
SARBANES-OXLEY COMPLIANCE: NEW OPPORTUNITIES FOR INFORMATION TECHNOLOGY PROFESSIONALS

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ABSTRACT

Much has been written in the business press and in academic journals about the Sarbanes-Oxley Act of 2002 (SOA) and how it will affect corporate governance and the practice of auditing and public accounting. Recent literature also discusses how the requirements of SOA might or might not better protect investors. Very little has been written that addresses how SOA will affect the duties and responsibilities of information technology (IT) professionals. This paper outlines the opportunities for IT professionals in designing the systems that will enable companies to comply with the SOA. The paper also contrasts the qualifications of IT professionals with respect to SOA compliance work with those of public accounting firm staff members.

INTRODUCTION

The Sarbanes-Oxley Act of 2002 (SOA) was passed in the United States (U.S. Code, 2002) in response to a series of significant failures in corporate governance, including Enron (Schwartz, 2001) and the related failure of accounting firm Arthur Andersen (Eichenwald, 2002), HealthSouth (Day, 2003), Tyco (Sorkin, 2002), and WorldCom (Moules and Larsen, 2003). Even Europeans, many of whom were convinced that this rash of management frauds were a result of American's hyper-capitalism mania and could never happen in the refined atmosphere of the continent, found that they were not immune when Parmalat's \$15 billion in understated debt and huge overstatements of sales and earnings were exposed (Adams, 2003).

The SOA imposes a number of requirements on companies, their managers, and their directors. It also imposes a number of requirements on the systems of internal control used in companies. In the next section, we outline the requirements imposed by the SOA. In the section following that, we outline the specific impacts that the law will have on the job duties and responsibilities of IT professionals.

REQUIREMENTS OF THE SOA

The SOA includes 11 Titles (USC, 2002). Title I establishes the Public Company Accounting Oversight Board. Title II defines auditor independence. Title III discusses corporate responsibility. Title IV discusses enhanced financial disclosures. Title V discusses securities analyst conflicts of interest. Title VI discusses Securities and Exchange Commission (SEC) resources and authority. Title VII discusses the studies and reports that must be completed. Title VIII discusses corporate and criminal fraud accountability. Title IX discusses white-collar crime penalty enhancements. Title X discusses corporate tax returns. Title XI discusses corporate fraud and accountability. In this section, we review each relevant SOA Title to provide background for the rest of the paper.

The Public Company Accounting Oversight Board

Title I of the SOA creates the Public Company Accounting Oversight Board (PCAOB). The PCAOB is a new body that will oversee audits of publicly-held companies. The board is composed of five full-time independent members, only two of whom can be CPAs. Board members can serve up to two-five year terms. The PCAOB must submit an audited annual report to the SEC. Any public accounting firm wishing to audit public companies must register with the PCAOB. The registered public accounting firm must submit an annual report to the PCAOB including a list of the firms they audited in the past year and the fees received by the firm for audit services, other accounting services, and non-audit services. Each registered public accounting firm must pay an annual fee to the board to recover the cost of processing and reviewing applications and annual reports.

Title I gives the PCAOB authority to establish auditing, quality control, and ethical standards. The public accounting firms are required to have audit working papers and a second partner review. They must describe in the audit report the scope of the auditors testing of internal control structure and procedures of the company. The current audit standards for testing and reporting on internal control (as contained in Statements on Auditing Standards No. 55, No. 78, and No. 94, AICPA, 2003) still apply under the SOA. The board is required to conduct inspections of the registered public accounting firms to determine their compliance with the SOA. The inspection must be annual if the firm provides audit reports for more than 100 companies. If the firm provides audit reports for less than 100 companies the inspections are every three years. The PCAOB has the right to impose sanctions on registered firms including suspension or permanent revocation of the firm's registration. The SOA also applies to foreign public accounting firms that prepare audit reports for registered companies.

