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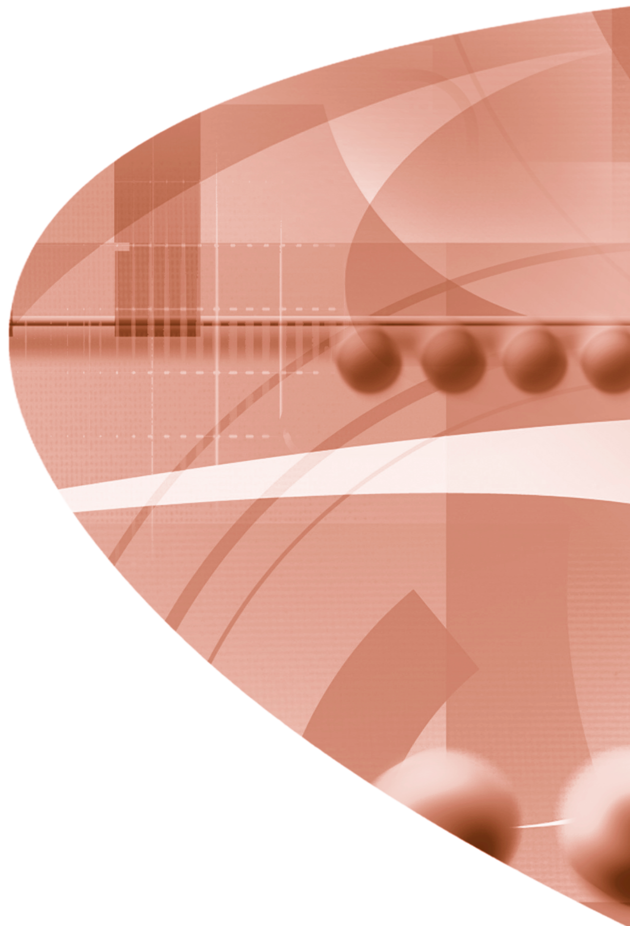

## Financial regulation

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## Financial regulation

**Editor**
Gerald Vinten

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# The development of accounting regulation in the GCC

## Western hegemony or recognition of peculiarity?

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**Abstract**

**Purpose** – To create an all-round picture of the accounting and auditing requirements in Gulf Cooperation Council (GCC) countries.

**Design/methodology/approach** – Presents a range of related articles on the commercial laws of each state, and the announcements and publications of the Saudi Organisation for Certified Public Accountants (SOCPA), which aim at providing a general background about the development of accounting in GCC countries.

**Findings** – The related issues in financial and accounting reporting in GCC countries are incorporated in the auditing profession through the codes of commercial law.

**Research limitations/implications** – The methods of collecting information were restricted to accounting laws and source documents. Interviews would have been useful in bringing to the surface the function of accounting in GCC countries, given that they are based on interactions.

**Practical implications** – The paper recognises the effect of the interest groups in the regulation of accounting in GCC countries and that accounting is a social and a political phenomenon.

**Originality/value** – The paper provides convenient comparisons about accounting and auditing between GGC countries.

**Keywords** Accounting standards, Saudi Arabia, Auditing, Continuing development

**Paper type** Research paper

### Regulations of accounting in GCC states

Except for the Kingdom of Saudi Arabia (KSA), all Gulf Cooperation Council (GCC) countries[1] still regulate the accounting and auditing profession through the codes of commercial law. As we shall see later, the setting of accounting and auditing regulations in KSA (i.e. licensing requirements as well as the setting of accounting and auditing standards) ultimately rests with the power of government (the Ministry of Trade). However, such power (including reviewing, preparing and endorsing of accounting and auditing standards) is delegated to a semi-independent body called the Saudi Organisation for Certified Public Accountants (SOCPA). This organisation is dealt with more fully later.

The main concern of GCC states, due to the lack of an established profession and as it appears from the reading of related articles of the commercial laws of each state, is found to centre around the recording of (not recognising) economic transactions, keeping source documents, preparing financial statements (mainly balance sheet and profit and loss statements), and auditing these statements by a "registered" auditor(s)[2].

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**Kingdom of Saudi Arabia**

Before the establishment of SOCPA, accounting regulations in KSA were not any different from other GCC states. The commercial regulation (law), issued in 1930 by Royal Decree No. 23, stipulates, *inter alia*, the bookkeeping and recording of economic transactions. The company regulation (law), issued in 1965, instructs enterprises to prepare financial statements, which are to be audited by "registered" auditors. The procedures and requirements of appointing the registered auditors as well as his responsibility are laid down by the same regulation (SOCPA – Accounting Standards Committee, 2000).

In 1968, the Ministry of Trade issued Order No. 422 that sets forth the criteria to be met by an applicant wishing to become registered auditor. This order was in effect until the issuance of the "First" regulation (law) for Certified Public Accountant in 1974 by the Royal Decree No. M/43 dated 13/7/1394 (Islamic). This regulation established a supreme committee charged with the responsibility of supervising the auditing profession. It is clear that the main concern was the auditing profession rather than the financial and accounting reporting. Although there is no solid (or rather visible) evidence, it might be thought, at the time, that auditing profession encompasses the related issues in financial and accounting reporting.

Few years later, in 1981 and onwards, the University of King Saudd (hereafter, the University) held a number of seminars and conferences concerning the development of accounting and auditing profession (hereafter, the profession) in the Kingdom. Accordingly, the Scientific Council of the University established the Saudi Accounting Association (SAA), whose goals are to develop accounting thoughts, to promote the exchange of scientific research and experience, provide consultation in emerging issues, and conduct the necessary studies and surveys.

In mid-1979, a dialogue took place between the undersecretary of the Ministry of Trade and Mr Abdul-Aziz Al-Rashid[3], the owner of the Local Accounting Office. The essence of the dialogue was the present situation of the profession and the possible means of improving it. Three months later, a discussion with the Trade Minister was held and an agreement that the profession, given its current conditions, was not keeping pace with the rapid economic development in the country was reached. Yet, there was a lack of "scientific" evaluation of the profession and, therefore, there was a need of a detailed, well-structured report that can serve as an acceptable base for the development of the profession.

Accordingly, the Local Accounting Office[4] prepared with the help of a Saudi academic, accounting professor Abdullah Al-Faisal from the University, a preliminary, abridged report highlighting the main shortcomings of the profession.

The Ministry of Trade accepted the findings of the report and decided that it could serve as an adequate base for the next step, the suggestion of complete plan for the development of the profession, and asked the local office to provide its views and proposal in this regard. The proposal should clearly numerate the necessary steps towards the overall development of the profession including, *inter alia*, the setting of accounting and auditing standards, and establishing internal system for the profession.

The local office submitted a proposal consisting of three stages:

(1) *Stage I*. Comparative study of the profession in selected countries (1980-1981).

(2) *Stage II*. Preparation of a conceptual framework for accounting and auditing, and selected subjects (1982-1986).

(3) *Stage III*. The establishment of the SOCPA (1992-present).

The following sections will summarise each stage in order to understand how and why present conceptual framework as well as accounting and auditing standards were selected. Such understanding would help us pinpoint the present or/and possible conflicts between local accounting offices[5] and international firms.

*Stage I*

The objective of this comparative stage is to observe the experience of the selected countries in developing their own accounting regulations and profession at large.

Nine countries were selected[6] and then divided into three groups based on the stage of the achieved development in the profession in each country, and the similar economic environments of such countries:

(1) *First group*: USA, UK, and Canada.

(2) *Second group*: France, Germany and Austria.

(3) *Third group*: Tunisia, Venezuela, and Brazil.

Then, a representative country from each group was selected for the purpose of the comparative study. Those countries were[7]:

(1) *First group*: USA.

(2) *Second group*: Germany.

(3) *Third group*: Tunisia.

The comparative study was mainly concerned with the following:

- Accounting standards and financial reporting requirements.
- Auditing standards and other auditing reporting requirements.
- Ethics of the profession.
- Internal structure of the profession.

After studying the rules and regulations applicable to the above-mentioned subjects in the selected countries, in addition to interviewing key people in the profession in those countries, the local office with the aid of experts from such countries submitted a report to the Ministry of Trade and presented the findings of the comparative study in a meeting with the Minister of Trade, the Ministry's Undersecretary and other involved governmental officials. The Ministry of Trade, after reviewing the findings of the first stage, signed a contract in 1982 with the local office to undertake the second stage.

*Stage II*

The signed contract calls for the determination of the following:

- The objectives of financial accounting, the concepts of financial accounting, and the presentation and disclosure requirements.
- Auditing standards.
- Internal structure (system) for the profession.

A team was formed consisting of four groups:

(1) *The experts*: foreign experts from the selected countries.

(2) *The consultants*: local academics who are experts in the local environment.

(3) *The Arabic experts*: bilingual Arabic professionals and academics.
(4) *Officials*: the local accounting office staff.

The findings (along with the recommendations) of this stage were presented in a meeting attended by high-rank governmental figures such as the Minister of Trade, the Minister of Finance, the undersecretaries of both ministries, and the governor of the Saudi Monetary Agency. The recommendations were related to the objectives of financial accounting, the concepts of financial accounting, and the presentation and disclosure requirements. The Ministry of Trade sent the findings and the recommendations of the team to selected governmental agencies and registered accountants for comments.

In 1986, the Ministry of Trade issued Order No. 692, which called for the use of the recommendations of the second stage as a reference model by all registered accountants and auditors in the KSA.

After a review-and-monitoring period, the Ministry issued Order No. 852 in 1990 by which the adherence (compliance) to the objectives and concepts of financial accounting become mandatory as part of the first regulation for public accountants.

Two years later, Royal Decree No. M/12 dated 13/5/1412 (Islamic) was issued and called for the rescinding of the first regulation (law) for public accountants and established new regulation (law) for certified public accountants[8]. Article 19 of the new regulation (law) calls for the establishment of the SOCPA.

*Stage III*

SOCPA is charged with the development profession by, *inter alia*, reviewing, developing and endorsing accounting and auditing standards. SOCPA works under the supervision of the Ministry of Trade. The Minister of Trade chairs SOCPA's board of directors (BOD). The BOD consists of:

- The Minister of Trade, the chairman.
- The Undersecretary of the Ministry of Trade.
- The Undersecretary of the Ministry of Finance and National Economic- Financial affairs.
- The Vice-president of the General Audit Bureau.
- Two Saudi academics from the accounting departments of the Saudi universities nominated by the Minister of Higher Education and appointed by the Minister of Trade.
- A representative from the Chamber of Commerce and Industry nominated by the Chamber's BOD and appointed by the Minister of Trade.
- Six certified public Saudi accountants elected by the general assembly of the SOCPA. They are to serve for three-year term renewable only for one more term.

SOCPA has issued 11 accounting standards, three opinions and interpretation, and is working on 14 exposure drafts.

## The state of Qatar

There are no national accounting or auditing standards. There is no accounting society and definitely there is no organised profession. Except for banks, all financial

accounting and reporting requirements and auditing procedures are found in the commercial code and the company law.

**Auditing profession**

The auditing profession is organised (or rather governed) by both the commercial code No. 7 issued in 1974 and the Ministerial order No. 25 issued in 1979.

The commercial code stipulates, *inter alia*, the requirements for applicants wishing to become registered auditors. The code consists of three chapters:

(1) "The registration requirements and auditors' rights and responsibilities". This chapter is divided into two parts:
   - "Registration and requirements for practising". This part consists of 11 articles. We shall discuss Article 3 later on.
   - "Rights and responsibilities". This is composed of six articles. We shall discuss Article 16 later on.

(2) "Disciplinary and penalties". This chapter consists of two parts:
   - "Disciplinary trail and administrative penalties" (eight articles).
   - "Criminal penalties" (one article).

(3) "General rules". This encompasses four articles.

Article 3 of the commercial code No. 7, 1974 lists the requirements that must be present in any applicant:

(1) Higher education degree in Commerce, Economics or Finance from accredited universities or higher institutions. The curriculum, however, must include accounting courses.

(2) Either membership in accredited institution or accounting and auditing societies approved by the Minister of Economic and Commerce or practical experience of at least five years after graduation in one of the following capacity:
   - an auditor in one of the registered auditing offices;
   - an accountant or auditor in companies, agencies or public (or private) institutions;
   - an accountant or auditor in governmental departments or ministries; or
   - teaching accounting or auditing courses in colleges, commercial institutions or commercial high schools.

(3) Qatari citizen; however, the Minister of Economics and Trade can grant a renewable exception for non-Qatari auditors for five years, provided they reside in Qatar during all time.

The problem of the existing requirement is three-fold. First, it is a very basic requirement-list that has no effect on the quality of the audit. Second, it is somehow awkward. For example, Article 3, section 1, requires higher degree. Would it be diploma, bachelor, master or what? Another example is related to Article 3, section 2, in which a membership of accounting and auditing societies is required where the formation of such societies was not allowed until 11 May 2003. Even the formation of

such societies was not allowed until 1998. So far, no societies have been established for any profession (i.e. lawyers, engineers or accountants), although some professions have applied to the in-charged authority. Third, no enforcement mechanism is either available or taking place. This is evident by the signing of the audit report by a registered auditor (or partner) who resides in Qatar the night before and the night after the general assembly of a corporation to whom the report was addressed.

Article 16, on the other hand, states that auditors are to audit the accounts of companies, agencies, institutions, corporations, co-operations, and individuals in accordance with the agreed-on accounting standards and submit their reports accordingly. There is no mention, in anywhere, of what are the agreed-upon accounting standards, let alone the accounting standards that suit everybody, companies, corporations and individuals.

## Financial accounting and reporting

As mentioned earlier, there are no accounting standards at all. However, careful reading of the Companies' Law No. 5 of 2002, which consists of 329 articles, will reveal a few incomplete, unintentional accounting "standards". For example, Article No. 185 says that companies are to deduct an annual percentage from their gross earnings determined by the BOD and the article of associations in order to account for the depreciation of assets. The resulting amount is to be utilised to purchase materials, machineries, or buildings or repair them and to never be distributed to the shareholders. Therefore, a depreciation concept is recognised though not in a systematic or scientific manner. Other articles (i.e. 183 and 260) require the establishment of legal reserves to maintain capital (but not exceed 100 per cent, of the capital) and allow for other reserves that the management deems to be necessary. Also, Article 119 instructs the BOD to prepare an annual balance sheet, a profit and loss account, a statement of cash flow, and notes to the accounts, to be compared with the preceding year and audited by the company's auditor, together with a report of the company's activities and its financial position during the past financial year, and is future plans for the next year. However, no presentation or disclosure requirements are stipulated.

## Qatar Central Bank (QCB)

QCB has set (and has the authority to do so) specific requirements with which banks operating in Qatar (both local and foreign) have to comply. For instance, banks are to depreciate their assets (classified in different classes) based on a pre-determined percentage for each class of assets, to carry their investment on the lower of cost or market[9] and to maintain liquidity ratios and the alike.

In December 1993, QCB sent a draft of proposed International Accounting Standards (IASs) to banks for comment (Circular No. 62 of 1993). Based on the findings of received comments, QCB issued Circular No. 53 of 1995 which mandates the adoption of IASs except for IAS No. 24, Related Parties Disclosure, which is left to the discretion of the banks. In addition, QCB's Circular No. 33 of 1996 requires the appointment of two auditors for banks operating in Qatar for a maximum period of five years. Their work, according to Circular No. 40 of 1996, is to be carried in accordance with the IASs.

### International accounting standards

The presence of the big five international accounting firms has influenced the recognition of the IAS and then its adoption. Until very recently and still for some companies, the adherence to IAS was not mandatory, but compliance was sought, especially by banks for the sake of achieving higher rating by external rating agencies. Although QCB mandates the compliance with IASs in the banking system, no legislation has passed so far but the adoption of IAS is increasing, although slowly.

## Sultanate of Oman

Oman is not a member of IFAC but IASs are mandatory. Sultani Decree 53 of 1996 requires all companies in the Sultanate to prepare their financial statements in accordance with IASs. The first law to regulate the profession of accounting and auditing was passed in 1976 by the issuance of Sultani Decree No. 77 and then amended by Decree No. 21 of 1988. The requirements of these decrees are not any different than those in Qatar mentioned above.

## The United Arab Emirates

The United Arab Emirates (UAE) is not a member of IFAC. A federal law passed in February 1999 requires that all banks and financial institutions prepare their financial statements using IAS for periods beginning 1 January 1999. Federal Law No. 22 of 1995 organises the auditing profession. Like other GCC states' commercial laws, it states the requirement of registration, licensing, the responsibilities and duties of auditors, the penalties and disciplinary acts, and the general rules. Few differences exist, however. For instance, Article 6 stipulates that auditors, as in other GCC countries, are not allowed to be employees in other organisation. However, in UAE, academics are exempt from this requirement.

There is a society called the Emirates Commercial Society. In October 1994, it held a seminar titled "Organising and developing the accounting profession in UAE". Six papers were presented (Al-Ruhaily, 1998):

(1) "International accounting standards".
(2) "Laws and rules of the accounting profession in UAE".
(3) "Accounting profession in UAE".
(4) "Nationalism of the accounting profession".
(5) "The experience of the UAE Institute of Banking training".
(6) "The framework of evaluating the practitioners in the accounting profession".

The conference has issued the following recommendations:

- Support the measures and policies of the Ministry of Trade and Economics in developing and updating the laws pertain to the accounting and auditing profession.
- Make uniform the registration and licensing requirements across the seven states of the UAE as well as the technical control of the profession by the Ministry of Trade and Economics.
- Make uniform the accounting standards in the country by adopting IASs.

- Approve training schemes aiming at nationalising the accounting and auditing practice and enhancing the skills of the local practitioners.
- The need for a specialised (professional) body charged with the responsibility of developing and protecting the profession.

### The state of Bahrain

Bahrain is a member of IFAC. By law, banks are required to conform to IASs. Law no. 26 of 1996 was issued in accordance with the GCC Reference Model of the laws (regulations) for practising accounting approved by the GCC's Committee of Commercial Cooperation in its ninth meeting in 1 July 1987. Law No. 26 is similar to other GCC states' laws in all material aspects, but differs in not requiring Bahraini citizenship for those practising accounting and/or auditing under the directions of Article 4 of Commercial Law No. 28 of 1975 as amended by Law No. 13 of 1980. In addition, Article 3 of new commercial law stipulates that academic requirements are not required from those who are in the practise before the passage of this law provided that they are in the profession for a minimum of uninterrupted ten years.

In the beginning of 1983, the Ministry of Trade and Agricultural invited leading accounting firms and offices (both national and international) to join a newly formed committee charged with the responsibility of setting uniformed accounting standards in the state of Bahrain. The committee was asked to decide on whether IASs should be accepted as the national accounting standards. At its conclusion, the committee recommended the adoption of all IASs except for Standard No. 15, "Information reflecting the effects of changing prices".

### The state of Kuwait

Kuwait is a member of IFAC. It uses IAS as its national accounting standards with explanatory materials added. They have the accounting and auditing society, which was established in 1973.

Law No. 3 of 1951, "Income Taxes" as amended by Law No. 3 of 1955 is the first law issued in Kuwait that dealt, although indirectly, with accounting issues. For example, Article 3 of Law No. 3 of 1951 stated the deduction items to arrive at the taxable income while Article 4 identified the valuation methods for fixed assets (Fakhra, 1996).

The Companies Law No. 15 was issued in 1950. The first law to regulate accounting was issued in 1962. Law No. 6 of 1962 regulated the accounting and auditing profession as amended by Law No. 3 of 1965. These laws were in effect until the issuance of Amiri Decree No. 5 of 1981 besides Commercial Law No. 68 of 1980. As in Qatar, the licensing authority rests with the Ministry of Commerce and Industry (MCI). The qualification requirements and registration certificate procedures are also identical of those in other GCC states except for the requirement of passing an examination set by the MCI.

According to the requirements of Law No. 5 of 1981, a number of ministerial resolutions were issued. Ministerial resolution no. 75 of 1981 established a Permanent Technical Committee (PTC) charged with the responsibility of setting accounting standards. The committee was re-organised in 1986 and in 1989 by ministerial resolutions nos. 14 and 11, respectively. The PTC stated that developing accounting standards for Kuwait will be guided, whenever appropriate, by the experience of the

developed countries in developing their accounting standards, especially the International Accounting Standards Committee (IASC) (Shuaib, 1998).

A Consultative Committee for Accounting Principles (CCAP) (Objectives) was formed in 1982 by ministerial resolution no. 75 of 1982 and was re-organised in 1985 by resolution no. 47 of 1985. There was an overlap between the responsibility of CCPA and that of PTC (Fakhra, 1996).

A committee responsible for setting an examination for accountants wishing to become registered auditors was formed in 1982 by the Ministerial order no. 42 of 1982. The examination was collaboration between MCI and the accounting department of Kuwait University. The first meeting was held in 1984, however, which resulted in not having new auditors since the issuance of the new law of 1981 (Fakhra, 1996). As of December 1997, the total Kuwait licensed auditors are 97 (Shuaib, 1998).

In 1986, a ministerial resolution was issued concerning the professional ethics. The resolution consists of six parts: general rules, independence, technical standards, confidentiality, fees, and professional behaviour.

Under the Companies Law and Kuwait Stock Exchange, audits are conducted by registered accountants yet there so no define set of generally accepted auditing standards. As a result, audit work is either performed by well-established international firms (through associations with local offices) which follow US, UK or IFAC's auditing standards or by other local offices which "certify financial statements without doing effective auditing" (Shuaib, 1998, p. 10).

Companies Law no. 15 of 1960 requires the audit of financial statements prepared in accordance with generally accepted accounting standards. As the case in Qatar, there are, however, no national pronouncements. Differences in practises did exist. The public (both the government and private sector) recognised the importance of the uniformed GAAP after the 1982 stock market crash[10]. As a reaction, MCI issued a number of annual ministerial resolutions to be used by companies in preparing their financial statements (FSs). For instance, ministerial resolution no. 4 of 1985, issued in January 1985, required companies to take an account of the following in the preparation of FSs for the year 1984:

- post-dated checks related to securities transactions;
- post-dated checks related to commercial transactions;
- investment in securities;
- investment in land and real estate;
- the difference of land and real estate evolution;
- amortisation of key-money, and
- amortisation of deferred losses (Shuaib, 1998).

The issuance of alike ministerial resolutions[11] continued until April 1990 when MCI, on the recommendation of PTC, issued resolution no. 18 of 1990 which required that all companies should apply IASs for the FSs of 1991. MCI, on the recommendation of PTC, shall decide on the individual IAS that shall not be followed, however.

**Notes**

1. GCC is composed of six countries: the state of Bahrain; the state of Kuwait; the state of Qatar; the state of United Arab Emirates (UAE); the Kingdom of Saudi Arabia (KSA); and the Sultanate of Oman.

2. It is worth mentioning that the writer has preferred the word “registered” to the words “qualified”, “chartered” or “certified” because doing anything but that would be misleading since the commercial laws in GCC, except for KSA now, requires no examination or other well-known structured procedures (i.e. education or experience) in order to qualify accountants or auditors, though the corresponding translated Arabic word would fall within the meaning of the latter three words.
3. Mr Al-Rashid is considered one of the pioneers in KSA who was charged with the responsibility of reviewing and suggesting a practical model to enhance the profession in KSA. He is now the first elected chairman of the first board of directors for the newly established GCC institution for accounting and auditing in 2001.
4. This writer claims that the action of the local office was based on its own initiative with no formal approval or contract with the government (the Ministry of Trade). Yet, it seems that the local office believed that if he could provide a systematic report he would be able to convince the government that he is the right person to takeover the development of the profession. This claim is substantiated by the fact that a contract was signed later on as we shall see in the section discussing the second stage of the development of the profession.
5. The term office, when compared with the term firm is wildly used in KSA, as well as other GCC states, because local accountant or auditor practice his profession individually through an office that bears his name. It is a sole proprietorship profession.
6. No reasoning for the selection was provided, but apparently the selection included most of the developed country though Japan was not among them.
7. No reasoning was provided for such selection.
8. The writer utilised the word “certified” in the new regulations to differentiate between the pre-SOCPA regulations and the new regulation, which established SOCPA. In addition, SOCPA introduced Saudi CPA exam in order to certify new auditors. Hence, the addition of the word “certified” is proper and meaningful. The first regulation uses the word “certified” to indicate the completion of registration requirement. See [2].
9. Although such requirements contradict with the IAS mark to market requirement. The Central bank was found to allow banks to violate its requirements in favour to the compliance with IAS.
10. According to Shuaib (1998) and Fakhra (1996), the crash was due to the illegal use of post-dated cheques and the overestimation of investments in securities and real estate and on the other hand for the lack of sound financial statements prepared in accordance to uniformed GAAP.
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# An analysis of recent accounting and auditing failures in the United States on US accounting and auditing in China

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## Abstract

**Purpose** – Seeks to analyze the impact of recent accounting and auditing failures in the USA on US accounting and auditing in China, focusing on the practice of *guanxi* – the networks of informal relationships and exchanges of favors that dominate all business and social activities in Chinese societies.

**Design/methodology/approach** – Examines Chinese culture and uses historical precedents and parallels with Japanese culture to predict potential accounting and auditing problems.

**Findings** – Determines that *guanxi* has the potential to undermine the high standards of auditor independence, audit quality, and ethical behavior to which auditors must adhere.

**Research limitations/implications** – The review of Chinese culture and list of historical precedents is not exhaustive, and the standards are all US, which perhaps limits its usefulness elsewhere.

**Practical implications** – A very useful source of information on Chinese business behavior as it impacts accountants and auditors.

**Originality/value** – Enables policy makers and professional accountants to anticipate and predict how *guanxi* may threaten the progress made in improving financial management and reporting, and may undermine auditor independence, audit quality, and the quality of financial reporting.

**Keywords** National cultures, China, Business development, Auditing, Accounting, Quality

**Paper type** General review

## Introduction

The popular press contains many stories of accounting and auditing scandals. Enron, WorldCom, Tyco International, Global Crossing, Quest Communications, Adelphia Communications, ImClone, Xerox, HealthSouth, and Royal Ahold are just some of the major US corporations whose accounting practices and audits have made the news.

In the succinct words of the American Institute of Certified Public Accountants (2003):

> The media frenzy on Enron seemed to come from nowhere. Suddenly, every major daily and broadcast news program was talking about Enron, accounting procedures, and the role of auditors. The result has been scrutiny on our profession, and a severe blow to the public's confidence in the capital markets … On December 2, less than a month after it admitted accounting errors that inflated earnings by almost $600 million since 1994, … Enron Corporation, filed for bankruptcy protection. With $62.8 billion in assets, it became the largest bankruptcy case in US history … The day Enron filed for bankruptcy its stock closed at 72 cents, down from more than $75 less than a year earlier. Many employees lost their life savings and tens of thousands of investors lost billions.

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These accounting and auditing scandals have affected the full spectrum of executives and financial management professionals – chief executive officers (CEOs), chief financial officers (CFOs) and industry accountants, public accounting firms and auditors, Wall Street investment analysts and investment bankers, law firms and lawyers, and underwriter and brokerage firms (Hwang and Baker, 2003).

Furthermore, as a result of these examples of accounting misconduct and audit failures, Congress enacted The *Sarbanes-Oxley Act* (*S-O Act*, 2002), in part, in the words of Senator Shelby (2003, para 3):

> [. . .] to demonstrate to investors a commitment to fairness and integrity in corporate America. The [S-O] Act aims to deter corporate misconduct and restore investor confidence primarily by increasing the accountability of corporate actors, strengthening corporate governance and improving the transparency and reliability of audited financials.

While many US corporations have direct or indirect investment or trade interest in China, the enactment of the *S-O Act* has significant implications on corporate governance, corporate accounting, audit risk, and audit practice for corporations and public accounting firms that have practices in China. Furthermore, the government of China has uncovered domestic financial scandals similar to Enron and WorldCom, and has called for steps to prevent and deter white-collar crimes and frauds (*Dou Wei Times*, 2003). US firms operating in Chinese societies must also encounter the entangled *guanxi* – personal connections and relationships – when they do business with Chinese individuals and firms.

This paper has four parts. First, it discusses the recent financial scandals in the USA, and the accounting techniques and practices employed in these frauds. Second, it discusses the practice of *guanxi* in Chinese society and the implications of *guanxi* to US operations in the region. Third, it draws parallels between the practice of *guanxi*, Japanese culture, and the current financial management crises in Japan. Finally, it investigates the potential of public accounting firms to violate ethical standards and government regulations because of their direct exposure to *guanxi*. It also investigates the potential audit risk for public accounting firms created simply because their clients operate in a society of *guanxi*.

## Flaws in the USA's financial system

The USA "is generally viewed as having the most rigorous and comprehensive [financial accounting] reporting standards in the world" (Kieso *et al.*, 2002, p. 19). However, accounting in the USA has become so complicated that the basic accounting principles have become lost in the details of specific accounting standards. As Robert Willens of Lehman Brothers comments:

> Had GAAP [Generally Accepted Accounting Principles] been properly applied by Enron, we wouldn't be where we are today (Peterson, 2002, p. 37).

In some of these financial miscues, companies applied GAAP, but not for the reasons that the GAAP were intended. Accounts and auditors thus used accounting rules to disguise a company's results (Peterson, 2002).

The first major flaw in the USA's financial reporting system and a major factor driving the abuse of accounting standards, primarily in regarding inflated earnings, is the betrayal of CEOs' and CFOs' fiduciary duties to act for the benefit of shareholders to actions that seemed to be primarily only in their own self-interest. By exercising

their individual stock options when inflated earnings resulted in artificially higher prices for their company's stock, CEOs and CFOs seem to be acting solely for their own personal gain (Hwang and Baker, 2003). Financial analysts, investment bankers, CPAs and others involved in security issuances and in financial reporting became involved in this process.

With the limit imposed by *Internal Revenue Code* (1986) section162(m) on deductible compensation, stock options have become a common instrument to use to compensate and retain employees. According to Feldman (2002), about 10 million employees have options, with approximately 70 percent of the options held by senior management. Clearly, the executives who own the vast majority of the options benefit most from increases in their company's stock price. Moreover, it appears that these executives did act on increases in their company's stock price. Enron's Jeffery Skilling, who denies any wrongdoing, made $112 million from stock options in the three years before the company collapsed. Tyco's Dennis Kozlowski, charged with "enterprise corruption", earned $240 million through exercising options over a three-year period (Nocerra *et al.*, 2002; *Wall Street Journal*, 2003). In a partial response to this flaw, some companies, for example, Microsoft, have limited to the use of options as executive compensation.

