
A critical analysis of auditors' perception of the impact of Section 404 of the Sarbanes Oxley Act on audit quality: an Egyptian perspective

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Abstract: The recent accounting scandals that have occurred in the USA have resulted in the issuance of the Sarbanes Oxley Act (SOX), with emphasis on Section 404 related to enhancing the companies' internal controls. This research study critically examines Section 404 requirements, surveying a sample of Egyptian auditors in a number of audit firms with international affiliations about their perception of the expected costs and benefits that could result from applying Section 404, and whether such requirements could have a positive impact on the quality of audit. The results provide evidence based on auditors' opinions that the benefits associated with Section 404 applications are expected to outweigh its costs, with possible reduction of Section 404 costs in the future period. Moreover, the results indicate that both the additional audit procedures required in the audit of internal control over financial reporting (ICOFR) and the increased legal liability that will be imposed on auditors through compliance with Section 404 requirements are expected to improve the quality of the audit process. The results of the study call for the application of similar requirements of Section 404 taking into consideration the characteristics and other elements affecting the Egyptian businesses, accounting and auditing profession.

Keywords: Section 404; audit quality; audit procedures; legal liability; internal control; external auditing; Egypt; Sarbanes Oxley Act; SOX.

Reference to this paper should be made as follows: Hegazy, M. and Kamer, N.A. (2010) 'A critical analysis of auditors' perception of the impact of Section 404 of the Sarbanes Oxley Act on audit quality: an Egyptian perspective', *Afro-Asian J. Finance and Accounting*, Vol. 2, No. 2, pp.154–182.

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1 Introduction

The Enron debacle and other scandals in the USA have resulted in a significant increase in corporate governance discussions and actions, including legislations. Among the reasons behind the failure of multinational companies, including Enron and WorldCom, are exploit weaknesses in their internal control systems and management override of controls (Beasley et al., 2003; Zolnor, 2009). Professional bodies have long emphasised the importance of internal controls to all parties interested in producing reliable corporate financial statements (The American Institute of Certified Public Accountants, 1988; The Committee of Sponsoring Organizations, 1992). Easley and O'Hara (2001) provide an empirical evidence that confirm the theory that firms with poor internal control should have to pay more for capital because of the increased risk presented to investors. Moreover, the effective evaluation of internal control systems can provide early warning signals of fraud risks (Murdock, 2008). Silver et al. (2008) indicate that most of the fraud schemes involve management override of internal controls which represent the largest losses within the capital market. Auditors should be aware of the culture and environment of the firm that might enable management to rationalise committing fraud (Apostolou and Crumbley, 2008). The quality of the internal control system not only indicates exposures to particular frauds, but also provides insight into management's overall attitude towards protection against fraudulent activity (Smith et al., 2000).

One of the most significant actions taken recently in response to these accounting scandals has been the issuance of Sarbanes Oxley Act (SOX) in 2002. The SOX is "a wide ranging set of new requirements that has redefined how we both govern public enterprises and attest that their reported financial results are fairly stated" (Moeller, 2008). The provisions of SOX mainly aimed at protecting investors by improving the accuracy and reliability of corporate reporting. Section 404 requires management to

assess the effectiveness of internal control over financial reporting (ICOFR) with the inclusion of that assessment in the company's annual report. Auditors are required to attest management assessment of ICOFR and gather evidence regarding the design and operation of internal control determining whether evidence supports or refutes management assessment of such controls (PCAOB, 2004). Section 404 aims at enabling the financial markets to discount the quality of a company internal control processes into its market valuation (Vorhies, 2004). To comply with Section 404 requirements, auditors should follow Auditing Standard (AS 5) "an Audit of Internal Control over Financial Reporting that is Integrated with An Audit of Financial statements" as set by the Public Company Accounting Oversight Board (PCAOB, 2007). The Chairman of the PCAOB stated that "good internal control is one of the most effective deterrents to fraud, and therefore we expect our standard to help protect investors from the kinds of financial reporting scandals that the [Sarbanes-Oxley Act] seeks to prevent" (Stolenberg et al., 2006).

Various studies (e.g., Mitchell, 2003; Lander, 2004; Guerra, 2004; Clark, 2005; Dorado, 2005; Bhagat and Bolton, 2009) have confirmed that the existence of SOX rules and regulations could enhance control and accountability over companies and audit firms' performance. Cohen et al. (2008) study found a stronger corporate governance with more active and diligent audit committee in the pre-SOX era, which significantly impact the audit process and audit quality. On the other hand, several studies (e.g., Ribstein et al., 2002; Bainbridge, 2003; Monks and Minow, 2004; Aggrawal and Williamson, 2006; Harshbarger and Jois, 2007; Thurnbull, 2007; Vakkur et al., 2009) have criticised the act as it did not add much to the existing corporate governance principles. Romano (2004) believes there is an argument that firms have incentives to adopt corporate governance practices in the absence of legal requirements as it yields a high level of compliance at lower cost than a wholly mandatory régime (Anand, 2005).

The increased auditor responsibilities imposed by Section 404 will result in high audit costs and hence high audit fees (Brune, 2004; Asthana et al., 2004). Such increased fees should reflect improvement in audit quality. Defond and Francis (2005) call for more research studies considering the impact of new regulations on audit quality. Moreover, increased penalties imposed by SOX and litigation risk may give auditors incentives to be more diligent in performing their audit and improve the quality of their audit work (Khurana and Raman, 2004; Venkataraman et al., 2005).

This paper contributes to existing work regarding Section 404 requirements in the following dimensions. First, it is the first study that examines Egyptian auditors' perceptions regarding some of the costs and benefits that may be derived from application of Section 404 in a developing country with special focus on the impact of the additional audit procedures required in auditing ICOFR to enhance audit quality. Much prior research is concerned with the extent of considering the positive (benefits) and negative (costs) aspects of Section 404 requirements in general (e.g., Prentice, 2007; Revenue Recognition.com and International Data Corporation, 2005). Second, there is a need to have different views of professionals practising in different cultures and environments to assess the impact of Section 404 requirements on management and the auditing profession in developed and developing countries. Although, the Egyptian legislators have not yet imposed similar requirements of Section 404 on audit firms and public companies, the Egyptian accounting society may need similar requirements in the near future to outweigh the effects of the problems it faces at present, mainly related to

non-conformity with existing standards and laws governing the auditing profession (Wahdan et al., 2005).

Third, the current study provides evidence regarding the importance of implementing Section 404 in the Egyptian accounting society and whether such requirements will be welcomed by the accounting profession in Egypt. This information may be useful to Egyptian regulators when enhancing the rules and regulations for controlling companies and audit firms' performance taking into consideration drawbacks in the quality of audit process and in controlling companies' performance (Wahdan et al., 2005). Fourth, the General Financial Supervisory Authority (GFSA) imitating the model of PCAOB in U.S issued its decree no 84 dated 16/7/2008 to establish an oversight board to assess the quality of auditors' work in accordance with the Egyptian Standards on Auditing (ESA) and the Egyptian Code of professional Conduct. Such decree placed more responsibilities on auditors of listed companies to comply with ESA in relation to understanding, testing and assessing the internal control structure of those companies. The opinions of the Egyptian auditors about possible future application of SOX Section 404 detailed requirements is important especially that many of the Egyptian CPA firms with international affiliations are already registered with PCAOB.

