

6.Data Analysis Method

In order to analyze the data and test the research hypotheses to investigate the difference between the coefficients of determining a pattern between the two groups before and after the enactment of the internal control regulations (the effect of independent variables on dependent ones), Cramer's test was used at the level of the research sample companies. The regression models are as follows:

The regression model of the first hypothesis:

$$FUT\ RESTATE_{i,t}=\beta 0+\beta_1 RIC_{i,t}+\beta_2 SIZE_{i,t}+\beta_3 LOSS_{i,t}+\beta_4 ROA_{i,t}+\beta_5 FNDSRSED_{i,t}+\beta_6 MBR_{i,t}+\beta_7 INTCOV_{i,t}+\beta_8 LEV_{i,t}+\beta_9 BIGN_{i,t}+\varepsilon_{i,t}$$

The regression model of the second hypothesis:

$$MISST_{i,t}=\beta 0+\beta_1 RIC_{i,t}+\beta_2 SIZE_{i,t}+\beta_3 LOSS_{i,t}+\beta_4 ROA_{i,t}+\beta_5 FNDSRSED_{i,t}+\beta_6 MBR_{i,t}+\beta_7 INTCOV_{i,t}+\beta_8 LEV_{i,t}+\beta_9 BIGN_{i,t}+\varepsilon_{i,t}$$

The regression model of the third hypothesis:

$$Non_COM_{i,t}=\beta 0+\beta_1 RIC_{i,t}+\beta_2 SIZE_{i,t}+\beta_3 LOSS_{i,t}+\beta_4 ROA_{i,t}+\beta_5 FNDSRSED_{i,t}+\beta_6 MBR_{i,t}+\beta_7 INTCOV_{i,t}+\beta_8 LEV_{i,t}+\beta_9 BIGN_{i,t}+\varepsilon_{i,t}$$

Following Schroeder and Shepardson (2016), the independent, dependent, and control variables applicable in Iran were used in this study.

Independent Variable:

RIC: a virtual variable that is set equal to one if the independent auditor has commented on the internal controls, and zero otherwise (Schroeder and Shepardson, 2016; Karami et al., 2018).

Dependent Variables:

Non COM: a virtual variable that is set equal to one if the legal inspector's report contains non-compliance cases, and zero otherwise.

FUT RESTATE: a virtual variable that is set equal to one if there are financial restatements during the future period, and zero otherwise (Schroeder and Shepardson, 2016).

MISST: a virtual variable that is set equal to one if the independent auditor's report mentions misstatement, and zero otherwise (Karami et al., 2018).

Control Variables:

MBR: Market-to-Book Ratio (Schroeder and Shepards0n, 2016).

Company's size (Size): the natural logarithm of total assets (Schroeder and Shepardson, 2016).

Company's loss (LOSS): equal to one if the company has a loss, and zero and otherwise (Schroeder and Shepardson, 2016).

Return on Assets (RoA): the ratio of income before deduction of interest and taxes on the total assets (Schroeder and Shepardson, 2016).

FNDSRSED: an index that is set equal to one if the sum of long-term liabilities plus rights of new owners exceeds 20% of the total assets, and zero otherwise (Schroeder and Shepardson, 2016).

INTCOV: financial cost divided by operating income before depreciation (Schroeder and Shepardson, 2016).
Auditor size (BIGN): If the company has been audited by a large audit firm (firms with more than 20 partners), it is equal to one, and zero otherwise (Schroeder and Shepardson, 2016; Namazi, Bayazdi, and Jabarzadeh Kangarloui, 2011; Bani Mahd and Jafari Maafi, 2013).
Financial leverage (Lev): the ratio of the total liabilities to the total assets (Schroeder and Shepardson, 2016).

7.Research Findings

Calculation of descriptive indicators is the first step in any statistical analysis and data analysis. Therefore, to enter the data analysis stage, the descriptive statistics including the central measures of tendency, measure of variability and Skewness are calculated. The results are presented in Table (1),(2),(3),(4).