The second serious flaw in the USA's financial system highlighted by these accounting and auditing scandals was the apparent collusion among those involved in issuing securities and those involved in financial reporting (Hwang and Baker, 2003). Merrill Lynch was accused of inflating stock values for its own benefit, its celebrity analyst Henry Blodget was charged with issuing false research reports to boost investment-banking fees, and with the company was charged with facilitating two fraudulent transactions to help Enron artificially increase earnings (*Wall Street Journal*, 2003). Similarly, Citigroup was also charged with issuing fraudulent research reports, of allocating shares of initial public offerings to executives of other companies to win their business, and its star analyst Jack Grubman was charged with issuing false research reports. Merrill Lynch agreed to pay $200 million related to its research reports and $80 million for the alleged Enron fraud, and Henry Blodget was fined $4 million and banned for life from the securities industry; Citigroup agreed to pay $400 million related to its research reports and its initial public offering practices, Jack Grubman was fined $15 million and banned for life from the securities industry, and the company also has agreed to pay $145 million related to its dealings with Enron and Dynegy (*Wall Street Journal*, 2003). In a partial response to this flaw, some firms have separated their research and their investment banking components.

The third serious flaw in the USA's accounting and auditing system drawn out by these financial scandals is the conflict of interest regarding for whom the company's auditor work (Hwang and Baker, 2003). Arthur Andersen LLP audited Enron, and despite the auditing firm's concerns over some of Enron's practices, it issued audit reports, apparently as result of its close ties to management and the large fees it received from its auditing and consulting work for Enron. In a partial response to this flaw, the USA enacted the *S-O Act*, in part to clarify that auditors owe a primary allegiance to stockholders (via a company's audit committee), and to limit the conflict of interest that may result when an audit firm both audits a company, and performs consulting work for it.

The fourth serious flaw in the USA's accounting and auditing system borne out by the financial scandals is a hole in GAAP itself (Hwang and Baker, 2003). GAAP freely

allowed special purpose entities, although the intent of these entities was for purposes other than those for which they were used and apparently abused by Enron; GAAP allowed companies to not expense stock options; GAAP excluded certain derivative transactions from the income statement. Recent action by the Securities and Exchange Commission and the Financial Accounting Standards Board (FASB) (for example the proposed amendments to SFAS No. 133 and No. 138) may are at least a partial response to this flaw.

### *Guanxi* in China

In the Chinese language, "*guanxi*" is the term for a personal relationship. It refers to the networks of informal relationships and exchanges of favors that dominate all business and social activities that occur throughout China (Lovett *et al.*, 1999; Hwang and Baker, 2000).

For more than 2,500 years – since the time of Confucius – *guanxi* has been critically important to Chinese society. Confucius promulgated five sets of healthy relationships with society: ruler/subject, parents/children, older/younger brothers, husband/wife, and friends (Hwang and Baker, 2003; Lovett *et al.*, 1999). Historically, Chinese society has been build around family clans. *Guanxi* builds on the concept of the clan by widening the circle of influence to include distant relatives, and finally unrelated individuals (Hwang and Baker, 2000).

Like that of familial relationships, *guanxi* works on the basic, unspoken principle of reciprocity and equity (Luo, 1997a, p. 52; b; Hwang and Baker, 2000). Individuals seek to meet their *guanxi* responsibilities, and failure to do so results in damaged prestige, and loss of trust by other members of the "family" (Hwang and Baker, 2000).

Thus, the cultivation, development, and expansion of *guanxi* have become a priority of many Chinese business people (Hwang and Baker, 2000; Lou, 1995). In China, business people first strive to build personal relationships with a potential customer, and once admitted to the clan/*guanxi* family, business follows. Thus, trust must be established before business may be conducted. Interestingly, once a *guanxi* has been realized, marketing costs and bad debt expense are lowered, as *guanxi* creates an obligation to conduct business within the clan, and to pay one's debts (Hwang and Baker, 2000).

The recent joint venture between Mein-Heng Jiang, the son of the former president of the People's Republic of China, and current chair of the General Military Committee, and Wen-Yang Wang, son of the Taiwanese business leader Yeong-King Wang, to establish a $6.4 billion electronic firm in Shanghai illustrates the role of *guanxi* in establishing business in China (*World Journal*, 2002). Their *guanxi* circle was able to overcome the state of hostilities between China and Taiwan to establish the venture (Hwang and Baker, 2000).

Whether *guanxi* is beneficial to the development of China's economy is a heated subject. Seligman (1999, p. 25) notes that one of the few rules in China that leads to business success is the establishment of the right *guanxi*. *Guanxi* is nurtured by the exchange of gifts and favors. It is a common and acceptable business practice in China. However, such gifts strike ethical nerves in Western society, and are contrary to at least the spirit if the not the letter of the *S-O Act*. Ang and Leong (2000) relate Avon's success in establishing a direct marketing system in China, after being rebuffed in its initial attempts, by relying on the *guanxi* of a Chinese banker to make the correct government connections.

Further, Yeung and Tung (1996) researched the critical factors that contribute to business success in China by asking managers of 19 diverse international companies to rank 11 key factors. They find that *guanxi* was the only item consistently chosen as a key success factor; and Luo (1997a, b) finds a direct correlation between a corporation's level of *guanxi* connections and its domestic (China) sales growth. Hwang and Baker (2000) argue that *guanxi* results in a better cost efficiency in doing business as well as lower credit costs.

However, some authors, such as Su and Littlefield (2001), argue that the practice of *guanxi* has lead to widespread bureaucratic corruption as individual officials seek to charge "economic rent" for use of their connections. Furthermore, *guanxi* becomes a marketable commodity as these officials or their families sell their *guanxi* by acting as intermediaries among people who need to establish business contacts. *Guanxi* currently exerts significant influence on the Chinese legal system as well.

Since *guanxi* is widely practiced (Yeung and Tung, 1996; Seligman, 1999), there is no doubt that any US firm, whether an operating business firm or an auditing firm, will be directly under the exposure of *guanxi*. US auditors must understand their potential audit risk and potential violation of ethical standards that may occur when operating in a society of *guanxi* – especially in this post Enron, post-financial scandal era. US auditors must also understand the potential issues concerning disclosures, particularly regarding contingencies, that may exist for companies operating under the exposure of *guanxi*.

## Parallels with Japanese financial crises

The issue of "off balance sheet" obligations has also occurred in Japan, a country whose culture has been so deeply influenced by the Chinese. According to Nakayama and Stucky (2004), maintaining face (*Kao* or *Mentsu*), the "shame culture," and the five basic Chinese relationships discussed above are the three major features of the Japanese culture. Naturally, the Japanese management concepts of total quality control (TQC), *kaizen* (continuous gradual improvement), *kanban* (public disclosure bulletins), just-in-time (JIT) inventory, and *keiretsu* (the interlocking, intertwined form of industrial organization) are driven by its culture of "saving face and shame." TQC, *kaizen*, and *kanban* drive a business toward operational excellence and quality improvement (Berger, 1997; Kidd, 1995), and therefore create unrecorded self-generated assets. On the other hand, JIT and *keiretsu* are both heavily dependent on long-term mutual trust and commitment, and as a result, they potentially create an "off-balance sheet liability", for example, as when members of a *keiretsu* protect other member firms from bankruptcy and takeover by providing those firms with additional financial support rather then letting go bankrupt or be taken over (Inoue and Thomas, 1996).

## The implications of *guanxi* for audits and attestations

As discussed, the US Congress enacted the *S-O Act* in 2002 in part in response to a serious of financial scandals. The *S-O Act* has strengthened corporate governance, and required high standards for audit independence and audit quality. *Guanxi* can have a significant impact on the auditor's judgment. In their study of auditors in Hong Kong, Au and Wong (2002) find a correlation between an auditor's level of *guanxi* with an audit client and their ethical judgment during an audit engagement. However, they also

find that the impact of *guanxi* connections on auditor independence is minimized when the auditor holds high levels of ethical principles.

The US *Foreign Corrupt Practices Act* (*FCPA*, 1977) is another act that has to be considered whenever an audit is conducted in a society where *guanxi* is commonly practiced, especially if the company is a US-based company or a subsidiary of a US-based company. As *guanxi* is established on the premise of exchanging gifts and favors, the practice clearly leads to the potential violations of the *FCPA*, which forbids US companies from using bribes to win contracts (Morphy, 2001).

According to Li and Wright (2000), a *guanxi* relationship initiated between individuals can eventually be nurtured into a connection between companies. Therefore, either a company may be involved in a series of *guanxi* relationship directly or through its executives/employees who may dictate how the purchases, sales, and credits are executed. The *guanxi* is strengthened through the process of give-and-take of *guanxi* favors in transactions, and yet there is no formal written agreement or clear understanding of future obligations. Obviously, what these *guanxi* relationships create is some form of contingency that is "off-the-balance-sheet." The practice of "*yi-ren*" (righteous person) will further enhance the contingency, because a *yi-ren*, in the Chinese context, must continue to return a bigger favor after receiving a preferential *guanxi* favor.

Honoring the *guanxi* debt has become part of the personal ethics in many Asian nations. As Luo (1997a, p. 45) noted, failure to honor a *guanxi* obligation "can seriously damage one's reputation and lead to a humiliating loss of prestige". A manager who fails to honor their *guanxi* obligation not only damages their career, but also their company.

As discussed above, the *guanxi* relationship is an asset to both an individual and a company, but it also a liability. The type of preferential treatment that results from *guanxi*, the form of future transactions, and the economic value of both *guanxi* and its future benefits and obligations are not clearly known in advance. Therefore, disclosing information about *guanxi* becomes a disclosure issue in accounting.

## Summary and conclusions

The recent accounting and auditing failures have significantly changed auditing policy, practice, and procedures. These scandals exposed at least four key flaws in the US financial management and reporting system. And as result of the scandals, the government, financial industry firms, companies, and auditors have all acted to repair these flaws. And as a result of these scandals, auditors – and the companies they audit – face increased pressure to behave ethically, and to report financial data fairly. However, *guanxi* threatens the progress made in improving financial management and reporting, and threatens to undermine auditor independence, audit quality, and the quality of financial reporting, much like related aspects of Japanese culture caused the current financial crises in Japan (Helms, 2003). To avoid the minefield created by *guanxi*, auditors must ensure that high levels of ethical principles are inculcated in their firm. Auditors must also be aware that *guanxi* creates potential for violations of both the *S-O Act* and the *FCPA*. Finally, auditors must be aware that *guanxi* creates the potential for errors and omissions in the reporting of contingencies.

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# Mandatory auditor rotation and retention: impact on market share



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## Abstract

**Purpose** – To explore the effects of mandatory auditor rotation and retention on the long-term market shares of the accounting firms that audit the members of the Standard and Poor's (S&P) 500.

**Design/methodology/approach** – A Markov model is constructed that depicts the movements of S&P 500 firms in the period 1995 to 1999 among Big 5 accounting firms. Auditor rotation and retention are reflected in the transition probabilities. The impacts of mandatory auditor rotation and retention policies are evaluated by examining the state probabilities after two, five, and nine years.

**Findings** – The paper finds that mandatory auditor rotation will have substantial effects on long-term market shares, whereas mandatory auditor retention will have very small effects. It shows that a firm's ability to attract new clients, as opposed to retaining current clients, will be the primary factor in determining the firm's long-term market share under mandatory auditor rotation.

**Research limitations/implications** – The paper assumes that S&P 500 firms will continue their reliance on Big 5 firms and that the estimated transition probabilities will remain stable over time.

**Practical implications** – Excessive market share concentration resulting from such policies should not be a concern of regulators. The paper conjectures that, under mandatory rotation, accounting firms will reallocate resources to attract new clients rather than retain existing clients. This may result in lower audit quality.

**Originality/value** – Interestingly, over the past 25 years, several bodies have considered mandatory auditor rotation and retention. Surprisingly, the authors have found no studies of the effects of mandatory auditor rotation and retention on audit market share.

**Keywords** Auditors, Operations management, Retention, Market share, Freedom

**Paper type** Research paper

## Introduction and literature review

In the fall of 2001, the accounting scandals focused attention on auditor independence and ways to ensure accuracy and to restore confidence in financial reporting. Among the many responses to the scandals was the passage of the *Public Company Accounting Reform and Investor Protection Act of 2002* (Sarbanes-Oxley Act of 2002). One of its provisions (Section 207) is the requirement that the "Comptroller General of the United States shall conduct a study and review of the potential effects of requiring the mandatory rotation of registered public accounting firms".

Interestingly, from time to time over the past 25 years, several concerned bodies have considered both mandatory auditor rotation and mandatory auditor retention as a method to improve auditor independence. Mandatory auditor rotation would require that a client firm retain an auditor for no more than a specified number of years. The idea is that auditors will have less incentive to seek future economic gain from a

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specific client and will therefore be less likely to bias reports in favor of management. Mandatory auditor retention, another related policy intervention, would require that a client firm retain an auditor for at least a specified number of years. The idea is that auditors will face no risk of dismissal within the retention period and thus they will be more independent of management.

The United States Senate's Metcalf Subcommittee (United States Senate Subcommittee on Reports, Accounting, and Management of the Committee on Government Operations, 1976), the AICPA's Cohen Commission (AICPA, 1978), the Treadway Commission (National Commission on Fraudulent Financial Reporting, 1987), the SEC Office of the Chief Accountant (United States Securities and Exchange Commission, 1994), the Senate Commerce Committee (United States Senate Subcommittee on Reports, Accounting, and Management of the Committee on Government Operations, 1976), the AICPA Kirk Panel (AICPA, 1994), the General Accounting Office (1996), and COSO (2000) all considered requirements that would regulate the duration of the client-auditor relationship. In 1999, the SEC and the AAA sponsored a joint conference in which mandatory auditor rotation and retention was a cited as a major issue facing the SEC.

Each investigation found that mandatory auditor rotation and retention are not advisable policies, citing a wide variety of reasons. These reasons include:

- costs exceed benefits;
- financial fraud is associated with a recent change in auditors;
- loss of client-specific audit knowledge and experience may lead to reduced audit quality;
- appropriate safeguards (rotation of engagement partners, second partner review, peer reviews) are already in place; and
- changes in audit team and client management composition occur normally.

On the other hand, some (but not all) researchers have found positive effects associated with mandatory auditor rotation and retention. Gietzmann and Sen (2001) used game theory to study the effects of mandatory auditor rotation on auditor independence. They showed that, although mandatory auditor rotation is costly, the resulting improvements in auditor independence outweigh the costs in markets with relatively few large clients. Dopuch *et al.* (2001) used Bayes' Theorem in an experimental context to study the joint effects of mandatory auditor rotation and retention on auditor independence. They found that rotation either alone or in combination with retention decreased the tendency of auditor subjects to issue biased reports. Catanach and Walker (1999) developed a theoretical model that connects mandatory auditor rotation with audit quality, but they provided no empirical data to test any hypotheses.

Several countries have experimented with one or both of these requirements (Buijink *et al.*, 1996). Italy has adopted mandatory auditor rotation, while Brazil has adopted mandatory auditor rotation for financial institutions and Singapore has adopted it for banks. Spain, Slovakia, and Turkey adopted mandatory auditor rotation but have since eliminated their requirements. Ireland considered and rejected a policy of mandatory auditor rotation.

In general, accounting firms oppose mandatory auditor rotation and retention for the reasons cited above. Also underlying their opposition is their legitimate concern for

audit market share. Surprisingly, we have found no studies of the direct or indirect effects of mandatory auditor rotation and retention on audit market share.

In this paper, we study the effects of mandatory auditor rotation and retention on the audit market shares of the accounting firms that audit the firms of the Standard & Poor's (S&P) 500. We view audit market share as a major issue for accounting firms, as it determines their revenue and therefore their profitability. If an accounting firm was to lose significant market share, it might become a takeover target, resulting in increased market concentration for accounting services and higher audit fees. Similarly, if a market share leader was to gain significant market share, it could gain significant monopoly power and thereby control the market for audit services. In both cases, auditor independence and audit quality would likely suffer.

## Methodology

We focus on the largest client firms, limiting our data to the companies listed in the S&P 500 in the period 1995 to 1999, during which, almost without exception, these firms used one of the Big 5 accounting firms[1] as their external auditor. We define the audit market share of an accounting firm to be the number of S&P 500 client firms audited by the accounting firm divided by the number of S&P 500 firms audited by one of the Big 5 accounting firms. We recognize that this definition does not reflect the asset value of the client firms, which would provide an alternative definition of audit market share.

Our analysis focuses on the S&P 500 firms because they represent the largest companies in the USA. Indeed, the S&P 500 is one of the most widely used benchmarks of US equity performance. While Big 5 accounting firms provide auditing services to smaller clients, the S&P 500 firms represent significant revenue. Thus, every Big 5 accounting firm must be concerned with its market share among S&P 500 firms. While we restrict our analysis to client firms listed on the S&P 500, the model is equally applicable to any client firm if we expand the state space to include all auditors that the client might retain.

We construct a Markov model that depicts the movements of a client firm among the set of Big 5 accounting firms. A Markov model is most appropriate in a stochastic brand-switching environment in which clients make periodic brand choices in accordance with estimable probabilities. In the present application, a Markov model is preferred to a simpler zero-order stochastic model in which clients select a brand in the next period without regard to the brand they selected in the current period. Clearly, client firms are more likely to remain with their current auditor than they are to select a different auditor each year, as evidenced by the many long-standing client-auditor relationships. An alternative deterministic model, the linear learning model, has the advantage of incorporating more historical observations, but is unreliable when the time between brand-switching decisions is long, such as one year. Thus, we select the Markov model as the best technique for the present application.

We have five states in our model, one for each of the Big 5 accounting firms (see Figure 1). In any given year, the client firm retains one of the accounting firms for audit purposes. Suppose that the selected accounting firm is represented by state $i$. In the next year, the client may remain with accounting firm $i$, with transition probability $p_{ii}$, or may switch to accounting firm $j$, with transition probability $p_{ij}$. Consistent with standard Markov model axioms, these transition probabilities represent the average

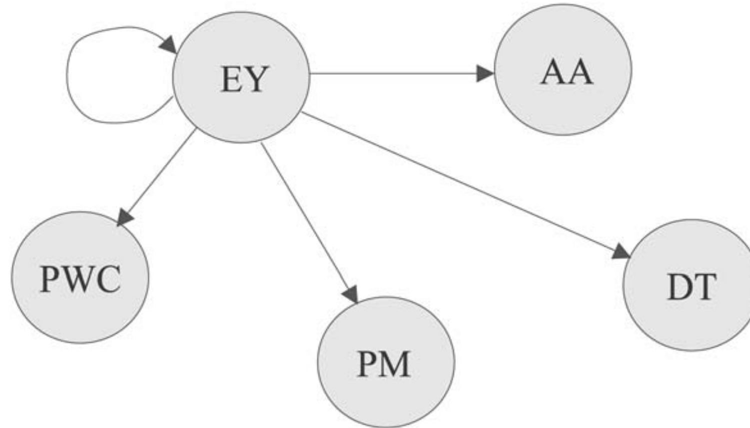



**Figure 1.**
The five states of the Markov model representing the Big 5 accounting firms

**Notes:** In any year, each client firm resides in exactly one of the five states. At the end of each year, the client firm may remain with its current auditor, indicated by a self-loop, or switch to another auditor, indicated by an arrow. The figure shows transitions for EY only for clarity. However, each of the states has an analogous set of five arrows

transition probabilities of all client firms, and we assume that that the averages remain constant over time. Given the one-year period between brand-switching decisions, it is very difficult to detect significant shifts in the transition probabilities over time. In other words, the available data do not support a more complex model that allows for estimated shifts in transition probabilities.

Let $\mathbf{P} = (p_{ij})$ denote the $5 \times 5$ matrix of transition probabilities. Clearly, our model is ergodic, meaning that the client firm can move from any accounting firm to any other in a finite number of transitions. Thus, we know that there exists a $1 \times 5$ vector $\boldsymbol{\pi} = (\pi_j)$ of steady-state probabilities that are independent of the initial state of the client firm. The steady-state probability $\pi_j$ is the asymptotic probability that the client firm will retain accounting firm $j$ in any year. Therefore, we can interpret the steady-state probability $\pi_j$ as the long-term market share of accounting firm $j$. We compute the steady-state vector $\boldsymbol{\pi}$ as the first row of the matrix $\mathbf{M}^{-1}$, where $\mathbf{M}$ is the matrix $\mathbf{P} - \mathbf{I}$ with the first column replaced by all 1s, and where the matrix $\mathbf{I}$ is the $5 \times 5$ identity matrix (Hillier and Lieberman, 1990).

We model the transition probabilities as follows:

$$p_{ij} = \left\{ \begin{array}{cc} r_i & , \quad i = j \\ \frac{(1-r_i)A_j}{\sum\limits_{k \neq i} A_k} & , \quad i \neq j \end{array} \right) \tag{1}$$

where we define the parameters $r_i$ and $A_i$ as the retention probability and the attractiveness parameter of accounting firm $i$, respectively. The retention probability of accounting firm $i$ is the likelihood that a client firm will remain with accounting firm $i$ in the next year given that it retained accounting firm $i$ in the current year. The attractiveness parameter of accounting firm $i$ is a measure of its ability to recruit a

client firm from another accounting firm given that the client firm has decided to change accounting firms.

We restrict the attractiveness parameters to sum to 1 so that the denominator of $p_{ij}$ for $i \neq j$ represents the sum of the attractiveness parameters of all accounting firms except $i$. Thus, the ratio $A_j/(1 - A_i)$ represents the probability that a client firm leaving accounting firm $i$ will move to accounting firm $j$. Then, for $i \neq j$, $p_{ij}$ equals this conditional probability multiplied by the probability $1 - r_i$ that the client firm leaves accounting firm $i$.

We collected data from S&P Research Insight. We counted the number of movements of S&P 500 client firms among the Big 5 accounting firms each year from 1995 through 1999. We then aggregated the transition counts across the five years (four transition periods) to produce an overall $5 \times 5$ observed transition matrix $\hat{P} = (\hat{p}_{ij})$. We let $\hat{\pi}_j$ represent the steady-state probabilities resulting from the observed transition matrix.

We estimated the retention and attractiveness parameters by determining the values of $r_i$ and $A_i$ that minimize the sum of the squared differences between the observed transition probabilities and the estimated transition probabilities computed using (1). We performed this minimization subject to the constraints that the estimated transition probabilities produced market shares equal to the observed market shares. In addition, we required that the retention probabilities lie between zero and one, and that the attractiveness parameters sum to one. Thus, we used the Solver add-in in Microsoft Excel to solve:

$$\min_{r_i, A_1} \left\{ \sum_{i=1}^{5} \sum_{j=1}^{5} \left(p_{ij} - \hat{p}_{ij}\right)^2 | \pi_j = \hat{\pi}_j, \quad j = 1, \ldots, 5; \right.$$

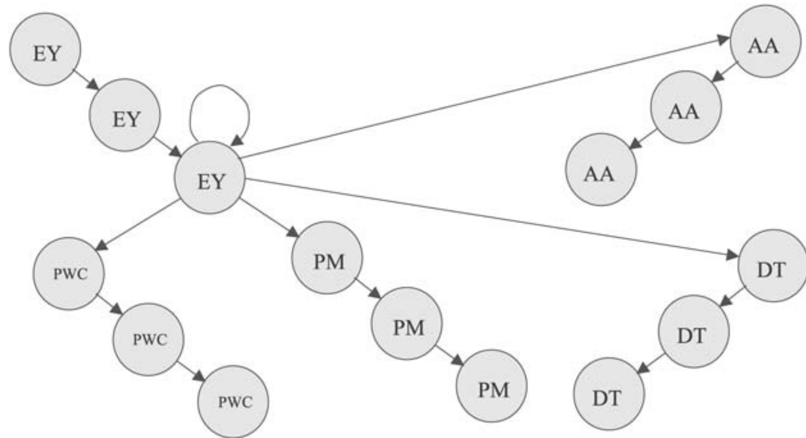
$$\left. 0 \leq r_i \leq 1, \quad i = 1, \ldots, 5; \quad \sum_{j=1}^{5} A_j = 1 \right\}.$$

The resulting retention probabilities and attractiveness parameters thus produce an estimated transition matrix that is as close as possible to the observed transition matrix while producing identical market shares for all five accounting firms.

### Analysis of mandatory auditor retention and rotation

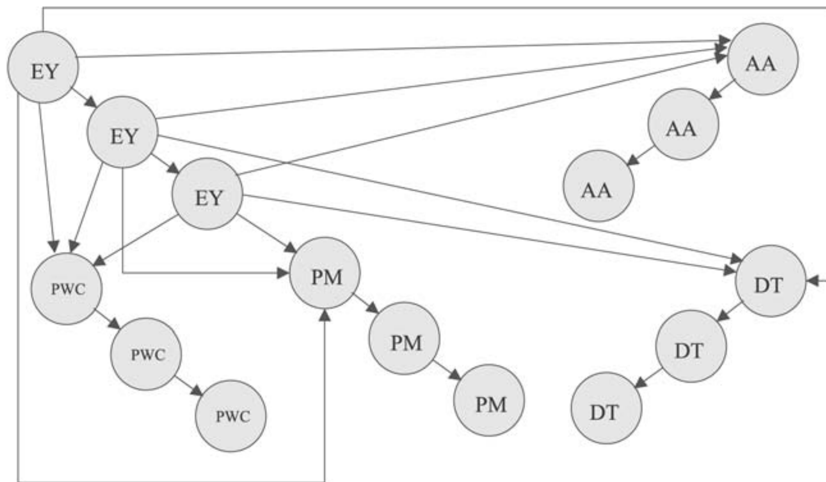
To analyze market share under mandatory auditor retention or rotation, we must expand the state space of the Markov model. We now define the states as ordered pairs $(i,y)$ where $i$ represents the accounting firm retained by the client and $y$ is the number of consecutive years in which the engagement has been active. Thus, if the client selects accounting firm 4 after having engaged another accounting firm in the previous year, then it resides in state (4,1). If it retains the same accounting firm in the following year, then it moves to state (4,2).

Under a mandatory auditor retention policy (see Figure 2) that requires engagements to last at least $u$ years, and with no rotation requirement, we limit y to the values $1, 2, \ldots, u$, where we interpret $y = u$ to mean that the engagement has been going on for at least $u$ years. In the absence of both mandatory auditor retention and rotation, we set $y = 1$, which reduces to the model described earlier. Under a mandatory auditor rotation policy (see Figure 3) that limits engagements to at most $v$ years, and with no retention requirement, we limit y to the values $1, 2, \ldots, v$. If both



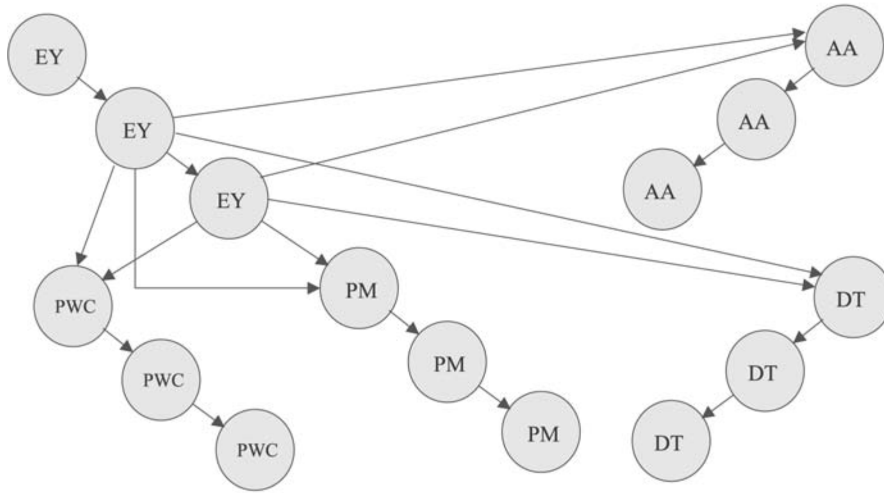

**Notes:** Under mandatory auditor retention for at least u years, we must expand each of the original five states to u states. This figure illustrates the case for u = 3. The arrows indicate the possible transitions for EY. However, each of the states has an analogous set of five arrows. The client firm must remain with its auditor for at least u = 3 years, after which it may remain with the same auditor or switch to another

**Figure 2.**




**Notes:** Under mandatory audit or rotation for at most v years, we must expand each of the original five states to v states. This figure illustrates the case for v = 3. The arrows indicate the possible transitions for EY. However, each of the states has an analogous set of arrows. The client firm must switch auditors after no more than v = 3 years, although it could switch earlier

**Figure 3.**




**Notes:** Under mandatory auditor retention for at least u years and mandatory auditor rotation for at most v years, we must expand each of the original five states to v states. This figure illustrates the case for u = 2 and v = 3. The arrows indicate the possible transitions for EY. However, each of the states has an analogous set of arrows

**Figure 4.**

policies are in effect (see Figure 4), then we must have $u \leq v$ and we again limit $y$ to the values 1, 2, $\ldots$, $v$.

In any case, we sort the states in increasing order of $y$ and then in increasing order of i nested within constant values of y. Thus, we order the states (1,1), (2,1), (3,1), (4,1), (5,1), (1,2), (2,2), (3,2), (4,2), (5,2), $\ldots$, (1,$l$), (2,l), (3,$l$), (4,$l$), (5,$l$), where $l$ equals either 1, $u$, or $v$, as appropriate.

Let $\mathbf{P}_{(\mathrm{u,v})}$ be the transition matrix among these states. We will adopt the notation convention to set $u = 1$ if no retention policy is in effect, and $v = \infty$ if no rotation policy is in effect. Thus, $\mathbf{P}_{(\mathrm{u},\infty)}$ corresponds to retention with no rotation, $\mathbf{P}_{(1,v)}$ corresponds to rotation with no retention, $\boldsymbol{P}_{(1,\infty)}(= \boldsymbol{P})$ corresponds to neither retention nor rotation, and $\mathbf{P}_{(u,v)}$ corresponds to both retention and rotation.