Fifth, the Egyptian Capital Market Authority (CMA) in its internal report prepared in 2002 discussed accounting and auditing malpractices many of which present fraudulent financial reporting acts. The report listed cases of overstatement of revenues, failure to disclose the impact of changing the accounting policy for revenue recognition on revenues and profits, capitalisation and deferring of current expense to subsequent periods, failure to recognise permanent decline in the value of long term and intangible assets, charging costs related to long term assets to the income statement and the recognition of unreal expenses on the income statement. The report provided details of the nature of the listed companies investigated, the amount of the misstatement and CMA action concerning the restatement of the company's statements. Thus, there is a need for similar requirements of Section 404 to minimise the number of such frauds (CMA, 2002).

This paper is divided into five sections. The first section explains the need for introducing similar requirements of SOX and Section 404 by describing the audit and accounting environment in Egypt. Section 2 provides a brief overview of the literature that considers the various costs and benefits of Section 404 and the role of these requirements in improving the quality of the audit process. It also identifies research questions in relation to these issues to be answered throughout the paper. Section 3 explains the research methodology employed and the sample selected. Section 4 presents the statistical findings and discusses the research results. Finally, conclusions, limitations and recommendations for future research are included in Section 5.

2 The audit environment in Egypt

Egypt is representative of a significant number of less developed economies with similar ethnic and religious traditions, which are striving to emulate the competitive structures and processes prevailing in the global economy. The Egyptian auditing profession itself has been closely modelled on those of the USA and the UK over a period of 50 years. This section deals with the current situation of the auditing profession, the education, and the auditing firms' structure in Egypt. It explains the gap between law and normal

practice, a matter which requires thoughts about introducing a new law – similar to SOX in the USA – to ensure compliance with both the ESA and the Egyptian Accounting Standards (EAS) and other prevailing laws and regulations.

2.1 Auditing profession

The environment in which this study is conducted is important. Up to July 2009, there was no professional body in Egypt with the power to regulate the activities of the profession. The Egyptian Society of Accountants and Auditors (ESAA) is the only body which plays a central role in the accounting profession (World Bank, 2001). The ESAA was established in 1946 by a royal decree, managed by a board of directors, reorganised in 1977 as a non-profit organisation, and became a member of International Federation of Accountants (IFAC) in 1983. It is an association of chartered accountants that promotes the development of educational and professional standards for its approximately 1,200 members (World Bank, 2001), about 785 of whom are actively involved in auditing practice, but membership in the society is voluntary (World Bank, 2002). The ESAA does not have the power to license accountants and auditors or to establish auditing standards, and it is often the case that external auditors are deeply involved with their clients (Samaha and Stapleton, 2009). This may include the preparation of financial statements, the disclosure of footnote items, and even the decision making process in relation to year-end accounts (World Bank, 2002). The ESAA does not test whether its members comply with either IFAC or local standards.

The Registration Committee for Accountants and Auditors in the Ministry of Finance has a list of more than 30,000 registered accountants. Registration rules require a graduate to have a bachelor's degree in accounting to register as a trainee accountant. Trainees become licensed for first-level as accountants after three years of work in an accountant's office, which authorises them to work as auditors of sole proprietorships and partnership enterprises. After an additional five years of experience, accountants obtain a final registration certificate; they become licensed to act as auditors of corporations. Auditors are not required to take any qualifying examinations before registration in the Accountant Registry.

Until 2009, practitioners in Egypt were not required to follow any modern Code of Ethics in line with IFAC Code of Ethics for Professional Accountants (World Bank, 2002). A newly established code of professional ethics for accountants and auditors in Egypt was introduced in 2009 for voluntary observance by practicing auditors. However, the Syndicate's Law 40/1972 discusses ethics breach criteria (such as fraud). Although the Ministry of Finance and the Syndicate have been highlighting awareness of legal requirements, some accountants and auditors ignore the code of ethics for practical performance taking into consideration that there is no formal body responsible for the law or code compliance. In practice, there is little awareness among many practitioners of international best practice concerning conflicts of interest and auditor independence (World Bank, 2002). Furthermore, the knowledge gap of practitioners is increased by the absence of the continuous education system. The ESAA has started with a learning system for its candidates registering for its own examinations. However, most of the practicing accountants and auditors without Society membership will suffer from a lack of training and proper knowledge for supporting high-quality financial reporting.

Furthermore, the auditor's independence is strongly affected by the prevalence of the closely held companies in which both the majority of shareholders, the board of directors, and the companies' management are the same. Also, there is a lack of separation between auditing and consultancy services provided by the auditors. In addition, Wahdan et al. (2005) found that sometimes a board of directors invites the auditors to attend the regular board meetings and, at the end of each meeting, the auditors receive compensation for attendance as members of the board. Consequently, all the above practices distort the picture for users of audited financial statements.

2.2 Auditing firms' structure

Egypt has a combined structure of the auditing firms. All the major international auditing firm networks have a presence in Egypt in addition to well-established local auditing firms. The internal structure of the auditing firms in Egypt with international affiliation is similar to those in developed countries. Those CPA firms have number of divisions each specialising in providing audit and assurance services for specific type of industry clients. Other local auditing firms have less developed structured sometimes composed of a single partner owner. International auditing firm networks working in Egypt are more familiar with EASs that were issued by the ministerial decision number 503 in October 1997 (MOEFT, 1997; Samaha and Stapleton, 2009), followed by ministerial decision number 243 in June 2006 (MOFT, 2007) which established a permanent committee to issue EASs based on the International Financial Reporting Standards (IFRS). All listed companies are required to prepare their accounts based on EASs, a move that is expected to enhance the quality of information issued by those companies. As a result, it is expected that Egyptian companies audited by one of the international auditing firm networks will comply more closely with the EAS and IFRS. Auditors in small CPA firms do not possess knowledge of IFRS and EAS as well as International Standards on Auditing (ISA).

2.3 Accounting and auditing standards and compliance requirements

The Ministerial Decree 503/1997 is considered the first EAS to be issued. In 2008, Egypt had 35 accounting standards and six Auditing Standards. The ESA deal only with the reporting issues and ignore the other areas of ISA (Navady, 2001). ESA only handle the auditor's report on financial statements, which enhances the form of the report without covering the whole auditing process. However, the ISA are applied in the absence of ESA, as stated in the introduction of the ESA. In addition, the ESAA had issued auditing standards, which constitute a translated copy of the ISA (ESAA, Cairo).

Factors affecting the non-compliance with accounting and auditing standards as revealed by the World Bank (2002) include: First, there 'are ineffective controls mechanisms for imposing sanctions on public accountants and auditors who fail to comply with accounting and auditing standards. For example, the Cairo and Alexandria Stock Exchange does not have the necessary authority to ensure listed companies complying with financial reporting requirements, and is incapable of applying sanctions for non-compliance with accounting standards requirements'. Moreover, the Central Bank of Egypt does not have enforcement mechanisms to guarantee compliance with bank statutes. Secondly "the quality of auditing process is influenced by assigning

or changing auditors, which may force auditors to comply with the wishes of top management". Shareholders have the power to assign, or change auditors, and to determine the levels of auditors' compensation, but in practice, management makes these decisions. This practice forces auditors to comply with the wishes of top management, which affects the level of compliance with accounting and auditing standards. For example, an auditor may be forced to change an opinion to retain the auditee, although this behaviour is against professional ethics and due care (Louwers, 1998). Thirdly, "there is no strong independent professional organization to guarantee auditors rights with the auditees".

Fourth, a lack of knowledge and guidelines regarding the application of both the Egyptian and International accounting (and auditing) standards affects the preparation of financial reports in compliance with these standards. As Rahman et al. (2002) indicated that many listed companies in Egypt CASE 30 do not comply with disclosure requirements set by the CMA. In addition, many of the auditors' reports do not comply with the required reporting design. Finally, Dahawy et al. (2002) provided evidence that the company's decisions to implement (or not to implement) IAS are strongly affected by the culture and socio-economic factors. They found that all companies comply with IAS when they do not conflict with local culture factors, but they deviate where conflict exists. For example, the disclosure level in the company's financial statements is found to be lower than the IAS requirements when such disclosure conflicts with the Egyptian tendency for secrecy (Dahawy et al., 2002).