Independence of Auditors

Title II of the SOA deals with auditor independence. SOA reiterates the long-standing requirement that a public accounting firm cannot provide an audit client with bookkeeping services

and financial information systems services. The SOA goes on to preclude the provision of eight specific types of non-audit services, including appraisal and valuation services, actuarial services, internal audit services, management functions, human resource consulting services, investment adviser services (including broker and dealer services), and legal services. The SOA also gives the PCAOB a catch-all right to prohibit other services in the future as it deems necessary or appropriate. Many of these now-prohibited services provided large portions of public accounting firm revenues in recent years.

The company's audit committee must approve any services provided by the public accounting firm, including any tax work, as well as any other services. Any services the audit committee approves and the audit firm provides must be disclosed to investors.

Title II requires a rotation of audit partners every five years. It also requires that the auditor report to the audit committee rather than company management. The auditor must inform the audit committee of the accounting policies used by the client and must disclose all accounting treatments discussed with management. The auditor must provide the audit committee with any other material written communication between the auditor and any client personnel.

An employee of the audit firm cannot, upon leaving the firm, accept a position with a client firm in the capacity of chief executive officer, controller, chief financial officer, chief accounting officer, or any other similar position within 12 months of ending employment with the audit firm.

Corporate Responsibility and the Role of the Audit Committee

The SOA's Title III gives the audit committee full and unencumbered responsibility for the appointment, compensation, and oversight of the work of the audit firm. The members of the audit committee must be independent of the company. They cannot be employees or otherwise accept any consulting, advisory, or other compensatory fee from the company.

Title III requires the audit committee to establish procedures for the receipt and treatment of complaints received by the company regarding accounting, internal controls, or auditing matters. There needs to be a confidential and anonymous process within the company for submitting issues, concerns, and information to the audit committee.

The chief executive officer and chief financial officer must sign the SEC reports indicating that they have reviewed the report. These officers must certify that, based on the officer's knowledge, the report does not contain any untrue statement of a material fact and does not omit the statement of any material fact. The signing officers are responsible for establishing and maintaining internal controls and for reviewing the controls' effectiveness within 90 days of the date of the SEC report. The signing officers must report all significant deficiencies in internal control to the audit firm and to the audit committee and must report any fraud, whether or not the amount is material, that involves management or other employees who play a significant role in the design, operation, or evaluation of the company's internal controls.

This section also includes the specification of responsibilities for attorneys. One rule in this section requires attorneys to report evidence of any material violation of securities law or breach of fiduciary duty by the company or its agents to the chief legal counsel or the chief executive officer of the company. If the chief legal counsel or chief executive officer do not appropriately respond the attorney must then report the evidence directly to the audit committee.

Financial Disclosures

The SOA's Title IV requires disclosure of all off-balance sheet transactions and obligations, including contingent obligations, that might have a material current or future effect on financial condition. Title IV requires that the company monitor and review the amount of off-balance sheet transactions and the use of any special purpose entities. Pro forma information must be reconciled with generally accepted accounting principles and must not contain an untrue statement of material fact. Many types of executive loans, which have been prevalent in recent years, are curtailed under provisions of Title IV. The SOA requires that companies have a code of ethics for senior financial officers.

The financial disclosure provisions also contain a requirement that the annual report include a report on internal control. The report must state that internal control is the responsibility of management and must contain an assessment of the effectiveness of the internal control structure and procedures. The auditors must attest to, and report on, management's assessment. This does not mitigate the directors' role, however. The company must disclose whether or not at least one member of the audit committee is a financial expert. If one member is not a financial expert they must explain the reason.

Conflicts of Interest of Securities Analysts

Title V of the SOA provides that rules must be enacted where appropriate to address conflicts of interest that can arise when securities analysts recommend equity securities in research reports and public appearances. The goal of this SOA section is to improve the objectivity of investment research and provide investors with more reliable information.

Commission Resources and Authority

Title VI of the SOA discusses a need for increased resources for the SEC to carry out their duties. Many observers have been critical of the government's unwillingness to devote sufficient resources to SEC enforcement units. As the scandals that led to the SOA were unfolding, the SEC claimed it was understaffed. Since the SOA was enacted, significant increases in SEC enforcement budgets have not been forthcoming.