Let $\mathbf{R} = \mathrm{diag}(\mathbf{P})$ be the $5 \times 5$ diagonal matrix consisting of all zeroes except for on the main diagonal where $r_{ij} = r_i$. Let $\mathbf{M}$ be the $5 \times 5$ matrix with zeros on the main diagonal and with off-diagonal elements $m_{ij} = A_j/(1 - A_i)$. We can easily show that $\mathbf{M} = (\mathbf{I} - \mathbf{R})^{-1}(\mathbf{P} - \mathbf{R})$. Let $\mathbf{0}$ be the $5 \times 5$ matrix consisting of all zeroes. We may write the transition matrices corresponding to various combinations of mandatory auditor retention and rotation in terms of these matrices. We have, the

$\mathbf{P}_{(\mathrm{u},\infty)} =$

| | y = 1 | y = 2 | y = 3 | … | y = u – 1 | y = u |
|---|---|---|---|---|---|---|
| y = 1 | **0** | **I** | **0** | … | **0** | **0** |
| y = 2 | **0** | **0** | **I** | … | **0** | **0** |
| y = 3 | **0** | **0** | **0** | … | **0** | **0** |
| … | … | … | … | … | … | … |
| y = u – 1 | **0** | **0** | **0** | … | **0** | **I** |
| y = u | **P – R** | **0** | **0** | … | **0** | **R** |

**Figure 5.**

partitioned form shown in Figure 5, for mandatory retention with no rotation requirement the form shown in Figure 6, for mandatory rotation with no retention requirement, and for both mandatory retention and rotation the form shown in Figure 7.

We compute the steady-state vectors for each transition matrix. The resulting steady-state probabilities reveal the proportions of client firms that will be retaining a given accounting firm in each year *y*. We obtain the market share for a given accounting firm by summing its proportions over all years.

## Computational results

We use the following notation to denote the Big 5 accounting firms: AA = Arthur Andersen; EY = Ernst & Young; DT = Deloitte & Touche; PM = KPMG Peat Marwick; and PWC = PriceWaterhouseCoopers. The observed transition matrix is shown in Figure 8.

$\mathbf{P}_{(1,v)} =$

| | y = 1 | y = 2 | y = 3 | … | y = v − 1 | y = v |
|---|---|---|---|---|---|---|
| y = 1 | **P − R** | **R** | **0** | … | **0** | **0** |
| y = 2 | **P − R** | **0** | **R** | … | **0** | **0** |
| y = 3 | **P − R** | **0** | **0** | … | **0** | **0** |
| … | … | … | … | … | … | … |
| y = v − 1 | **P − R** | **0** | **0** | … | **0** | **R** |
| y = v | **M** | **0** | **0** | … | **0** | **0** |

Figure 6.

$\mathbf{P}_{(u,v)} =$

| | y = 1 | y = 2 | y = 3 | … | y = u − 1 | y = u | y = u + 1 | y = u + 2 | … | y = v − 1 | y = v |
|---|---|---|---|---|---|---|---|---|---|---|---|
| y = 1 | **0** | **I** | **0** | … | **0** | **0** | **0** | **0** | … | **0** | **0** |
| y = 2 | **0** | **0** | **I** | … | **0** | **0** | **0** | **0** | … | **0** | **0** |
| y = 3 | **0** | **0** | **0** | … | **0** | **0** | **0** | **0** | … | **0** | **0** |
| … | … | … | … | … | … | … | … | … | … | … | … |
| y = u − 1 | **0** | **0** | **0** | … | **0** | **I** | **0** | **0** | … | **0** | **0** |
| y = u + 1 | **P − R** | **0** | **0** | … | **0** | **0** | **R** | **0** | … | **0** | **0** |
| y = u + 1 | **P − R** | **0** | **0** | … | **0** | **0** | **0** | **R** | … | **0** | **0** |
| y = u + 2 | **P − R** | **0** | **0** | … | **0** | **0** | **0** | **0** | … | **0** | **0** |
| … | … | … | … | … | … | … | … | … | … | … | … |
| y = v − 1 | **P − R** | **0** | **0** | … | **0** | **0** | **0** | **0** | … | **0** | **R** |
| y = v | **M** | **0** | **0** | … | **0** | **0** | **0** | **0** | … | **0** | **0** |

Figure 7.

Observed P =

| | AA | EY | DT | PM | PWC |
|---|---|---|---|---|---|
| AA | 0.9837 | 0.0033 | 0.0065 | 0.0033 | 0.0033 |
| EY | 0.0048 | 0.9880 | 0.0048 | 0.0024 | 0.0000 |
| DT | 0.0000 | 0.0000 | 0.9932 | 0.0034 | 0.0034 |
| PM | 0.0000 | 0.0000 | 0.0044 | 0.9868 | 0.0088 |
| PWC | 0.0053 | 0.0053 | 0.0035 | 0.0000 | 0.9858 |

Figure 8.

From this matrix, we estimated the attractiveness and retention parameters, which we show with the observed retention probabilities and (observed and estimated) current audit market shares, in Table I.

The resulting estimated transition matrix is shown in Figure 9.

### Analysis of mandatory auditor rotation

We analyzed three mandatory auditor rotation policies that would limit the duration of the audit engagement to two, five, and nine years, respectively. We show the resulting long-term market shares, with current observed market shares, in Table II.

We observe that the long-term market shares are almost identical for rotation periods up to nine years. Of course, as the rotation period tends toward infinity and the mandatory rotation policy becomes increasingly weak, the steady-state market shares will return to their current levels. We conclude that, for mandatory rotation periods of nine years or less, the rotation period has little impact on market share. However, we

| | AA | EY | DT | PM | PWC |
|---|---|---|---|---|---|
| Observed retention probability | 0.9837 | 0.9880 | 0.9932 | 0.9868 | 0.9858 |
| Estimated retention probability | 0.9841 | 0.9890 | 0.9904 | 0.9863 | 0.9878 |
| Estimated attractiveness parameter | 0.208 | 0.194 | 0.107 | 0.120 | 0.371 |
| Observed (and estimated) market share | 0.1689 | 0.2307 | 0.1634 | 0.1258 | 0.3113 |

**Notes:** Observe that all firms have very high retention probabilities, and that the model estimates of these probabilities closely match the observed values. However, the firms differ considerably with respect to their ability to attract new client firms

**Table I.** Observed and estimated retention probabilities, estimated attractiveness parameters, and observed (and estimated) market shares

Estimated P =

| | AA | EY | DT | PM | PWC |
|---|---|---|---|---|---|
| AA | 0.9841 | 0.0039 | 0.0022 | 0.0024 | 0.0074 |
| EY | 0.0028 | 0.9890 | 0.0015 | 0.0016 | 0.0051 |
| DT | 0.0022 | 0.0021 | 0.9904 | 0.0013 | 0.0040 |
| PM | 0.0032 | 0.0030 | 0.0017 | 0.9863 | 0.0058 |
| PWC | 0.0040 | 0.0038 | 0.0021 | 0.0023 | 0.9878 |

**Figure 9.**

| | AA | EY | DT | PM | PWC |
|---|---|---|---|---|---|
| *Current observed market share* | *0.1689* | *0.2307* | *0.1634* | *0.1258* | *0.3113* |
| Two-year mandatory rotation | 0.2173 | 0.2068 | 0.1269 | 0.1400 | 0.3090 |
| Five-year mandatory rotation | 0.2163 | 0.2073 | 0.1275 | 0.1397 | 0.3092 |
| Nine-year mandatory rotation | 0.2149 | 0.2079 | 0.1283 | 0.1394 | 0.3094 |
| *Maximum difference* | *0.0485* | *− 0.0239* | *− 0.0365* | *0.0141* | *− 0.0023* |

**Notes:** Also shown are the current market shares of each firm and the maximum differences between the current observed market share and the market share under mandatory rotation. AA would experience the largest increase in market share (4.85 percent), while DT would experience the largest decrease (3.65 percent). The effects of mandatory auditor rotation on market share are almost independent of the rotation period

**Table II.** Long-term market shares under two-, five-, and nine-year mandatory auditor rotation

see that the existence of a mandatory rotation policy leads to shifts in long-term market share ranging between nearly 0 percent and approximately 5 percent.

Figure 10 shows the relationship between market share and attractiveness under five-year mandatory rotation. We observe that market share is nearly a linear function of attractiveness. The relationship is virtually identical for two- and nine-year mandatory rotation. Thus, under mandatory rotation, we expect that Big 5 accounting firms will increase their efforts to attract audit clients from competitors as they strive to maintain market share. Figure 11 shows the shift in market shares for each of the

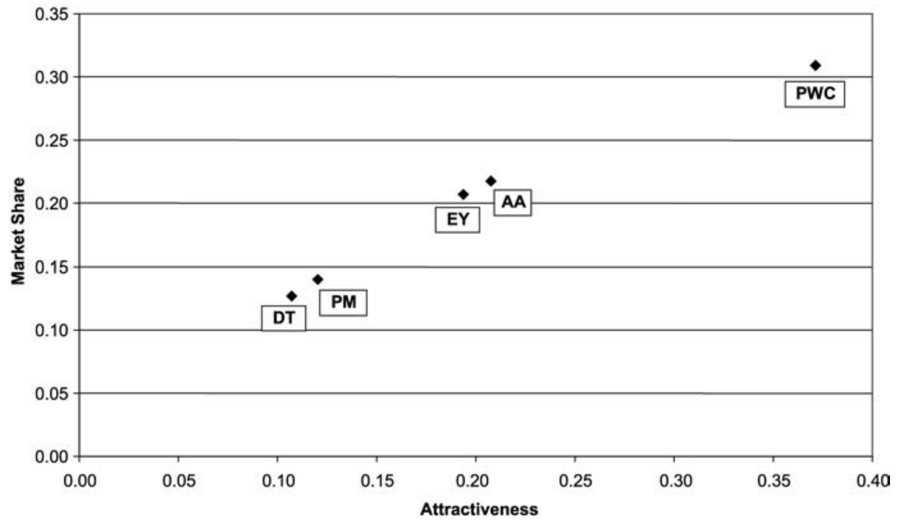



**Figure 10.**
The relationship between long-term market share and attractiveness under five-year rotation

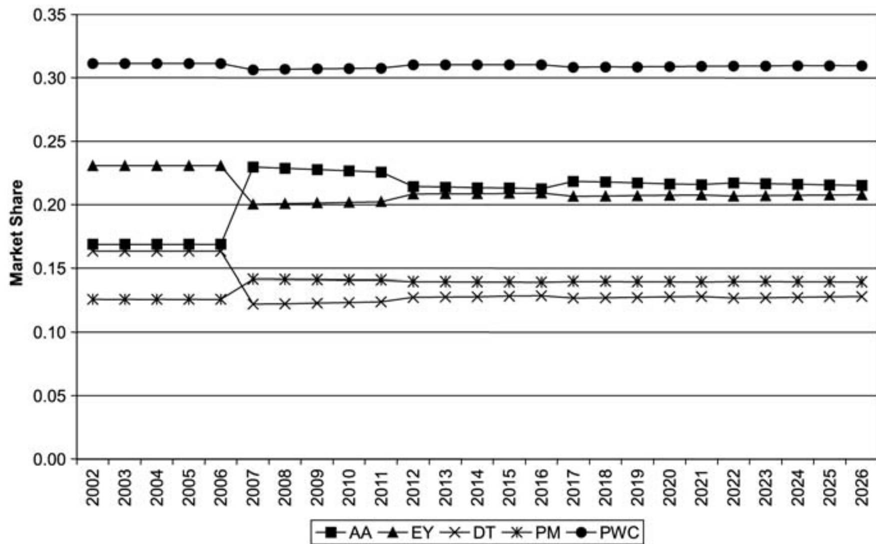



**Figure 11.**
Market share evolution under five-year mandatory rotation

Big 5 accounting firms under a policy of five-year mandatory rotation during the period 2002-2026 if such a policy were effective in 2002. We observe that market shares remain at their current steady-state levels for five years, after which the market shares converge toward their new steady-state values in an oscillating fashion. Thus, the largest impact on market share will occur at the end of the first rotation period, with smaller adjustments occurring at the ends of each subsequent rotation period.

## Analysis of mandatory auditor retention

We analyzed three mandatory auditor retention policies that would require that the duration of the audit engagement be at least two, five, and nine years, respectively. We show the resulting long-term market shares, with current observed market shares, in Table III.

We note that the effects of mandatory retention on market share are much smaller than those associated with mandatory rotation. This is because the retention probabilities of the five accounting firms are very high (all greater than 98.3 percent) so that imposing 100 percent retention for several years is little different from the current situation. Thus, we expect no behavioral changes among the Big 5 accounting firms under mandatory retention. We also observe that, for each accounting firm, the effect of mandatory retention on its market share is in the same direction as the effect of mandatory rotation.

## Analysis of combined mandatory auditor rotation and retention

We consider several situations in which we impose both mandatory rotation and mandatory retention. One possibility is that the rotation and retention periods are

| | AA | EY | DT | PM | PWC |
|---|---|---|---|---|---|
| *Current observed market share* | *0.1689* | *0.2307* | *0.1634* | *0.1258* | *0.3113* |
| Two-year mandatory retention | 0.1695 | 0.2304 | 0.1629 | 0.1260 | 0.3112 |
| Five-year mandatory retention | 0.1712 | 0.2296 | 0.1616 | 0.1265 | 0.3111 |
| Nine-year mandatory retention | 0.1733 | 0.2285 | 0.1601 | 0.1271 | 0.3110 |
| *Maximum difference* | *0.0044* | *− 0.0022* | *− 0.0033* | *0.0013* | *− 0.0002* |

**Notes:** Also shown are the current market shares of each firm and the maximum differences between the curent observed market share and the market share under mandatory retention. Mandatory auditor retention would have very little effect on market shares. AA would experience the largest increase in market share (0.44 percent), while DT would experience the largest decrease (0.33 percent). The effects of mandatory auditor retention on market share are almost independent of the retention period

**Table III.** Market shares under two-, five-, and nine-year mandatory auditor retention

| | AA | EY | DT | PM | PWC |
|---|---|---|---|---|---|
| *Current observed market share* | *0.1689* | *0.2307* | *0.1634* | *0.1258* | *0.3113* |
| $n$-year mandatory retention and $n$-year mandatory rotation | 0.2177 | 0.2066 | 0.1267 | 0.1400 | 0.3089 |

**Notes:** The market shares are independent of the duration of the common period. Also shown are the current market shares of each firm

**Table IV.** Market shares under both mandatory auditor retention and mandatory auditor rotation in which the periods of both policies are the same

equal. For example, we might require that a client firm retain its auditor for five years, after which the client firm must switch to another auditor. In this case, we can easily show that the steady-state market shares are independent of the common duration and are equal to the steady-state probabilities of the matrix **M**. We show the long-term market, with current observed market shares, in Table IV.

We observe that these market shares are virtually identical to those produced by the two-year mandatory rotation policy. For each accounting firm, the shifts in market share produced by the two policies combined is very slightly larger than that produced by the mandatory rotation policy alone.

Finally, we considered three situations in which we impose both mandatory retention and mandatory rotation with the retention period strictly less than the rotation period. We show the resulting long-term market shares, with current observed market shares, in Table V.

Clearly, the resulting long-term market shares are almost equal to those produced under rotation only. This is not surprising given our observation that mandatory retention has a much smaller impact on market share than does mandatory rotation.

## Discussion and conclusions

We conclude that mandatory auditor rotation will have tangible effects on the audit market shares of the Big 5 accounting firms in the S&P 500 market. We see that the magnitudes of the effects are virtually the same regardless of the rotation period. Therefore, from a market share viewpoint, regulators need not be concerned with the length of the rotation period. On the other hand, mandatory auditor retention will have negligible impacts on these market shares. This is because the current observed retention probabilities are already very high, each exceeding 98.3 percent. Thus, regulators can be confident that neither mandatory rotation nor retention will create excessive market concentration in any Big 5 accounting firm.

However, while some firms would gain market share under mandatory auditor rotation, others would lose market share. AA would have gained close to 5 percent in market share, rising from approximately 17 percent to roughly 22 percent, and PM would gain close to 1.5 percent, rising from approximately 12.5 percent to 14 percent. Two accounting firms would lose audit market share under mandatory auditor rotation. DT would lose about 3.5 percent, dropping from 16.3 percent to roughly 12.8 percent, while Ernst & Young would lose about 2.4 percent, falling from 23 percent to

| | AA | EY | DT | PM | PWC |
|---|---|---|---|---|---|
| *Current observed market share* | *0.1689* | *0.2307* | *0.1634* | *0.1258* | *0.3113* |
| Two-year mandatory retention and five-year mandatory rotation | 0.2169 | 0.2070 | 0.1272 | 0.1399 | 0.3091 |
| Two-year mandatory retention and nine-year mandatory rotation | 0.2155 | 0.2077 | 0.1279 | 0.1396 | 0.3093 |
| Five-year mandatory retention and nine-year mandatory rotation | 0.2169 | 0.2070 | 0.1271 | 0.1399 | 0.3091 |

**Notes:** Also shown are the current market shares of each firm. The market shares under both mandatory auditor rotation and retention are almost identical to those shown in Table II, indicating that rotation has much greater influence on market share than does retention

**Table V.**
Market shares under three different combined policies of mandatory auditor retention and mandatory auditor rotation

approximately 20.6 percent. Finally, PWC would remain essentially constant at about 31 percent.

We observe that, under mandatory auditor rotation, long-term market share will depend more heavily on a firm's ability to attract new clients than it will on its ability to retain existing clients. Specifically, we have seen that long-term market share will be a nearly linear increasing function of the attractiveness parameter. We expect, therefore, that accounting firms are likely to shift resources to increase attractiveness perhaps at the expense of retention. Put another way, we expect that firms will spend more money on recruiting new audit clients and less money on retaining existing audit clients, leading to pressure on the firm to reduce audit cost and quality. Thus, ironically, policies designed to enhance audit quality by increasing auditor independence may have, in fact, exactly the reverse effect.

The debate about mandatory auditor rotation and retention will certainly continue as regulators and accounting firms seek ways to increase auditor independence. Excessive market share concentration should no longer be a concern, although these policies are likely to change the marketing strategies of accounting firms in ways that might backfire.

## Note

1. In 2002, the Big 5 became the Big 4 when Arthur Andersen was prohibited from providing audit services to publicly traded firms. We assume that the overall impact of these policies in a four-firm market will be comparable to that in a five-firm industry. The data demands of our model required us to include enough years to generate reasonably accurate estimates of the transition probabilities, and we opted to include more years even though that implied that we would need to include data from Arthur Andersen.

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# The changing role of the auditors

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## Abstract

**Purpose** – To highlight the pressures that the auditors would face in the era of globalisation and the challenges they should be willing to accept in order to maintain trust and integrity.

**Design/methodology/approach** – A wide range of articles and journals published in international journals as well as local journals has been reviewed. The areas covered include audit fraud, true and fair view interpretation, auditor independence and role of internal auditors. Further, ideas have also been obtained from critical write-ups in the business magazines on the fall of multinationals.

**Findings** – A wide range of interpretation has been given by various groups of people on their understanding of the phrase "true and fair". This has created great confusion as to the interpretation of the audit reports. This has been proven by the fall of many multinationals and the audit pioneers, Andersens. This is one of the causes of audit fraud and it is also seen that as the auditors face an enormous challenge as they enter the twenty-first century, they should be willing to change their attitudes towards their clients. Professionalism should be in the forefront, and an overhaul in the concept of "true and fair" could probably be the solution to harmonisation of the economy.

**Research limitations/implications** – This paper lacks statistical data on the views of the authors. It is based purely on secondary data.

**Practical implications** – Provides awareness to the auditors, corporations and general public on the necessity to revamp the existing auditing practices. This can help the auditors not only to be professionals, but also to be seen as professionals.

**Originality/value** – This paper provides scope for research in this area to identify whether the overhaul concept is acceptable. If yes, what should the new concept be? If no, what is the solution to the existing public outcry?

**Keywords** True and fair view, Auditors, Fraud, Reports

**Paper type** Research paper

## Introduction

The concept of "true and fair view" (TFV) is well known to accountants as well as auditors. It has been the fundamental basis of audited accounts for many years. The legal requirement to show a TFV first appeared in the UK Companies Act of 1948. Since the issue of Statement of Standard Accounting Practice (SSAP) I – *Accounting for Associated Companies* (ASC, 1971), in January 1971, accounting standards have been developed and published largely in order to be used for the purpose of preparing accounts intended to give a "TFV". As new standards and Accounting Standards Board (ASB) pronouncements are published, there is a need to determine whether accounts give a true and fair view. What is a TFV is, is ultimately a question of the law, since TFV lacks an acceptable definition.

In fact, the judgement of TFV on a particular set of financial statements will depend on the extent to which the accounting standards have been followed in preparation of the financial statement. Other pronouncements by the ASB Statements of Recommended Practice (SORPs), issued with the authority of the ASB and designed to cover situations relevant only to particular industries or sectors of the economy; and professional auditing standards maintained by the Auditing Practices Board, and followed by registered auditors, are also considered vital when forming an opinion

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whether the accounts do give a true and fair view. However, with the emergence of numerous audit failure cases (i.e. Enron collapse), the world seems to lack confidence in the judgements made by the auditors. They are now looking forward to accounting standards harmonising the financial statements besides trying to understand the actual role of auditors and the purpose of the audit report. The audit committees should have an important role to play in setting the responsibilities of the auditors and fine-tuning the structure, content and purpose of the audit report. This eventually could bring about a change in the attitude of the public towards the auditors and the report drafted by them. It is also expected to change the auditors' attitude by transforming them into better professionals than they are now.

## Research problems

- Lack of independence, integrity and credibility of the auditing profession on the role and responsibility to detect and prevent audit fraud.
- Accounting uncertainty and changes in accounting standards over time may affect auditors forming a "TFV" opinion.
- The need to overhaul the concept of "TFV" and its effect on the stakeholders.
- Is the relationship between companies and auditors the same as that of master and servant?

## Objectives of the research

- To define and interpret the concept of TFV.
- To analyse the causes of audit fraud and assess the role and responsibility taken by auditors to detect and prevent audit fraud.
- To explore the benefits and disadvantages if the concept of TFV undergoes an overhaul.
- To identify the new role of auditors.

## Scope of the study

The emergence of numerous audit failure cases in today's business environment has brought into light the issue on the concept "TFV" certification by auditors. Essentially, this study focuses on the main reasons of audit fraud in today's business environment. It further discusses the steps that can be taken by auditors to detect and prevent audit fraud. In addition, this study highlights the main concerns on whether "TFV" certification by auditors needs an overhaul by taking into account the judgements from the stakeholders of the company and the auditors. Eventually, it brings to light the new role of auditors.

## Survey of literature

Moyes and Hasan (1996) presented the results of a survey on the important factors related to fraud detection during the audit of financial statements. The Certified Public Accountants (CPA) specialised in auditing publicly-held corporations (external), and the government entities and internal auditors specialised in auditing publicly-held corporations (internal) were surveyed. Subsequently, the auditors evaluated the degree of effectiveness of 218 auditing techniques in detecting fraud and these techniques

were based on four different audit cycles: acquisition and payment, inventory and warehousing, payroll and personnel and sales and collection. Based on this survey, the authors concluded that first, experienced auditors rather than inexperienced auditors are more likely to prevent and detect fraud when using inventory and payroll cycle technique. Second, CPAs rather than non-CPAs are more likely to use all 218 techniques, especially in the payroll cycle to detect and prevent fraud and the certification may indicate a higher professional integrity and competence in preventing fraud. However, the survey was done based on a certain number of auditors across four specific audit cycles rather than all the cycles in auditing. It also did not mention the potential factors of detecting fraud and reasons associated with the likelihood of detecting fraud during the audit of financial statements.

Hillison *et al.* (1999) discussed the role and responsibility of internal auditors in the detection and prevention of fraud. The authors pointed out that internal auditors, rather than external auditors, are more likely to detect and report the occurrence of employee fraud. They further identified that internal auditors should be able to recognise the fraud risks that might occur; the internal auditors can provide assistance to external auditors in the implementation of Statements on Auditing Standards (SAS) No. 82, *Consideration of Fraud in a Financial Statement Audit* (ASB, 1997), and complying with Title III of the Private Securities Litigation Reform Act; and certain steps can be taken by internal auditors to prevent and detect the fraud. They also observed that the three elements of the fraud risk model – pressure, opportunity, and rationalisation – developed by Cressey and refined by the Association of the Certified Fraud Examiners (ACFE) show the symptoms of increasing the risk of fraud to the entity in the future. It can be seen here that each role and responsibility of the auditors was only mentioned briefly and the detailed examples with actual application were not provided in this article. It also failed to assess whether the three elements of the fraud risk model are only the symptoms of increasing the risk of fraud to the entity in the future. Finally, it also did not assess whether the independent auditors, especially the internal auditors, are prepared to face this new challenge.

Roufaiel and Dorweiler (1994) conducted a research on white-collar computer crime (that is, computer fraud) in today's business environment. The authors expressed that computer fraud is easy to commit but difficult to prevent and therefore, the auditors should define their responsibility for computer fraud. Otherwise, the law might put in stringent rules to overcome the computer frauds. This could pose a threat to the standard setters and also to the independence, integrity and credibility of the auditing profession. They further mentioned that three techniques could help in detecting and reducing the incidents of these crimes, and these techniques are summarised as first, the auditors have to expand their knowledge of client's business, management and computer technology. Second, they should follow professional standards and employ only qualified staff, train them and supervise them carefully. Finally, they should question the integrity of the management in a professional manner by collecting sufficient evidence about their background and past history.

One of the limitations of this research is that case study were not provided to add more understanding on the white-collar computer crimes in today's business environment. The study did not discuss as to how it could bring harmony in the auditor's reporting on the TFV. Further more it has failed to consider the cost implication on the audit firms to employ such high-skilled staff and train them.

Glover and Aono (1995) proposed a new approach to fraud detection. The existing basic audit-risk model (Audit risk = Inherent Risk*Control Risk*Detection Risk) for fraud detection focuses only on the internal control environment which consists of obtaining management assertions (existence and occurrence, completeness, rights and obligations, valuation or allocation and presentation and disclosure) used to record, classify and report economic events, and then linking it to the eight general audit objectives (ownership, valuation, completeness, classification, disclosure, validity, accuracy and cut-off). These general audit objectives subsequently generate specific audit objectives such as verifying the existence of the machinery as reported during the audit period. The authors described that the alternative or new approach which is fraud detection risk model focuses on the corporate culture and industry traits in order to understand better the possibility for fraud or illegal acts to occur:

Fraud detection risk model = (Corporate culture*Industry traits) + Control risks.

Although the proposed method cannot ensure 100 per cent prevention of fraud, it provides an added advantage over existing model due to its focus on the causes for fraud, which assist the auditors in the prevention and detection of fraud by identifying early warning signs. They also recommended that by using this model, it will help the auditors to identify the risk of the current wave of restructuring which results in the reduction of various organisational levels that plays a major role in the internal control process. The article has failed to focus on the simulated comparisons of fraud detection risk approach with traditional audit risk approach. In addition, this will cause the practitioners to be unable to determine the relevance, reliability and effectiveness of this proposed model. This article also did not highlight the issuance of guidelines, which should assist standard setters on supporting a more comprehensive approach to fraud detection.

Abdolmohammadi *et al.* (2000) conducted a review on auditors' ethical sensitivity in assessing the risk of fraud in financial reporting. The authors investigated the survey on 160 auditors who can be grouped into two: the first group included audit managers and senior auditors (test group) were provided with an ethical player information in a working paper review tasks. The second group (control group) of audit managers and senior auditors were provided with an identical tasks, with no ethical player information. Each group was required to measure the likelihood of fraud as the cause of errors in the working paper. From the survey, the authors concluded that experienced auditors like audit managers unlike inexperienced auditors (i.e. senior auditors) were not sensitive to the ethical player information on their assessment of clients' risk of fraud. In conjunction with the conclusion, the authors raised two important issues. First, the result is encouraging from one point of view whereby the senior auditors rather than audit managers are the ones who are first to confront the audit ethical issues and they do take the ethical information on their assessment of risk of fraud. Second, the difference between experienced and inexperienced auditors in their assessment of the risk of fraud, whereby the audit managers may have views that the ethical player information is irrelevant to the assessment of risk of fraud due to the complexity of the task resulting in different performances. In this study, the author only discussed and included single ethical player information rather than multiple ethical players on the assessment of the likelihood of fraud risk. In addition, this study

was done based on a certain number of auditors across two hierarchy levels rather than all levels of audit profession.

Spathis (2002) investigated a study on detecting false financial statement (FFS) using published data for Greece firms. In order to achieve the results of study, the author used a sample of 76 firms, which included 38 with FFS and 38 non-FFS. The author also used univariate and multivariate statistical techniques such as logistic regression to develop a model to identify the factors associated with FFS and a total of five financial ratios were selected by these two techniques as possible indicators of FFS. These include: the inventories to sales ratio; the ratio of total debt to total assets; the working capital to total assets ratio; the net profit to total assets ratio; and financial distress (*Z*-score). The results revealed that the model is capable in detecting FFS because the model is accurate in classifying the total sample correctly with accuracy rates exceeding 84 per cent. The author mentioned that the indicators selected generally are associated with FFS (i.e. company with high inventories turnover are more likely to falsify financial statements based on the results of logistic regression). The author further elaborated that this model could be of assistance to internal and external auditors, to taxation and other state authorities, individual and to the banking system, and should be of benefit to the auditing profession in its role and responsibility to detect FFS. The weakness of this study is that the author only used one method rather than multiple methods such as discriminant analysis and multicriteria analysis for FFS detection. The author also failed to examine qualitative factors such as the type of auditor used, auditors' opinions, the size of the company, the existence of company branches and the employee turnover for FFS detection. Last but not least, the author did not state whether this model is applicable to other firms in other countries for FFS detection.

Owusu-Ansah *et al.* (2002) made an empirical analysis of the likelihood of detecting fraud in the stock and warehousing cycle in New Zealand (NZ). The authors highlighted that this study was to analyse the degree of effectiveness of 56 standard audit procedures normally applied in the stock and warehousing cycle in NZ; to identify any differences among auditors in NZ on the effectiveness of each of the standard fraud-detecting audit procedures either on regional location (Auckland, Wellington and "others") or type of audit firm (Big 4 and non-Big 4); and to investigate the relative influence of the size of audit firm, auditor's position tenure, auditor's years of experience in auditing, and practice review experience of auditor's firm on the likelihood of detecting fraud in the stock and warehousing cycle. The emphasis of their survey was on stock and warehousing cycle because stocks constitute a significant portion in corporate assets; stocks normally are held in different locations that cause difficulty in physical control and counting; stock valuation is difficult; and there are several valuation methods of stock. The authors concluded that less than half of the 56 standard audit procedures were perceived by their respondents as being "more effective" in detecting fraud, more than half were perceived as "moderately effective" and 15 audit procedures were perceived as "less effective" in detecting fraud. They also concluded that the geographical location of their employers in NZ and the type of audit firm that employed them did not affect the perceptions of respondents. In addition, a logit regression analysis suggests that size of audit firm, position tenure of auditors and years of experience of auditors increase the possibility of detecting fraud in stock and warehousing cycle in UK. The shortcoming of this study effort is that the 56 audit

procedures analysed by the respondents did not represent all the audit procedures of detecting fraud in the stock and warehousing cycle. In addition, the perceptions of the effectiveness of the audit procedures may be affected when the respondent auditors evaluated the audit procedures assuming not to have suffered any economic loss.