Considering the virtuality of the variable MISST, before and after the enactment of the regulations with an average of 0.563 and 0.526, respectively, it can be concluded that in this study, the level of misstatement detected and reported before and after the enactment of the internal control regulations has covered more than half of the sample firm-year observations. The variable FUT RESTATE before and after the introduction of internal control regulations with an average value of 0.802 and 0.772, respectively, indicates that during the review period, more than 70% of the companies listed in the SEO have updated their financial statements and there is no difference between the two groups before and after the introduction of the internal control regulations. The variable RIC before and after the enactment of the internal control regulations with an average value of 0.756 and 0.767, respectively, indicates that in this study, the rate of evaluation and reporting of non-compliance with laws and regulations covers 76% of the sample firm-year observations. The variable "report on internal controls by the auditor" before and after the internal control regulations with an average of 0.069 and 0.685, respectively indicates that despite the fact that the auditor is required to report on internal controls, less than 70% of the sample companies during the research period have been commented by the independent auditor regarding internal controls. The variable BIGN before and after the introduction of internal control regulations with an average value of 0.287 and 0.274, respectively shows that almost 29% of the sample companies have used large audit firms (Mofid Rahbar and Audit Organization) for audit operations.

Tables 3 and 4 list the descriptive statistics associated with the control variables used in this study. The variable INTCOV is used as a control variable of default risk, where a lower ratio indicates a higher risk. The variable INTCOV before and after the introduction of internal control regulations, with an average value of 0.162 and 0.181, respectively, indicates that the ability to pay interest costs has increased on average 2% compared to before the introduction of the internal control regulations.

Table 1: Descriptive analysis of values related to virtual variables(before the enactment of internal control regulations).

Variable	Notation	Virtual values	Frequency	Frequency percent	Number of observations
misstatement report by independent auditor	MISST	0	236	0.437	540
		1	304	0.563	
Financial restatements	FUT RESTATE	0	107	0.198	
		1	433	0.802	
Report of lack of legal cases by the inspector	Non COM	0	132	0.244	
		1	408	0.756	
Inspector's reporting about cases of non-compliance with regulations	RIC	0	503	0.931	
		1	37	0.069	
Auditor size	BIGN	0	385	0.713	
		1	155	0.287	
An indicator of the fact that the sum of long-term debts and the rights of the new owners is more than 20% of the total assets	FNDSRSED	0	503	0.931	
		1	37	0.069	
Company loss	Loss	0	499	0.924	
		1	41	0.076	

Table 2: Descriptive analysis of values related to virtual variables (after the enactment of internal control regulations)

Variable	Notation	Virtual values	Frequency	Frequency percent	Number of observations
misstatement report by independent auditor	MISST	0	256	0.474	540
		1	284	0.526	
Financial restatements	FUT RESTATE	0	123	0.228	
		1	417	0.772	
Report of lack of legal cases by the inspector	Non COM	0	126	0.233	
		1	414	0.767	
Inspector's reporting about cases of non-compliance with regulations	RIC	0	170	0.315	
		1	370	0.685	
Auditor size	BIGN	0	392	0.726	
		1	148	0.274	
An indicator of the fact that the sum of long-term debts and the rights of the new owners is more than 20% of the total assets	FNDSRSED	0	467	0.865	
		1	73	0.135	
Company loss	Loss	0	458	0.841	
		1	82	0.152	

Table 3: Descriptive statistics of the research variables (before the enactment of internal control regulations).

Variable	Notation	Mean	Standard deviation (SD)	Kurtosis	Skewness	Min	Max
Financial cost divided by operating income before depreciation	INTCOV	0.162	0.224	6.814	0.086	-0.756	2.797
Financial Leverage	LEV	0.589	0.192	3.418	-0.329	0.010	1.252
Market-to-Book Ratio	MBR	1.804	1.300	5.421	1.100	-2.996	7.972
Return on assets	ROA	0.147	0.142	4.642	0.939	-0.249	0.700
Company size	SIZE	27.222	1.491	4.098	0.875	23.847	33.270
Number of observations: 540							

Table 4: Descriptive statistics of research variables (after the enactment of internal control regulations).

Variable	Notation	Mean	Standard deviation (SD)	Kurtosis	Skewness	Min	Max
Financial cost divided by operating income before depreciation	INTCOV	0.181	0.445	6.010	-0.060	-2.884	2.737
Financial Leverage	LEV	0.588	0.227	2.874	0.089	0.012	1.274
Market-to-Book Ratio	MBR	2.564	1.838	5.379	0.571	-2.970	9.874
Return on assets	ROA	0.126	0.178	5.581	1.022	-0.370	0.963
Company size	SIZE	28.102	1.565	3.931	0.637	24.320	33.129
Number of observations: 540							

7.1. Inferential Statistics

Based on the results of the Jarque-Bera test (Table 5), the significance level higher than 5% for the models of the first and second hypotheses after the enactment of the internal control regulations indicates the normality of the misstatement of the remaining errors. While this figure for the models of the second and third hypotheses is less than 5%, which indicates the non-normal misstatement of the remaining errors. At the level of 2%, outliers were excluded and transformations like Johnson were not used in order to avoid variables with behavior different behavior of the original variables. According to the well-known Central Limit Theorem (CLT), the misstatement of the sum of independent and dependent variables tends towards the normal misstatement. In another way, the CLT states that if the number of variables is not too large or if the variables are not completely independent, they are likely still to have a normal misstatement.