Studies and Reports

Title VII calls for a number of research studies to be conducted. One study would include research regarding the factors that led to the consolidation of public accounting. This consolidation has reduced the number of different and distinct firms capable of providing auditing services to large publicly-held companies. Another study is required that will investigate the role and function of credit rating agencies in the operation of the securities market. The SEC will conduct a study on the number of securities professionals who have been found to have aided and abetted a violation of Federal securities laws. The SEC will review and analyze each of its enforcement actions that involve violations of reporting requirements imposed under the securities laws and restatements of financial statements. The Comptroller General of the United States will conduct a study on whether investment banks and financial advisers helped companies manipulate their earnings with a goal of hiding the companies' true financial conditions.

Criminal Fraud and White Collar Crime Penalties

Titles VIII, IX, and XI include new definitions of criminal acts and provide a variety of new penalties and some increased penalties for existing crimes. Title VIII of the SOA provides penalties for destruction, alteration, or falsification of records in federal investigations and bankruptcy proceedings. It also prohibits and provides penalties for destruction of corporate audit records. This section calls for a review of Federal sentencing guidelines for obstruction of justice and criminal fraud convictions. It also provides whistleblower protection for employees of publicly traded companies. Specific enhanced criminal penalties are imposed for the act of defrauding the shareholders of publicly traded companies. Title IX increases the penalties for white-collar crime including fines and prison sentences.

Title XI provides new penalties for tampering with a record or impeding an official proceeding. It also increases the authority of the SEC to prohibit persons from serving as officers or directors. It provides specific fines and imprisonment terms for persons or organizations engaged in retaliation against informants.

Corporate Tax Returns

Title X states the opinion of the Senate that it would like to require that corporate federal income tax returns be signed by the chief executive officer of the filing entity. This is an additional indicator of the degree of responsibility viewed by the drafters of the SOA to be a necessary condition in the person of the chief executive officer. The SOA includes several signing requirements that many critics believe to be ceremonial and unsubstantial. However, many other observers note that a signed document is far more difficult to deny and that the signature

requirements could lessen the weight of a defense based on the chief executive officer not knowing what was happening in the company.

ROLE OF THE ACCOUNTING INDUSTRY IN SOA COMPLIANCE

The accounting industry has reacted rapidly to the passage of the SOA (AICPA, 2002a; AICPA, 2002b, AICPA, 2002c). Its reactions have been largely defensive. Many observers believe the accounting industry at least partially responsible for not detecting many of the recent frauds and accounting irregularities (Rezaee, 2003; Velayutham, 2003). Indeed, it is interesting to note that since 2002, when many news stories began reporting on these frauds and accounting failures, the news media has referred to “the accounting industry.” In earlier years, the business was typically referred to as “the accounting profession.” When the SOA was passed many accountants saw it as a combination of things. They saw it as an opportunity to repair their tarnished reputation, a chance for real reform, and even a way to replace lost consulting revenues with a new (and perfectly legal under the SOA) revenue stream: consulting services designed to help companies comply with the SOA (Munter, 2003). Needless to say, some accounting industry critics found this turn of events ironic.

Recent History of the Industry

The recent history of the accounting industry is interesting. As the market for audit services became increasingly competitive in the 1980s, firms attempted to contain costs and defend against litigation from users of financial statements that the firms had audited. To do this, accounting firms have increasingly lobbied for precise, mechanical accounting rules and have implemented standardized operating procedures. The goal was to reduce variability in the performance of audit work. Variations in audit work were perceived as costly and as opening the door for zealous plaintiffs to confuse juries and judges about the quality of the audit work performed (Healy, 2003). Because these heavily-lobbied regulators were pressed to create rules and legislation that would cover, specifically, all contingencies, accounting and audit standards have become incredibly detailed. Healy (2003) notes that the 2,300 pages of Financial Accounting Standards Board (FASB) standards that existed in 1985 had increased to 4,000 pages in 2002. This reliance on detailed rules and regulations has, as the Enron case illustrated so spectacularly (Schwartz, 2001), encouraged companies to enter business arrangements that satisfy the terms of the detailed rules, but that completely circumvent the intent of those rules.