Best *et al.* (2001) analysed the evidence of the audit expectation gap in Singapore in the 1990s and compared the results with previous researchers (Schelluch and Low *et al.*) of this field in both Australia and Singapore. The authors also determined whether the continued use of the short-form audit report in Singapore may be responsible for the expectation gap existing in this country and whether prior calls for a change to the long-form audit report can reduce the level of the expectation gap in Singapore. The survey document was sent to 300 potential respondents from each of the three groups: auditors, bankers, and investors. From the survey, the authors indicated that there is a wide expectation gap in relation to the areas of auditor's responsibilities for fraud prevention and detection, maintenance of accounting records, freedom of the entity from fraud, and the auditors' judgement in the selection of audit procedures. The expectation gap also extended to the areas of the auditor's responsibility on the internal controls systems, the concept of TFV, auditor agreement on accounting policies used in the financial statements, and the usefulness of audited financial statements in monitoring the performance of the entity. The authors further indicated that this survey reveals a serious picture for Singapore's professional accounting bodies because the potential value of financial reporting is being lost as result of the wide expectation gap that is existing in this country. If Singaporean professionals are serious and intend to reduce the expectation gap and improve decision making by financial statement users, the results support the call by Low *et al.* (1988) for a change from a short-form audit report to the long-form audit report. Amid the total population in Singapore the researchers have restricted the study to 300 potential respondents. In addition, the results may not be reliable since the instrument employed in this study was identical to that developed by Schelluch (1996) from Australia and was not validated in Singapore.

Colbert (2000) compared International Federation of Accountants (IFAC) and American Institute of Certified Public Accountants (AICPA), both of which, provide guidance to auditors in searching for material misstatements caused by errors and fraud. There are many similarities as well as differences between the international and US guidance. In the authoritative guidance to errors, the similarities on both guidance occur in the definitions of an error, the categories of risk, and the process of assessing risk. For fraud, the similarities in the international and the US guidance include the definitions of fraud, the assessment of fraud risk, the responsibilities of management, the utilisation of professional scepticism, the suggested audit procedures, the responses to the results of the procedures and the auditor's reporting responsibilities. On the other hand, the differences between the international and the US guidance for errors are the areas of management's responsibility for locating errors, inquires of management, and the prevention of errors. For fraud, differences exist in the division of fraud into two types, the response to high fraud risk, and the requirements regarding documentation. The author pointed that auditors, especially those with clients interested in cross-border securities markets, should comprehend these similarities and differences. The author in his study observed that comparable audit work in searching for misstatements is being performed, irrespective of whether the auditor uses

international or US guidelines. The author recommended that minor amendments to either set of standard could harmonise the auditing guidelines on error and fraud without mentioning what those amendments are supposed to be. Further, the similarities and differences on both guidance for errors and fraud were only mentioned briefly and also, case study examples were not provided to add more understanding on material misstatements caused by errors and fraud.

Karim and Siegel (1998) proposed a signal detection theory (SDT) to analyse the efficiency and effectiveness of auditing in detecting management fraud. The auditors use the SDT to examine the relationships among audit technology, base rates of management fraud (<10 per cent), costs of Type I and Type II errors, auditor's experience with management fraud, extensions of audit procedures, and risk assessments prior and during the audit. The authors defined audit technology as being operationalised by means of hit rates (power of audit technology) whereby audit signals management fraud when management fraud exists, and false alarm rates whereby audit signals management fraud when management fraud does not exist. They further defined Type I and Type II errors as an incorrect rejection and an incorrect acceptance, respectively. The results of the analysis indicated that as the cost of Type II error increases, the audit effectiveness is maintained only if the increase in the power of audit technology is matched by a corresponding increase in the false alarm rate. The results further highlighted that auditors are forced to accept higher false alarm rates and consequent Type I errors due to increase in the cost of Type II errors that add to the cost of the audit. The authors also pointed that increase in the responsibility of auditors may not necessarily reduce the incidence of management fraud. Eventually, it will lead to an increase in auditing cost, denial of audit services to high-risk industries, and cause the small businesses difficulty in raising capital (AICPA, 1993). However, this analysis provides little empirical evidence that the auditors can use this proposed theory as one of the strategies to detect management fraud. Again, the base rate of management fraud (<10 per cent) was based on an assumption and further analysis is required in this matter. Finally, this analysis did not consider the restraining effects on management fraud when auditing.

Laswad (1998) conducted research on the perceptions of TFV on auditors, financial controllers, corporate lawyers, standard-setters and accounting academics in New Zealand by using an experimental design. In order to get these five groups of respondents' perceptions of the concept of TFV, a research instrument was designed with ten phrases associated with financial reporting for them to cluster into groups of similar meanings. Most of the phrases are sourced from the conceptual framework documents of the UK, NZ, Australia, and the USA. The phrases included in the instrument were found to be:

(1) relevant and useful;

(2) understandable and comprehensible;

(3) corresponding with economic substance;

(4) objective and free from bias;

(5) free of material errors;

(6) full disclosure;

(7) TFV;

(8) complying with generally accepted accounting principles as reflected in current accounting standards;
(9) complying with statutory requirements; and
(10) complying with proper professional judgement.

The results indicate that TFV is more associated with practical (technical) meanings than conceptual (qualitative) meanings. The practical phrases such as "absence of material errors" and "complies with accounting standards" are perceived to be more similar meanings to TFV than those conceptual phrases (i.e. relevant and useful). At the same time, these results indicate that there are general consensuses among the occupational groups in the perception of the meaning of TFV, while some differences also exist. It can be concluded that groups involved directly in preparing financial statements like financial controllers and auditors' perceive the phrase of absence of material errors to be more similar meaning to TFV than the other groups. In addition, the lawyers group associates TFV with the phrase of objective and free from bias than the other groups. Last, but not least, all the groups perceive the phrases reflecting the user needs such as "relevant and useful" and " understandable and comprehensible" not to be similar in meaning to the phrase "true and fair view". The authors should have involved the stakeholders rather than just targeting the people involved in the preparation of financial statements.

Farrell and Franco (1999) examined the role and responsibility of the auditors in the prevention and detection of business fraud: SAS No. 82. This standard stated that the auditor has a responsibility to plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement whether caused by error or fraud. It furthers described that fraud requires the auditor to assess the risk of material misstatement, and provides guidance on the evaluation of the audit tests. The authors investigated this survey by using questionnaires based on the respondents working on "Big Six" accounting firms in large cities across the USA and other accounting firms in the New York, New Jersey, and Connecticut areas. Meanwhile, the authors mailed approximately 1,700 questionnaires to non-big six accounting firms and 300 questionnaires to "Big Six" accounting firms to evaluate the variation in the opinions of those respondents and the perceptions on whether years of experience as a CPA practitioner affect the opinions of SAS No. 82. Based on the survey, the authors concluded that CPAs do not agree with the changed expectations of their role and responsibility, and the limits on the auditor's possible role in controlling and preventing fraud. They further discussed that other factors in prevention and detection of fraud such as managerial controls, employee screening, organisational climate and others should be taken into account. Here it can be noted that, this survey results can only be taken as suggestive because of the lower response level from the respondents (response rate was approximately 10 percent, a sample of 180). It can also be seen that, the respondents were primarily from the categories of managers and partners and also, it cannot be certain that these results would represent the whole population, because this survey was only being done based on certain corporate within certain cities and areas of the USA.

The European Federation of Accountants (2002) illustrated the role of accounting and auditing in Europe. As a representative organisation of the accountancy profession in Europe, the European Federation of Accountants (FEE) understands that the

unexpected collapse of an important company listed on a stock exchange (i.e. Enron collapse) will undermine the credibility and reliability of the information and the regulatory system, which is put in place to protect the investors. In conjunction with that, they recognise that there is an importance of public trust in their profession and also the need to work continuously to maintain the trusts. They also believe that there is a need to strengthen the corporate governance arrangements to provide the highest quality of financial information to the capital markets (i.e. preparation of true and fair financial information by a well established accounting company). In order to maintain and further enhance the effectiveness of the financial reporting system, FEE has taken certain steps in the European Union such as: supporting improvements of good corporate government practices due to their importance in the European and global development of markets recently; promoting global solutions to meet the needs of the European Union; demonstrating the principle-based approach in a multi-jurisdictional environment to protect the auditor's independence; and speeding up the implementation of improved quality assurance systems, to strengthen public confidence. Here it is difficult to identify the steps taken to prevent the occurrence of similar problems in Europe.

Haider (2001) indicated that the truth about TFV in financial statements does not exist, is uncertain and indefinite. According to the International Standard on Auditing 320, *Auditing Materiality* (IFAC, 2005), it reveals that although attested by the auditors as representing a TFV, financial statements still make computation errors and suffer from inadequate disclosures. He identified that various accounting standards-setting regimes have prescribed accounting standards to suit their own unique needs. This can be seen when financial statements prepared in accordance with the accounting standards of country A, may be considered as presenting TFV in that country, but the situation in country B could be the opposite. To be acceptable as conveying a TFV in country B, it needs to be reconciled and restated in accordance with its own accounting standards. The author further explained that accounting standards change over a period of time. When certain standards change over a period of time, there is a need to modify, amend or replace it. The reason behind it is that what was true and fair in the past would not be true when standards are modified, amended or replaced. So, the TFV dated in period 1 would not be so in period 2 if or when certain accounting standards are modified, amended or replaced. He also highlighted that it is a necessary to allow the external auditors to decide for themselves the accounting standards and the limits of the materiality that would not injure the TFV and therefore, accept them to be reasonable and certify the financial statements as presenting a TFV. The author has not come to a conclusion on how the drawback can be overcome, whether the concept requires an overhaul or the auditors should expand their audit work to ensure harmony in the reporting framework.

Shaw (1995) expressed that recent high profile and unexpected corporate collapses were not created by audit failures. However, it was created by a number of failures of the executive management and of corporate bonds. Failures can be many forms: failure to exercise effective managerial judgement; failure to confront the consequences of a mistake; failure to secure the company assets; and failure to terminate the employment of someone who was damaging the company. But the audit failures, at least, delayed corrective action and often allowed the guilty to escape the punishment. The author explained that the reasons for this audit crisis include the greater complexity of

corporate structure and of financial transactions; increasing technological auditing processes; and more intense competition among auditing firms. These audit crisis factors influenced and subsequently were reflected in the changed structure of audit firms. When restructuring firms, the auditors were seen to abandon their responsibility for defining and upholding appropriate standards of financial reporting; and the investors, market regulators, general public, and politicians expressed their concern on the uncertainties created in financial reporting. Eventually, it led to uncertainty in financial reporting which had in turn spurred the growth in the number and length of standards promulgated. Now, the auditors complain that increase in detailed specification in standards would deny them the exercise of judgement. The author concluded that the solution to both complaints of regulatory overload and of excessive detail in standards is firmly in the hands of auditors. The study did not bring out the details of the solution taken by the auditors in cases of complaints on, both, regulatory overload and excessive detail in standards. The cases of audit failure were only mentioned briefly and were not provided with a detailed illustration.

Greenberg (1998) commented on Generally Accepted Accounting Principles (GAAP), auditor's independence and the misstatement of financial statements. The author described that each of the company's financial statements are prepared according to GAAP, with the blessings of outside auditors. GAAP are often used as the standard defence by companies whose accounting in under fire. In theory, GAAP definitely has prevented many of the abuses that have been making headlines. However, the Financial Accounting Standards Board, which created the 133 standards, say they are merely the guidelines and are subject to interpretation. The author further identified that the auditors should come in if there is a situation whereby the managers are so inclined to spin the results on certain matters until the rules are changed. Even the officials of the American Institute of Certified Public Accountants say that auditors have to ensure compliance with GAAP, but Howard Schilit, whose Center for Financial Analysis routinely spots accounting controversies, does not want to decide whether it is fair or a foul play. The author also discussed the fact that auditors often raised the proper red flags in order to be fair in their presentation. However when they did so, they risked being fired. One of these cases revolved around Think New Ideas, a highflying internet-marketing company whereby its auditors, BDO Seidman, complained about a variety of problems including account reconciliation not being performed on a timely basis. Eventually, Think New Ideas made certain changes, but had to fire BDO. Think New Ideas said that the change had nothing to do with BDO's recommendations, but it merely wanted to hire a Big Six auditor (the company hired Ernst & Young). In this study the author was only concerned in discussing GAAP, but the auditor's independence and the misstatements of financial statements concepts, was not discussed and mentioned in detail in this article.

Munter and Ratcliffe (1999) detailed the auditor's responsibilities for detection of fraud. The authors noted that fraud risk factors cannot be ranked easily in the order of importance nor combined into effective predictive models. As a result, the auditors need to exercise professional judgement when considering the risk factors individually or in combination and whether there are specific controls that will mitigate the risks. The authors pointed out that the size, complexity, and ownership of the organisation have a significant impact on the identification of relevant risk factors. The fraud risk factors will influence the auditor's attention while performing procedures or when

conducting audit work. They felt that judgement about the risk of material misstatement due to fraud may affect the audit in the following ways:

- Auditors are required to exercise professional scepticism and professional care (i.e. the attitude that includes a questioning mind and critical assessment of audit evidence).
- The knowledge, skill, and the ability of personnel assigned significant responsibilities should be assessed in order for them to commensurate with the identified risk of the engagement.
- The auditor may conclude that there is a risk of fraudulent financial reporting that requires the auditor to consider further the management's selection and application of significant accounting policies (i.e. revenue recognition and asset valuation).
- When there is a risk of material misstatement due to fraud-related risk factors that have control implications, the auditor's ability to access controls risk below the maximum level may be reduced.

The authors also highlighted that SAS No. 82 significantly increased the auditor's responsibilities to consider possibility of fraud at the planning stage itself. Documenting the auditor's conclusions about the likelihood of fraud and its implications should also form a part of auditor's responsibility. The authors have failed to look into other issues under SAS No. 82 that contains the auditor's responsibilities in understanding the internal control systems, consideration of illegal acts by the clients, and the assessment of audit risk and materiality.

Groveman (1996) explored how the auditors can detect misstatement in financial statements. The author highlighted that the most frequent causes of audit failures are due to inexperienced staff assigned to audits and a lack of professional scepticism. In order to maintain the appropriate degree of scepticism, auditors should not assume client management is dishonest and also should not unquestioningly expect honesty. However, the audit team must evaluate evidence objectively to determine whether or not financial statements are free of material misstatement. It is seen that, inventory misstatements have caused a number of financial statement problems. To prevent and detect inventory abuses, the inventory observation team should include experienced and capable personnel who are familiar with the client and its operations. The author further expressed that when an entity used an aggressive accounting principle in the audits areas (i.e. depreciation and amortisation), it may indicate that management is more concerned with the portrayal of favourable financial results than the reality. The auditors should make sure that all the practices are acceptable under GAAP and the financial statements should make overall business sense. The authors also mentioned that there are other financial statement areas that the auditors should focus on, which include: inappropriate revenue recognition; inadequate collectibility reserves; understated costs and expenses; and unusual transactions or balances. When all is said and done there is no mention about the way in which the auditors can detect material misstatement. The article also lacks detailed examples and practical application.

Bazerman *et al.*(1997) expressed that it is psychologically impossible for auditors to remain impartial and objective. Thus independence is impossible. The authors identified that while audit is specifically done for external users, the negotiated

relationship between the auditor and the client creates them. Eventually, both the auditor and client benefit from the auditor's self-serving bias. The self-serving bias is aggravated by some characteristics of the auditing relationship. First, an auditor cannot identify immediately who are the people who will be hurt by any misrepresentation at the time the decision is made. In contrast, the auditor is more likely to be well aware with the people within the client firm as to who would be hurt by a negative opinion on the audit. Second, the negative consequences of a negative opinion are likely to be immediate whereas the effects of a positive report when a negative report was appropriate are likely to be downplayed because of the delay of their report. Third, auditors are likely to unfold gradually any deterioration in the audited company due to the ongoing relationship with them. Fourth, financial reporting standards are flexible or ambiguous and it may be easy for an auditor to form a judgement that is consistent with their self-interests rather than interests of external users. Finally, people tend to rationalise to themselves and to others the accuracy of their biased judgements. To conclude, auditors' judgements are likely to be biased in favour of their own and their clients' interests. The authors highlighted that the auditing profession and external users of financial statements should actively seek fundamental changes in the current structure of the auditing relationship. The authors, here, have not mentioned about the kind of changes that could bring about complete independence and harmony in audit work. Further no suggestions were given as to how this independence could be maintained in the future.

McConnell and Banks (1997) analysed the implementation of the new fraud-auditing standard in auditing practice. The Auditing Standards Board (ASB) issued a new standard – Statement on Auditing Standards (SAS) No. 82: *Consideration of Fraud in a Financial Statement Audit* (ASB, 1997), to supersede SAS No. 53, *The Auditor's Responsibility to Detect and Report Errors and Irregularities*, which was issued in 1988, because ASB concluded that some of the practitioners did not truly understand their fraud detection responsibilities, and existing standards failed fully to provide guidance on how much work and documentation was required in addressing those responsibilities. The characteristics of new fraud auditing standard are summarised in its sequence as first, it requires a specific fraud risk assessment in every audit engagement; second, it provides guidance when the auditors identify fraud risk factors and evaluate audit test results; third, it describes documentation requirements; fourth, it provides guidance regarding internal and possibly external communication about fraud; and fifthly, it has specific provisions of the new fraud standard. Thus, on the other hand, for the auditors who had been following the mandates of superseded SAS No. 53, they may find this expansion in documentation not to be so important. However, the auditors who had not fully complied with SAS No. 53, will experience the greatest increase in audit effort. The practical applicability of this method is not clearly understood from this study.

Mayhew *et al.*(2001) presented the results of experimental markets that examine whether uncertainty in accounting transaction would impact the auditor's objectivity in a setting where the auditor has an incentive to build as well as to maintain a reputation for objective reporting. The authors examined the effect of uncertainty in a setting whereby the behavior of auditors, managers, and investors are affected by the auditor's reputation for objectivity. The results of this experiment highlighted that accounting uncertainty has an impact on audit behaviour in the market setting that

include incentives for auditors to build and maintain reputations. The market suggested that when accounting uncertainty does not exist, auditors remain objective in reporting the observed values of their assets. On the other hand, if accounting uncertainty exists, auditors tend to impair objectivity by misreporting in the favour of their clients. These results are different from the authors' analytical predictions that auditors will not impair their objectivity when accounting uncertainty exists. The authors further recommended that unclear GAAP and generally accepted auditing standards (GAAS) would reduce the likelihood of objectivity impairment by auditors. Their results also suggested that regulators should focus on enhancing auditor incentives to maintain objectivity when facing accounting uncertainty rather than be concerned with auditor objectivity violations when accounting pronouncements provide unambiguous guidance. The research has not examined how other potential mechanisms such as market structure, peer review, auditor training, mandatory auditor rotation, legal liability and oversight boards that formulate and monitor independence standards, in conjunction with auditor reputation, would impact auditor reporting decisions under conditions of uncertainty.

Frederick *et al.* (1994) make an empirical analysis to determine the categories used by the experienced auditors when they organise financial statement errors on the basis of transaction cycle and audit objective, and to determine whether there are experience-related differences in the organisation of auditors' knowledge bases, by taking into account the consideration from a group of managers, staff auditors and auditing students. The results indicated that managers were able to sort the financial statement errors on both transaction cycle and audit objective. In addition, the results pointed out that, with regard to experience effect, it was identified that staff's categorisations by transaction cycle were very similar to managers, but their audit objective categorisations were closer to auditing standards and textbooks. This, however, did not include apparent refinements evidence in the managers' categories. The results further highlighted that auditing students do not have any experience or enough experience on auditing by either transaction cycle or audit objective or this type of knowledge is mostly gained from audit experience and professional training. Then, the differences between managers and staff's categorisations may be because the managers have a heightened appreciation on the areas (i.e. "year-end adjustments"), which contain highest "exposure" or audit, risk. Last but not least, it can be concluded that the auditors normally sorted the financial statement errors based on the audit objective dimension more often than the transaction cycle dimension. The shortcoming of this study is that it did not determine whether experienced auditors' error categorisation would cause them to be more efficient and effective in their auditing than inexperienced auditors. The importance of knowledge structure that interacts with other cognitive developments, which would improve the audit performance over a period of time, is also not highlighted.

Smith (1993) expressed that the company should be liable to its creditors, and the auditors should be able to report accurately and clearly the company's state of affairs to any and all possible users. He identified that the idea and concept of TFV should not be a problem provided a professional firm was independent enough to express these ideas and concepts. The author further described that TFV relied on the profession to playing a game and working as if the game is being played. One of the advantages of TFV is that the auditors are free to draw attention to anything that gives cause for

concern. Unfortunately, the profession had under-utilised this freedom by hiding certain poor standards that led some auditors to have an excuse to suspend their judgement and opinion. He also highlighted that regulation of auditors should come from outside the profession. He felt that an individual auditor can be more independent by removing the possibility of opinion shopping for more favourable alternative treatments. Eventually, the profession needs to face up to and resolve the conflict and problem between commercial reliance on its responsibility to report impartially on their activities. The author also saw an inherent conflict between size and professional attitude. He considered that the large practices had significant problems brought about by their sheer size, which led to another distinction between unprofessional and unmanageable. The author did not discuss in detail how the company should be liable to its creditors, and how the auditors should be accountable to report accurately and clearly the company's state of affairs to any and all possible users.

Porter (1992) stated that financial statements are "true and fair" if they are prepared in accordance with the Statements of Standard Accounting Practice (SSAPs) or, in accordance with other GAAP, when there is no applicable SSAP. The author explained that even though accountants adopt the interpretation of TFV, they nevertheless realised that financial statements that are prepared in strict conformity with SSAPs might not necessarily provide TFV in all circumstances. She described financial statements as being like a photograph, which present a crystal clear picture of the financial affairs of the reporting entity. However, she identified that, unlike the object of a photograph, which is "fixed" at a point of time, the "object" which is portrayed in the financial statements is subject to the exercise of judgement. In order to present the financial statements, which provide a "true and fair" picture of the company's financial performance and its financial position, certain rules are needed to guide or direct the exercise of judgement, as financial statements are prepared. For this to be achieved, a set of rules or SSAPs, is derived as follows:

- companies legislation requires all the companies no matter large or small, to present a TFV in their financial statements;
- costs is attached to the provision of financial information and it is generally accepted that the costs of providing financial statements should not exceed the benefits derived from them; and
- SSAPs are getting more numerous and tend to become more exacting in their requirements.

No examples or samples were provided to add more understanding on the TFV concept or to what extent the SSAPs were successful in maintaining and providing full picture of TFV of the financial statement of each company.

## Research methodology

Information was collected from various sources of secondary data. Two research instruments were used: internet research and library research. For the internet research, the search engines such as ProQuest, Google, Lycos, AltaVista, *The CPA Journal*, *Wall Street Journal*, and Emerald provided useful and were excellent in obtaining online journals and articles. For library research, information was gathered by referring to accounting academic and reference books, journals, articles, magazines,

and past research paper from the Multimedia University (MMU) library and the Malaysian Institute of Accountant (MIA) library.

The research framework is developed as in Figure 1.

## Discussion, analysis and findings

*The concept of TFV*

Section 226(2) of the Companies Act 1985 (UK) uses the words "true and fair view" to describe what the balance sheet and profit and loss account shall give. Accordingly:

> The balance sheet shall give a true and fair view of the state of affairs of the company as at the end of the financial year; and the profit and loss account shall give a true and fair view of the profit or loss of the company for the financial year.

What constitutes a TFV has not been defined in the Act. This raises the question "What is 'TFV' and how do we define it?"

Professor Christopher Nobes in an extensive research of large audit firm has revealed the words "true" and "fair" that have been interpreted or given context to very differently by different professional firms. He reported the word "true" as: based on fact; undistorted fact; complies with rules; not in conflict with facts; objective; correct, within materiality; adherence to events; and factual accuracy. The word "fair" is described as: not misleading (three times); substance over form (twice); proper reflection; putting in right context; consistent with underlying reality; ability to

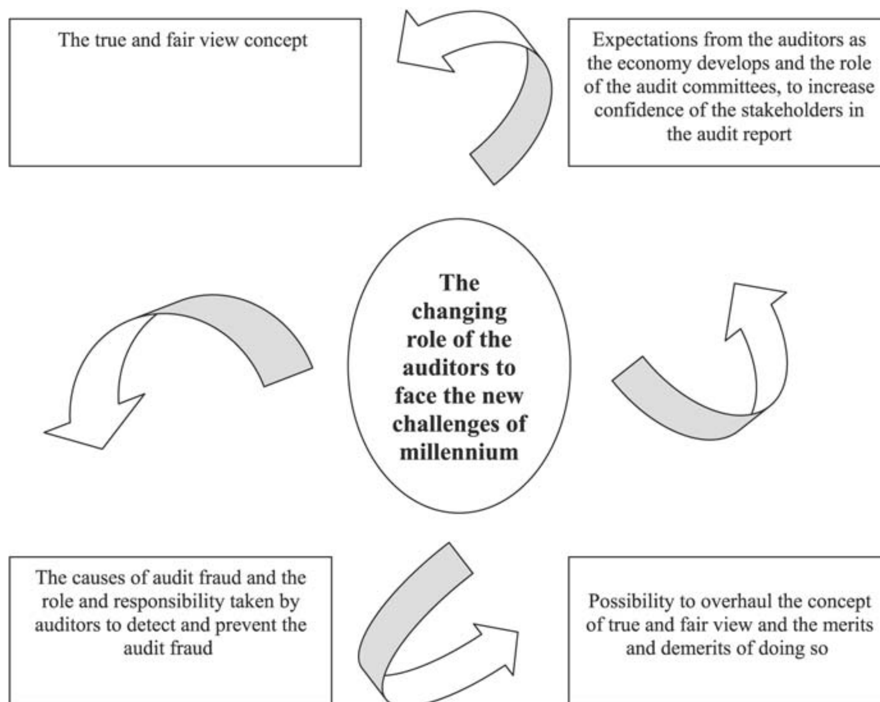


**Figure 1.**
Research framework

understand what has really gone on; in accordance with rules in context; and reasonable (Haider, 2001).

To sum up, a true and fair figure should possess the following characteristics: relevance, reliability, understandability and comparability. All these characteristics combined with the disclosures under accounting standards and statutory requirements, is expected to result in the financial statements that convey a TFV of such information. When an auditor gives his opinion on financial statements, he would naturally exercise a lot of professional judgement depending on the circumstances of each case. Based on this judgement he is able to arrive at a conclusion as to whether the financial statements are giving a TFV. However the auditor has to follow certain general guidelines, a few of which are as narrated below:

(1) The balance sheet and the profit and loss account should be drawn up in conformity with the accounting standards as well as the rules laid down under the Companies Act.

(2) Relevant information should be disclosed in the balance sheet and the profit and loss account and the financial performance of the companies are to be shown as it is, ensuring that there is neither overstatement nor understatement of facts.

(3) All material facts, regarding revenues, expenses, assets and liabilities of the company should be disclosed to avoid any misstatement.

(4) All unusual, exceptional, extraordinary and non-recurring items should be disclosed separately.

(5) The auditor should examine the situation as it exists at the end of the accounting period. If certain subsequent events may have helped the auditor in making a better assessment of the position as at the date of the balance sheet, the auditor should take such events into account.

At the same time, it can be identified that there are normally four fundamental concepts forming the basis or foundation for the preparation of financial statements that could give a TFV. These are summarised in sequence as:

(1) The "going concern" concept which, values the assets and liabilities on the basis that activities will continue to operate for the foreseeable future and that there is no need to use liquidation valuation principles.

(2) The "accruals" concept which, subject to prudence, would match income with expenditure incurred in earning the income. It brings the relevant transactions into the same period of account, without regard to the actual dates of receipt and payment.

(3) The "consistency" concept which, states that like items should be treated alike within the accounts and from one year to the next.

(4) The "prudence" concept which, states that the companies shall make provision for all actual and probable expenses, but include income only when they are definitely realisable.

It can be assumed that accounts intend to give a TFV when based on compliance with these four fundamental concepts unless the "accounting policies" declared in the notes to the accounts exclude one or more of them. Although theoretically the concept of "true and fair" seems so clear and easy to follow, practically the concept is subject to

wide range of interpretation and also is capable of leading to audit frauds. A good example of this is the fall of giant companies like Enron, WorldCom, Parmalat alongside the winding up of Andersens.

One of the most innovative, fast growing, and best managed businesses in the USA namely, Enron Corporation, filed bankruptcy on 2 December 2001, which caused the shareholders, including thousands of Enron workers who held company stock in their 401(k) retirements accounts, to lose tens of billions of dollars. While Enron cheated its investors to the extent of $600 million, Worldcom's scandal was even more larger to the extent of six times that of Enron. The unique part in the story is that both of them used the same auditors, Andersens. WorldCom, one of the biggest telecommunications companies in the USA, manipulated their accounts to show inflated profits in the two years preceding 2002. This was done by merely recording revenue expenses as investments which means that the company had 40 years to write off the expenses rather than recording it in a single year. The auditors, Andersens, claimed ignorance in the whole issue but is'nt this basic accounting? An auditor should definitely not miss out on the accounting treatment, especially because the amount was $3.9 billion. As in case of Parmalat the fraud was an alarming $12 billion. The amount was apparently invested in assets which did not exist, or did the assets evaporate? For Enron, WorldCom or Parmalat investigations of wrongdoing may take years to conclude, but Enron and WorldCom's failure had raised financial oversight issues with wider implications. The world has now focussed its attention towards understanding the purpose of accounting standards and the role of the auditors when giving an opinion on the truth and fairness of financial statements. The Securities and Exchange Commission did not want to blame Andersens for what happened in WorldCom, for the simple reason that audit examines a representative sample of company's financial statement rather than all of them. It means that if a company intends to act fraudulently, the auditors may find it difficult to uncover the fraud.

In that case the next question is what gives rise to audit frauds?