Table 5. Normality test results (for error terms).

Research Models	Model	Significance level	Result
The model of the first hypothesis	Before enactment of internal control regulations	0.062	Normality
	After establishing internal control regulations	0.057	
The model of the second hypothesis	Before enactment of internal control regulations	0.000	Abnormality
	After enactment of internal control regulations	0.055	Normality
The model of the third hypothesis	Before enactment of internal control regulations	0.000	Abnormality
	After enactment of internal control regulations	0.000	Abnormality

7.2. Results of Research Hypotheses Test:

In order to achieve the results of the research, the research samples were fitted before and after the establishment of internal control regulations, i.e. the time period from 2007 to 2012 (before the establishment of internal control regulations) and the time period from 2013 to 2018 (after the establishment of internal control regulations). The results are presented in Table (6).

For this purpose, the test of the difference between the coefficients of the determination of a model using Cramer's test at the level of the sample companies has been used to check the strength and reliability of the research results.According to the results of Cramer's test, the coefficients of determination between the model of the research first hypothesis are equal to 0.133 and 0.146 before and after the enactment of the internal control regulations, respectively. The results of Cramer's test with a significance level of 0.056 indicate that the null hypothesis of the test is confirmed. Therefore, the results of Cramer's test showed that the difference between the determination coefficients of the two models (at the rate of 0.013) before the establishment of internal control regulations and after the establishment of internal controls is not significant. In other words, there is no significant difference between the effects of the internal controls by the independent auditor on the financial restatements before and after the enactment of the internal control regulations.This finding indicates the disconfirmation of the research hypothesis and it can be concluded that the establishment of internal control regulations has not led to the improvement of financial statements and in other words the quality of financial reporting.

Based on the results of Cramer's test, the coefficients of determination between the model of the research second hypothesis before and after the enactment of the internal control regulations are 0.146 and 0.120, respectively. The results of Cramer's test with a significance level of 0.070 confirm the null hypothesis of the test.

Therefore, the results of Cramer's test showed that the difference between the determination coefficients of the two models (at the rate of 0.026) before the establishment of internal control regulations and after the establishment of internal controls is not significant.

In other words, there is no significant difference between the effects of the internal controls by the independent auditor on the misstatement in the financial statements before and after the enactment of the internal control regulations.

This finding indicates the disconfirmation of the research hypothesis and it can be concluded that the establishment of internal control regulations has not led to the improvement of misstatement in financial statements and in other words the quality of financial reporting.

According to the results of Cramer's test, the coefficients of determination between the research third hypothesis model before and after the enactment of the internal control regulations are 0.170 and 0.140, respectively. The results of Cramer's test with a significance level of 0.068 indicate that the null hypothesis of the test is confirmed.

Therefore, the results of Cramer's test showed that the difference between the determination coefficients of the two models (at the rate of 0.03) before the establishment of internal control regulations and after the establishment of internal controls is not significant.In other words, there is no significant difference between the effects of “the internal controls by the independent auditor” on “the auditor’s report of cases of non-compliance with regulations before and after the enactment of the internal control regulations.This finding indicates the disconfirmation of the research hypothesis, and it can be concluded that the establishment of internal control regulations has not led to the improvement of the auditor’s report of cases of non-compliance , and in other words, the quality of financial reporting.

Table 6: Cramer’s test results for research models.

Research Models	Model	Determination coefficient of model	Test results	
			Z stat	Significance level
The model of the first hypothesis	Before enactment of internal control regulations	0.133	642.4	0.056
	After establishing internal control regulations	0.146		
The model of the second hypothesis	Before enactment of internal control regulations	0.146	1.556	0.070
	After enactment of internal control regulations	0.080		
The model of the third hypothesis	Before enactment of internal control regulations	0.170	1.299	0.068
	After enactment of internal control regulations	0.140		

7.3. Results of Sensitivity Analysis Test

In order to check the strength and reliability of the research results, the difference in the companies’ financial reporting quality within the period before and after the enactment of the internal control regulations based on the quality of accruals was re-evaluated as an alternative criterion for measuring the financial reporting quality. The quality of accruals was measured using McNichols’s (2002) model. The larger standard deviation of the residuals indicates the weaker status of accruals in converting to cash flows. Also, a lower quality of profit, e.g., a lower figure, indicates a higher quality of profit.

$$Acc_{i,t}=\beta 0+\beta_1 CFO_{i,t-1}+ \beta_2 CFO_{i,t} + \beta_3 CFO_{i,t+1} + \beta_4 \Delta REV_{i,t} + PPE_{i,t}+ \varepsilon_{i,t}$$

In the above model, CFO denotes the operating cash flow, ΔREV represents the changes in sales in the current year compared to the previous year, PPE denotes property, machinery, and equipment, and Acc is the amount of accruals resulting from deducting the operating cash flow from the operating profit. The variables are standardized using total assets at the beginning of the year.