3 Literature review and research questions

Prior to Section 404 requirements, auditors' responsibilities for internal control in the USA were limited to what is required by Statement on Auditing Standard (SAS) no. 55 "Auditors' Consideration of Internal Control Structure in Financial Statement Audit" (AICPA, 1988). This standard requires auditors to obtain an understanding of internal control sufficient to plan the audit, assess control risk, and perform test of controls. Thus, auditors' responsibilities for internal control were limited to assess the control risk for planning the audit to determine the nature, timing, and extent of substantive tests for financial statements' assertions (Arens et al., 2008). The AICPA then issued SAS No. 78, effective for application beginning 1 January 1997 which changed SAS No. 55 definition and description of the internal control structure introducing the Internal Control-Integrated Framework, published by the Committee of Sponsoring Organizations of the Treadway Commission (COSO or the COSO Report, 1992). According to SAS no. 78, the COSO Report is becoming a widely accepted framework for sound internal control. The incorporation of the COSO Report framework and terminology helped to provide timely and useful guidance to auditors (Frazier and Spradling, 2009). To fulfil their responsibilities, auditors of public companies in the USA should follow AS no 5 issued by the PCAOB 2007 which replaced the predecessor AS no 2 (Moeller, 2008; Jiang and Wu, 2009).

The current EAS (2008), issued by the Ministry of Investment, regarding internal control imposes similar auditing requirements of SAS no. 78. The Egyptian auditing standards are mainly derived from the ISA (Capital Market Authority, 2008). However, if Section 404 is applied, as currently practiced by auditors in the USA, auditors' responsibilities in Egypt will differ significantly. Section 404 will increase auditors'

responsibilities as it requires auditors attest to and issue a report on management assessment of ICOFR. Thereby; auditors need to express two opinions, one on the financial statements and the other on internal controls (Mcconnel and Banks, 2003; Arens et al., 2008).

Moreover, management responsibilities for internal control prior to Section 404 is limited to establishing and maintaining internal control system that should be designed to provide reasonable assurance regarding the achievement of three objectives: the effectiveness and efficiency of operations, reliability of financial reporting, and compliance with applicable laws and regulations (COSO, 1992). However, Section 404 added two more requirements to management responsibilities' for internal control. The first relates to management assessment of the effectiveness of ICOFR achieved by testing the design and operating effectiveness of those controls. The second new requirement is the written report issued by management about its assessment of the effectiveness of ICOFR (Arens et al., 2008). These extensive responsibilities added more burdens on both management and auditors in an effort to enhance investors' confidence in the reliability of financial reporting. Therefore, the benefits that will result from these extensive responsibilities should justify the costs of fulfilling them.

3.1 Costs and benefits of Section 404

There is strong evidence that costs of compliance with Section 404 requirements are significantly high (Financial Executive International, 2004, 2005). Such costs are derived by factors such as internal labour, external consultants and software expenses, and additional audit fees (Brune, 2004; Asthana et al., 2004; Illiev, 2007; Sneller and Langendijk, 2007). Such increased costs may force companies to go out of the public market (Carney, 2005; Engel et al., 2007). There are other non-monetary costs recognised by Harrison and Mitchell (2005) in their study about the unintended consequences of Section 404. They found that: first, Section 404 can result in a harm to the client auditor relationship due to management hesitations to ask an auditor advice as such request may be viewed as internal control weakness at the company. Second, it will turn the audit industry to less competitive atmosphere, due to the limited options the client has in choosing his audit firm, if it requires one of the big audit firms to audit their companies. Third, Section 404 affects the attractiveness of the audit profession, as auditors may need to work seven days per week to meet such requirements. Fourth, Section 404 will increase the level of auditor changes which could have adverse effects on the company being audited. Fifth, Section 404 may result in audit delays due to the time needed to complete the audit (Ettredge et al., 2006; Zhang and Pany, 2008). Another negative impact of Section 404 is the increased auditor realignments through dismissals or resignations from companies expected to receive adverse reports on their internal control systems (Ettredge et al., 2007). Finally, Zolnor (2009) finds that investors do not respond negatively to Section 404 disclosures, which indicates that Section 404 disclosures do not represent incremental information in the minds of investors.

On the other hand, Section 404 requirements may be valuable for several reasons identified by a number of research studies. First, management assessment of internal control could enhance control consciousness throughout the company and increase management knowledge about the quality of internal control system (Mcconnel and Banks, 2003; Coustan et al., 2004). There is evidence that Section 404 leads to high

quality financial reporting (Krishnan et al., 2007; Singer and You, 2008; Goh and Li, 2008). Second, Section 404 has the potential benefits of reducing the opportunity of intentional and unintentional accounting errors and improving the quality of reported earnings (Chan et al., 2007). Third, studies made by Bedard (2006), Altamuro and Beatty (2006) and Herda (2008) suggested that Section 404 requirements lead to improved internal controls and increased audit efforts. They suggested that such improvement resulted in an improved earnings quality. Moreover, Li and Wang (2006) showed that companies receiving adverse ICOFR reports are more likely to report future restatements. Gupta and Nayar (2007) found that disclosure of material weaknesses under Section 404 requirements will convey valued – relevant information to the market. However, Kim et al. (2009) examined the effect of internal control quality on analyst behaviour. They concluded that effective internal controls improve the quality of analysts' forecasting decisions and analysts took into account the disclosed internal control quality information when making their forecasting decisions.

There are other studies that critically examined Section 404 from both sides; costs and benefits. Tackett et al. (2006) believe that "Section 404 is one of the most costly pieces of business reporting legislation and that Congress made a serious error in enacting SOX under Section 404". Although there are several benefits derived from Section 404, they found that in matching costs against benefits, costs will greatly exceed the benefits. Benefits identified by Tackett et al. (2006) included modest deterrence to corporate fraud and financial reporting misrepresentation and the establishment of proper control environment. However, the costs investigated in their study include monetary costs represented in high audit and consulting fees and non-monetary costs including information overload and insignificant information in internal control reports to investors whose main interest is to assess current and future earning potential. On the other hand, Prentice (2007) believes that the costs of implementing SOX 404 are very large in an absolute sense, but much more modest relative to potential benefits stemming from improved market efficiency, improved corporate governance, and improved financial reporting and fraud detection. Supporting this view is the survey conducted by Rittenberg and Miller (2005) with the assistance of Institute of Internal Auditors (IIA) Research Foundation. They surveyed 171 practising internal auditors about the assessment of the costs and benefits associated with Section 404. The results indicate, firstly, there are significant benefits associated with control identification, documentation, and testing process. The two biggest areas of improvement noted are the control environment and the anti fraud process followed by the often manipulated accounting areas and routine accounting controls. Secondly, the upfront cost to prepare the company for Section 404 greatly exceed the benefits associated with application of section requirements, however future costs associated with Section 404 will start to decrease substantially in three years' time, as the process will become more systematised.

Other studies (e.g., Charles River Associates, 2004; Revenue Recognition.com and International Data Corporation, 2005) confirmed that initial costs will be larger than ongoing annual costs and the overall long term costs should continue to decrease while risks of misstatements and penalties are mitigated. Quigley (2004), CEO of Deloitte & Touche, LLP, in testimony before Congress stated: "my viewpoint, although costly, the internal control management and auditor attestation are valuable, meaningful safeguards, [and] as businesses and auditors gain experience in complying with the requirements, [the audit and control processes] will become more efficient" (Rittenberg and Miller, 2005).