In case of the leading auditors, Andersens, Enron and WorldCom were not the only cases where investors were made to feel cheated. Their involvement in the waste management case was evident. Andersen knew what was happening and yet preferred to keep going with it. Further cases of Global Crossing Corp., Sunburn Inc., etc., undoubtedly creates suspicion on the involvement of auditors in fraudulent activities. Other large accounting firms have also been implicated in the past, although less frequently compared to Andersens.

The causes of audit fraud in today's business environment include the greater complexity of corporate structure and of financial transactions; increasing technological auditing processes; and more intense competition among auditing firms (Shaw, 1995). These interrelated factors influenced and subsequently, were reflected in the changed structure of audit firms. When restructuring firms, the auditors were seen to abandon their responsibility for defining and upholding appropriate standards of financial reporting; and the investors, market regulators, general public, and politician expressed their concern on the uncertainties created in financial reporting. Eventually, it led to uncertainty in financial reporting which had in turn spurred the growth in the number and length of standards promulgated. It could, thus, be perceived that the accounting uncertainty or uncertainty in financial reporting and changes in accounting standards over a period of time may impact the auditors

while forming an opinion on the financial statements. When accounting uncertainty does not exist, auditors remain objective in reporting the observed values of the companies' financial position. On the other hand, if accounting uncertainty does exist, auditors impair their objectivity by misreporting in the favour of their clients (Mayhew *et al.*, 2001).

Among the duties laid down by the professional codes of ethics and the Company's Act, it is clearly stated that the primary duty to prevent, detect and correct fraud is that of the directors. The auditors should plan and perform their audit procedures and evaluate and report the results thereof recognising that fraud and error may materially affect the financial statements. The same is, invariably, mentioned by the auditors in their engagement letters. Thus the lack of independence, integrity and credibility of the auditing profession on the role and responsibility to detect and prevent the audit fraud is another cause of audit fraud. Moreover, inherent limitations in the techniques and tests performed by the auditors would lead to audit fraud since auditors only can perform their duty based on judgement or sampling. In addition, the auditors are in a difficult position to detect fraud, whereby the use of deceit, collusion and other means to conceal fraud (often by individuals occupying a responsible role in the company) can mean that detection of fraud by the auditor is very difficult. Last but not least, the auditors only need to give opinion on the financial statements rather than give a guarantee. This means that the persuasiveness of their evidence gathered is not high or limited to that required to form an opinion. In other words, it can be concluded that the auditors are not specifically looking for fraud.

Hence, how can auditors detect and prevent audit fraud?

It is possible only if the entire audit procedures and techniques undergo a revamp. With the advent of computers and sophisticated computer packages, it should be rather easy to conduct a wider audit that could ensure a good coverage of the entire financial system of the company under consideration. Almost all companies around the world are maintaining financial details on the computer. It would be better for all the auditors to involve computer aided audit and accounting techniques (CAAATs). This will require not only employing staff with professional expertise, but also ensuring that all these staff possess a great skill in computer software. In addition, the auditors have to adhere to the accounting standards and the professional codes of ethics. A wider coverage of audit can ensure lesser frauds unless the fraud is planned well enough to cover even the basic facts. It should be borne in mind that involving computers can reduce the amount of documentary evidence that auditors can collect. However, to overcome this drawback the auditor could improve the quality of evidence collected and ensure that the evidences are properly documented On top of that the auditors have to be concerned with the integrity of management. They have to be sceptical and professional and should develop a sense of integrity, ethics and moral standards of commitment to their profession by collecting the necessary and sufficient evidence of their client's present background and past history in order to be consistent with the integration organisational liability (Roufaiel and Dorweiler, 1994).

Furthermore, communication that involves senior management, the audit committee, and when appropriate, others outside the entity, who are directly or indirectly involved with the company, is an important part of detecting and preventing fraud. Therefore, whenever the auditors have determined that there is evidence that a fraud may exist, that matter should be brought to the attention of an appropriate level

of the management. In addition, fraud that involves senior management and fraud that causes a material misstatement in the financial statements should be reported immediately to the audit committee (Munter and Ratcliffe, 1999). In this regard the auditors should take all the necessary steps to uncover the fraud. Here it is worthwhile to note that internal auditors, rather than external auditors, will be more helpful in detecting and reporting fraud, since internal auditors work with the management. This automatically brings into consideration that the internal auditors should possess the same level of independence, integrity and professionalism as the external auditors. Apart from defining the role of the auditors it is also necessary to consider whether an overhaul in the concept of TFV will help the auditors in performing their duties sincerely.

The recent audit failure cases have revealed the issue on the concept of TFV and whether this concept certification by auditors need an overhaul to strengthen the audit process by taking into account the judgements from the stakeholders of the company and the auditors. If there is a need and necessity, what are the benefits and disadvantages that can be derived by both parties?

Primarily the stakeholders take a lot of interest in the performance of the company since they are directly affected when a particular organisation performs below their expectation. This is to say that, the financial and business community has a primary interest in ensuring that the stakeholders have confidence in the audit process. With the overhaul of the TFV, it is believed that the investors would place trust in the corporate governance and its implications, especially with reference to the impending government review. So, how can the overhaul be implemented?

It can be achieved if the audit committees could tighten their scrutiny of the audit process, which should be insisted by the investors. Besides, it is very important to observe and examine the ways in which the system can be strengthened to limit the conflicts of interest. Again, the government or Inland Revenue in performing their tasks on tax computation and tax assessments would find it more objective and accurate, provided different personnel are involved in performing the tax work. Finally, accounting rules need to be robust in order to ensure that the audit process is objective. The audit process needs to be independent in order to prevent excessive influence by certain parties such as management. One of the audit failure cases, namely the Enron collapse, revealed the shortcomings on both counts of robustness and independence. On the other hand, it should be ensured that the auditors are not too familiar with their audit clients, in order to avoid the auditors being involved in fraudulent activities. This suggests that the internal auditor could be the same person year by year while the external auditor needs to be different each year. It could be argued that auditors would be less concerned about losing an audit in the near future. At the same time, auditors would highlight that this would have cost implications because whenever there is a new audit, the first audit is always more time consuming.

Meanwhile, it is appropriate to review the UK practice from these points of view. The auditors in the UK argued that changes in some areas would be appreciated, but they expressed that these changes should not go in the direction of too detailed prescription and additional rule making. In the UK, their practice is different from that of the USA. In the USA, it is more flexible and less rule-bound. Since US values substance over form, it is likely to produce more reliable outcomes. This approach should also be preserved for the elaboration of International Auditing Standards (IAS),

which are due to enter force in the European Union in 2005. Generally, auditors pointed out that it would be wrong to shift towards a more rigid rule-based approach just because of the recent high profile and corporate collapse. However, it would encourage more and more companies and their auditors to seek loopholes. In addition to specific mandates for documentation under the new standard, auditors would find more paperwork, because auditors are expected to bend over backwards to catalogue their activities and judgements in order to avoid being second-guessed when there is a new a case for change in some areas. In an effort to limit their own responsibility and shift any potential liability to management and the audit committee, auditors are likely to ask more questions and eventually, demand greater representations that the company has adequate internal control systems and is free of fraud. This will tend to increase the audit time in the audit process. Thus, it can be concluded that overhaul of the concept TFV would be more beneficial to the stakeholders of the company; however, it would bring about additional efforts on the part of the auditors. Bearing this in mind the auditor should define their new role.

The relationship between companies and auditors is similar to that between master and servant, and employer and employee. Legally, shareholders are supposed to appoint directors and the auditors, and it is the duty of the directors and auditors to report to shareholders. In practice, the directors are the ones who appoint the auditors, and the proposal is normally approved by the shareholders. The relationship between the shareholders and the directors is that of principal and agent. Just like the acts of the agent is binding on the principal, the acts of the directors would be binding on the shareholders. Therefore it is absolutely necessary that the directors act in the best interest of their shareholders. This would include appointment of an auditor who is seen as independent. The auditors, directors and other management staff must work hand in hand when the audit process is being carried out. At the same time the auditor's independence shall not be impaired. It includes avoiding any kind of close relationship by the auditor with the client. This would seem to be true in Hong Kong and Singapore whereby the consulting service is totally separate from the audit service. The auditors must also be socially accountable that is to say, auditors would be accountable to all the stakeholders by providing and sharing their information without any distortion. In line with this, companies would ensure that the accounting information complies with accounting standards and statutory regulation because they know that auditors would carry out their statutory duties. On October 15, 2002, the ASB of the AICPA announced that it had approved a new audit standard that requires accountants to detect fraud and to eye each management report with suspicion of wrong doing. This new standard is known as the Statement on Auditing Standards (SAS) 99: *Consideration of Fraud in a Financial Statement Audit*, which took effect on December 15, 2002 and it is one more significant step in re-shaping the relationship between the stakeholders of the company and the auditors. It can be argued that this new standard would reflect a more professional role of the auditor.

After watching Arthur Andersen's demise, the accounting community is taking great pains to convince the politicians and the public that it has learned its lesson. It has also taught a lesson to the auditing profession. Few changes in the audit profession need to be considered. First and foremost, auditors should use professional scepticism whereby the auditors should not assume that management of the company is honest. Instead, they should actively consider and identify how and where fraud might be

blooming within an organisation. By looking for whistleblowers, auditors should talk to all the employees at all levels with the goal of giving managers and others within the organisation an opportunity to blow the whistle on fraudulent activities. In addition, auditors should choose unexpected and unpredictable targets, with the goal of trying to catch the offenders who try to outguess the auditor's traditional investigation. Auditors should also pay particular attention to any areas where management has the ability to avoid procedures, and anticipate that management may override financial controls to commit the fraud. At the same time, auditors should perform their duty on the basis of "doing more with less" thereby performing their duty by using both the internal and external resources effectively. Auditors should possess characteristics of integration, with the ability and capability to adapt to new organisational environments and eventually, enable them to build a strategic relationship with the organisations. Auditors can audit in a highly automated environment by using the automation to audit effectively. They shall also address management concern with the cost on one hand and be capable enough to tackle other effects of fraud on the other hand.

As all of us enter the new millennium or twenty-first century of audit management, auditors will be faced with new opportunities and challenges that require them to be intelligent and competent enough to meet the new challenges created by the new economy.

## Conclusions

The emergence of numerous audit failures has focused the world's attention on accounting standards and the role of the auditors when giving an opinion whether the accounts give a TFV. The causes of audit fraud are partly due to lack of professionalism plus the failure of the accounting profession to bring about stringent rules to contain audit fraud. The ambiguity in the concept of true and fair is also part of the underlying problem. Audit committees should take much interest in the auditors' work by amending the auditors' responsibilities to accommodate the changing economy. Furthermore, stringent conditions on fraud detection could make the auditors feel more responsible. Use of CAAATs can help a wider coverage of audit. Simultaneously, improving the quality of evidence and the discipline in documentation will increase the scope of fraud detection. Internal auditors should feel equally responsible for the work they perform and should be answerable and equally professional. An overhaul of the concept of TFV will be appreciated, although it brings more benefits to the stakeholders than the auditors. Auditors should be ready to change themselves in the new era and be prepared for more challenges. They shall avoid situations like that of Andersens taking place again. The possibilities that the audit report becomes more reliable may be increased. It shall increase the confidence of stakeholders in the audit report.

## Limitations

Given a short research period, shortcomings of the research have been identified and issues relating to the topic remain unanswered. This evokes questions for further research:

- Each role and responsibility taken by the auditors to detect and prevent audit fraud was only mentioned briefly. No analysis was done on the possibility of actual application.
- Can the auditors form a TFV opinion to detect and prevent audit fraud by undertaking all the roles and responsibilities?
- A complete list and full picture on how the auditors can detect financial statement misstatements was not provided.
- To what extent is it possible to overhaul the concept of TFV in practice?

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# A tale of corporate governance: lessons why firms fail

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**Abstract**

**Purpose** – To review the world's and Australia's notable firm failures associated with divergence of best practices, describing the link of how corporate sustainability depends on its corporate governance implementation.

**Design/methodology/approach** – An array of existing theories and prior academic findings on corporate governance and corporate sustainability published between 1998 and 2004 are compared and contrasted, fitted with empirical evidence of what had happened with Enron, Inc. (Enron) and HIH Insurance (HIH). Matrices are developed to intercept the key good corporate governance perspectives with the study propositions.

**Findings** – The study indicates that both Enron and HIH acknowledged good corporate governance as a prevailing framework, yet failed to implement it. Each of the principles had been violated and had served as an attribute to the firms' failure.

**Research limitations/implications** – This study is limited to the two notable cases, notwithstanding the implication that perhaps its applicability in other corporate settings may be pursued. Data and information sources for this paper have also been limited to the use of secondary data obtained from the public domain.

**Practical implications** – This paper is expected to fill part of a gap in linking the studies of how corporate sustainability depends on its corporate governance.

**Originality/value** – This paper provides a practical approach in identifying the existence or non-existence of key good corporate governance principles in the going-concern of corporations.

**Keywords** Corporate governance, Management failures, Standards

**Paper type** General review

## 1. Introduction

History seems to repeat itself in the last two decades, when corporate mishaps have endangered and exposed misfortunes for hundreds or thousands and even millions of employees, customers, shareholders, vendors and other stakeholders (Boyd, 2003; Rezaee *et al.*, 2003; Doost and Fishman, 2004). The news about these mishaps unfortunately often spread fast, overwhelming the news about success stories from many fellow corporations.

Worldwide notable cases of corporate catastrophe with mistreatment of corporate governance being the known primary source of the problems in the past 20 years have included a list of prominent companies like Enron, WorldCom, Inc. and Barings (Zandstra, 2002; Boyd, 2003; Drummond, 2002). Specific cases with similar reasons in Australia have included "HIH Insurance, One.Tel and Harris Scarfe" (Leung and Cooper, 2003, p. 505).

This paper explores existing studies and theories about good corporate governance principles and corporate sustainability, by means of comparing and contrasting approaches on best practices developed by scholars and world's prominent

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organisations, enriched by featuring a couple of prominent cases on corporate failures associated with divergence of best practices. Hence, the paper is pursued to describe a more contemporary understanding on how a firm sustains or fails attributable to its corporate governance implementation.

Evidence of significant world and Australian corporate failures are presented in this paper in an attempt to answer the propositions of what are the:

- attributes of failures;
- prevailing good corporate governance framework and practices within these companies; and
- areas of the violations to the best practices.

In explaining how corporate sustainability depends on the implementation of good corporate governance principles, the key corporate governance perspectives identified from previous researches such as accountability, integrity, efficiency and transparency are intercepted with the above-mentioned study propositions.

This paper is organised first by way of presenting explorations of existing studies on corporate governance principles and evidence of the failures of giant firms. A synthesis of related literature is presented, to be followed by methodology being used in carrying out this study. Results and findings are presented leading the paper to be concluded with what are the lessons on corporate governance principles departure for the business community to learn.

## 2. Review of related literature

As demonstrated by Pass (2004, p. 52), corporate governance actually deals with the "duties and responsibilities of a company's board of directors in managing the company and their relationships with the shareholders of the company and the stakeholder groups". To put it into effective work, in essence, such dealing should be appropriately governed, regulated, imposed and enforced.

Many existing studies in good corporate governance have focused on: the roles of non-executive versus executive members of the board (Pass, 2004), the independence of the board of directors (Zandstra, 2002), the role, independence and disclosure of audit committee (Rezaee *et al.*, 2003), the enforcement of compliance and role of internal auditors (Vinten, 1998, 2000, 2002), altogether grouped into underlying values of corporate governance perspectives being the:

- accountability (Spira, 2001);
- integrity (Grant, 2003);
- efficiency (Walker and Fox, 2002); and
- transparency (Rezaee *et al.*, 2003).

As such, appropriate implementation and compliance with these principles are perceived as inevitably critical factors for corporate long-term sustainability.

Over these years, despite the increasing emergence of corporate failures (notwithstanding the success stories), debates on how salient is the role of corporate governance in providing a platform for best practices to sustain the businesses have continued to roll. The focus of the questions has remained the same, on why corporations arrive at the brink of collapse and therefore putting their viabilities at

stake. Is it because the corporate governance framework is not in place, or if it were in place, is it because corporate governance's implementation does not work as it should be? The antecedents of failures seem unchanged, even though the prescriptions to sustain have existed for a long time.

In an effort to develop a proactive approach, best practice guidelines have been developed and prescribed by major organisations such as the Organisation for Economics Co-operation and Development (OECD) (2004a, b) and through a forum of the World Bank and OECD (2002). All of these are – again – to advocate the common threads of core corporate governance perspectives: to improve accountability, integrity, efficiency and transparency. Yet, the story seems to continue with cases unveiling facts where many firms take the good corporate governance perspectives seriously, embedded into the hearts of their businesses, while some others take the framework for granted, as to driving themselves into weakening positions not originating from the business.

To explain primary impediments of good governance, the International Swaps and Derivatives Association (ISDA) (2002) reminds us that modern economic theory has established an approach to the construct of corporate governance through the separation of two main functions in firms, which are:

(1) principals, the owners of the companies who hold claims over the net income of the company's business no matter it is positive or negative, who then appoint; and

(2) agents, who execute duties and responsibilities in the companies on behalf of the principals.

This separation is however, linked and governed through proper "agency relationship" at various levels, among others "between shareholders and boards of directors, between boards and senior management, between senior and subordinate levels of management" (ISDA, 2002, p. 4). In such a principal-agent relationship, there is always "inherent potential for conflicts within a firm because the economic incentives faced by the agents are often different from those faced by the principals" (ISDA, 2002, p. 5). According to ISDA (2002), all companies are exposed to agency problems, and to some extent develop action plans to deal with them. These include establishing such measures as: "controls on the actions of agents, monitoring the actions of agents, financial incentives to encourage agents to act in the interest of the principals, and separation of risk taking functions from control functions" (ISDA, 2002, p. 5).

*2.1. Corporate governance evolution for corporate sustainability*

Good corporate governance researchers have long and repeatedly revealed how best practice traits play a crucial role in sustaining businesses by promoting transparency, accountability, integrity and efficiency (Parker *et al.*, 2002; Zandstra, 2002; Vinten, 1998, 2000, 2002). For some, these sound very much like conceptual frameworks being launched from an ivory tower. It is not the case, apparently. The studies of corporate governance have also unveiled major corporate failures with problems primarily stemming from improper implementation of good governance principles (Zandstra, 2002; Doost and Fishman, 2004; Boyd, 2003).

The above studies promote the evolution of corporate governance in sustaining the going-concern of corporations, by fostering a more angelic relationship between the

stakeholders in almost every part of the world. A study by Grant (2003), for example, demonstrates that there have been continued actions in the USA to defend the rights of the shareholders in corporations in addition to infuse corporate governance. This has not only happened in the USA, Walker and Fox (2002) in his study of corporate governance reform in East Asia discloses that in the past decade corporate governance studies have advanced with a focus on the extent of legal protection for shareholders. Their research suggests that in the USA, UK, Germany and Japan, good corporate governance relies on an appropriate mix of concentrated ownership and legal protection, whereas in some other less-than sophisticated countries (in terms of good corporate governance), legal protection for shareholders is reasonably weak due to the existence of poor laws and bad court systems.

In Australia, Leung and Cooper (2003, p. 505) reveal that for the firms to sustain this "... the history of bad corporate behaviour is not to be repeated, the religion of materialism needs to be recognised and addressed, to ensure any corporate governance reforms proposed for the future will be effective". Contrary to Leung and Cooper, however, a study by Weir and Laing (2001) reveals a finding which serves as a big challenge to validate, i.e. there has not been a clear connection between governance structures and corporate performance, such as the stimulating question "What does it do with the sustainability?".

### *2.2. "What is what" good corporate governance*

A historical outlook has been presented by Vinten (1998), who mentions that the corporate governance issue is actually dated back to the time when limited liability corporations started to emerge in the nineteeenth century, and has since then triggered needs for proper legislation and regulations. He further indicates that until today, corporate mishaps, in some events come with gigantic magnitude, have attracted more caution of the lack of governance, and as such "demand for reform, and even entire models of operating within a country are up for re-evaluation" (Vinten, 1998, p. 419).

After Vinten's study in 1998, Taylor (2000) defended that reforms have been pursued, where principles of good governance had expanded and included: the understanding of the underlying meaning of governance; setting the strategic goals; optimising relationships between board members and the chief executive; achieving commonality in directions; command, accountability and responsibility; identifying ownership needs; maximising self-improvement; and understanding the cost of governance.

Notwithstanding the reforms and expansions of corporate governance, the primary issues of enforcing the best practices however, remain to be placed on the domain of who holds primary responsibility and who performs the oversight and enforcement functions of enacting the principles of best practices, implementing such principles, monitoring the implementation, and enforcing reward and punishment mechanisms for complying or violating the principles' implementation. These promote a benchmark for control mechanism for the boards, audit committee, shareholders, and other stakeholders at large.

A number of studies have addressed the above primary issues such as the one by Rezaee *et al.* (2003), who reveal that the role of audit committee and the disclosure level of the committee play a vital role in fostering good corporate governance practices. In looking at the issue of power scope and structure of the board, as another example, a

study by Cutting and Kouzmin (2000) suggests that excessive managerial power of the board of directors, which results from poorly designed structure of the board, has mainly been an underlying factor of business failures. Here, the boards go beyond their authority, abandoning fiduciary duties, and become uncontrollable as a result of the power being held. Another finding explains about the protection provided for shareholders' interest, where the extent of such protection needs to be substantiated (Walker and Fox, 2002). These have been reflected in the works of a number of formal working groups assigned by some governments to assess the viability of improving governance. Taking into account UK as the context, Pass (2004) discloses that, in the past decade, a number of committees appointed by the Government have released reports on governance issues, such as Cadbury in 1992, Greenbury in 1995 and Hampel in 1998. Generating awareness of the significance for independent "check and balance" mechanism of agency relationship and power control of the board, these committees were promoting, among others, the role of non-executive directors, their independence level, and their involvement in the boards as well as the need for other strategic committees like a remuneration committee.

*2.3.The platforms for benchmark*

According to Kirkpatrick (2004), the OECD has, in the past five years, initiated the development of benchmark principles of good corporate governance and at the same time promoted the use of such principles. This is mainly attributed to the belief that good corporate governance principles and implementation underpin market confidence, integrity and efficiency, which will then drive the economic growth and financial stability. A platform for the benchmark of best practices as issued by OECD in 2004 (OECD, 2004a) covers, among others, the revised frameworks (based on the former 1999 principles) of effective exercise of ownership, and about dealing with conflicts of interest between stakeholders.

Another platform was presented by Carati and Rad (2000) with an approach toward the systemic evolution of the market and group-based corporate governance systems. This approach takes on the premise that:

> The corporate governance system is formed by the regulatory and institutional environment and the corporate control mix, where the former determines the optimal composition of the latter (Carati and Rad, 2000, pp. 67-8).

Carati and Rad (2000, p. 68) further outline that the change in political and economical forces in the market has driven to turn the systemic corporate governance evolution into reality, which could come from "gradual improvements in the existing governance systems" and "adjustment of the corporate governance system to structurally changing political and economic forces". The bottom line of Carati and Rad's model is the existence of economic and political forces, which may induce the change in institutional and regulatory environment as well as the change in corporate control mix.

After a review of the above studies, looking at notable "assaults" of corporate governance principles in the case of Enron and HIH, it appears that both companies did not fail because of their being unable to generate sufficient sales revenues or because the businesses were bad. They failed because best practices were abandoned (Zandstra, 2002; Leung and Cooper, 2003), even though they were aware of the

platforms for benchmark. This triggers a gap in reviewing the main perspectives of the good corporate governance framework – accountability, integrity, efficiency and transparency – as to describing how its presence was reasonably absent at Enron and HIH, as such driving the two giants in their industries down the business hill.

## 3. Methodology

### *3.1. Existing theories*

This paper explores previous researches and findings about corporate governance and corporate sustainability, to obtain a more contemporary academic understanding of how accountability, integrity, efficiency and transparency are orchestrated in a mutually inclusive manner in sustaining the going-concern of the firms.

### *3.2. Case studies*

The academic understanding synthesised from prior researches and findings are enriched within the context of market evidence, by providing two case studies of corporate failure, Enron and HIH.

### *3.3. Types of study and sources of data*

This study is exploratory and descriptive, based on prior researches and public evidence on Enron and HIH, in an effort to seek out a pattern on how corporate failures are contributed to by the divergence of good corporate governance principles.

### *3.4. Research questions*

Based on the evidence from the departure of best practices in the cases of Enron and HIH, enriched with the academic understanding from existing researches, answers are expected to derive from the following questions:

- *Attribution to corporate failure*. This is a negative proposition, striving to understand how each of the best practice principles is implicated in the corporate failures.
- *Prevailing good corporate governance framework*. This is a positive proposition, which indicates the level of the company's recognition of best practices.
- *Violation of the best practices*. This is a negative proposition that tries to identify the areas of violations on the key best practice principles.

The above questions are intercepted with the following synthesised corporate governance perspectives:

- accountability;
- integrity;
- efficiency; and
- transparency.

These corporate governance perspectives are viewed as critical factors for sustainability of the firms, as their absence potentially lead to corporate failures. To apply the applicability of these perspectives in Enron and HIH, the author constructs the scoring for each of the perspectives, denoting a score of (1) for existence of each

perspective and score of (0) for non-existence of each of the perspectives. Figure 1 shows how each of these perspectives is intercepted with the study propositions.

## 4. Results and findings

*4.1. Case highlights – Enron*

Enron was established as a result of the merger of Houston Natural Gas (Texas) and Internorth (Nebraska) in 1985, to develop a nationwide gas pipeline company in North America[1]. A few years time after the amalgamation, Enron became the biggest gas merchant in North America and the UK with 21,000 employees in 40 countries. According to *Strategic Direction* (2003):

> Enron began diversifying its portfolio through the use of special purpose entities (SPEs) which allowed the company to embark upon less conventional ventures without necessarily reflecting their cost on its balance sheets.

Such strategy "had the effect of promoting Enron as a rapidly expanding and upcoming company, despite the fact there were very few real assets at hand" (*Strategic Direction*, 2003). The article in the journal *Strategic Direction* went on to mention that the most interesting part of all is that, reports of – at that time – Enron's CEO Kenneth Lay were always promoting Enron's "three core values of respect, integrity and excellence".

On 16 October 2001, Enron eventually reported loss after taking charges against earnings of US$1 billion for poor businesses, and furthermore, on 8 November 2001 announced through a SEC filing that it restated its earnings since 1997, as such recording a reduction of US$586 million. Following the sequel of bad fates, on 28 November 2001 a major rating agency slashed down Enron's debt rating into junk bond. Official filing for chapter 11 (protection for bankruptcy) was done on 2 December 2001.

The following are the key questions with regard to corporate governance perspectives of Enron's failure.

*4.1.1. Accountability*:

- *Failure attributes*. The board of directors was malfunctioning with Enron. The governance in its true sense did not exist. No responsibility is being taken by the members of the board. [Existence, score 1.]
- *Prevailing framework*. As it was revealed by Enron's reports, the firm seemed to participate actively in promoting corporate social responsibility and exposing its participations in environmental and community initiatives. [Existence, score 1.]
- *Area of violations*. Accountability has been violated by Enron's board members. There were no senses of responsibility provided to the public shareholders whose

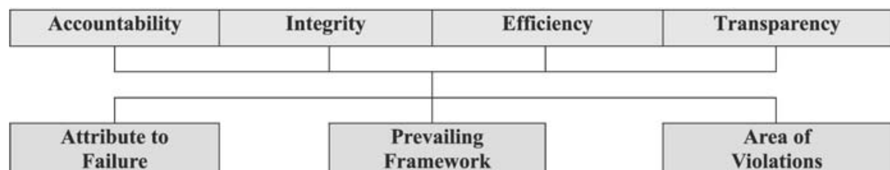


**Figure 1.** Cross-check model of key corporate governance principles/study propositions

investment's market value was significantly erased once the scandal was unveiled. [Existence, score 1.]

*4.1.2. Integrity*:

- *Failure attributes*. The failure to disclose the "rotten" transactions with SPEs was not an accident. It was more deliberate action to continue hiding the potential losses and at the same time continued reaping profits from the innocent public shareholders. [Existence, score 1.]
- *Prevailing framework*. Enron claimed to foster integrity on their report papers, among others with an explicit example of exposing the 15 external directors with excellent résumés with law, business and industry backgrounds. [Existence, score 1.]
- *Area of violations*. Integrity was violated with reasons similar to the failure (read: "unwillingness") to reveal complicated bad financial transactions with SPEs. [Existence, score 1.]

*4.1.3. Efficiency*:

- *Failure attributes*. The transactions which Enron structured its SPEs were not for efficiency purposes. In many transactions, Enron transfers assets and debt off its balance sheets to SPEs to recognise a gain from the transfer, at the cost of providing almost whole capital needed for the set-up of such SPEs. [Existence, score 1.]
- *Prevailing framework*. Enron promotes efficiency by escalating the economies of scale through aggressive business expansions (even though few real assets were in hand), and continuing to strive to be the biggest natural gas merchant in the USA and the UK. [Existence, score 1.]
- *Area of violations*. When the transactions with its SPEs went bust, things were clear that there was no advocating for efficiency. [Existence, score 1.]

*4.1.4. Transparency*:

- *Failure attributes*. Transparency did not exist at Enron. Investors at large were not made aware of what was going on in Enron. The complication of the transactions which involved with its SPEs, as such exposing itself with a great deal of loss, was not communicated with public shareholders. [Existence, score 1.]
- *Prevailing framework*. Enron regularly claimed to have advocated transparency in business dealings, particularly when it comes to quarterly reporting of earnings. [Existence, score 1.]
- *Area of violations*. Enron's claim on transparency was a disguise for its reports – particularly for earnings – which were exaggerated to induce stock price in the market for the benefits of the management holding true information. [Existence, score 1.]

Putting all of the above pieces together, Table I is presented to depict the situation with Enron, where the company was well aware of the need in preserving the prevailing framework of accountability, integrity, efficiency and transparency as critical factors for sustainability, but completely fail to comply, and as such consistently violating these factors.

*4.2. Case highlights – HIH*

Leung and Cooper (2003)[2] disclose that HIH was the biggest insurance underwriter in Australia, comprising of several insurance companies. On the company failure, The HIH Royal Commission (2003, p. xiii), in its Volume I finding, reveals that:

> On 15 March 2001 the major companies in the HIH Insurance group were placed in provisional liquidation. The provisional liquidators were appointed, the magnitude of the HIH group's obligations began to emerge, and the journey towards oblivion proceeded. Formal winding-up orders were made on 27 August 2001 – the corporate equivalent of death. By then the deficiency of the group was estimated to be between $ 3.6 billion and $5.3 billion. If the ultimate shortfall is anywhere near the upper end of that range, the collapse of HIH will be the largest corporate failure Australia has endured to date.