Table 7 presents the results of the above test. As it can be seen, there is no significant difference between the effects of internal controls on the financial reporting quality based on the criterion of quality of accruals before and after the enactment of internal control regulations. This result is consistent the research main results presented in Table 6. Thus, it can be argued that the research results are not sensitive to the use of an alternative measure of financial reporting quality and so they have strength.

Table 7: Cramer's test results based on the alternative measure of financial reporting quality (quality of accruals).

Research Models	Model	Determination coefficient of model	Test results	
			Z stat	Significance level
Research hypothesis	Before enactment of internal control regulations	0.122	1.331	0.071
	After establishing internal control regulations	0.153		

8. Conclusions and Suggestions

Information influence investors' decision-making in the capital market significantly. Moreover, the enactment of laws and regulations and the development of standards by law-making bodies and standard-setting authorities have an effect on the improvement of the financial information quality. Accordingly, the SEO, as a regulator in the country's capital market, has paid attention to the companies' internal controls as one of the key factors in the regulations for the acceptance of companies to the stock market. Therefore, in Iran, since 2011, the companies listed in the SEO were required to present and evaluate their internal controls in order to protect the investor rights, prevent violations, and organize transparent and fair market development. Although the managers of the companies did not have enough familiarity with financial reporting, they were required to submit these reports. On the other hand, managers have increasingly expressed skepticism about the benefits of these controversial regulations, often with this claim that the costs of these regulations are too high compared to their benefits. Therefore, the aim of this study was to investigate the effects of internal control regulations on the financial reporting quality among 90 companies listed the TSE within the period 2007-2018.

Considering the results of the tests and comparing the explanatory power and accuracy of each of the models, it can be said that at different levels of confidence, these models have the explanatory power before and after the enactment of internal control regulations. The results of Cramer's comparison test indicate that there is no difference between the two community before and after the enactment of the internal control regulations. This finding can be explained by the special costs of compliance with its sub-groups or the companies' resistance to change the corporate governance approach imposed by the alternative regulatory policies (Bajra and Cadez, 2018; Christensen et al., 2015). Therefore, it seems that the possible reason for that the companies hesitate to completely implement the internal control regulations due to the high costs of their implementation. Accordingly, it seems that the goal set by the SEO will be far from reach and all these factors indicate that the enactment of the internal control regulations and the independent auditors' evaluation of the internal controls has not helped to increase the financial reporting quality. Therefore, the companies' financial reporting qualities between the periods after and before the enactment of the internal control regulations are not significantly different. Obviously, if the internal control regulations are designed and established correctly, they will result in an increase in the efficiency and accuracy of information and accounting systems.

It seems that the requirement for evaluating and reporting the internal controls containing useful information to obtain a reasonable assurance of achieving effective goals and operational efficiency is not necessarily associated with providing reliable financial reporting, and even the aforementioned regulations have not improved over time. And most importantly, there will be a possibility of a negative impact on the proper performance of this regulation in the future.

On the other hand, the possible reasons for not improving the financial reporting quality after the enactment of the internal control regulations include: the inadequacy and ineffectiveness of their enactment; the insufficient level of knowledge of managers regarding the importance and necessity of establishing an effective internal control system and the way of implementing the provisions of the related regulations; lack of attention to the training of audit experts for the effective and high-quality evaluation of these regulations; lack of sufficient knowledge of the necessary tools for the enactment of internal control regulations due to the lack of proper foundation and incorrect implementation of these regulations; and the impossibility of auditing internal controls due to the lack of necessary standards in this field. The results of

this study are in some way inconsistent with the those of Birami et al. (2017), which can be justified considering the dimensions of time of the research (before the enactment of internal control regulations from 2007 to 2012 and after their enactment from 2013 to 2018) and location (all the companies listed in the TSE). Also, our results are in some way inconsistent with the results of Hu, Wong, and Weng (2020) and Myllymaki (2014), and Schroeder and Shepardson (2016) and are consistent with the results of Bajra and Asllanaj (2021), Rice and Weber (2012), and Nagy (2010).