The above discussion leads to the following research question:

- Q1 Are the costs of Section 404 expected to exceed the benefits resulting from its application?

3.2 Effective evaluation of internal control strength and audit quality

In response to Section 404 requirements, PCAOB AS no. 5 requires auditors to perform an audit of ICOFR that is integrated with an audit of financial statements (Dauber et al., 2008). To perform this type of audit, auditors need to follow a process that consists of several steps with additional audit procedures to ensure the effective evaluation of internal control strength. Messier et al. (2004) indicate that if an auditor performs an integrated audit, the auditor will clearly have access to a large amount of information about the clients' controls making the audit more effective. In addition, the audit of the financial statements will be more effective because information about control deficiencies helps the auditor target areas of higher risk of misstatements. Moreover, AS no. 5 provides new perspective on an old audit procedure the walkthroughs. Most auditors traditionally have viewed walkthroughs as the procedures of choice when developing an understanding of key processes and controls. However, Section 404 makes performing walkthroughs a requisite. As commented by many on the standard in its draft issue, "the walkthrough requirement should be viewed as a positive step for the audit profession" (Turpen, 2004). There is no notable evidence that directly examined the impact of these additional audit procedures required in the audit of ICOFR on the quality of audit work performed. However, there are studies that confirm the theory that more auditors' involvement in assessing internal controls over financial reporting will lead to more disclosure of material weaknesses identified by auditors (Bedard et al., 2008). An auditor evaluation of internal control strength plays an important role in fraud detection and prevention (Matsumura and Trucker, 1992). Patterson and Smith (2007) call for more tests of controls to be performed by auditors, even if the client has strong internal control system. They argue that SOX has the desired effect of inducing stronger internal control systems which may lead to less control testing by auditors. This in turn can threaten the accuracy of financial reporting as fraud can occur even with stronger systems through management override of internal controls. Thereby, more tests of controls can provide auditors with information about the probability of fraud. Sound controls and more auditing should prevent and detect many misstatements (Nilson, 2005).

The above discussion leads to the following research question:

- Q2 Are the additional audit procedures required in the audit of ICOFR expected to improve the quality of audit work performed?

3.3 Auditor legal liability and audit quality

SOX Section 404 with its legal requirement for the issuance of an independent report on the effectiveness of ICOFR may force auditors to improve the quality of their work to avoid being legally liable. With the threat of litigation, auditors may decide to truthfully report their findings to reduce the probability of paying damages, and thus supply a higher audit quality (Melumad and Thoman, 1990). Khurana and Raman (2004) suggest that it is litigation exposure, rather than reputation protection, that drives perceived audit

quality. Many studies (e.g., Firth et al., 2005; Venkatarman et al., 2005) confirm that audit quality appears to be higher in higher litigation environment. The Committee on Capital Markets Regulation recommends that Congress explore liability caps to protect auditors from catastrophic liability (Committee on Capital Markets Regulation, 2006). One concern with this proposal is that capping liability may reduce audit quality. On the other hand, auditor changes tend to reduce audit quality. If the cost of auditing risky clients makes switching more likely, then capping liability may increase quality by reducing the frequency of switching (Sullivan, 2006). Research suggests that mandatory rotation can lower audit quality (Myers et al., 2003; Ghosh and Moon, 2005). As the auditor-client relationship lengthens, firm-specific expertise allows auditors to rely less on managerial estimates and become more independent of management (Solomon et al., 1999).

Pritchard (2005) believes that litigation is not necessarily associated with improved audit quality for several reasons. First, lawsuits can fall on both bad and good auditors, regardless of whether the failure was due to fraud or what is called the expectation gap dilemma. Second, lawsuits may do little to deter bad auditing as accountants may not consciously commit fraud as it may frequently result from their cognitive shortcomings (such as errors of judgment). Thus, if cognitive defects lead auditors to sign off on misleading financial statements, imposing anti-fraud liability on those auditors has no useful purpose. Moreover, some auditors care for their reputation more than legal concerns. He confirms that "liability is only one tool for promoting audit quality; reputation and regulation also play vital roles" (Pritchard, 2005).

The above discussion leads to the following research question:

- Q3 Does the issuance of an independent audit report about the effectiveness of the ICOFR, with its related audit legal liability, result in better communication of audit results and hence the quality of audit work performed?

4 Research objectives and methodology

The current study examines Egyptian auditors' perceptions regarding some of the costs and benefit elements that could be derived from the application of Section 404. Since Egypt has not yet practised such requirements, the costs and benefits identified in the study are mainly derived from prior studies (e.g., Tackett et al., 2006; Rittenberg and Miller, 2005; Revenue Recognition.com and International Data Corporation, 2005; Harrison and Mitchell, 2005; Bedard, 2006; Altamuro and Beatty, 2006; Prentice, 2007; Ettredge, 2006, 2007; Krishnan et al., 2007; Chan et al., 2007) conducted in countries that had actual practice with such requirements. Moreover, the study examines Egyptian auditors' perceptions regarding the impact of more auditors' involvement in assessing internal controls, through the increased audit procedures required in the audit of ICOFR, on audit quality. The study also examines the effect of the increased litigation risk represented in the issuance of an independent audit report about the effectiveness of ICOFR toward improving the quality of their audit work.

In the light of the above discussion, the study is conducted with the following three objectives:

- 1 examine whether it is cost-beneficial to implement SOX Section 404 in a developing country
- 2 examine based on auditors' perceptions whether audit quality could be improved through the increase in audit procedures required by Section 404
- 3 examine whether the legal liability imposed on auditors, through the issuance of an independent audit report on ICOFR, will force auditors to improve the quality of their audit work.

The responses to research questions will provide supported evidence regarding the value of Section 404 requirements in terms of its costs and benefits and its role toward improving the quality of the audit process in a developing country environment.

4.1 Sample

A questionnaire survey was used to collect the data of the study. The questionnaire was based on five point scale according to Likert styling rating scale (where 0 = strongly disagree, and 4 = strongly agree). This rating scale provides a number of alternative answers from which the respondent is required to choose. The questionnaire was pilot tested. The study seeks to get auditors' perceptions about Section 404 requirements from six audit firms with international affiliations in Egypt including the big four audit firms. The selection of those six CPA firms was made judgmentally based on the reputation, qualification and years of experience in the Egyptian business market. In addition, the international CPA firms are more aware of the different types of accounting and auditing standards, laws, and regulations governing their clients' operations, including the knowledge of SOX affecting subsidiaries located in Egypt for head offices located in the USA (i.e., multinational companies). The survey was carried out in 2008.

A total of 160 questionnaires were distributed. To establish initial contact, a letter stating the purpose of the study was mailed to every firm surveyed. In addition, the questionnaire also included a brief explanation of Section 404 and its requirements on both management and auditors. This brief explanation enables the applicant to have more understanding of the added responsibilities on both management and auditors according to Section 404 requirements. Completed responses of 109 questionnaires were collected from audit firms within a period of 4 to 6 weeks. These 109 questionnaires include the opinions of auditors with different years of experience. 29 questionnaires were received from auditors with experience of more than ten years, and 26 questionnaires included the opinions of auditors with experience from five to ten years of experience. The other 54 questionnaires include the opinions of 34 respondents with experience from two to five years and 20 with experience less than two years. The responses were also classified into groups according to years of experience with no significant difference in the responses between audit staff, audit managers and audit partners. It is shown in Tables 1(a) and 1(b) that the mean rank for the average (mean) responses of the questions (Qs) is approximately close between the grouping variables (groups of years of experience). A possible interpretation for such result is that some of the responses of the participants may be mainly based on the extent of their knowledge about other countries' new rules and regulations more than their audit experience. Those auditors with various years of experience are not yet actual practitioners of the act and their expectations about the act

implications may be affected by the amount of information they had about the act rather than their position in their audit firm.