A Trend Toward Standardization

Healy (2003) notes that a major problem with a standardized, rule-based auditing approach is that it gives audit firms a way to avoid judgment of the overall compliance of a auditee’s financial

statements with generally accepted accounting principles. In effect, the pre-1980s auditor would subject the financial disclosures to an overall “smell test.” If the detailed rules were followed, but the overall presentation was misleading, a company in the old days could count on a hard face-to-face meeting with the audit partner (Zeff, 2003). Healy (2003) notes that Arthur Andersen, in its audit of Enron’s special purpose entities, determined that the company had satisfied all of the detailed rules for off-balance-sheet financing, but did not report to Enron’s investors that the financial statements did not represent its true financial position. These entities met the requirements of the detailed rules, but flaunted the overall spirit of “fair presentation.”

Decline in Quality of Inputs

In public accounting, a firm is only as good as the professional staff that work for the firm (Zeff, 2003). Partners in the 1960s used to describe their business as buying people by the year and renting them out by the hour. The inputs in the accounting business are the people in the business, particularly the new hires who perform most of the on-site audit work at client locations. Healy (2003) noted that the end of accounting as a “profession” probably occurred because the industry was no longer able to attract the best and brightest students graduating from college. Since the 1980s, fewer graduates with accounting majors have entered public accounting. The effect is particularly marked at top business schools. Healy (2003) reports that only three percent of Wharton’s accounting graduates entered public accounting in 2002.

Need to Please Clients

Since the 1980s, audits have been viewed increasingly as a commodity service. One audit firm is as good as another, and no client really cares if they received a quality audit as long as they received the auditor’s unqualified opinion (Zeff, 2003). This perception of audit services as a commodity lead to severe price competition (Healy, 2003). Accounting firms responded by offering a variety of consulting services. These services had higher margins than audit work and could be sold to audit clients. As clients provided more and more consulting revenues to their audit firms, the objectivity and independence of auditors came into question (Briloff, 1987; Stevens, 1991).

By the beginning of the 1980s, the large accounting firms had all concluded that profit margins on audits would be painfully thin, particularly relative to those on other financial services (Stevens, 1991). Their response was to diversify into other businesses- notably consulting (Zeff, 2003). Since audit quality did not matter to clients, auditors became more and more desperate to curry clients’ favor by maintaining friendly relationships with client accounting managers and top executives so that the firm could bid on more and more lucrative consulting work with the client. Client retention and expansion of non-audit fee revenue became important parts of accounting firm employees’ compensation arrangements. For partners in the firms, it was a critical element (Healy, 2003; Zeff, 2003).

Ability of Accounting Firms to Provide SOA Assistance

Clearly, accountants and public accounting firms have the technical skills to provide help to companies that need assistance in complying with SOA (Coustan, et al., 2004; Winters, 2004). Lanza (2004) suggests that company's internal audit staff might be valuable consultants for SOA compliance and systems design and development. Indeed, many current textbooks for the accounting information systems course, which is required of accounting majors at most universities, include detailed coverage of internal controls, internal control assessment techniques, and current applications of information technology to the tasks needed to comply with SOA (see, for example, Gelinas and Sutton, 2002; Hall, 2004; or Romney and Steinbart, 2002). Despite these arguments for technical competence, the decline in the quality of recruits to accounting firms and the public accounting industry's recent failure to show itself to be a deserving recipient of companies' (and the public's) trust, we argue that many of the important elements required by SOA might be best addressed by using the consulting expertise of IT professionals.