According to the results of this study, there are some suggestions to improve the effectiveness of the internal control regulations:

1) The necessity of re-evaluating the current internal control regulations and developing the standard of addressing and commenting on the effectiveness of the internal controls governing financial reporting.
2) Paying attention to the nature, effects, and method of reporting the issue of financial restatements and providing solutions by the developers of accounting and auditing standards to reduce them.
3) The necessity of developing audit standards for internal controls; if this is not realized, it cannot be assured that the internal controls will be audited within the framework of auditing standards, and in this case, the role of the auditors' judgment in performing this audit will increase, making it difficult to verify the comparability of the audit reports of internal controls governing the financial reporting provided by audit institutions in terms of the content of tests and comments made.
4) An integrated framework should be developed in order to evaluate risks and achieve control goals. The current internal control regulations are an incomplete system of the COSO's framework that does not provide design, evaluation, standards, and procedures for designing, documenting, evaluating, and testing the effectiveness of internal controls.

Here there are some suggestions for future research:

1) In this study, the requirement for the institutions to audit the subject of Article 17 of Internal Control Regulations (ICR) was used to investigate its effect on the financial reporting quality. Future studies are suggested to investigate the effects of requiring the companies' management to provide internal control reports subject to Article 12 of the ICR on the financial reporting quality should be used, so that if the management has mentioned the case or cases of internal control weakness in the internal control report, they should receive number 1 and otherwise 0.
2) ‹his study used three indicators in order to measure the financial reporting quality: financial restatements; independent auditor' report of misstatement; inspector' report of non-compliance with regulations. Future studies should investigate this relationship considering other indicators of financial reporting quality (i.e., accuracy of financial information, stability of profit, quality of disclosure, etc.) and compare their results with those of this research.

References

Aghaei ,M., Goljaryan, M. A., Nazari,K.,asadollahi,A.(2015). Effective's Internal Controls in Investment Companies from the Viewpoint of Independent Auditors. Journal of Empirical Research In Accounting. 17,1-12.

Ajao,O. S., Oluwadamilola,A. O.(2020). Internal Control Systems and Quality of Financial Reporting in Insurance Industry in Nigeria. Journal of Finance and Accounting , 8(5), 212-220.

Altamuro, J., Beatty, A. (2010). How does Internal Control Regulation Affect Financial Reporting? Journal of Accounting and Economics, 49, 58-74.

American Institute of Certified Public Accountants (AICPA). (1988). Statement on Auditing Standard (SAS) No. 55−The Auditor's Considerations of Internal Control Structure in the Financial Statement Audit. New York City, NY: AICPA.

American Institute of Certified Public Accountants (AICPA). (2006). Statement on Auditing Standard (SAS) No. 110−Performing Audit Procedures in Response to Assessed Risks and Evaluating the Audit Evidence Obtained. New York City, NY: AICPA.

American Institute of Certified Public Accountants (AICPA). (1997). Statement on Auditing Standard (SAS) No. 78−Consideration of Internal Control in a Financial Statement Audit: An Amendment to Statement on Auditing Standards No.55. New York City, NY: AICPA

Ashbaugh-Skaife, H., Collins, D. W., Kinney, W. R., Jr., & LaFond, R. (2008). The effect of SOX Internal Control Deficiencies and their Remediation on Accrual Quality. The Accounting Review, 83(1),217-250.

Ashbaugh-Skaife, H., Collins,D., & Kinney,W. (2007). The Discovery and Reporting of Internal Control Deficiencies Prior to SOX Mandated Audits. Journal of Accounting and Economics. 44, 166–192.

Banimahd ,B., Jafari Moafi,R.(2011). Accruals Quality and Auditor Selection.Empirical Studies in Financial Accounting Quarterly. 9(33),81-98.

Bajra,U., Asllanahj,R.(2021). Influence of the Sarbanes-Oxley Act on Financial Reporting Quality: An Overview of EU Firms Cross-Listed in the USA. Research Square. DOI: https://doi.org/10.21203/rs.3.rs-198068/v1.

Bajra U and Čadež S (2020) Alternative regulatory policies, compliance and corporate governance quality. Baltic Journal of Management .15(1),42–60.

Bazrafshan, A. ,Hejazi,R., Rahmani,A.(2016). Internal Controls over Financial Reporting Requirements and Audit Committee: Evidence from an event study. Management Accounting and Auditing Knowledge. 4(16), 56-45.