Table 1(a) Analysis of variance according to years of experience (Kruskall-Wallis test)

<i>Years of experience</i>	<i>N</i>	<i>Mean rank for Q1 mean</i>	<i>Mean rank for Q2 mean</i>	<i>Mean rank for Q3</i>	<i>Mean rank for Q4 mean</i>	<i>Mean rank for Q5 mean</i>	<i>Mean rank for Q6</i>
Fewer than two	20	54.48	59.12	58.28	64.02	67.90	52.22
From two to five	34	45.88	61.90	57.09	59.65	59.62	48.53
From five to ten	26	63.60	49.42	50.04	48.63	49.00	61.75
More than ten	29	58.34	49.07	54.74	49.03	46.07	58.45

Table 1(b) Analysis of variance according to ranks (Kruskall-Wallis test)

<i>Ranks</i>	<i>N</i>	<i>Mean rank for Q1 mean</i>	<i>Mean rank for Q2 mean</i>	<i>Mean rank for Q3</i>	<i>Mean rank for Q4 mean</i>	<i>Mean rank for Q5 mean</i>	<i>Mean rank for Q6</i>
Audit staff	66	51.70	60.05	54.11	58.73	59.06	51.82
Audit partners	11	65.68	42.82	46.50	58.68	53.50	64.23
Audit managers	32	58.12	48.77	59.75	46.03	47.14	58.39

4.2 *Design of the questionnaire*

We designed six main questions focusing on issues arising from our review of Section 404 requirements and prior studies that critically examined Section 404. The questionnaire covered three distinct sub-areas – the various costs and benefits that could be derived from the application of Section 404 and the expected decrease of its long term costs, the impact of additional audit procedures required for auditing ICOFR in improving audit quality, and the role of increased auditor litigation risk on the quality of audit work and audit results. Participants were assured of the confidentiality of individual responses

4.2.1 *Costs and benefits of Section 404 (Objective 1)*

Questions 1, 2 and 3 sought to determine the extent of auditors' agreement on 11 different cost elements and other 16 benefit elements that are expected to result from the application of Section 404, along with participants' perception regarding the expected decrease of Section 404 long term costs.

4.2.2 *The impact of additional audit procedures required in the audit of ICOFR on improving audit quality (Objective 2)*

The fourth question listed 11 different audit procedures extracted from AS no. 5 and Ramos (2008) Implementation Toolkit. In the questionnaire, those procedures are represented in a detailed manner to ensure its clarity to the participants. Participants were asked to express the extent of their agreement on the importance of each of the identified procedures toward improving audit quality.

4.2.3 The impact of increased auditor litigation risk on audit quality (Objective 3)

Questions 5 and 6 sought to determine the influence of the increased litigation risk imposed by SOX Section 404 requirements in improving the quality of audit work. Question 5 listed four positive impacts that could help auditors improve the quality of their work if they are working in high litigation environment. However, question 6 introduced one negative impact on auditors that could result from high legal audit environment.

5 Findings, analysis and discussion

The analysed data is based on descriptive statistics using frequency tables and non-parametric statistical analysis using Wilcoxon test and Wilcoxon signed rank test. In the frequency tables, the collected data are grouped into three intervals (strongly agree and agree, not sure, strongly disagree and disagree). This classification would facilitate the descriptive analysis to determine whether the general tendency of the responses is toward agreement, neutrality, or disagreement. The reason behind using the non-parametric statistical analysis is that the data is not normally distributed. Moreover, the test median value in Wilcoxon test is greater than 2, providing that those elements with median >2 gained an agreement.

5.1 Costs and benefits of Section 404 (Objective 1)

5.1.1 Costs that could result from Section 404 application

Table 2 provides the percentages of agreement among the selected sample of Egyptian auditors regarding 11 different cost elements that are expected to result from Section 404 applications. Table 2 indicates a variation in the percentages of agreement among the identifiable cost elements, ranging from less than 40% to more than 90%. It is notable that the most acceptable cost elements are the high costs for developing good internal controls and the high audit costs with 98.2% and 91.8% respectively. Moreover, those two elements have a median of 3.5 with p value less than 1%, indicating that there is agreement with 99% on those elements. The above results indicate that companies may incur costs for developing strong internal control systems that could produce accurate financial information and limit the incidence of fraud, thus avoiding adverse reports on their ICOFR. Such costs could be derived by factors such as internal labour, external consulting, and software expenses as indicated by Brune (2004). However, the high audit costs are due to the need for more time and efforts for the audit of ICOFR.

This is consistent with prior research findings (e.g., Financial Executive International, 2004; Asthana et al., 2004; Stolenberg et al., 2006) that increased audit costs represent a great portion of the increased compliance costs. 87.2% of the respondents agreed that Section 404 may lead to high documentation costs. Companies need more documentation in the form of written detailed procedures rather than only generic guidelines about the flow of transactions, how significant transactions are initiated, authorised and recorded and the design of controls intended to detect or prevent fraud.

The percentages of agreement on the increased work pressure in audit firms, longer audit delays and the increased auditors' realignments are 86.3%, 71.6% and 64% respectively, with median of three and p value 0.000, as shown in Table 2. Such results indicate that increased audit procedures required by Section 404 may require more time to complete the audit. This could lead to longer audit delays. Moreover, companies are more likely to dismiss or change their auditors rather than receive adverse reports on their internal control systems. Auditors may also withdraw or resign from companies with major control problems to avoid being legally liable. These results are consistent with the findings of Harrison and Mitchell (2005), Ettredge et al. (2006, 2007) and Zhang and Pany (2008).

Table 2 Analysing the responses of cost elements

		% of agreement	% of not sure	% of disagreement	Wilcoxon test	
					Median	P
1	High costs for developing good internal control systems	98.2	1.8	0	3.5	0.000
2	Increased audit costs due to increased audit procedures	91.8	5.5	2.8	3.5	0.000
3	High costs to be incurred by public companies for documenting internal controls	87.2	9.2	3.6	3	0.000
4	Increased work pressure in audit firms	86.3	7.3	6.4	3.5	0.000
5	Longer audit delays	71.6	13.8	14.6	3	0.000
6	Increased level of auditor resignations and dismissals	64	25.8	10.2	3	0.000
7	Less competitiveness in audit industry	62.4	19.3	18.3	2.5	0.000
8	Difficulty in getting qualified staff to deal with Section 404 requirements	61.5	13.8	24.7	2.5	0.000
9	Information overload and difficulty in correct interpretation by investors of various reports issued	55.1	20.2	24.7	2.5	0.000
10	Discouraging firms from going public	46.8	20.2	33	2.5	0.011
11	Insignificant of internal control reports to investors	39.5	16.5	44	2	0.204

Note: Items are listed from the most acceptable to the least acceptable.

About 62.4% of the respondents agree that Section 404 requirements may lead to less competitiveness in audit industry. This cost element has median of 2.5, indicating a moderate acceptance. This could be due to the fact that public companies may have the desire to deal with limited number of big audit firms (mainly the big 4) that could deal with Section 404 requirements more effectively and efficiently (Harrison and Mitchell, 2005). There is also moderate percentage of agreement among the respondents with 61.5%, and with median of 2.5, regarding the difficulty in getting qualified and

experienced personnel in public companies and audit firms to deal with the technical issues developed in strong internal control systems. 55.1% of the respondents, still more than half of the respondents, agreed there will be information overload in the numerous (i.e., four) reports presented to investors (Tackett et al., 2006). The difficulty of such information overload may be related to improper interpretation by users due to the confusion that could result if there is inconsistency in the information provided in such reports. However, the increase in the number of asset management companies, mutual funds and other investment banks in Egypt managed by experts in the area of finance, accounting and management would minimise any effects of information overload on the users of the listed companies' financial reports.