IT PROFESSIONALS AND THE DEMANDS OF THE SOA

An understanding of internal control demands an understanding of the underlying accounting and administrative systems of the company (Hall, 2004). As every business of any size has computerized its accounting and administrative systems, the people who know these systems well and who understand their design are increasingly members of the ranks of IT professionals. In this section, we argue that IT professionals, both inside the company and in consulting firms outside the company, can provide valuable services to the company as it attempts to comply with the internal control standards set by the SOA. Further, the IT professionals who have gone on to become lawyers practicing in the area of high technology are especially well-qualified to offer SOA consulting services because of their unique combination of IT knowledge and legal training.

Technical Skills and Business Knowledge of IT Professionals

IT professionals have been engaged in the design and implementation of systems for decades, far longer than accountants have been seriously involved in these issues (Gelinas and Sutton, 2002). They have a keen understanding of what it takes to make these systems work. Increasingly, IT professionals are educated, trained, and respected as business analysts as well as for their technical knowledge.

Lanza (2004) notes that two of the most important elements of any SOA compliance program is the proper use of data analysis tools and data mining software. Data analysis functions include the use of query tools that allow users to ask questions of the enterprise-wide information system (Gelinas, 2002). In large organizations such as those subject to SOA, this system will, in most cases, have been designed and implemented by the company's IT staff. It will definitely be maintained by

IT staff. The people who know the most about the enterprise-wide information system will always be IT professionals. Many companies have undertaken major knowledge management initiatives in recent years (Angus, 2003; Awad and Ghaziri, 2003). These initiatives have, in most cases, been designed and implemented by IT professionals. As SOA requirements become part of the fabric of large companies, they will be included as part of these companies' knowledge management systems (Lanza, 2004).

Winters (2004) outlines three questions that an SOA consultant should be able to help a company answer: (1) is it better to develop a short term solution or a more sustainable one for the long term, (2) which software tools are best able to provide complete, effective, and sustainable compliance, and (3) what other policies, training programs, and other investments are needed to comply with SOA and maximize the utilization of the software in the context of the company's existing information systems. We argue that IT professionals would provide better advice regarding each of these three questions given the skill sets and business knowledge generally agreed to reside in IT staff (Laudon and Laudon, 2004; McLeod and Schell, 2004; Oz, 2004).

Independence of IT Professionals

Although IT professionals employed by the company are not, by definition, independent, they often operate with considerable latitude. Because IT professionals have a level of expertise that can be critical to company operations, they often can derive a level of mystique that provides a level of independence (Burns and Haga, 1977). External consultants that offer companies IT advice are likely to be much more independent than public accounting firms and they are not tarnished by association with the very evils that prompted the legislation.

CONCLUSION

We have examined the requirements of the SOA and what companies must do to their accounting and internal control systems to comply with the law. After considering accountants in the company and external public accounting firms as likely candidates for the job of advising companies what they must do to comply with the SOA, we find them lacking in the key elements of technical expertise, independence, and overall business knowledge. We argue that IT professionals have higher degrees of relevant technical expertise and sufficient levels of overall business knowledge to be very qualified to advise companies on SOA compliance efforts, especially if their technical knowledge is augmented by legal training. This legal training is relevant to some areas of SOA compliance than others. In the final analysis, IT professionals have a strong advantage over the accounting industry in this comparison: IT professionals are not tarred by an association with the frauds, irregularities, and crimes that motivated the SOA's passage. Accountants in general and public accounting firms in particular, cannot make that claim.