There have been many, varied and complex interrelated factors contributed to HIH failure. As The HIH Royal Commission (2003, p. xvii) discloses:

> They are epitomised by a lack of attention to detail, a lack of accountability for performance, and a lack of integrity in the company's internal processes and systems. Combined, these features led to a series of business decisions that were poorly conceived and even more poorly executed.

The following are the key questions for HIH's failure with respect to the corporate governance principles.

*4.2.1. Accountability*:

- *Failure attributes*. Board of directors did not function properly. The HIH Royal Commission discloses that the HIH board had no sufficient ability and independence to see what had to be done. It is an issue of the absence of competence, which lead to irresponsible operations of the business. [Existence, score 1.]
- *Prevailing framework*. HIH recognised the need for increasing accountability by having independent non-executive directors. [Existence, score 1.]
- *Area of violations*. Even though the need for independent non-executive directors was recognised, out of its members two were both partners of HIH's external auditor and the other two were still involved in rendering legal services to HIH. [Existence, score 1.]

*4.2.2. Integrity*:

- *Failure attributes*. Business decisions were not made on the basis of fair judgement. Particularly, when it comes to provide adequately for future claims, as well as to acquire new businesses (no proper due diligence conducted and related party transactions pursued). [Existence, score 1.]

**Table I.** Existence/non-existence of corporate governance perspectives to the study propositions – Enron case

| No. | Study propositions/corporate governance perspectives | Accountability | Integrity | Efficiency | Transparency |
|---|---|---|---|---|---|
| 1 | Failure attributes (−) | 1 | 1 | 1 | 1 |
| 2 | Prevailing framework (+) | 1 | 1 | 1 | 1 |
| 3 | Area of violations (−) | 1 | 1 | 1 | 1 |

**Notes:** (− ) = Negative proposition; (+) = Positive proposition; 1 = Existence

- *Prevailing framework*. HIH recognised the importance of advocating integrity on paper. It did set up an audit committee of the board. [Existence, score 1.]
- *Area of violations*. With a weak structure of the audit committee, HIH smoothly padded profits as businesses eroded. [Existence, score 1.]

*4.2.3. Efficiency*:

- *Failure attributes*. As The HIH Royal Commission (2003, p. xvii) reveals, money in HIH "was wasted by extravagance, largesse, paying too much for businesses acquired, and questionable transactions". [Existence, score 1.]
- *Prevailing framework*. There was no efficiency framework in place at HIH, looking at the way the board committed to ill-fated businesses, unwise acquisitions of FAI Insurance, and severe under-reserving for future claims. [Non-existence, score 0.]
- *Area of violations*. Looking at the transactions with FAIs, and how the business performed poorly in the UK and USA, it was apparent that HIH boards did not advocate for efficiency. [Existence, score 1.]

*4.2.4. Transparency*:

- *Failure attributes*. Similar to Enron, transparency did not exist at HIH. Public shareholders and customers (policyholders) were misled by the facts that HIH had suffered from failure after failure in the UK and US operations as well as FAI acquisitions. Facts were not released to the public. [Existence, score 1.]
- *Prevailing framework*. Transparency in its sense as a part of corporate governance model was adopted (on paper) by HIH. Annual reports of HIH continuously claimed this. [Existence, score 1.]
- *Area of violations*. Failures of early disclosing under-reserved future claims and losses from among others its UK, US operations as well as from FAI acquisitions. [Existence, score 1.]

Table II pictures HIH's condition in which the company appears to acknowledge accountability, integrity and transparency (except for the efficiency) as prevailing framework to sustain the business. However, HIH failed to comply with them, as indicated by the failures attributes and area of violations.

## 5. Conclusion and lessons learned

The key good corporate governance perspectives serving as critical factors for the firms to sustain encompass accountability, integrity, efficiency, and transparency. This paper reviews how each of these factors contribute to company's sustainability by

| No | Study propositions/corporate governance perspectives | Accountability | Integrity | Efficiency | Transparency |
|---|---|---|---|---|---|
| 1 | Failure attributes (−) | 1 | 1 | 1 | 1 |
| 2 | Prevailing framework (+) | 1 | 1 | 0 | 1 |
| 3 | Area of violations (−) | 1 | 1 | 1 | 1 |

**Notes:** (−) = Negative proposition; (+) = Positive proposition; 0 = Non-existence; 1 = Existence

**Table II.** Existence/non-existence of corporate governance perspectives to the study propositions – HIH case

cross-checking them with the failure case of Enron and HIH, based on the propositions of failure attributes, prevailing good corporate governance framework within the company, and the area of violations. The results were presented in Tables I and II, demonstrating areas of propositions to perform the benchmark, against which key principles of good corporate governance framework were checked to validate the contribution of each of the principles to corporate sustainability. From these matirices, the study finds that – as it was reflected – prior to the catastrophe, both Enron and HIH generally recognised the need for prevailing good corporate governance framework, but used them more as tools for "investor relations" purposes i.e. to keep up high stock prices for the primary benefits of the boards.

The study indicates that both Enron and HIH did not fail because they were in a bad business. They failed because they assaulted the key principles of good corporate governance. In this respect, violation does not merely mean there was no implementation for the best practices, but more because of the inappropriate implementation of such a framework according to their own version of financial benefits.

The study reflects lessons to learn for other firms. There is no need to repeat the pain of the history created by Enron and HIH. What had happened to these companies indicated that the implementation of good corporate governance practices is a prerequisite to sustain. The outcome has been severe from these two cases, which had made public innocent stakeholders suffer, resulted from conflicting interests and stimulation of private choice from certain parties within the firms, and ultimately becoming public burdens. As years go by, so long as the principles of good corporate governance are advocated and properly implemented, stakeholders would be able to expect to secure a sustainable future for firms.

Had Enron and HIH not departed from good governance frameworks, taking into account their resources and the traits of the industries in which they are in, these giants may have remained to be equipped to sustain.

## Notes

1. Sources of information for this section are: ISDA (2002); *Strategic Direction* (2003); Zandstra (2002).
2. Sources of information for this section are: Leung and Cooper (2003); The HIH Royal Commission (2003).

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# An exploratory study of auditors' responsibility for fraud detection in Barbados

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## Abstract

**Purpose** – Recently, fraud has been brought to the forefront with the scandals of Enron and Worldcom. Fraudulent financial reporting and misappropriation of assets served to undermine investors' confidence in audited financial statements. This study investigates how auditors and users perceive the auditors' responsibility for uncovering fraud, the nature and extent of fraud in Barbados, and audit procedures utilised in Barbados since Enron.

**Design/methodology/approach** – A total of 43 respondents (19 auditors and 24 users) were surveyed regarding their perceptions and experiences on fraud, using qualitative and quantitative approaches.

**Findings** – Indicates that the expectation gap is wide, as auditors felt that the detection of fraud is management's responsibility, while users and management disagreed. Also finds that fraud is not a major issue in Barbados and that companies who have internal auditors, sound internal controls and effective audit committees are better equipped to deal with fraud prevention and detection.

**Research limitations/implications** – The sample size is relatively small and it is not intended nor claimed that those interviewed comprise a representative sample.

**Practical implications** – This research fills a void in research in this area in a small country like Barbados. These findings have important implications for users of Barbadian accounts, especially investors, auditors and regulators.

**Originality/value** – This paper fulfils a resource need for academics and practitioners, and makes an interesting contribution to our understanding of fraud in Barbados.


**Keywords** Fraud, Auditors, Barbados

**Paper type** Research paper

## Introduction

For a long time, there has been controversy over the role of the auditor with respect to the detection of fraud. It has been argued that an audit should be done by a competent, independent, individual and involves the collection and assessment of evidence about information to decide and report on the degree of correspondence between the information and certain established criteria (Arens *et al.*, 2003, p. 11).

The Association of Certified Fraud Examiners (ACFE, 2004) in its study entitled *The Report to the Nation on Occupational Fraud and Abuse* has reported that annual fraud costs to US companies exceed 6 per cent of their revenues, which is approximately US$660 billion annually. However, this figure does not include the

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impact that fraudulent financial reporting has on the capital markets (Cox and Weirich, 2002). The ACFE (2004, p. 1) defined occupational fraud as:

> the use of one's occupation for personal enrichment through the deliberate misuse or misapplication of the employing organisations' resources or assets.

Some common types of fraud include creating fictitious creditors, "ghosts" on the payroll, falsifying cash sales, undeclared stock, making unauthorised "write-offs", and claiming excessive or never incurred expenses.

In today's technological age, fraud has become very complicated, and increasingly difficult to detect, especially when it is collusive in nature and committed by top management who are capable of concealing it. Consequently, auditors have argued that the detection of fraud should not be their responsibility.

This exploratory study attempts to focus on the auditors' and users' perceptions in detecting fraud and related audit procedures, the nature and extent of fraud in Barbados, possible influences of professional experience and educational background of auditors, and the organisation's previous experience in detecting fraud (Moyes and Hasan, 1996, p. 41). The paper also looks at the way auditors respond to the increased likelihood of material misstatements caused by fraud, especially since Enron (Makkawi and Schick, 2003). International literature contributes much on the debate of the auditor's role and the public's perception of his role, but none has been researched on this issue in Barbados. However, KPMG in Barbados (KPMG, 2000a, b) has carried out a study on fraud in Barbados which provides a foundation for the conduct of the present study.

The paper is structured as follows: The second section looks at a brief historical background. The third section deals with a review of previous research and is followed by the fourth section on key characteristics of Barbados. The next section looks at the research methodology and the findings and discussion are then presented and analysed in the sixth section. The final section concludes the study.

## Brief historical background

The role of the auditor has not been well defined from inception. In the nineteenth century, auditors claimed fraud detection as an audit objective. *In re London and General Bank* (No. 2) [1895] 2 Ch. 673, Lindley LJ stated that it was the auditor's duty to report to shareholders all dishonest acts which had occurred and which affected the propriety of the contents of the financial statements (Porter, 1997). However, the learned judge also argued that the auditor could not be expected to uncover all fraud committed within the company, since the auditor was not an insurer or guarantor, but was expected to conduct the audit with reasonable skill and care in the circumstances.

By the 1930s, it became generally recognised that the principal audit objective was the verification of accounts (Vanasco, 1998). The profession took the position that fraud detection was management's responsibility since management had a responsibility to implement appropriate internal control systems to prevent fraud in their organisations. This was as a result of the increase in size and volume of companies' transactions that made it virtually impossible for the auditor to examine all transactions (Porter, 1997). Auditors used sampling and testing procedures, which offered only reasonable assurance of the contents of financial statements. In addition, auditors were unable to

detect fraud that involved unrecorded transactions, theft and other irregularities (Vanasco, 1998, p. 4).

By the 1960s, there was widespread criticism from the press and the general public of the profession's denial of responsibility for detecting fraud (Morrison, 1970, cited in Porter, 1997). The author also argued that the press and general public considered an audit useless if it was not designed to uncover major frauds (Morrison, 1970, cited in Porter, 1997). Despite the criticism, auditors continued to minimise the importance of their role in detecting fraud and continued to stress that it was the role of management. By publicly disclaiming responsibility for detection of fraud, external auditors wished to avoid or minimise legal liability in order to protect them from legal claims holding them responsible for fraud (Humphrey *et al.*, 1993; Vanasco, 1998).

From the 1980s, as a result of technology, the complexity and volume of fraud have posed severe problems for the corporate world. However, Porter (1997) argued that, although case law has determined that in some circumstances auditors have a duty to detect fraud, the courts have attempted to maintain that duty within reasonable limits.

## Selective review of the literature

Fraud may be defined as intentional deception, cheating or stealing and can be committed against users such as investors, creditors, customers or government entities (Weirich and Reinstein, 2000). Statement on Auditing Standards (SAS) No. 82 identified two categories of fraud as fraudulent financial reporting and misappropriation of assets. Fraudulent financial reporting (management fraud) is where management seeks to inflate reported profits or other assets by overstating assets and revenues or understating expenses and liabilities in order to embellish the financial statements. Misappropriation of assets (employee fraud) is where employees steal money or other property from their employers. Various fraud schemes could include embezzlement, theft of company property and kickbacks.

Albrecht *et al.* (1995) classified fraud into employee embezzlement, management fraud, investment scams, vendor fraud, customer fraud, and miscellaneous fraud. Albrecht *et al.* (1994) identified the causes associated with individuals committing fraud. They concluded that there are factors (also known as the fraud triangle) such as situational pressures, perceived opportunities and rationalisation. Situational pressures originate from underpaid and overworked staff, excessive debt and lifestyle. Perceived opportunities allow fraud to be committed because of poor internal controls or negligence. Rationalisation is where the individual justifies the behaviour as being acceptable with seemingly plausible, but false reasons (Moyes and Hasan, 1996).

In the international arena, there are examples of corporate failures such as Bank of Credit and Commerce International (BCCI), Barings Bank, Enron and Worldcom. In July 1991, there was the "wind up" of BCCI as a result of fraudulent activity which included collusion with top management and third parties in fictitious loan schemes, and the falsification of accounting records (Vanasco, 1998, p. 38). As a result of this fraudulent activity, there were lawsuits worldwide as investors attempted to recoup some of their monies, and guilty parties were even incarcerated (Truell and Gurwin, 1992). In February 1995, there was also the collapse of Barings Bank in England as a result of the speculative and unauthorised activities of a trader named Nick Leeson in Singapore. Leeson misled the bank by seemingly earning phenomenal profits while

incurring substantial losses (Drummond, 2002, p. 232) and "left debts of over £850 million that brought down one of England's most prestigious banks" (*Strategic Direction*, 2002, p. 4). In 2001, Enron, a US company, was a perfect example to illustrate the awareness by both management and the auditor of fraudulent financial reporting. The collapse of Enron took down the accounting firm of Arthur Anderson (Vinten, 2003). The Treadway Commission has defined fraudulent financial reporting as intentional or reckless conduct, either by act or omission, which results in materially misleading financial statements (COSO, 1999).

Beasley (1996) concluded that there was a significant negative relationship between the proportion of outside directors on the board and the likelihood of financial statement fraud. He also concluded that the presence of an audit committee did not significantly affect the likelihood of financial statement fraud. However, it may be argued that mere presence alone could well not have an impact on fraudulent financial reporting, but rather it depends on the way the audit committee operates. Abbott *et al.* (2000) found that companies with audit committees, which comprised independent directors and met at least twice per year, were less likely to be sanctioned for fraudulent or misleading reporting. In many cases, since members of audit committees may not have the type of information to make independent judgements on fraud, they depend heavily on information provided by the internal auditors.

Cox and Weirich (2002, p. 374) argued that the pressure to meet or exceed analysts' expectations has resulted in various entities turning to fraudulent financial reporting activities. Vinten (2003) pointed out that it is often the chief executive officer (CEO) who is involved in the efforts by the corporation to inflate profits or hide certain liabilities off the financial statements as was done by Enron.

Moyes and Hasan (1996, p. 46) concluded that the degree of fraud detection was not dependent on the type of auditor, since both internal and external auditors have equal abilities to detect fraud. Moyes and Hasan (1996, p. 46) also found that organisational success in detecting fraud was significantly enhanced in auditing firms with previous experience in fraud detection than auditing firms with no such history. It was also found that auditors who were certified as certified public accountants (CPAs) were more likely to detect fraud than auditors who were non-CPAs. Moyes and Hasan (1996) argued that this certification may imply a greater level of professional competence in fraud detection. The authors further argued that the peer review process puts pressure on auditors to be more diligent in incorporating relevant audit procedures to detect fraud.

Bonner *et al.* (1998) concluded that there existed some support for higher incidence of litigation against auditors, when a company's financial statements contain fraud that most commonly occurs, or when fraud arises from fictitious transactions and events. Summers and Sweeney (1998) found that insiders reduced their equity stake during the occurrence of fraud.

There is still no modern consensus about the role of the external auditor, so far as the detection of fraud is concerned. Users of financial statements and accountants have a divergent perception of the auditor's role. The literature refers to this difference as the "Audit Expectation Gap", a phrase which was introduced by Liggio (1974). The audit expectations gap may be defined as the difference between the levels of expected performance as perceived by the external auditor and the user of financial statements (Pierce and Kilcommins, 1996). Farrell and Franco (1999) found that more than 61 per

cent of the CPA respondents disagreed that they should be responsible for searching for fraud.

Auditors claim that they are not responsible for detecting fraud, but that the detection of fraud is management's responsibility and that audits are not designed, and cannot be relied on, for this purpose (Porter, 1997). The SAS 1 (AU110) *Codification of Auditing Standards and Procedures* stated that:

> The auditor has a responsibility to plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether caused by error or fraud. Because of the nature of audit evidence and the characteristics of fraud, the auditor is able to obtain reasonable, but not absolute, assurance that material misstatements are detected. The auditor has no responsibility to plan and perform the audit to obtain reasonable assurance that misstatements, whether caused by errors or fraud, that are not material to the financial statements are detected (Arens *et al.*, 2003, p. 138).

There are clearly varying opinions on the role of the auditor. For instance, the professional bodies that set the standards for the profession and the auditors themselves do not totally agree on the auditors' role, much more the users of financial statements.

This expectation gap can be linked to the fact that investors (users) want to know that they are investing their money in reputable companies. One of the ways of doing this is by analysing the audited financial statements, since they expect the auditors to give them this assurance when they are making financial decisions. Investors expect the auditors to detect fraud, as they do not trust management to do so as management can be fraudulent. The auditors, on the other hand, although they view their role as bringing credibility to financial statements, know that because of the scope of their responsibilities and the fact that they do investigations based on samples, cannot therefore verify every single transaction, hence fraud is likely to be undetected. This combined with the fact that fraud of a collusive nature is extremely difficult to detect are some of the possible reasons why auditors take the position that they are not responsible for detecting fraud.

In 1988, SAS No. 53, T*he Auditor's Responsibility to Detect and Report Errors and Irregularities,* was introduced and held the auditor responsible for detecting errors and irregularities that materially impacted on the financial statements. However, Moyes and Hasan (1996) argued that negligible attention was given to the auditors' qualifications, particular organisational factors and audit procedures that could be very important in the detection of fraudulent financial reporting.

Then SAS No. 82 *Consideration of Fraud in a Financial Statement Audit* was implemented in 1997, and stated that the auditor is "... to plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether caused by error or fraud" (ASB, 1997). SAS No. 82 provided guidance on how the auditor should achieve this by looking at areas and categories of heightened risk of fraud, how the auditor should respond, the evaluation of audit test results as they relate to the risk of fraud, and the communication about fraud to management, the audit committee and others.

In 2001 and 2002, there was public outcry in the aftermath of the collapse of Enron, Global Crossing and WorldCom who were forced to declare bankruptcy as a result of the discovery of massive accounting and other irregularities (Lander, 2004, p. 1). Enron had concocted the market prices and recognised fictitious gains on long-term futures

contracts, with these fictitious gains representing more than 50 per cent of their reported US$1.41 billion reported pre-tax income for the financial year 2000 (Makkawi and Schick, 2003; Thomas, 2002). In response to the public outcry, the Sarbanes-Oxley Act of 2002 was enacted on 20 July 2002 in the USA. The Act provides for fines ranging between US$1million to US$5 million and imprisonment ranging from ten to 20 years for knowingly certifying false statements, the deliberate destruction of any audit work papers or other documents, and any mail, wire, bank or securities fraud.

Thus, SAS No. 82 was superseded by SAS No. 99, also known as *Consideration of Fraud in a Financial Statement Audit* and it was implemented to expand procedures to detect fraud. Ramos (2003) argued that the new standard (SAS No. 99) aimed to have the auditor's consideration of fraud incorporated fully into the audit process from start to finish. SAS No. 99 requests auditors to approach the audit with professional scepticism (an attitude that includes a questioning mind), and to avoid some natural inclinations such as placing excessive reliance on representations from clients. The auditor must forget previous relationships and not assume that all clients are honest.

The American Institute of Certified Public Accountants (AICPA) has implemented this new fraud standard to restore investors' confidence and faith in the stock markets, and reduce the incidence of financial fraud. SAS No. 99 looks at identifying, responding to and assessing fraud risks, addressing risk of management override of internal control, specific accounts or classes of transactions, reviewing accounting estimates, communication and documentation (Ramos, 2003). Like SAS No. 82, SAS No. 99 lists numerous illustrative fraud risk factors to help the auditor in considering whether fraud is present. However, in SAS No. 99, these illustrative fraud risk factors have been reorganised to track the fraud triangle. Readers are invited to look at Vanasco (1998) for a comprehensive analysis of the role of professional associations, governmental agencies and international accounting bodies in promulgating standards to deter and detect fraud.

**Key characteristics of Barbados**

Barbados is a small island of 166 square miles in the Caribbean and has a population of over 250,000. It is a democratic and stable political society, with a private sector that includes a vibrant financial services sector of both offshore and onshore businesses. The Securities Exchange of Barbados (SEB) regulates the public limited companies. Companies are regulated by the Barbados' Companies Act, which sets out the duties and responsibilities of the directors and management but does not specifically legislate or directly address the issue of fraud (see Appendix 1). Barbados is represented by the "Big Four" firms of Ernst & Young, PriceWaterhouseCoopers, KPMG Peat Marwick and Deloitte & Touche. Medium-sized firms are represented by international names such as Pannell Kerr Forster, Porter Hetu International and Grant Thornton. The remaining auditors comprised small indigenous firms and sole practitioners.

The Institute of Chartered Accountants of Barbados (ICAB) is the regulatory body for the accounting profession in Barbados and is a member of the International Federation of Accountants. All of its members are affiliated to recognised accountancy bodies such as the AICPA, Certified Management Accountants (CMA), Certified General Accountants (CGA) and the Association of Certified and Chartered Accountants (ACCA), the Institute of Chartered Accountants in England and Wales (ICAEW), among others, in the UK, USA and Canada. As of 31 December 2003, ICAB

had a membership of 572 fully qualified accountants of which 175 held practising certificates to perform audits.

Historically, as a former British colony, the Barbadian economy has been heavily dependent on sugar, but in recent years the economy has diversified into manufacturing and tourism. Tourism plays a vital role in the country's economy. Offshore finance and information services are also important foreign exchange earners. The government encourages foreign direct investment with a significant amount coming from North America and Europe. Barbados has a literacy rate of approximately 98 per cent and has been rated as one of the leading developing countries by the United Nations' Human Development Index Report measuring education levels, life expectancy and per capita income. As a small open economy, Barbados is influenced by a wide range of external economic factors that very often originate in the USA. For example, the Barbados dollar is tied to the US dollar at a fixed rate of 2 to 1.

KPMG had performed a survey on fraud in the Caribbean and the findings are included in their KPMG *Caribbean Fraud Survey Report* 2000 (KPMG, 2000a).

The following key characteristics for Barbados are set out below:

- Only 10 per cent of the respondents in Barbados believe fraud is a "major problem" for their business.
- Of the respondents, 71 per cent claimed that fraud was discovered through internal mechanisms such as existing internal controls, while 43 per cent claimed for internal audits. No respondents in Barbados indicated that fraud was discovered through external audits.
- In Barbados, 67 per cent of the respondents cited customers as the greatest source of fraud, while employees were identified as the second greatest source (33 per cent). Most of the employee-related fraud occurred through kiting or lapping[1]. The majority of customer-related fraud was perpetrated through cheque forgery, filing of false invoices, and credit card schemes. No one cited financial statements fraud.
- Of the respondents in Barbados, 31 per cent acknowledged that fraud occurred against their company. A total of 93 per cent of all respondents in Barbados who believe fraud will increase attributed this increase to weakening in society's values, and 86 per cent attributed the anticipated increase to more sophisticated criminals. KPMG (2000a) concluded that taken together, these responses indicate that the anticipated increase in fraud will result from factors outside the control of their company or the government.

The KPMG study focused on users' perceptions rather than measuring both the auditors and users perceptions, as this study will attempt. In addition, the KPMG study was quantitative rather than qualitative.

## Research methodology

The literature reveals that the dominant method of research was the quantitative questionnaire (Beasley, 1996; Moyes and Hasan, 1996; Porter, 1993). The vast quantitative survey-based empirical studies have established a body of knowledge about the auditors' responsibility for detection of fraud, but failed to conduct deeper analysis of the research phenomena, particularly the question of how stakeholders'

react to fraud detection. As Saunders *et al.* (2003, p. 92) pointed out: "the data collected by the survey strategy may not be as wide-ranging as those collected by other research strategies".

The use of a qualitative approach to support a quantitative survey will serve to understand fully the question of fraud detection. This research paper is very much an exploratory study into the auditors' responsibility for detecting fraud in Barbados. Personal face-to-face interviews were held with a random sample of auditors and users, using a semi-structured interview schedule that was developed based on the issues coming out of the literature. The use of face-to-face interviews was chosen as the research method because of the likelihood of a high response rate, a high degree of accuracy and minimal non-response, and the need to discover underlying motivations, feelings, values, attitudes and perceptions about fraud detection (Alleyne, 2002; McDaniel and Gates, 2001). In addition, the project demanded that a fairly wide-ranging approach be taken to understand the issue, and the fact that interviews generate a much richer source of insights into questions under investigation (Strauss and Corbin, 1998).

Judgemental sampling was used as a basis for the selection of the size of both groups of respondents (auditors and users), since the aim was to include all those persons related to the phenomenon (Hudaib, 2003). Much emphasis was placed on quality rather than quantity. Following Arber (1993) and Oppenheim (1992), Hudaib (2003, p. 106) used a similar approach and stated that:

> ... the number of participants in each group is determined by interviewing as many participants as possible until it is felt that no new ideas are emerging from the in-depth interview.

Random telephone calls were made to persons enquiring whether they were willing to be interviewed. Some difficulties were encountered in obtaining personal interviews with some auditors and certain senior managers of some organisations, given their hectic busy schedules and their willingness (or lack thereof) to share hard and sensitive data. These interviews were obtained to assist in finding out what is happening and to ask questions (Saunders *et al.*, 2003, p. 96).

The interviewees were split into two groups of auditors and users. The auditor group comprised 19 auditors (including two partners/managers of the four major international audit firms, two senior government auditors and nine other sole practitioners). The user group totalled 24 and comprised 16 senior managers of auditee companies (including five public limited companies, four financial institutions and seven other businesses), seven user-investors and one representative from ICAB. On average, the 24 audit respondents had 18.53 years of experience with 5.92 standard deviations. On average, the 16 senior managers within the user group had 13.94 years of experience with 4.725 standard deviations, while on average, the other eight respondents (seven user-investors and the member from ICAB) had 8.38 years of experience as investors in public limited companies. The high level of experience of the sample should provide knowledgeable views on fraud and auditing in Barbados. In addition, 24 respondents (19 auditors and five users) had professional accounting qualifications.

Respondents were asked to rate certain questions on a five-point Likert scale varying from 1 (strongly disagree) to 5 (strongly agree). The responses to these

questions are shown at Table I. The questionnaire also contained in-depth questions pertaining to fraud on which interviewees were asked to comment. Interviewees were also allowed to speak at length on any issues regarding auditing and fraud. Each interview lasted approximately one hour. The full interview questionnaire schedule is shown in Appendix 2, Figure A1. Certain questions were adapted and modified from Farrell and Franco's (1999) study. The sample size is relatively small and those interviewed are not intended, or claimed to comprise a representative sample of persons. Consequently, the results should be interpreted with caution and could serve as a springboard for further research into this important area.

## Findings and discussion

*Auditor's responsibility for uncovering fraud*

All the auditors sampled and 29.2 per cent (seven persons) of the users strongly disagreed that it was the auditors' role to detect fraud, as the scope of their duties prohibited them from doing so. The quantitative results at Table I reveal a statistical significant difference with auditors and users on the point about auditors' responsibility for uncovering fraud ($t = -6.333$, df $= 23$, $p < 0.001$). The auditor group showed a significantly lower mean score of 1.00 compared to the user group who had a higher mean score of 3.38. The low mean was expected from the auditors, as well as from five of these seven users who had accounting qualifications that would have influenced their perceptions.

One auditor argued that:

> The role of the auditor is not to detect fraud, but in planning an audit so that there is reasonable expectation of discovery. The public is not sufficiently educated on the role of the auditor and this leads to unrealistic expectations on the part of clients, investors and others with vested interests.

However, the other users were adamant that detecting fraud was not just the auditors' responsibility but also the main objective of an audit. One user queried, "… then, why pay for an audit?". In contrast, one partner at a major audit firm argued that:

> Fraud detection is the responsibility of management, who controls the day-to-day running of the organisations. Auditors are not responsible for prevention and detection. We must do continuous risk assessment and tailoring of our audit strategy to suit. The attitude of professional scepticism also implies management must also be considered as a risk factor.

The risk-based audit procedures used by auditors prohibited them from being totally responsible for fraud detection. The reporting of fraud is to management and the shareholders. Results of the independent t-test revealed that there is a statistical significant difference ($t = -5.655$, df $= 24.724$, $p < 0.001$) between auditors and users on the need to legislate auditors to be responsible for uncovering fraud and reporting to authorities (see Table I). There appears to be strong disagreement among auditors (mean $= 1.11$) for such legislation compared to the significantly higher users perception of agreement (mean $= 3.25$). Those who supported further legislation felt that society in general would benefit, while those who opposed felt that it was not feasible as the audit is already being viewed as expensive and therefore had no benefits. One auditor queried: "Who will bear the additional costs of auditing when clients are restricting us to fixed fees?"