On the other hand, a low percentage of respondents (46.8%), with median of 2.5, agreed with the notion that Section 404 requirements will discourage firms from going public. This result is not in line with Carney (2005); however it is consistent with the view of Prentice's (2007) study that Section 404 will not be the main reason behind leading firms becoming private businesses. The insignificance of ICOFR reports to investors also gained an agreement of only 39.5%, with median of only 2. The p value is more than 5% (0.204) indicating that there is no agreement among the respondents regarding this cost element. Investors will be concerned with any information that could ensure the reliability of the reported financial information such as ICOFR effectiveness. This is not consistent with the findings of Tackett et al. (2006) who view that investors are interested only in financial reports rather than ICOFR reports. Such results provided additional evidence to the existing literature's belief that Section 404 will result in numerous costs, most importantly high costs for establishing strong systems and high audit costs. However, Section 404 may not be the main reason behind leading firms delisting from public market. In addition, ICOFR report may be significant to investors in making their investment decisions.

5.1.2 Benefits that could result from Section 404 application

Table 3 shows the extent of agreement among the respondents regarding 16 benefit elements that could be derived from Section 404 application. It can be seen that all the identifiable benefit elements gained an agreement among the respondents, ranging from 70% to more than 90%, with median of three or 3.5 and significant value at 0.001 level. Similar to Rittenberg and Miller (2005) study findings, respondents agree that Section 404 could lead to improvement in the control environment, anti-fraud process, and often-manipulated accounting areas. This benefit is the most acceptable benefit as reported in the analysis with 95.4% of agreement. Such improvement in the control environment can stem from the establishment of proper code of conduct, and the increased audit committee and board involvement in improving the internal control systems (Tackett et al., 2006). Improvement in anti-fraud process can stem from effective monitoring of operations, continuous risk analysis, and follow-up of unusual results (Rittenberg and Miller, 2005). Improvement may be directed to the often manipulated accounting areas such as accounting estimates or revenue recognition. Moreover, 94.5% of the respondents agree that ICOFR reports will provide periodic information about the quality of internal control systems. Such information can make investors more confident in their investment decisions. 101 out of the 109 respondents or 92.7% agreed on the benefits of improved reliability of financial reporting. This is due to the following: first, it can decrease the opportunities to commit fraud. Second, having an in-depth

understanding of the company internal controls will improve auditors' skills when they audit the financial statements and to identify the likely sources of misstatements. There is evidence supporting such findings such as Prentice (2007), Krishnan et al. (2007), Singer and You (2008) and Goh and Li (2008). Moreover, about 91.8% of the respondents agree that Section 404 requirements may lead to improvement in the remediation of internal control weaknesses, which is consistent with Rittenberg and Miller (2005) findings. Management may need to remediate any identified internal control weakness, to avoid disclosure of material weaknesses and to restore their investors' confidence regarding the reliability of financial reporting.

Improved corporate governance coupled with improved internal controls is also noted benefits of Section 404 with nearly 90% of auditors agreeing to such benefits. This may indicate that respondents may view that introducing new rules such as internal control requirements, with its legal form and its new added responsibilities on different parties, can result in more control over companies and enhance the application of the corporate governance concept. Moreover, improved internal control systems and auditors' attestation on the effectiveness of such systems could help in assuring the integrity of the data and financial information produced. Consistent with other prior studies (e.g., British Columbia Securities Commission, 2005; Tackett et al., 2006; Stolenberg et al., 2006; Prentice, 2007) 88.1% of the respondents believe that Section 404 requirements will improve fraud detection and reduce the risk of material misstatements.

Also, 88% of the respondents agree on some benefits identified by Rittenberg and Miller (2005). Those benefits include improvement of asset safeguarding, property accounting, and expense accounting, improvement in control documentation process and information technology (IT) controls, and improvement in risk management approaches. The requirements of Section 404 focus mainly on having controls over the unauthorised use or acquisition of assets and that receipts and expenditures of the company are being made only in accordance with proper authorisations from management. This will result in asset safeguarding. As long as management is required by the act to document their controls, they will need to improve their control documentation process as they can serve as a basis for training purposes, practical day-to-day guidance, and management evaluation. Improvement in IT may include improved information system security, improved testing procedures, and improved access controls and access monitoring. Moreover, more developed risk assessment tools can support an enterprise risk management programme. If management expands this focus from only financial reporting to include operational, compliance, and strategic objectives and risks, there could be significant improvement in risk management approaches.

About 87.2% of the respondents agree that Section 404 requirements will increase awareness and accountability at various corporate levels. Section 404 will add new responsibilities on different parties involved in the establishment, maintenance, documentation, and test of controls inside the company. Such added responsibilities will make those personnel more aware in performing their duties and responsibilities and more accountable regarding the results they reached. Moreover, 81.7% of the respondents believe that compliance with Section 404 requirements could lead to improved quality of reported earnings and less earning management. This is consistent with the results of Bedard (2006), Altamour and Beatty (2006), Chan et al. (2007) Herda (2008). This is justified as Section 404 could have the potential benefits of reducing the opportunities of intentional and unintentional accounting errors and hence improving the quality

of reported earnings (Chan et al., 2007). Moreover, “a high quality internal control environment produces a high quality accounting” (Herda, 2008).

Table 3 Analysing the responses of the benefit elements

		% of <i>agreement</i>	% of <i>not sure</i>	% of <i>disagreement</i>	<i>Wilcoxon test</i>	
					<i>Median</i>	<i>P</i>
1	Improvement in the control environment, anti-fraud process and often manipulated accounting areas	95.4	1.8	2.8	3.5	0.000
2	Providing periodic and timely information about internal control system quality	94.5	5.5	0	3	0.000
3	Improved reliability of financial reporting	92.7	6.4	0.9	3.5	0.000
4	Improved remediation of internal control weaknesses	91.8	6.4	1.8	3	0.000
5	Improved corporate governance	89.9	10.1	0	3	0.000
6	Improved internal controls and data integrity	89	10.1	0.9	3.5	0.000
7	More independent assurance	89	10.1	0.9	3	0.000
8	Improved fraud detection and reduced risk of material misstatements in financial information	88.1	11	0.9	3.5	0.000
9	Improvement of asset safeguarding, property accounting and expense accounting	88	9.2	2.8	3	0.000
10	Improvement in control documentation process and information technology controls	88	8.3	3.7	3	0.000
11	Improvement in risk management approaches	88	11.1	0.9	3	0.000
12	Increased awareness and accountability at various corporate levels	87.2	11.9	0.9	3	0.000
13	Improved quality of reported earnings and less earning management	81.7	16.5	1.8	3	0.000
14	Preventing failure in achieving audit goals and in serving the needs of users of audit reports	78.9	17.4	3.7	3	0.000
15	Companies receiving adverse ICOFR reports can provide indicators for investors that these companies financial statements may contain misstatements in the future	75.2	22	2.8	3	0.000
16	Restore investor confidence and improve liquidity of the capital market	71.6	23.9	4.5	3	0.000

However, the least acceptable benefits noted by the participants are the significance of adverse ICOFR reports in providing an indication for investors that a company's financial statements may contain material misstatements in the future, and the improved liquidity of capital markets through the restored investors' confidence with 75.2% and 71.6% of agreement respectively. This could indicate that the condensed test of controls as required by AS no. 5 could make auditors more aware of the likely sources of misstatements and internal control weaknesses. This may lead to better audit results that will better serve the needs of users of audit reports. Moreover, increased interest and discussion on the company's internal control by top management and the audit committee could have a positive impact on the integrity of the presented financial information, and hence restoring and continue to maintain investors' confidence.