Beyrami, L., Kiani, A., Beyrami, V., Ghaemi Rad, M. H.(2018). Effectiveness of Internal Control Instructions of the Stock Exchange Organization in Cement Exchange Companies. Economic Journal. 3 and 4, 70-43.

Bedard, J., Gendron, Y. (2009). "Strengthening the Financial Reporting System: Can Audit Committees Deliver?", University Laval, Quebec City, Canada, working papers, available on-line at http://papers.ssrn.com/sol3/papers. cfm?abstract_id=1438150.

Bagnoli, M., Watts, S., (2005). Financial Reporting and Supplemental Voluntary Disclosures. Journal of Accounting Research .45 (5), 885–913.

Bedard, J., & L. Graham. (2011). Detection and Severity Classifications of Sarbanes-Oxley Section 404 Internal Control Deficiencies. The Accounting Review. 86, 825–855.

Brown, N. C., Pott, C., & Wompener, A. (2014). The effect of Internal Control and Risk Management Regulation on Earnings Quality: Evidence from Germany. Journal of Accounting and Public Policy. 33(1), 1-31.

Bradbury, ME.,& Mear, KM. (2017) Interpreting the Impact of IFRS Adoption. Australian Accounting Review. DOI: 10.1111/auar.12174.

Cao Thi Thanh, H., & Cheung, T. (2010). Internal Control Reporting and Accounting Quality: Insight Comply or Explain Internal Control Regime. (Master's thesis, Umea University, Sweden). Retrieved from http://diva portal.org/smash/get /diva2: 3269 19/full text01.p.

Chang, M., Jackson, AB., & Wee, M. (2017) A Review of Research on Regulation Changes in the Asia-Pacific Region. Accounting and Finance. DOI: 10.1111/acfi.12259.

Ching Weng,T.,Yi Chi,H., & Zheng Chen,G.(2015). Internal Control Weakness and Information Quality. Journal of Applied Finance & Banking, 5(5), 135-169.

Christensen HB, Lee E, Walker M, et al. (2015) Incentives or standards: What determines accounting quality changes around IFRS adoption? European Accounting Review .24(1),31–61.

COSO (1994). Committee of Sponsoring Organization of Treadway Commission .Internal Control Integrated Framework. New York: AICPA .

COSO (1992). The Committee of Sponsoring Organizations of the Treadway Commission. Internal Control Integrated Framework. U.S.

Darrough, M., Huang, R., & Zur, E. (2018). Acquirer Internal Control Weaknesses in the Market for Corporate Control. Contemporary Accounting Research, 35(1),211-244.

D'Mello, R., Gao, X., & Jia, Y. (2017). Internal Control and Internal Capital Allocation: Evidence from Internal Capital Markets of

Multi-Segment Firms. Review of Accounting Studies, 22(1),251-287.

Doyle, J. T., Ge, W., & McVay, S. (2007). Accruals Quality and Internal Control over Financial Reporting. The Accounting Review, 82(5), 1141-1170.

Donaldson, W. (2005) .We’ve been Listening. Wall Street Journal (March 29): Diamond, D, Optimal Release of Information by Firms. The Journal of Finance, 46,1071-1094.

Dutillieux, W., Francis, J., & Willekens, M. (2016). The Spillover of SOX on Earnings Quality in non-U.S. Jurisdictions. Accounting Horizons, 30(1), 23-39.

Enomoto, M., & Yamaguchi, T. (2017). Discontinuities in Earnings and Earnings Change Distributions after J-SOX Implementation: Empirical Evidence from Japan. Journal of Accounting and Public Policy, 36(1), 82-98.

Ettredge, M., Sherwood, MG., & Sun, L. (2018) Effects of SOX 404(b) Implementation on Audit Fees by SEC Filer Size Category. *Journal of* Accounting and Public Policy. DOI: 10.1016/j.jaccpubpol.2018.01.004.

Feng, M., Li, C., McVay, S. E., & Skaife, H. (2015). Does Ineffective Internal Control over Financial Reporting Affect a Firm's Operations? Evidence from Firms' Inventory Management. The Accounting Review, 2, 529-557.

Fischer, B., Gral, B., & Othmar, L. (2014) Evaluating SOX Section 404 – Costs , Benefits and Earnings Management. *ACRN Journal of Finance and Risk Perspectives* 3(1), 43–55.

Fischer,B., Gral,B., Lehner,O.(2014). Evaluating Sox Section 404: Costs, Benefits and Earnings Management. Acrn Journal of Finance and Risk Perspectives. 3(1), 43–55.