**Table I.** Quantitative results based on Likert-type questions

| Item | Overall | Auditors ($n = 19$) | | Users ($n = 24$) | | Levene's test for equality of variances | | $T$-test for equality of means | |
|---|---|---|---|---|---|---|---|---|---|
| | Mean[b] | Mean[b] | SD | Mean[b] | SD | $F$ | Sig. | $t$ value | $p$ |
| Fraud detection is the responsibility of auditors | 2.33 | 1.00 | 0.000 | 3.38 | 1.837 | 148.605 | 0.000[c] | −6.333 | 0.000* |
| Legislate auditors to uncover and report fraud | 2.30 | 1.11 | 0.315 | 3.25 | 1.824 | 176.300 | 0.000[c] | \|−5.655 | 0.000* |
| The size of society has an impact on fraud | 1.65 | 1.58 | 0.961 | 1.71 | 1.367 | 1.795 | 0.188 | −0.349 | 0.729 |
| Fraud is a major concern in Barbados | 1.91 | 1.26 | 0.653 | 2.42 | 1.909 | 61.187 | 0.000[c] | −2.763 | 0.010** |
| Discovery of fraud negatively impacting users | 4.88 | 4.95 | 0.229 | 4.83 | 0.816 | 1.539 | 0.222 | 0.589 | 0.559 |
| Auditors should actively search for illegal acts | 3.09 | 1.21 | 0.419 | 4.58 | 1.139 | 2.950 | 0.093 | −12.244 | 0.000* |
| Auditors should assess internal controls | 5.00 | 5.00 | 0.000 | 5.00 | 0.000 | –[a] | –[a] | –[a] | –[a] |
| Auditors should assess the internal auditor's role | 5.00 | 5.00 | 0.000 | 5.00 | 0.000 | –[a] | –[a] | –[a] | –[a] |
| Auditor should work to uncover related party transactions | 4.95 | 4.89 | 0.459 | 5.00 | 0.000 | 5.701 | 0.022[c] | −1.000 | 0.331 |
| The auditor should evaluate company's ability to be a going-concern | 5.00 | 5.00 | 0.000 | 5.00 | 0.000 | –[a] | –[a] | –[a] | –[a] |
| The auditor should assess management's characteristics | 4.93 | 5.00 | 0.000 | 4.88 | 0.448 | 6.787 | 0.013[c] | 1.366 | 0.185 |
| The auditor should ensure that findings are conveyed to the board of directors or audit committee | 4.93 | 4.89 | 0.459 | 4.96 | 0.204 | 1.620 | 0.210 | −0.609 | 0.546 |
| There was improvement in auditing after Enron | 4.35 | 5.00 | 0.000 | 3.83 | 1.167 | 128.023 | 0.000[c] | 4.897 | 0.000* |

**Notes:** [a] $t$ cannot be computed because the standard deviations of both groups are 0; [b] 1 = strongly disagree; 2 = disagree; 3 = neutral; 4 = agree; 5 = strongly agree; [c] Equal variance not assumed (sig. of $F < 0.05$); * Significant level at 0.001; ** Significant level at 0.05; SD = Standard deviation

One factor that was evident from the information collected was that the educational background in terms of accounting knowledge influenced whether the interviewee perceived that the auditor should detect fraud. The majority of the interviewees with an accounting background or qualification expressed the view that auditors were not responsible for detecting fraud. This included the auditors and several management respondents who had accounting knowledge. However, users without that accounting knowledge held the opposing view.

*Extent of fraud*

The auditors (mean = 1.58) and users (mean = 1.71) did not differ significantly on the question of the impact of the size of Barbados' society on fraud occurrence or detection. They agreed that the small size of Barbados' society did not have an effect on fraud occurrence or detection. However, Table I further revealed a statistical significant difference between auditors and users on fraud being a major problem in Barbados ($t = -2.763$, $df = 29.484$, $p = 0.010$). Users tended to show moderate disagreement (mean = 2.42) in fraud being a major problem compared to the strong disagreement of the auditors (mean = 1.26). Discussions with the interviewees revealed that fraud was not viewed as a major problem. These results agreed with KPMG's (2000a) findings that only 10 per cent of the respondents believed that fraud is a major problem. Interviewees believed it was because Barbados had good business practices, excellent checks and balances in place to deter fraud. It was highlighted that the self-owned businesses with one or few staff members were able to detect and correct any fraud because of their "hands on" involvement in most aspects of the business. The larger organisations used internal auditors, strong internals controls, constant reviews and made improvements where necessary, to prevent and detect fraud. Tough disciplinary measures such as immediate dismissal and suspensions were used to deter and correct fraudulent activities. However, 12.5 per cent of the users felt that in a community as small as Barbados, the challenges of fraud detection and regulation could be uphill tasks, given the closed ranks of certain sectors of the society.

*Reasons for committing fraud*

The respondents suggested the following factors from their experience as the reasons for committing fraud:

- the moral values of individuals;
- the need to maintain an increasing social status;
- persons unhappy with their job;
- persons with drugs and gambling addictions;
- people with increasing indebtedness;
- individuals who "see other people doing it"; and
- persons who feel that they would not be caught.

The understanding and reaction to fraud was determined not only by the size of the fraud and who committed it, but also against which organisation the fraud was committed. One manager from a financial institution said that:

> Organisations like financial institutions, keep such matters in-house and try to recover losses or minimise erosion of public confidence by not prosecuting perpetrators of fraud. Banks, credit unions and insurance companies are organisations most likely to have fraudulent activity.

Auditors and users did not view fraudulent financial reporting as a major issue, as it was commonly felt that there were no major incentives to do it. Unlike in the USA, many companies did not have bonus payments tied to financial results. Furthermore, respondents argued that there were no publicised cases of fraudulent financial reporting in Barbados These findings agreed with KPMG's (2000a) results. However, a small minority (8.3 per cent) of the users felt that it could happen whenever additional financing was needed or tax liabilities needed to be reduced.

*Audit procedures*

The auditors claimed that they assessed internal controls, the role of the internal auditors, going concern issues, management's characteristics, and worked to uncover related party transactions, and ensured that audit findings are conveyed to the board of directors or audit committee, wherever applicable. For example, it was pointed out that auditors always check the current year's audit to see if the recommendations from the previous year's audit were carried out. Both auditors and users agreed that these procedures should be done, as the overall mean ranged from 4.93 to 5.00 for these procedures.

However, in Table I, auditors showed a significantly lower mean score of 1.21 compared to a higher mean score of 4.58 for users on the question of actively searching for illegal acts ($t = -12.244$, $\mathrm{df} = 41$, $p > 0.001$). The auditors were adamant that they were not responsible for searching for illegal acts, as compared to users agreeing that this procedure should be done. One auditor argued that "such duties are merely incidental to the engagement". However, users expected all these procedures to be carried out, and as one user commented "... anything short of this can be considered as negligence!".

One of the auditors' duties is to report to management on the company's internal controls. If this is being done, the incidence of fraud as a result of poor controls should be minimised. One auditor argued that:

> Large businesses tend to rely more on extensive internal controls and sometimes internal audit departments, whereas small businesses, with limited resources, see financial statement audits as equivalent to fraud audits.

Another auditor further pointed out that:

> Some small businesses do not heed the auditors' advice in tightening controls.

Audit requirements in Barbados include the assessment of internal control, identification of control weaknesses and making recommendations to improve the internal control system and preventing fraud. The profession distinguishes between an internal and an external auditor. The internal auditor, as part of the internal control system, must also verify that the financial statements are free of material misstatements. As part of the organisation, the internal auditor should be in a position to detect any fraudulent activities or behaviour. The public limited companies and financial institutions interviewed had internal auditors that they viewed as being

effective in their duties to detect and prevent fraud. The external auditors have agreed to this fact, since the internal auditors would have had their training in some of these audit firms. In addition, the public limited companies and the financial institutions agreed with the external auditors that the presence of knowledgeable and independent audit committees in their organisations have served to strengthen controls, ensure fair and honest reporting and preserve the independence of auditors.

Moreover, the external auditors felt that the presence of the internal auditors in these organisations has given them a major degree of comfort in carrying out their duties. The good working relationship between the external and the internal auditors has helped to improve internal control systems by the pooling of knowledge resources.

*Auditors' response since Enron*

The auditors and users were fully aware of the Enron scandal as a result of the level of publicity in the media. Auditors' awareness of fraud have been heightened since Enron's debacle. There appeared to be strong agreement among auditors (mean = 5.00) that auditing in Barbados has improved since Enron compared to the users perception (mean = 3.83). This was found to be statistically significant ($t = 4.897$, df = 23, $p < 0.001$). Further questioning revealed that the profession in Barbados has responded well by providing continuing professional education for its members. ICAB has been holding many seminars to address these and other issues, by making it mandatory for members to attend them or fear non-renewal of practising certificates. The large audit firms have provided more training in fraud-detection techniques and planning audits with a view to detecting fraud, as the fear of a subsequent discovery of fraud after issuing a clean audit report could affect the firm's reputation and finances through lawsuits. The smaller firms are spending more time in conducting the audits to ensure greater accuracy. The profession has now become more cognisant of its responsibility to restore faith, not withstanding its staunch position that fraud detection is management's responsibility. More due diligence work is now being done to eliminate potentially high-risk audit clients. As a result, clients are being carefully screened at the acceptance stage. More internal peer review processes are being implemented in the large firms to determine whether audits have achieved their objectives. Users have also acknowledged that there seems to be increased auditing procedures being performed.

A total of 89.5 per cent of the auditors and 41.7 per cent of the users (including those who had accounting knowledge) knew about the Sarbanes-Oxley Act in the USA. The auditors who knew more about the Act were from the major audit firms who audited the large public limited companies and offshore companies that could be affected by the Act, given the Securities Exchange Commission's (SEC's) requirements for all US companies. The users had heard about the Act but could not recall any specifics.

*Regulation and enforcement*

ICAB indicated that it never had to enforce regulations or censure practitioners as a result of poor audits since there was generally strict adherence to standards. Hence, there were no known cases of revocation of the practising certificates of auditors in Barbados. ICAB also indicated that the investigation of fraud was left to certain bodies such as the law, which is vested with the power to investigate and take action in certain fraudulent activities.

There was consensus among the interviewees that auditors should be held responsible if it could be proven that poor audits were conducted. This view was presented in light of the standards that the auditor must follow. Within Barbados, auditors agreed that they followed Generally Accepted Auditing Standards (GAAS), as failure to do so opens them to litigation. It was further pointed out that the engagement letter also sets guidelines that should be followed by the auditor.

What is expected of the audit profession in Barbados seems to stem from the development of the profession's role in fraud detection in the USA and UK. However, there were no local cases to show what the courts in Barbados decided in such situations. Even in the past corporate failures in Barbados, no mention was ever made of the auditors and/or management being sued. In the 1980s, Trade Confirmers Limited (TCL), a local financial institution, closed down as a result of suspected fraud and the Government launched a major commission of inquiry (Worrell Commission) into its collapse. The inquiry revealed fraud, corruption, mismanagement and incompetence. Leacock (2001, p. 270) related that interest rates exceeded the maximum statutory limit that led to illegality and non-repayment of interest by borrowers. In addition, top management had converted corporate funds into personal use. The Commission's terms of reference did not allow it to proceed with any legal action against those at fault but it suggested that the matter be referred to the law courts for determination. No litigation was ever brought against auditors or management, nor did the inquiry result in the return of deposits to clients. No reason was ever given for the failure to prosecute guilty parties.

At the time of writing, there was an investigation into fraud (theft of money) at BICO Limited, a local public limited company. BICO Limited is currently claiming Bds$3 million in damages against its previous auditors, PriceWaterhouseCoopers, for not uncovering irregularities between 1995 and 1999 (*Daily Herald*, 2004).

## Conclusion

The paper explored the auditors' and users' perceptions of the auditors' responsibility for uncovering fraud, the performance of related auditing procedures, the nature and extent of fraud in Barbados, as well as the auditors' response since Enron. The findings provided some valuable insights into how both parties view audit responsibilities and what their expectations are.

These results indicated that auditors strongly disagreed that they were responsible for uncovering fraud compared to the users' strong view that they should be responsible. While fraud, in general, was not perceived to be a major problem in Barbados, there was a statistical significant difference between auditors and users on this point. Users showed moderate disagreement in fraud being a major problem compared to the strong disagreement of the auditors. In addition, both groups did not view fraudulent financial reporting as a major issue.

There was a general strong consensus by both groups that auditors should work to uncover related party transactions, assess internal controls, the work of the internal auditors, management's characteristics and going concern issues, and ensure that audit findings are conveyed to the board of directors or audit committee, wherever applicable. However, users expected that auditors would actively search for illegal acts while auditors disagreed. Auditors and users agreed that auditing has improved since Enron, and both parties were fully informed on the issues surrounding the collapse of

Enron. It was also found that organisations with strong internal controls, internal auditors and audit committees were better equipped to deal with fraud in any form.

Users in Barbados may need to be better informed as to how auditors view their role. Education may be the key in solving part of the problem, by closing the "misunderstanding gap" although the "expectation gap" may still exist (Porter, 1997). In addition, a precise and detailed engagement letter must, *inter alia*, contain all the relevant conditions necessary for the engagement, the services provided and the responsibilities of both parties. This is an excellent opportunity for the auditor to inform the client and to explain to the shareholders at the annual general meeting (rather than to the directors) that the prevention and detection of fraud rests with the company.

Makkawi and Schick (2003) suggested two approaches that auditors should adopt to aid in fraud detection. First, they argued that auditors need to "audit smarter" because they operate in a fixed fee environment, which limits the fees, that clients are willing to pay. This can be accomplished by the need for auditors to be more aware context in which the audit occurs and the fact that the nature and concentration of fraud varies by industry. Second, the authors suggested that auditors should exercise greater scepticism and rigorous assessment of management's integrity, which are also required by SAS No. 99.

The fact that auditors in Barbados do not view the detection of fraud as their responsibility, but rather see their role as expressing an independent opinion on financial statements is an indication that they still need to be aware that undetected fraud could distort their findings and affect the reliability of their reports. Above all, from an ethical viewpoint, external auditors as well as internal auditors should report any suspicion of fraud rather than remain silent.

The findings from this research show a favourable picture on certain issues as audit respondents may have attempted to portray the profession in a favourable light. Future research may consider sending a large-scale self-administered questionnaire to remove any potential bias. Further research into this area could also be undertaken to investigate the functional and operational aspects of auditing for fraud.

## Note

1. Kiting is the act of fraudulently misstating the accounts of an organisation by showing the same amount on deposit simultaneously in two of its bank accounts. This can be accomplished by depositing in one bank account a cheque drawn on another and recording in the books of account only the deposit on the day of the transfer. Lapping is the act of fraudulently withholding cash receipts and covering up the current deficiency by depositing subsequent receipts (see KPMG, 2000a, p. 7).

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## Appendix 1. Extracts from the Barbados Companies Act, Cap 308, 1982-1997

*Section 58 (1)*

Subject to any unanimous shareholders agreement, the directors of a company must:

(a) exercise the powers of the company directly or indirectly through the employees and agents of the company; and

(b) direct the management of the business and affairs of the company (pp. 43-44).

*Section 95 (1)*

(1) Every director and officer of a company in exercising his powers and discharging his duties must

  (a) act honestly and in good faith with a view to the best interests of the company; and

  (b) exercise the care, diligence and skill that a reasonably prudent person would exercise in comparable circumstances.

(2) In determining what are the best interests of a company, a director must have regard to the interests of the company's employees in general as well as to the interests of its shareholders (p. 61).

*Section 166*

(1) A director or an officer of a company shall forthwith notify the company's auditor of any error or mis-statement of which the director or officer becomes aware in a financial statement that the auditor or a former auditor of the company has reported upon.

(2) When the auditor or a former auditor of a company is notified or becomes aware of an error or misstatement in a financial statement upon which he has reported to the company and in his opinion, the error or mis-statement.

(3) When under subsection (2), the auditor or a former auditor of a company informs the directors of an error or mis-statement in a financial statement of the company, the directors shall:

   (a) prepare and issue revised financial statements; or

   (b) otherwise inform the shareholders of the error or mis-statement, . . . (p. 62)

*Source:* Government of Barbados (1997).

*Section 174 (duty of care for records)*

A company and its agents shall take reasonable precautions:

(a) to prevent loss or destruction of,

(b) to prevent falsification of entries in, and

(c) to facilitate detection and correction of inaccuracies in

the records required by this Act to be prepared and maintained in respect of the company (p. 96).

(Appendix 2 is shown overleaf.)

## Appendix 2

**Interview Questionnaire Schedule**

**Auditor's Responsibility**

1. Do you feel that it is the responsibility of the auditor to uncover fraud and report to appropriate authorities?
2. Do you think that there should be legislation to this effect?

**Extent of Fraud**

3. Does the size of a society have an impact on the detection of fraud?
4. Is fraud a major concern for businesses in Barbados?
5. How is fraud discovered?
6. What types of fraud have you encountered?
7. What measures are put in place to deter fraud?
8. Do you think that the discovery of fraudulent activity would have a negative impact on users?

**Audit Procedures**

9. Should the external auditor actively search for illegal acts?
10. Should the auditor assess internal controls used by the company to prevent or detect the theft of assets?
11. Should the auditor assess the role of the internal auditor?
12. Should the auditor work to uncover related party transactions?
13. Should the auditor evaluate whether there is 'substantial doubt' about a company's ability to continue as a going (viable) concern?
14. Should the auditor assess management's characteristics, to determine if they may lead to fraudulent financial reporting?
15. Should the auditor ensure that management conveys the findings of the audit to the board of directors or audit committee, (whichever is applicable)?

(*continued*)

**Figure A1.**
Interview questionnaire schedule

**Reasons for Committing Fraud**

16. What factors have you encountered that may lead to fraudulent financial reporting or misappropriation of assets?

**Auditor's Response since Enron**

17. Are you aware of the factors surrounding the collapse of Enron?
18. Are you aware of Sarbanes-Oxley Act prescriptions?
19. Have you seen or experience any improvement in auditing after Enron?
20. Do you have any other observations about auditing and fraud?

**Notes**:

a) Questions 1, 2, 3, 4, 8, 9, 10, 11, 12, 13, 14, 15 and 19 were 5 point Likert scale questions varying from 1 (strongly disagree), 2 (disagree), 3 (neutral), 4 (agree) and 5 (strongly agree).
b) Questions 5, 6, 7, 16 and 20 required comments.
c) Questions 17 and 18 required a 'yes' or 'no' response.

**Figure A1.**

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# Corporate turnaround and financial distress

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**Abstract**

**Purpose** – Drawing on variables cited in the turnaround literature, this study aims to explore whether information contained within annual reports is useful in distinguishing between distressed companies that enact a turnaround and those that fail.

**Design/methodology/approach** – This study develops a discriminant model to identify distressed companies that have turnaround potential.

**Findings** – Analysis of the results reveals that successful turnarounds are associated with the severity of the distressed state, its determinants, with the extent of change in the distressed state since the previous year, and firm size.

**Originality/value** – This article is of use in identifying what information is useful in annual reports.

**Keywords** Turnarounds, Corporate strategy, Financial management

**Paper type** Research paper

## 1. Introduction

A substantial amount of research has been conducted into the prediction of corporate failure. This research has produced useful predictive univariate and multivariate financial ratio models (Altman, 1968; Deakin, 1972; Taffler, 1983; Ohlson, 1980). Altman (1993) highlights how commercial banks in the USA use his *Z*-score model in their lending decisions and assessing credit risk. These models have been shown to be accurate in their classification of corporate failure candidates, in that very few companies fail without having first being identified as financially distressed.

The preoccupation with formulating accurate failure prediction models has resulted in existing models producing very few Type I errors; that is, where companies facing imminent bankruptcy are incorrectly classified as being financially healthy. Failure prediction models are often designed to minimise Type I errors as these are the more costly of the two errors from a creditor's perspective. As a consequence, these models produce a relatively high number of Type II errors – where financially distressed companies with recovery potential would be included among those classified as failure candidates.

Incorrectly classifying distressed companies with recovery potential as failure candidates may invoke a self-fulfilling prophecy; such companies may not be able to attract the funds necessary to enact a recovery because lending decisions are based on such classifications. As a result, society incurs avoidable losses – legal costs and losses incurred by unsecured creditors, investors, employees and the community. Deakin (1977, pp. 80-81) highlighted the limitations of these failure prediction models:

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> ... By classifying companies at some time prior to the bankruptcy event, one is then making a classification of failing companies, rather than of companies that have already failed ... Indeed, if the failure process is a dynamic process, then a company may be able to enter the failing state, yet avoiding the final failed state.

Poston *et al.* (1994) also acknowledge the limitations of financial-ratio-based failure prediction models. They stress the need to identify other variables that are relevant to the determination of the distressed companies that will survive and those which ultimately fail. Drawing on variables cited in the turnaround literature, this study explores whether information contained within annual reports is useful in distinguishing between distressed companies that enact a turnaround and those that fail.

Several groups would be interested in a model that could identify distressed companies that have recovery potential. First, it could assist creditors and lenders in determining whether to continue offering credit or petition for liquidation. Second, a model that was able to identify recovery candidates could assist auditors in determining the going concern status of their clients.

Section 2 of this paper discusses the various turnaround models and their components. Based on prior theory and research reported in the academic literature, a new model of the turnaround process is proposed, which is then used to develop the research question and hypotheses. Section 3 outlines the research methods employed in this study. The results of this study are reported and analysed in section 4, and their implications discussed in section 5. The paper concludes with a discussion of the limitations of this study and recommendations for possible further research.

## 2. The turnaround process: models and strategies

Schendel *et al.* (1976) were among the first to contend that recovery strategies can be classified into two distinct groups: efficiency-oriented and entrepreneurial-oriented strategies. They argued that if the downturn is primarily due to inefficient operations, then the company should adopt efficiency-oriented recovery strategies such as cost cutting and asset reduction activities. If the corporate strategy is no longer relevant, then the company must make changes so that it is more suited to its current or new market(s); that is, it should adopt entrepreneurial-oriented strategies.

Bibeault (1982), Pearce and Robbins (1993) and Arogyaswamy *et al.* (1995), however, viewed the turnaround process as consisting of two stages: decline stemming and recovery strategies. The primary objective of decline stemming strategies is to stabilise the company's financial condition and includes actions such as gathering stakeholder support, eliminating inefficiencies, and stabilising the company's internal climate and decision processes. The severity of the distressed state and the resource slack available ultimately determines the extent to which the decline-stemming strategies are applied and succeed. Once the company's financial position has stabilised, it must decide on its recovery strategy: whether or not it will continue to pursue profitability at its reduced size or implement growth-oriented (entrepreneurial-oriented) strategies.

The extent to which decline stemming strategies are applied, and their success, is influenced by several factors including severity of the distressed state (Pearce and Robbins, 1993; Arogyaswamy *et al.*, 1995), firm size (White, 1984, 1989), and free resources available (Arogyaswamy *et al.*, 1995; White, 1984, 1989).

*2.1. The role of efficiency-oriented strategies in the turnaround process*

Arogyaswamy and Yasai-Ardekani (1997) investigated the role that cutbacks, efficiency improvements and investment in technology play in the turnaround process. They found that cutbacks and increases in efficiency were important factors for successful turnarounds as these actions improve profitability in the short run and allow the company to release resources that may be used elsewhere. They can also play an important political role in winning back stakeholder support and help raise external resources to fund other strategies.

Hambrick and Schecter (1983), Robbins and Pearce (1992) and Chowdhury and Lang (1996) all found that efficiency-oriented moves, not entrepreneurial initiatives, were associated with successful turnaround. The results revealed that, regardless of the cause of the downturn, turnaround performance was strongly associated with retrenchment. Robbins and Pearce (1992) concluded that, regardless of the cause of the decline, adopting efficiency-oriented recovery strategies is essential for any successful turnaround.

Studies conducted by Casey *et al.* (1986), Campbell (1996) and Routledge and Gadenne (2000) found the variable "profitability" to be statistically significant in distinguishing bankrupt companies that successfully reorganise from those which liquidate. These four studies all measured profitability in terms of return on total assets. This is a measure of efficiency, and therefore these studies provide support for Arogyaswamy and Yasai-Ardekani (1997), Hambrick and Schecter (1983), Robbins and Pearce (1992) and Chowdhury and Lang (1996) who argue that efficiency-oriented recovery strategies are essential for any successful turnaround.

*2.2. The role of company size in the turnaround process*

Pant (1991) found a statistically significant relationship between turnaround success and size; that is, turnaround companies were generally smaller than failed companies. He suggests that smaller companies may be more successful in enacting a successful turnaround as they are able to adapt to their changing environment more easily than large companies. However, studies from the bankruptcy literature (LoPucki, 1983; Campbell, 1996) have also found a statistically significant relationship between turnaround and size, but in the opposite direction; that is, successfully reorganised companies were generally larger than liquidated companies. White (1984, 1989) argues that larger companies are better equipped to raise the additional funds necessary to remain viable due to their previous success in raising external capital. Taffler (1983) notes the prevalence of a stock market strategy based on investment in under-performing large companies, as recognition of the perceived importance of firm size to corporate turnaround. A priori, larger firms are likely to have a higher probability of survival, as the potential losses to stakeholders are greater. Also such firms are likely to have a higher profile and therefore more likely to be kept alive.

*2.3. The role of senior management turnover in the turnaround process*

A number of authors (Bibeault, 1982; Slatter, 1984; Finkin, 1985; Castrogiovanni *et al.*, 1992; Arogyaswamy *et al.*, 1995) suggest that changes to the senior management team are an important step towards enacting a successful recovery. Changes to the senior management team are seen as a means of restoring stakeholders' confidence in the future viability of the organisation, thereby ensuring their continued support. Also,

new senior managers are able to offer fresh insights into the causes of decline, and the skills and motivation necessary to bring about organisational change. Thain and Goldthorpe (1989) found that one of the two most significant actions undertaken by recovered companies was to make changes to their senior management team, since in many cases, the incumbent management were unable or unwilling to make the changes necessary to stem the decline.

*2.4. The role of free assets in the turnaround process*

White (1984, 1989) argued that the amount of "free assets" was an important variable in distinguishing between distressed companies that were successfully reorganised and those that were liquidated. They argued that distressed companies with sufficient free assets (i.e. an excess of assets over liabilities, or more specifically of tangible assets over secured loans) are more likely to avoid bankruptcy because it increases their ability to acquire the additional funds necessary to enact a successful turnaround, and it encourages the continued support of existing lenders as sufficient assets are available to repay the loan, if required.

Casey *et al.* (1986), Campbell (1996) and Routledge and Gadenne (2000) found that the amount of free assets was statistically significant in distinguishing between distressed companies that successfully reorganised and those that were liquidated, thus providing support for White's model.

*2.5. The role of severity of distressed state in the turnaround process*

The severity of the financial distress influences the ability of the firm to enact a recovery. Hofer (1980) and Robbins and Pearce (1992) argue that severely financially distressed companies need to make aggressive cost and asset reductions in order to survive. However, as Slatter (1984) highlights, the aggressive reduction of costs and assets is no easy task as there is often organisational resistance to such action. Additional "hidden" organisational costs may be incurred (erosion of trust between staff and management, absenteeism, employee turnover, lower quality and service, sabotage) and may well be greater than what is saved from the cuts in costs and assets. The severity of the distressed state will be determined by the components of the measure of distress, which themselves identify the major source(s) of distress; the direction and extent of change in severity may provide further support for the likelihood of turnaround.

*2.6. An alternative turnaround process model*

Based on existing turnaround models, their components, and subsequent research, the model depicted in Figure 1 evolves. This model depicts the turnaround process as a series of integrated steps within two key phases – the decline stemming phase and the recovery phase. Ultimately, the severity of the financial distress, the amount of free assets available and the company's size, influence the company's ability to stem the decline. In order to stabilise the company, senior management must strengthen stakeholder support, undertake retrenchment activities to improve efficiency and cash flows, and improve the internal management and decision-making processes. The aim of the recovery phase is to ensure that the causes of the decline are addressed and overcome. Distress can be due to external factors, internal factors, or a combination of both. As a result, recovery strategies adopted may focus on maintaining efficiency, an entrepreneurial reconfiguration, or a combination of both. Although this model suggests that decline stemming and recovery

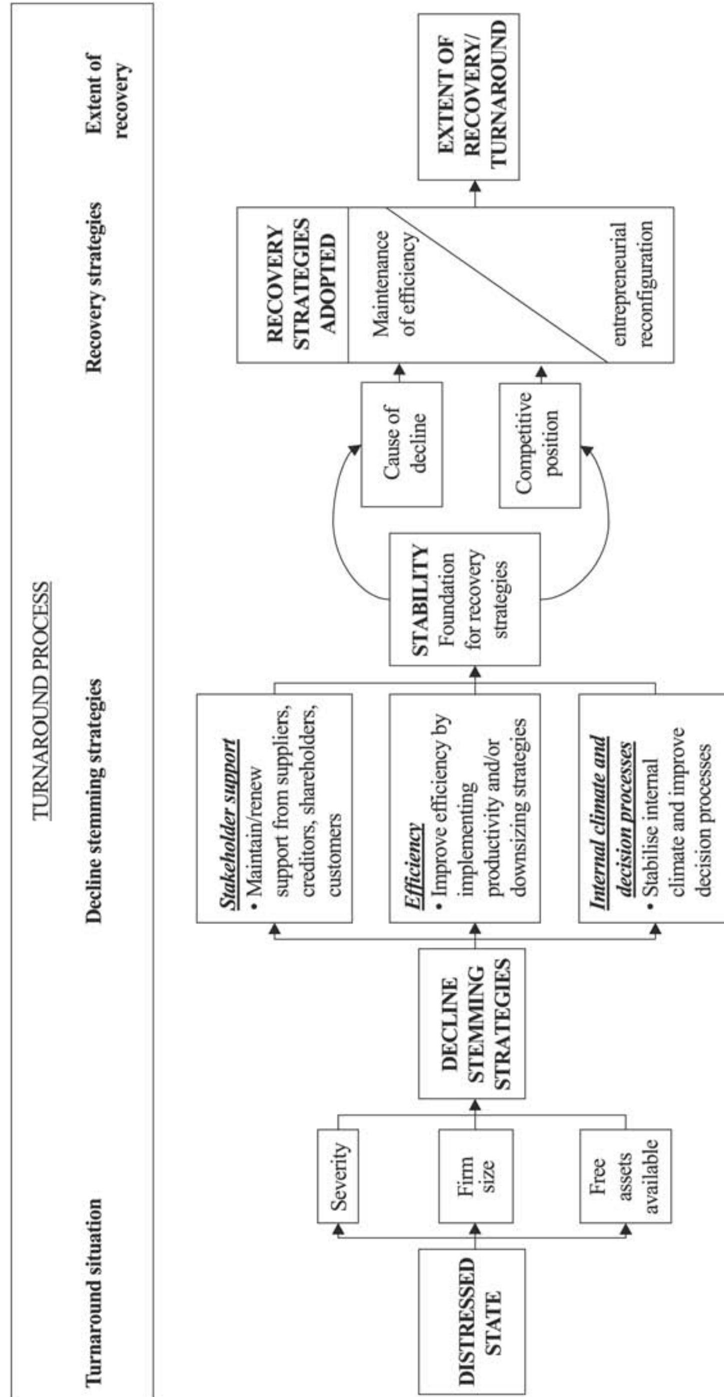


**Figure 1.**
The turnaround process model

strategies should be executed sequentially, circumstances may dictate that the two phases be executed concurrently in practice.