5.1.3 Costs against benefits

Table 4 shows how the responses on the cost side are compared with the responses on the benefit side. Table 4 provides that in subtracting the responses of the cost items which are represented by the sub-questions of Q1 from the responses of the benefit elements which are represented by the sub-questions of Q2, about 80 respondents gave positive ranks which means that percentage of acceptance on the benefit items (Q2) is greater than percentage of acceptance on the cost elements (Q1) with mean rank of 57.14. However, only 27 respondents their percentage of acceptance on the cost elements (q1) is greater than their percentage of acceptance on the benefit elements (q2), with mean rank of 44.7. However, there are only two tied ranks, where the difference in the responses is zero (i.e., q2 mean = q1 mean for two applications). This may indicate that the average agreement on the benefit side is greater than the average agreement on the cost side for 80 respondents.

Table 4 Wilcoxon signed rank test

		<i>N</i>	<i>Mean rank</i>
q2 mean – q1 mean	Negative ranks	27 ^a	44.70
	Positive ranks	80 ^b	57.14
	Ties	2 ^c	
	Total	109	

Notes: ^aq2 mean < q1 mean, ^bq2 mean > q1 mean and ^cq2 mean = q1 mean

5.1.4 Expected reduction of Section 404 costs in the future period

Some 67% of the respondents agreed that Section 404 costs will continue to decrease over time as the process will be more familiar and systemised, which is consistent with findings stated by Charles River Associates (2004) and Rittenberg and Miller (2005). The first year costs could be higher than the ongoing costs of future years due to the one time expenses associated with upgrades to internal control systems and IT, and developing employees' compliance trainings and education programmes (Filipek, 2005). Moreover, costs could decline in the future as the upfront documentation effort will be completed, management will understand the process and requirements, and third-party services will be greatly reduced (Rittenberg and Miller, 2005). Results show that the Egyptian auditors' perception regarding Section 404 benefits confirmed the existing

literature belief (e.g., Rittenberg and Miller, 2005; Revenue Recognition.com and International Data Corporation, 2005; Prentice, 2007) that Section 404 costs will be justified by the benefits resulting from its application. Moreover, there will be an expected reduction in Section 404 costs in the future periods.

5.2 The effect of the additional audit procedures required in the audit of ICOFR on improving the quality of audit work performed (Objective 2)

Table 5 provides Egyptian auditors' perception regarding the effect of 11 audit procedures on improving the quality of audit process. Overall statistics in Table 5 provide substantial evidence that those identified audit procedures required by AS no. 5 in the audit of ICOFR that is integrated with an audit of financial statements are expected to improve the quality of audit work performed. Although some of those procedures may have been applied in planning the traditional audit of financial statements, they are expected to be performed in more detailed manner for the purpose of expressing an opinion on the effectiveness of the company's ICOFR. Although all those identified audit procedures have median of 3 and are significant at 0.001 levels, they have different percentages of agreement ranging from 85% to more than 90%. About 94.4% agree on the roll-forward procedures to ensure the continuing operation of controls in improving audit quality. These procedures will provide auditors with evidence that controls are operating effectively till the company's year end and that the monitoring component will continue to perform its function effectively. However, 92.7% of the respondents believe that obtaining detailed information on any previous control deficiencies or any recent changes in the internal control system will improve the quality of the audit process. Such information identified by AS no. 5 is required in the planning phase of the audit. Auditors may need to test those areas containing prior deficiencies previously communicated to the audit committee or management. Such prior deficiencies, if not corrected, may affect negatively the accuracy and integrity of the financial reporting process of the company.

Moreover, auditors may need to know the recent changes made in the client's accounting and control systems. These recent changes may present new risks on the effective operations of the system if they are not properly designed or implemented. Such changes may require auditors to increase their understanding of the design of controls. This information, which was considered important by 90% of respondents, may enable auditors to accurately plan their audit programme and assess control risk required in the audit risk model. Furthermore, 92.7% of respondents agree that evaluating the severity of each identified control deficiency will improve audit quality. Auditors should focus more on significant control deficiencies and material weaknesses rather than less severe control weaknesses. Such deficiencies will be an indicator that there is reasonable possibility that the company's controls will fail to prevent or detect a misstatement. Auditors also will have better expectation of the possible future consequences of those deficiencies (AS no. 5, 2007).

Some 91.8% of the respondents agree that audit quality will be improved if auditors identified risks and controls within the IT that affects the flow of transactions. It is important to assess the risks within the application controls because the business processes and transactions flow through the application software. Unauthorised actions of individuals can directly impact the integrity of the processing of data needed for management and other interested parties.

Table 5 Analysing the responses on the effect of audit procedures required in the audit of ICOFR on audit quality

		% of <i>agreement</i>	% of <i>not sure</i>	% of <i>disagreement</i>	<i>Wilcoxon test</i>	
					<i>Median</i>	<i>P</i>
1	Roll forward procedures to ensure the continuing operation of controls	94.4	2.8	2.8	3	0.000
2	Obtaining detailed information on previous control deficiencies and any recent changes in ICOFR for planning the audit	92.7	6.4	0.9	3	0.000
3	Evaluating the severity of each identified control deficiency and the effect of such deficiency on the internal control system and the probability of fraud	92.7	7.3	0	3	0.000
4	Identifying risks and controls within information technology that affects flow of transactions	91.8	7.3	0.9	3	0.000
5	Performing inquiry, observation, inspection and re-performance of controls	90.8	5.5	3.7	3	0.000
6	Inquire about how information processes and related controls were changed in response to new or increased risks	89.9	8.3	1.8	3	0.000
7	Identifying entity level controls, specially control environment controls and controls over-period end financial reporting process	88.1	10.1	1.8	3	0.000
8	Identifying controls intended to prevent or detect unauthorised use or disposition of assets	88.1	11.9	0	3	0.000
9	Assessing the competence and objectivity of personnel	87.1	8.3	4.6	3	0.000
10	Inquire about and examine for changes in ICOFR that might have occurred during the subsequent period	87.1	10.1	2.8	3	0.000
11	Identifying whether previous deficiencies identified by auditors in previous year audit have been remediate in current year audit through newly designed controls	86.2	13.8	0	3	0.000

About 90.8% agree that auditor detailed inquiries of relevant personnel, more directed inspection of relevant documentation, continuous observation of operations and meetings held by the board of directors and audit committee, and re-performance of controls, will improve audit quality. The purpose of detailed application of such procedures is to

express an opinion on the design and operating effectiveness of ICOFR with its five components leading to high audit quality (Nilson, 2005; Bedard et al., 2008).

Nearly 88% of the respondents agree that the use of top down approach as required by AS 5 would improve audit quality. This is achieved through identifying entity level controls, especially control environment controls and controls over period end financial reporting process. The Dutch task force stated that "entity level controls exist on a higher level than transactional controls, set positive conditions and boundaries for transactional controls and are the internal control infrastructure" (Gerkes et al., 2007). Several studies (Cohen and Hanno, 1997; Hubbard, 2003; Roth, 2004; Thomas and Gibson, 2003; Castalleno and Lightle, 2005) have emphasised the importance of the control environment as it forms the base of the internal control system and can help in the prevention or detection of fraud through the proper tone set by management. Auditor detailed understanding and evaluation of control environment controls may enable them to determine whether there is proper code of conduct and proper board and audit committee knowledge and oversight responsibility.