REFERENCES

- American Institute of Certified Public Accountants (AICPA) (2002a). How the Sarbanes-Oxley Act of 2002 impacts the accounting profession, AICPA Web site. Retrieved August 13, 2003, from <http://www.aicpa.org/info/Sarbanes-Oxley2002.asp>
- American Institute of Certified Public Accountants (AICPA) (2002b). Landmark accounting reform legislation signed into law, *CPA Letter*. Retrieved August 19, 2003, from <http://www.aicpa.org/pubs/cpaltr/Sept2002/landmark.htm>
- American Institute of Certified Public Accountants (AICPA). 2002c. Additional aspects of Sarbanes-Oxley Act explained, *CPA Letter*. Retrieved August 20, 2003, from <http://www.aicpa.org/pubs/cpaltr/Oct2002/add.htm>
- American Institute of Certified Public Accountants (AICPA) (2003). *AICPA Professional Standards*. New York: AICPA.
- Angus, J. (2003). Rethinking knowledge management. *InfoWorld*, 25(17), March 17, 32-35.
- Awad, E. & H. Ghaziri (2003). *Knowledge management*. Upper Saddle River, NJ: Prentice-Hall.
- Briloff, A. (1987). Do management services endanger independence and objectivity? *The CPA Journal*, 57(8), August, 22-29.
- Burns D. & W. Haga (1977). Much ado about professionalism: A second look at accounting. *Accounting Review*, 52(3), July, 705-715.
- Coustan, H., L. Leinicke, W. Rexroad & J. Ostrosky (2004). Sarbanes-Oxley: What it means to the marketplace. *Journal of Accountancy*, 197(2), February, 43-47.
- Day, K. (2003). SEC sues HealthSouth, CEO over earnings: Former CEO pleads guilty to fraud, *The Washington Post*, March 20, E1.
- Eichenwald, K. (2002). Andersen guilty in effort to block inquiry on Enron, *The New York Times*, June 16, 1.
- Gelinas, U. & S. Sutton (2002). *Accounting information systems*, (5th ed.) Cincinnati: South-Western.
- Hall, J. (2004). *Accounting information systems*, (4th ed.) Cincinnati: South-Western.
- Hardesty, D. (2004). *Practical guide to corporate governance and accounting: Implementing the requirements of the Sarbanes-Oxley Act*. Boston: Warren, Gorham & Lamont.
- Healy, P. (2003). How the quest for efficiency corroded the market, *Harvard Business Review*, 81(7), July,
- Lanza, R. (2004). Making sense of Sarbanes-Oxley tools, *Internal Auditor*, 61(1), February, 45-49.
- Laudon, K. & J. Laudon (2004). *Management information systems*, (8th ed.) Upper Saddle River, NJ: Prentice-Hall.
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- Academy of Information and Management Sciences Journal, Volume 10, Number 2, 2007*

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- McLeod, R. & G. Schell (2004). *Management information systems*, (9th ed.). Upper Saddle River, NJ: Prentice-Hall.
- Moules, J.& P. Larsen (2003). Reports condemn culture of fraud at WorldCom, *Financial Times*, June 10, 1.
- Munter, P. (2003). Evaluating internal controls and auditor independence under Sarbanes-Oxley. *Financial Executive*, 19(7), October, 26-27.
- Oz, E. (2004). *Management information systems*, (4th ed.) Boston: Course Technology.
- Rezaee, Z. (2003). Restoring public trust in the accounting profession by developing anti-fraud education, programs, and auditing, *Managerial Auditing Journal*, 19(1), 134-148.
- Romney, M. & P. Steinbart (2002). *Accounting information systems*, (9th ed.) Upper Saddle River, NJ: Prentice-Hall.
- Schwartz, N. (2001). Enron fallout: Wide, but not deep, *Fortune*, 144(13), December 24, 71-72.
- Sorkin, A. (2002). Tyco figure pays \$22.5 million in guilt plea, *The New York Times*, December 18, 1.
- Stevens, M. (1991). *The big six: The selling out of America's top accounting firms*. New York: Simon & Schuster.
- United States Code (2002). *Sarbanes-Oxley Act of 2002*, Public Law No. 107-204, codified at 15 U.S.C. §7201
- Velayutham, S. (2003). The accounting profession's code of ethics: Is it a code of ethics or a code of quality assurance? *Critical Perspectives on Accounting*, 14(4), May, 483-503.
- Winters, B. (2004). Choose the right tools for internal control reporting, *Journal of Accountancy*, 197(2), February, 34-40.
- Zeff, S. (2003). How the U.S. accounting profession got where it is today: Part II, *Accounting Horizons*, 17(4), December, 267-286.