Gao, F., Wu,J., & Zimmerman, J. (2009). Unintended Consequences of Granting Small Firms Exemptions from Securities Regulations: Evidence from the Sarbanes-Oxley act. Journal of Accounting Research. 47(2), 459–506.

Gallemore, J., Labro, E. (2015). The Importance of the Internal Information Environment for Tax Avoidance, Journal of Accountingand Economics, 60,149–167.

Golalizadeh foroutagheh,Z., Bagherpour Velashani,M. A.. Noghani , M.(2016). The Effect of Implementing Internal Controls Instruction on the level of Financial Statements users` trust. Management Accounting and Auditing Knowledge. 5(18) , 63-81.

Hammersley, J., Myers, L., & Shakespeare, C. (2008). Market Reactions to the Disclosure of Intemal Control Weaknesses and to the Characteristics of those Weaknesses under Section 302 of theSarbanes-Oxley Act of 2002. Review of Accounting Studies, 13, 141-165.

Hermanson, H. M. (2000). An Analysis of the Demand for Reporting on Internal Control. Accounting Horizons, 14(3), 325-341.

Hu,J., Weng, Y. C ., Wang, F.(2020). The effect of the Internal Control Regulation on Reporting Quality in China. Borsa _ Istanbul Review. doi.org/10.1016/j.bir.2020.12.006.

Institute of Management Accountants (IMA).(2008) “Accounting Control Assessment Standards: The Missing Piece in the Restatement Puzzle.” Discussion Paper Prepared by the Institute of Management Accountants Finance GRC (Governance, Risk, and Compliance) Research Practice.

Jarvinen, T., & Myllymaki, E. R. (2016). Real Earnings Management before and after Reporting SOX 404 Material Weaknesses. Accounting Horizons, 30(1), 119-141.

Karami, G., Brotherhood, f., Firuznia, A., Kalhernia, H.(2018). Investigating the effect of Quality of Internal Controls on Tax Minimization in Companies Listed on the Tehran Stock Exchange during the years 2018-2010. Audit Science.72, 23-55.

Kachelmeier, S. J. (2010). Introduction to a forum on Individual Differences in Accounting Behavior. The Accounting Review, 85 (4), 1129-1130.

Lobo, GJ., & Zhou, J. (2010) Changes in Discretionary Financial Reporting Behavior Following the Sarbanes-Oxley Act. Journal of Accounting, Auditing & Finance .25(1), 1–26.

Khorramabadi,M., Hassass Yeganeh,Y., Barzideh,F., Salehi Sadaghiyani,J.(2020). Explaining and Prioritizing Factors Affecting the Effective Evaluation of Internal Controls in Companies Listed in Tehran Stock Exchange Using a

Fuzzy Approach. Financial Accounting Research. 12(1), 82-57.

Kinney, W., & Shepardson, M. (2011). Do Control Effectiveness Disclosures Require SOX 404(b) Internal Control Audits? A Natural Experiment with Small U.S. Public Companies. Journal of Accounting Research. 49, 413–448.

KPMG, Corporate Governance Reforms: Implications for not-for-Profit Healthcare.http:/ /www.KPMG.com/aci/docs/ACI_RTHL_Sp04 _HlthcWeb_FNL.pd., (2005)

McNichols, M. (2002). Discussion of the Quality of Accruals and Earnings: the Role of Accrual Estimation Erros. The Accounting Review. 77, 61-69.

Melis, A., & Carta, S. (2010) Does Accounting Regulation Enhance Corporate Governance? Evidence from the Disclosure of Share-based Remuneration. Journal of Management & Governance Governance .14(4), 435–446.

Mearaji, R., Pourbahrami, B. (2018). Factors Influencing the Audit on the Restatement of Financial Statements of Tehran Stock Exchange Companies. Management and Accounting Studies. 4,(4), 117-135.

Myllymäki ,E-R. (2014) .The Persistence in the Association between Section 404 Material Weaknesses and Financial Reporting Quality. AUDITING: A Journal of Practice & Theory: 33(1), 93-116.

Nagy, A. (2010). Section 404 Compliance and Financial Reporting Quality. Accounting Horizons. 24, 441–454.

Namazi ,M., Bayazidi,A., Jabarzadeh Kangarloie, S. (2011). Investigating the Relationship between Audit Quality and Earnings Management of Companies Listed in Tehran Stock Exchange. Journal of Accounting and Auditing Research.3(9),4-21.

Nikbakht, M.R.,Afsaneh Rafiee, A.(2012). A Model of Effective Factors in Financial Restatements in Iran. Journal of Accounting Knowledge.9(9),167-197.