Preventing or detecting unauthorised use or disposition of company assets that could have material effect on the financial statements was considered by 88% of the respondents as affecting positively the audit quality. If there are no effective procedures over the unauthorised use or access of certain types of assets, auditors can conclude that there will be high probability of theft or misappropriation of assets. Also, the procedures of assessing the competence and objectivity of personnel including internal auditors whose work the auditor plans to use and the inquiry about the changes in ICOFR that might have occurred during the subsequent period gained a percentage of acceptance of 87.1%. Assessing competence and objectivity of personnel responsible for test of controls as high will enable auditors to rely on those personnel saving much of their time and directing their efforts toward higher risk areas. Finally, the least acceptable audit procedure in improving audit quality is the identification of whether previous deficiencies identified by auditors in previous years audit have been corrected in current year through newly designed controls with 86.2% of agreement. This is the least acceptable procedure because although there are newly designed controls to correct previous control deficiencies, such controls may not be operating effectively or may involve complex operations not familiar to auditors.

To sum up, the application of Section 404 would result in stronger internal control systems leading to improvement in audit quality by reducing the probability of auditors issuing an erroneous audit opinion (i.e., effectiveness) and meeting the company's reporting deadline without any audit delays due to less control tests (i.e., efficiency). Factors contributing to the above results may include: First, management assessment of internal control would enhance control consciousness within the company, avoiding receiving negative or adverse ICOFR reports, thus, increasing the quality of internal control system and reliability of financial reporting. Second, management's compliance with Section 404's requirements would reduce the opportunity of intentional and unintentional errors and improve the quality of reporting earnings. Third, the control identification, documentation and testing process including improvement in the control environment, using walkthrough test outlined in AS no 5, anti-fraud processes and management focus on often manipulated accounting areas (i.e., areas requiring accounting estimates and subjective revenue recognition elements) will result in high quality of financial reporting. The elements to be assessed by auditors for strong internal

control systems may include checking the existence of a proper code of conduct, increased number of audit committees and more board involvement in improving internal control systems. Also, auditors would assess management effective monitoring of operations, continuous risk assessment and follow up of results. Finally, auditors should evaluate IT controls used by the company represented by strong information system security, improved testing procedures and access controls and monitoring.

5.3 *The influence of increased auditor litigation risk on the quality of audit work performed*

The researchers asked the participants to express the extent of their agreement regarding several items (shown in Table 6) that could impact the quality of their audit work if they are working in a high litigation environment resulting from Section 404 requirements. Table 6 demonstrates that a majority (80.7%) of the auditors agree that they will be motivated to exert more efforts in testing and assessing internal controls and performing substantive audit procedures, to avoid the litigation risk. When auditors are under legal pressure, they are expected to exert more audit efforts. This could enhance the quality of their work to avoid being sued. However, 85.3% of the auditors agree that the increased legal liability will motivate them to avoid audit failure and deter audit failure situations. Auditors are expected to improve their performance to provide their audit services in high quality manner, to avoid failure and legal accountability. However, this view is not consistent with Pritchard (2005), who argued that lawsuits may do little to deter improper auditing as fraud or errors may occur due to some inherent limitations of internal controls (e.g., errors of judgment or management override of controls).

Table 6 Analysing the responses on the effect of increased litigation risk on audit quality

		% of agreement	% of not sure	% of disagreement	<i>Wilcoxon test</i>	
					Median	P
Q5.1	Motivate auditors to exert more effort in testing and assessing internal controls and substantive testing	80.7	18.4	0.9	3	0.000
Q5.2	Motivate auditors to avoid audit failure in performing audit work and deter improper auditing	85.3	11	3.7	3	0.000
Q5.3	Motivate auditors to truthfully report their findings	82.6	10.1	7.3	3	0.000
Q5.4	Auditors will be more responsible and accountable toward financial statement users	91.7	5.5	2.8	3.5	0.000
Q6	Increased frequency of auditor changes	57.8	21.1	21.1	2.5	0.000

Moreover, the majority of the auditors believe that the increased litigation risk will motivate them to truthfully report their findings, without being biased to the company

being audited, to reduce the probability of paying damages. This could result in high audit quality (Melumad and Thoman, 1990). About 91.7% of the auditors believe that increased auditor legal liability will make auditors more responsible and accountable toward financial statement users.

On the other hand, more than half of the auditors (57.8%) agree that fear of litigation risk will lead to increased frequency levels of auditor changes. The cost of auditing risky clients may make switching more likely. Capping liability then may increase quality by reducing the frequency of switching (Sullivan, 2006). Johnson et al. (2002) argue that the lack of adequate client-specific knowledge during the early years of engagement decreases the likelihood of detecting material errors and misstatements. Table 6 also shows that the positive impacts (represented by Q5) that could improve the quality of audit work performed in case of increased litigation risk gained high acceptance with median between 3 and 3.5 and are significant at 0.001 level. However, the negative impact (represented by Q6) gained a moderate acceptance with median of only 2.5.

6 Conclusions

The study assessed the Egyptian auditors' perceptions of the impact of Section 404 requirements on the quality of audit work performed. The analysis was made based on the opinions of Egyptian auditors in audit firms with international affiliations. The results confirm prior research findings that the benefits that could be derived from Section 404 applications are expected to exceed the related costs. The results show that Section 404 will have numerous costs, most importantly the high costs for developing strong internal control systems and high audit costs. However, Section 404 is expected to result in several benefits, most importantly the improvement in the control environment, anti-fraud process, and often manipulated accounting areas. The results also show that although there are high costs resulting from Section 404 applications, such costs are expected to decrease in the future as the audit process will become more familiar and systemised. Furthermore, the Egyptian auditors believe that the additional audit procedures required in the audit of ICOFR are expected to improve the quality of audit work performed. Finally, the application of Section 404 in Egypt with its increased auditor litigation risk will place pressure on auditors to improve the quality of their audit work rather than increasing the frequency level of auditor changes.

Because of all the above findings, the researchers call for the application of similar legal requirements of Section 404 in Egypt. Such application of Section 404 should be made after careful analysis of the nature of the Egyptian economic and professional structure including availability of adequate financial resources; the structure of businesses, accounting and auditing profession; the nature and size of listed companies and the Egyptian Government willingness to allow increased controls over corporate businesses. Future research should assess developed costs and benefits of Section 404, as other costs and benefits, other than those examined by the current literature and the present study, may be addressed. Moreover, future research studies should analyse the costs and benefits associated with Section 404 quantitatively through a real investigation of such costs and benefits seen by CPA firms in actual audit situations. Future research also should empirically investigate the role of top down approach that auditors should follow in their audit of ICOFR toward achieving an efficient audit.

The study has a number of limitations. The study sampled only a limited number of practitioners in audit firms with international affiliation without any assessment of the opinions of those responsible for the establishment and maintenance of internal controls (e.g., internal auditors). The study does not include all elements of costs and benefits that may be derived from the application of Section 404. This limitation is due to the difficulty in gaining access to all the studies made in this area and the difficulty in quantifying all the benefits and costs that could be derived from this recent act. The study analysed the nature of the costs and benefits related to Section 404 applications qualitatively without any quantitative analysis. Subjective judgments were made by the researchers in selecting the content of the questionnaire. The audit procedures identified in the study's survey may have been applied by audit firms before the issuance of SOX Section 404. Moreover, the findings of the study may be generalised among other developing countries if we can understand and assess the unique economic and professional structure within those developing countries.

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