Ogneva, M., Subramanyam, K. R., & K. Raghunandan. (2007). Internal Control Weakness and Cost of Equity: Evidence from SOX Section 404 disclosures. The Accounting Review,82 (5),1255-1297.

Patterson, E. R., & Smith, J. R. (2007). The Effects of Sarbanes-Oxley on Auditing and Internal Control strength. The Accounting Review, 82(2),427-455.

Pereira, A., & Alves ,M., do, C.G. (2017) Earnings Management and European Regulation 1606/2002: Evidence from Non-Financial Portuguese companies listed in Euronext. Revista de Contabilidad. 20(2), 107–117.

Plumlee, M.A., & Yohn, T.L. (2010), An Analysis of the Underlying Causes Attributed to Restatements.Accounting Horizons, 24, 41-64.

Public Company Accounting Oversight Board (PCAOB).(2009) .Report on the First-Year Implementation of Auditing Standard No. 5, An Audit of Internal Control over Financial Reporting That Is Integrated with an Audit of Financial Statements. PCAOB Release No. 2009-006.

Public Company Accounting Oversight Board (PCAOB).(2013). Staff Audit Practice Alert No.11 Considerations For Audits of Internal Control Over Financial Reporting.

Razavi Iraqi, S. M. R., Jahanshad, A., Mostofi, A. (2018). The Impact of Major Weaknesses in Internal Controls on Investment Inefficiency . Financial Accounting and Auditing Research, 10(38), 143-167. (in Persian)

Rezazadeh,J., Abdi,M., Kazemi Olum,M.(2017). Audit Committee Characteristics and Financial Restatements. Journal of Financial Accounting Research. 9(3):1-16. (in Persian)

Rice, S., & Weber, D. (2012). How Effective is Internal Control Reporting under SOX 404? Determinants of the (non-)disclosure of existing material weaknesses. Journal of Accounting Research. 50, 811–843.

Turner, L., & Welrich, T.(2006) .A Closer Look at Financial Statement Restatements. The CPA Journal December , 12–23.

Saedi ,R., Dastger ,M. (2018). The Effect of Internal Control Weakness and Controlling Shareholders' Wedge on Investment Efficiency of Companies Listed on Tehran Stock

Exchange. Financial Accounting Research. 9(4), 17-38.

Saei, M.J., M. A Bagherpour Valashani, M.A., Mosavi Baaighi,S.N. (2013).Restated Financial Statements: an Empirical and Descriptive Study of the Frequency and Importance. Financial accounting research.5(1), 86-67.

Sarbanes, P., Oxley, M. (2002). The Sarbanes–Oxley Act of 2002. US Congress, Washington, DC, Available at: http://www.soxlaw.com.

Scholz, S. (2014). Financial Restatement Trends in the United States: 2003–2012. Center for Audit Quality 23.

Schroeder ,J .H., Shepardson ,M. L. (2016). Do SOX 404 Control Audits and Management Assessments Improve Overall Internal Control System Quality? The Accounting Review. 91(5), 1513–1541.

Securities and Exchange Commission (SEC).(2009). Internal Control over Financial Reporting in Exchange Act Periodic Reports of Non-Accelerated Filers. Securities and Exchange Commission. Final Rule 33–9072 (October 2), Washington, DC.

Securities and Exchange Commission (SEC).(2003). Management's Report on Internal Control over Financial Reporting and Certification of Disclosure in Exchange Act Periodic Reports. Washington, D.C.: Government Printing Office.

Securities and Exchange Commission (SEC), (2011). Study and Recommendation of Section 404(b) of the Sarbanes-Oxley Act of 2002 for issuers with public float between $75 and $250 million. SEC, Washington, DC (April).

Soleimani, G., Moghadasi Nikjeh, M.(2014). The Role of Internal Controls, Internal Audit and Audit Committee in Optimization of Corporate Governance. Journal Accounting, Accountability and Society Interests. 4,(1), 63-77.

Stock Exchange Organization (2012). Instructions for Internal Controls of Publishers Listed on the Tehran Stock Exchange and OTC.

Wang, Y.F. (2013),Internal Control and Financial Quality: Evidence from Post-SOX Restatement.,Accounting and Taxation. Australian Business Deans Council Ranking and Australian Research Council [ERA]),5,19-28

Zhang, I. X. (2007). Economic Consequences of the Sarbanes-Oxley Act of 2002. Journal of Accounting and Economics. 44, 74–115.

Zhou, T., Xie, J., & Li, X. (2017). Financial Reporting Quality and Idiosyncratic Return Volatility: Evidence from China. Emerging Markets Finance and Trade .53(4), 835–847.