*2.7. Variable definition and measurement*

Prior research into business turnaround differs with regard to the length of the turnaround cycle. Schendel *et al.* (1976), Bibeault (1982) and Poston *et al.* (1994) all used a turnaround cycle time period of eight years (four years for the downturn and four for the upturn). Chowdhury and Lang (1996), Hambrick and Schecter (1983), Pearce and Robbins (1993) and Smith and Gunalan (1996) each used four years (two years for the downturn and two for the upturn). For this study the turnaround cycle time period in which the decline and recovery occurs will be four years. A four-year time period should be sufficient time to observe a successful turnaround. Second, extending the time period beyond four years will significantly reduce the sample size, with the effect of reducing the reliability of the study's findings. Current financial data is deliberately not employed to ensure that the turnaround candidates have truly achieved a lasting financial turnaround; a true lasting turnaround will be determined by ensuring that these companies have continued to trade independently for at least a further four years after the four-year turnaround period.

A proprietary *Z*-score model developed by Taffler (1983) will be used in the identification and selection of financially distressed companies as it is recognised as one of the most reliable in predicting company failure in the UK (Smith, 1997, p. 299). Taffler's model provides a *Z*-score, which is a single measure arrived at by adding four weighted ratios determined by multiple discriminant analysis, which together indicate a company's financial health. Taffler (1983) selected 46 failed and 46 healthy UK manufacturing companies operating between the beginning of 1969 and the end of 1976. He used stepwise linear discriminant analysis to develop a model that was able to discriminate effectively between failed and healthy companies. The precise details of this model are disclosed, for the first time, in Agarwal and Taffler (2003):

$$\begin{aligned} z = {} & 3.20_{1}2.18^{*}(\text{Profit before tax/Average current liabilities}) \\ & + 2.50(\text{Current assets/Total liabilities}) \\ & - 10.68(\text{Current liabilities/Total assets}) + 0.0289^{*}(\text{No credit interval}). \end{aligned}$$

No credit interval (NCI) refers to the number of days the company can continue to finance its operations from its immediate assets when it can no longer generate revenues:

$$\begin{aligned} \text{NCI} = {} & (\text{Current assets} - \text{Inventory} - \text{Current liabilities})/ \\ & (\text{Sales} - \text{Profit before tax} + \text{Depreciation}). \end{aligned}$$

Companies with a negative *Z*-score are financially distressed and in danger of failure, while those with a positive *Z*-score are classified as solvent. As this study has adopted a four-year turnaround period, a successful financial turnaround corresponds with a situation where a company has two consecutive years of financial distress (negative *Z*-scores) followed by two consecutive years of relative success (positive *Z*-scores). An unsuccessful financial turnaround corresponds with a corporate failure: where a

company has two consecutive years of financial distress (negative $Z$-scores) and ceases to exist after year two of the cycle. With a four-year turnaround period, there are a range of possible combination of $Z$-scores such as $- - + -$, $- - - +$, $- + + -$, etc. This study adopts a four-year turnaround period consistent with previous studies that defined a turnaround period consisting of two distressed years followed by two healthy years. Hence recovered companies were companies, which displayed the following combination of $Z$-scores over a four-year period: $- \; - \; + \; +$. Failed companies are companies that never recovered from their distressed state and therefore displayed the following combination of $Z$-scores: $- \; -$ F (failed).

The dependent variable chosen for the study is a dichotomous variable, classifying distressed companies into one of two groups; those that affect a recovery (assigned a value of 1) and those that subsequently fail (assigned a value of 0).

*Severity*. Taffler's (1983) $Z$-score model provides a measure for the severity of distress. Annual measures for successive time periods are computed using the formula derived from Agarwal and Taffler (2003) and, provide measures for each of the distressed years (denoted $Z2$ and $Z1$ respectively), as well as an indicator of the extent and direction of change between the two periods (denoted as $Z$change).

*Free assets*. Although Casey *et al.* (1986), Campbell (1996) and Routledge and Gadenne (2000) each found this variable to be a significant predictor of corporate recovery, they differed in the way they chose to measure free assets. The measure proposed by Casey *et al.* (1986) – total collaterised assets/total tangible assets – is arguably the most sound in a technical sense, as it identifies the amount of assets that can be used as collateral for future financing. However, the limitations of the data contained within the annual financial reports make it impossible to identify which assets were used as collateral for secured loans, so this measure could not be implemented exactly. As a result, the following modified measure is used:

$$\frac{\text{Total tangible assets} - \text{Secured loans}}{\text{Total tangible assets}}.$$

*Company size*. Previous studies have measured size using "sales revenue" (D'Aveni, 1989; D'Aveni and MacMillan, 1990; Pant, 1991; Schreuder, 1993; Smith and Taffler, 1992; Smith and Gunalan, 1996), "total assets" (Campbell, 1996; Casey *et al.*, 1986), and "number of employees" (Chowdhury and Lang, 1996).

Because size is linked with borrowing capacity, the use of assets rather than sales or number of employees is considered a more appropriate base for capturing borrowing capacity. Total tangible assets and sales revenue are retained as measures of company size in this study

*Efficiency*. Arogyaswamy and Yasai-Ardekani (1997), Hambrick and Schecter (1983), Robbins and Pearce (1992), and Chowdhury and Lang (1996) all concur that efficiency-oriented strategies play a critical role in the turnaround process, and that downsizing is normally a critical factor in such a strategy. Downsizing is measured as:

$$\frac{\text{Tangible assets}(t) - \text{Tangible assets}(t-1)}{\text{Tangible assets}(t-1)}.$$

*Internal climate and decision processes*. Previous studies have defined top management as the CEO, president, and chairman of the board (Gilson, 1989), vice president and above (Hambrick and D'Aveni, 1992), and directors of the company (Daily and Dalton, 1995; Thain and Goldthorpe, 1989). Our model in Figure 1 highlights the role that a company's internal climate and decision processes play in the turnaround process. The executive directors have a significant influence over a company's internal climate and decision processes, so that senior management turnover might be a significant influential variable. The incidence of change in CEO and/or chairman during the financial year, other than due to retirement is used here as a measure of internal climate and board stability.

### *2.8. Hypothesis development*

Hofer (1980) and Robbins and Pearce (1992) argue that severely financially distressed companies need to make aggressive cost and asset reductions in order to survive. However, the aggressive reduction of costs and assets is difficult to achieve as there is often organisational resistance and associated "hidden" costs to such action (Slatter, 1984):

*H1*. The severity of financial distress is negatively related to the likelihood of successful turnaround.

Hambrick and Schecter (1983), Robbins and Pearce (1992), Chowdhury and Lang (1996) all found that efficiency-oriented moves, not entrepreneurial initiatives, were associated with a successful turnaround. Casey *et al.* (1986), Campbell (1996) and Routledge and Gadenne (2000) all found efficiency to be statistically significant in distinguishing bankrupt companies that successfully reorganise from those which liquidate. Based on the foregoing literature, the following hypothesis is suggested:

*H2*. The degree to which financially distressed companies implement "efficiency strategies" is positively related to the likelihood of successful turnaround.

Casey *et al.* (1986), Campbell (1996) and Routledge and Gadenne (2000) all found the amount of free assets to be statistically significant in distinguishing between distressed companies that successfully reorganised and those that were liquidated. Based upon the foregoing literature, the following hypothesis is suggested:

*H3*. Financially distressed companies with a larger amount of free assets available are more likely to turnaround successfully.

Slatter (1984) and Arogyaswamy *et al.* (1995), among others, suggest that changes to the senior management team are an important step towards enacting a successful recovery. Based on the foregoing literature, the following hypothesis is suggested:

*H4*. Financially distressed companies that have a high incidence of CEO turnover are more likely to turnaround successfully than companies that have a low incidence of CEO turnover.

White (1984, 1989) argues that larger companies are better equipped to raise the additional funds necessary to remain viable due to their previous success in raising external capital. LoPucki (1983) and Campbell (1996) found that successfully

reorganised companies were generally larger than liquidated companies. Based on the foregoing literature, the following hypothesis is suggested:

*H5*. Large distressed companies are more likely to turnaround than small distressed companies.

As this study spans several years, macroeconomic factors may partly explain the ability of a distressed company to enact a successful turnaround. Distressed companies may be able to enact a successful turnaround during times of increasing economic activity, but may struggle to do so when the cost of borrowing funds is rising. In strong economic conditions, banks have greater liquidity and therefore greater resources available to give financially distressed customers "intensive care" rather than foreclosing to realise outstanding loans. As a result, a sensitivity analysis is conducted here, subsequent to the main study, in which both failed and recovered companies are sourced from identical time periods.

## 3. Research method

### *3.1. Sample selection*

Failed cases were selected from the *Stock Exchange Handbook* (London Stock Exchange, 1991, p. 1105), which lists 67 companies in receivership and 183 companies in liquidation, i.e. a population of 250 "failed" companies. All non-manufacturing companies were excluded from this list and *Z*-score measures computed for the remainder. Those companies which exhibited negative (i.e. distressed) *Z*-scores for at least two consecutive years prior to failure, and for which corporate report data was available, were retained for further analysis: 83 companies in total.

Recovery companies were identified from the *Performance Analysis Services Handbook* for January 1992 (Syspas, 1992), which revealed *Z*-scores for the PAS industrial model at that date, and for at least five years previous. Where a company exhibited at least two consecutive years with negative *Z*-scores, followed by consistently positive scores since then, and had not subsequently failed or been taken over, then it was denoted as a "recovery" company. There were 40 such companies, so that the total sample for analysis was 123 companies (83 failed and 40 recovered) who each exhibited negative *Z*-scores for at least two consecutive years. The identities of these companies are detailed in Table I.

For the sensitivity stage of the analysis, requiring both sets of companies to occupy a common timeframe, 21 failed companies were deleted from the sample to give 62 failed cases and 40 recovered cases over the period 1980-1990.

### *3.2. Analytical methods*

Whereas various alternative multivariate techniques have been used to develop failure prediction models, including quadratic discriminant analysis (Altman *et al.*, 1977), logit and probit (Ohlson, 1980; Zavgren, 1985), non-parametric methods (Frydman *et al.*, 1985) and neural nets (Altman *et al.*, 1994), there is no evidence of significantly superior performance associated with such approaches compared with traditional linear discriminant analysis (e.g., Hamer, 1983; Lo, 1986). Hair *et al.* (1998, p. 276) and McLeay and Omar (2000) argue that logistic regression is more robust than LDA when the univariate normality and homogeneity of variance-covariance assumptions are not met, and Collins and Green (1982) and Lennox (1999) suggest that a logistic regression

| Failed companies | | Turnaround companies | |
|---|---|---|---|
| Acrow | 31.3.83 | Aaronson Bros. | 1982/83 |
| Airfix | 31.3.80 | Arlen plc | 1983/84 |
| Anderson's Rubber | 31.1.80 | Armstrong Equipment | 1982/83 |
| Arley Holdings plc | 31.12.89 | Bardsey plc | 1984/85 |
| Austin (F) | 3.7.81 | Bellway plc | 1981/82 |
| Barget plc | 31.12.83 | Boosey & Hawkes | 1987/88 |
| Bastian International plc | 31.12.81 | Boot (Henry) | 1987/88 |
| Beechwood Group plc | 31.3.83 | Booth Industries | 1988/89 |
| Berwick Timpo | 31.12.81 | Brooke Tool Engineering | |
| Bestwood plc | 31.12.88 | (Holdings) plc | 1982/83 |
| Blackman & Conrad | 31.1.80 | Camford Engineering | 1983/84 |
| Blackwood Morton | 30.6.80 | Celestion Industries | 1983/84 |
| Brittains Group | 31.12.77 | Clayton, Son & Co. | 1982/83 |
| Burrell | 31.12.79 | Cronite Group | 1984/85 |
| Caravans International | 31.8.81 | Doeflex plc | 1987/88 |
| Carron | 31.12.81 | Douglas (Robert M.) | 1988/89 |
| Castle (G.B) | 26.7.85 | Gleeson (M.J.) Group | 1985/86 |
| Cawdaw | 31.3.81 | Haden MacLennan Holdings | 1986/87 |
| Cocksedge Holdings | 31.3.84 | Heywood Williams | 1981/82 |
| Crouch Group | 31.3.83 | Johnson & FirthBrown | 1984/85 |
| Danks Gowerton | 30.6.83 | Kalon | 1986/87 |
| Dennis (James H.) plc | 31.3.83 | London International Group plc | 1988/89 |
| Derritron | 31.12.81 | MS International | 1985/86 |
| Dimplex | 31.3.76 | MY Holdings | 1981/82 |
| Dunbee Combex Marx | 31.12.78 | Palma Group | 1984/85 |
| E.C. Cases | 31.12.78 | Petrocon | 1986/87 |
| Ellenroad Mill | 31.3.83 | Polymark International plc | 1987/88 |
| Elliott (E.) | 31.3.81 | Prestwick Holdings | 1986/87 |
| Fairbairn Lawson | 31.12.78 | Priest (Benjamin) Group | 1982/83 |
| Fairey Group (The) | 31.3.76 | Renold | 1983/84 |
| Farmer (S.W.) & Sons | 31.12.85 | Seafield plc | 1985/86 |
| Fertleman (B.) & Sons Ltd | 31.3.79 | Strong & Fisher | 1982/83 |
| Fobel International plc | 31.12.89 | Telemetrix plc | 1986/87 |
| Fodens | 31.3.79 | Transfer Technology | 1986/87 |
| GenEng (Radcliffe) | 31.12.78 | Triplex Lloyd plc | 1984/85 |
| Goldman (The H.) Group | 31.10.80 | Tunstall Group | 1988/89 |
| Grimshawe Holdings | 30.4.81 | United Spring & Steel | 1983/84 |
| Herman Smith | 30.6.84 | Volex Group | 1983/84 |
| Homfray | 27.9.80 | Walker Greenbank | 1984/85 |
| Ireland (Ernest) Ltd | 31.12.75 | Wellman plc | 1986/87 |
| Lesney Products | 25.1.81 | Williams Holdings | 1982/83 |
| Liden Holdings Ltd | 30.11.78 | | |
| Lines Bros. | 31.12.69 | | |
| Lockwoods Foods Ltd | 31.5.80 | | |
| Mears Bros | 30.9.77 | | |
| Mellins | 31.12.82 | | |
| Melody Mills | 3.4.82 | | |
| Metamec Jentique | 30.6.83 | | |
| Mettoy | 31.12.82 | | |
| Midland Industries | 31.12.82 | | |

(*continued*)

**Table I.**
Companies in the study

| Failed companies | | Turnaround companies |
|---|---|---|
| Milbury | 31.3.84 | |
| Miller(Stanley) | 31.12.88 | |
| Modern Engineers of Bristol (Holdings) plc | 31.12.82 | |
| Moss Engineering | 31.8.81 | |
| Movitex Ltd | 28.2.79 | |
| Neil & Spencer Holdings | 30.11.86 | |
| Norvic Shoe Co. Ltd | 31.12.80 | |
| Nova (Jersey) Knit | 31.3.84 | |
| Oxley Printing | 31.12.80 | |
| Pawson (W.L.) | 28.2.81 | |
| Peak Investments | 31.5.79 | |
| Pickles (William) | 31.12.80 | |
| PMA Holdings | 31.3.80 | |
| Pullman (R&J) | 30.4.82 | |
| Richards& Wallington Industries Ltd | 31.12.80 | |
| Rivington Reed | 31.3.79 | |
| Sanger (J.E.) Ltd | 30.6.79 | |
| Scotcros | 31.3.83 | |
| Southern Constructions | 31.12.78 | |
| Spencer (George) | 31.12.83 | |
| Staflex | 31.12.77 | |
| Stone-Platt Industries | 31.12.80 | |
| Talbex Group plc | 31.7.88 | |
| Turriff Corporation | 31.12.90 | |
| Viners | 31.12.80 | |
| Vosper plc | 31.12.84 | |
| W. Ribbons | 30.6.83 | |
| Whiteley (B.S.&W.) Ltd | 31.3.80 | |
| Williams (Ben) plc | 31.12.80 | |
| Wilshaw Securities | 31.7.82 | |
| Wood & Sons Holdings Ltd | 31.12.79 | |
| Wyatt (Woodrow) | 31.3.81 | |
| Yorkshire Fine plc | 31.3.80 | |

**Table I.**

model could identify failing companies more accurately than discriminant analysis, provided that specification problems are overcome. The univariate normality and homogeneity of variance-covariance assumptions are rarely satisfied in practice, but this does not appear to impact on the classificatory ability of discriminatory models, attributable by Bayne *et al.* (1983) to its robust nature and non-ambiguous group cut-off scores. For these reasons, and given that the source *Z*-scores are based on Taffler's linear discriminant model, then discriminant analysis is preferred in this study.

### *3.3. Summary of variables*

The study investigates the relationship between a dichotomous (0,1) STATUS variable (failed or recovered) and a number of independent variables suggested by the

literature. The Taffler *Z*-score formula provides both measures of severity (*Z*2 and *Z*1) and trend in severity (Zchange). Those financial ratios which comprise the *Z*-score measure are calculated: profitability (PBT/CL); risk (CL/TA); liquidity (NCI) and working capital (CA/TL), as are more conventional financial indicators: profitability (PBT/TA), risk (TL/NW) and liquidity (QA/CL).

Size is measured in terms of both sales, and total tangible assets, in each case with a log natural transformation to overcome any problems associated with skewness (i.e. LN(Sales) and LN(TTA)).

Efficiency is measured through the "downsizing" indicator above, i.e. (TTA2-TTA1)/TTA1.

Free assets is measured both in terms of tangible assets in excess of secured loans, as described above.

The internal climate of the company is reflected by board changes measured by the incidence of CEO turnover.

Table II details the descriptive statistics for each of these variables in the study, showing the mean values for failed and recovered companies, the Pearson correlation coefficient with the STATUS variable, and the *t*-tests of significance for both differences in means and measure of association.

## 4. Analysis of data

The descriptive statistics for year two (see Table II) highlight that the distressed state of failed companies was more severe than that of recovered companies, and that this appears to be attributable to factors associated with "profitability" and "liquidity". Recovered companies are significantly larger and have a higher percentage of free assets available. There is no statistically significant difference in the incidence of turnover among CEOs and directors between the two groups.

The difference between the group means for the "severity" variable means that we cannot reject *H1*. Both the measure of severity and the extent of the change in severity are significantly related to the failed/recovered status of companies. Examination of the component variables of the *Z*-score shows that three of these (PBT/CL, CL/TA, NCI) and representing, respectively, profitability, short-term risk, and liquidity, are each

| | Failed | Recovered | *t*-test | Sig. | Pearson's-"$\rho$" | Sig. |
|---|---|---|---|---|---|---|
| Z2 | −3.608 | −1.404 | −6.518 | *0.000* | 0.440 | *0.000* |
| Zchange (i.e. *Z*2-*Z*1) | −1.347 | 1.084 | −6.148 | *0.000* | 0.462 | *0.000* |
| PBT/CL | −0.201 | 0.01 | −4.000 | *0.000* | 0.314 | *0.000* |
| CL/TA | 0.592 | 0.519 | 2.599 | 0.010 | −0.224 | 0.013 |
| NCI | −0.217 | −0.101 | −5.486 | *0.000* | 0.359 | *0.000* |
| CA/TL | 0.951 | 1.003 | −1.363 | 0.172 | 0.106 | 0.245 |
| PBT/TA | −0.103 | 0.006 | −5.188 | *0.000* | 0.403 | *0.000* |
| TL/NW | 4.266 | 2.315 | 1.363 | 0.173 | −0.088 | 0.333 |
| QA/CL | 0.533 | 0.737 | −4.730 | *0.000* | 0.413 | *0.000* |
| LN(Sales) | 2.75 | 4.729 | −10.29 | *0.000* | 0.337 | *0.000* |
| LN(TTA) | 12.468 | 14.897 | −3.580 | *0.001* | 0.304 | *0.000* |
| Free assets | 0.598 | 0.612 | −0.693 | 0.486 | 0.066 | 0.483 |
| Downsizing | −0.072 | 0.021 | −1.440 | 0.152 | 0.136 | 0.133 |
| CEO turnover | 0.374 | 0.375 | −0.016 | 0.987 | 0.002 | 0.990 |

**Table II.** Descriptive measures and significance tests for Year 2

significantly associated with STATUS too. Interestingly, more conventional measures of profitability and liquidity (PBT/TA and QA/CL) display even higher measures of association with STATUS.

The descriptives demonstrate a clear difference in downsizing activity, with a negative mean for failed companies and a positive one for recovered companies. However, the variation within the groups is too large for this difference to be statistically significant (sig. 0.152), so that we must reject *H2*.

The difference in the "free assets" variable between the two groups is small but not statistically significant at the 0.1 level, though higher levels of free assets are associated with recovered companies. We cannot therefore accept *H3* at this level.

There is no significant difference in the incidence of CEO or senior management turnover among the two groups, so that we must reject *H4*.

The group means for the "size" measures are highly significant, suggesting that large companies are much more likely to effect recoveries from a distressed state. We cannot therefore reject *H5*.

These results would suggest that the severity of the distressed state, firm size, and the existence of free assets might play a significant role as influential variables in operationalising the turnaround model.

*4.1. Turnaround models*

In developing an operational turnaround model, a forward additive discriminant procedure was adopted. New variables were added into the model sequentially to maximize the model's explanatory power and classification accuracy. Only four variables entered the final discriminant model, and a linear combination of these variables correctly classified 88 per cent of company cases. The variables, in order of entry into the model, were Zchange, QA/CL, LN(Sales) and PBT/TA representing change in severity, liquidity, company size and profitability, giving the following model, with a zero cut-off for group classification:

$$Z = -3.80 + (0.41)^{*}\mathrm{LN(Sales)} + (0.26)^{*}\mathrm{Zchange} + (2.72)^{*}\mathrm{PBT/TA} + (3.41)^{*}\mathrm{QA/CL}.$$

This model correctly classifies 78 of 83 failed companies, and 30 of 40 recovered companies. Examination of case misclassifications shows that the five Type 1 errors are largely attributable to the size factor (i.e. failed large companies) while the ten Type 2 errors are associated with the key variables (*Z*-score, profit, liquidity) not showing any of the anticipated improvement (i.e. a deteriorating financial profile).

Alternative models, with the Z2 measure of severity (in place of PBT/TA and QA/CL) and with alternative ratios, PBT/CL and NCI (instead of PBT/TA and QA/CL) each generated an inferior classificatory ability.

A repeat of the analysis for a reduced sample size (62 failed cases and 40 recovered cases) over the period 1980-1990 produced very similar results. The same variables entered a discriminant model, with similar weights other than a slight shift in emphasis towards profitability from liquidity. Variable inter-correlations suggested that multicollinearity was not a problem.

## 5. Discussion of results

The measure of "severity of distress" was statistically significant in the turnaround model. As hypothesised, the results indicate that the severity of financial distress is strongly linked with the likelihood of turnaround success, that is, the greater the severity of the distressed state, the greater the likelihood of failure. Moreover, the trend in *Z*-score over the previous year also provides clear evidence of the likelihood of eventual recovery, i.e. the improvement in *Z*-score gives a positive message even though it remains negative.

The measure of downsizing activities suggests that companies that expand their asset base (as opposed to selling-off productive assets) are more likely to affect a recovery. These results would appear to contradict the findings of Robbins and Pearce (1992) who suggest that downsizing activities are an important strategy in the turnaround process and that the extent of downsizing is related to severity. Recovered companies had a higher percentage of free assets, but this variable did not enter the model of the turnaround process.

Current and future shareholders, lending institutions and the auditing profession are interested in determining the ability of a distressed company to enact a recovery. Because of their classification accuracy, the model developed above will be a valuable tool for these and other external stakeholders in determining the ability of a distressed company to enact a turnaround. The variables so included may potentially facilitate an improvement in the classification accuracy of existing failure prediction models.

## 6. Conclusion

This study has made a contribution to failure prediction by developing a model useful for identifying distressed companies that have turnaround potential. Based on the turnaround process model depicted in Figure 1, the study constructed a model useful for discriminating between recovered and failed companies. The model classified 94 per cent of failed companies correctly, and 75 per cent of recovered companies correctly, resulting in an overall classification accuracy of 88 per cent.

Several variables depicted in the turnaround process model (Figure 1) were omitted from this study due to the limited information contained with annual reports. As a result, it is unclear what role the level of stakeholder support, cause of decline, and competitive position, will play in the turnaround process. A priori, distressed firms that enjoy a high level of stakeholder support are more likely to survive, as these firms will have continual support from creditors, employees and customers.

The results as presented, may have limited generalisability, since the study has focused on UK companies in the manufacturing sector; other variables may be statistically significant in discriminating recovered and failed companies in other industries and countries.

There is a need for further research into why the downsizing activities of failed companies were unsuccessful. Downsizing activities may not always aid a recovery if cutbacks are made in the wrong areas or are poorly managed. Distressed firms may need to adopt short and long-term recovery strategies concurrently. There is also a need for further research to identify the turnaround period of financially distressed companies. Given the different turnaround periods used in previous research, one explanation for the differing conclusions is the fact that these studies are using data from differing stages of a distressed firm's turnaround period. There are also opportunities for further research to identify the relationship between turnaround potential and the cause of the distressed state.

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# Fraud risk assessments and auditors' professional skepticism

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## Abstract

**Purpose** – To examine whether planning-stage fraud risk assessments and audit experience affect the level of professional skepticism displayed by auditors during fieldwork.

**Design/methodology/approach** – The paper presents an experiment using professional auditors.

**Findings** – Overall, auditors predisposed to low fraud risk assessments were less skeptical than those with no knowledge of fraud risk (control group). Also, as expected, auditors in the control group were less skeptical than those predisposed to moderate/high fraud risk assessments. Staff auditors were more skeptical than seniors. Senior auditors showed no differences in skepticism between the control group and high fraud risk assessment group.

**Research limitations/implications** – Professional skepticism in this study is measured as the auditors' assessment of client truthfulness. There is reasonable disagreement on the exact meaning of professional skepticism and some readers' interpretation of the term may be different from the authors' own.

**Practical implications** – The results suggest a need for audit firms to use ongoing training with regard to professional skepticism and the requirements of SAS No. 99, especially since skepticism appears to decline with increasing audit experience.

**Originality/value** – The study contributes to auditing literature in the areas of professional skepticism and fraud risk assessment. The overall experience result supports previous studies, but additional insight is gained as to differences in the experience/skepticism relationship at different levels of planning-stage fraud risk.

**Keywords** Fraud, Risk assessment, Experience, Auditing

**Paper type** Research paper

## Introduction

Although rare in occurrence, financial statement fraud can result in devastating losses to investors, creditors and auditors. Detecting fraud is a difficult task for auditors, in part because most have never experienced fraud in their careers (Montgomery *et al.*, 2002; Pany and Whittington, 2001). Nonetheless, in recent years the judicial system and financial community have pressured the auditing profession to improve fraud detection. The profession in the USA responded first in 1997 by issuing Statement on Auditing Standards (SAS) No. 82, requiring auditors to make a planning-stage assessment of fraud risk, separate from assessments of overall audit risk. In 2002, SAS No. 99 was released to provide expanded guidance to auditors in their responsibilities for fraud detection. SAS No. 99 reiterates the importance of maintaining professional skepticism throughout the course of the audit "regardless of past experience with the

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entity or prior beliefs about management's honesty and integrity" (AICPA, 2002, AU 316.13).

A large body of research has focused on the fraud risk assessment process. For example, these studies have examined the effects of making separate risk assessments for fraud (as opposed to holistic audit risk assessments) (Zimbelman, 1997), decomposing the risk assessment (Wilks and Zimbelman, 2004a), and using decision aids such as a red-flag questionnaire (Pincus, 1989; Asare and Wright, 2004), or an expert system (Eining *et al.*, 1997). Another group of studies has examined whether auditors adjust the nature and/or extent of planned audit tests based on their planning-stage fraud risk assessments (Zimbelman, 1997; Glover *et al.*, 2003). For the most part these studies do not provide much evidence to suggest that auditors make appropriate adjustments to their audit plans based on their fraud risk assessments.

How do fraud risk assessments affect auditors during fieldwork, or the actual conduct of the audit, particularly as they evaluate evidence? There has been very little research to address this question. SAS No. 99 states that:

> The auditor's assessment of the risks of material misstatement due to fraud should be ongoing throughout the audit. Conditions may be identified during fieldwork that change or support a judgment regarding the assessment of the risks ... (AICPA, 2002, AU 316.68).

This implies that the fraud risk assessment process is ongoing and carries into the fieldwork and final stages of the audit. Since fraud is detected most often during fieldwork (Loebbecke *et al.*, 1989), it is important to understand whether planning-stage fraud risk assessments affect auditors during fieldwork, and if the effects are desirable. We are aware of only one recent study in this area. Rose and Rose (2003) find that high fraud risk assessments are associated with both increased elaboration on audit evidence and recency effects.

The purpose of this study is to extend work in this area. More specifically, we examine whether planning-stage fraud risk assessments affect the level of professional skepticism displayed by auditors as they evaluate a managerial assertion. Auditors must rely on managerial assertions to some degree. For example, "Knowledge of an entity's business is ordinarily obtained through experience with the entity or its industry and *inquiry* of personnel of the entity" (AICPA 2002, AU 311.08). In addition, we examine the effects of general audit experience on professional skepticism. The results of this study provide insight as to whether auditors react to risk factors encountered during fieldwork, and whether their reactions are in the direction intended by SAS No. 99.

## Background and research questions

An assessment of fraud risk is made during the planning stage of an audit, usually by the in-charge auditor. The assessment is then communicated to the rest of the engagement team. In fact, SAS No. 99 emphasizes the importance of fraud risk discussion among the engagement team members. Audit tests performed during fieldwork are generally conducted by staff or senior level auditors (see the Appendix, Figure A1). It is not clear how the planning-stage risk assessment affects these auditors during the conduct of fieldwork tests.

On the one hand, the third general audit standard states that "Due professional care is to be exercised in the planning and performance of the audit ... " (AICPA, 2002, AU 150.02):

> Due professional care (also) entails the exercise of professional skepticism, especially when obtaining and evaluating evidence, including management's answers to audit inquiries. An auditor should neither assume that management is dishonest nor assume unquestioned honesty. Professional skepticism includes a questioning mind and a critical assessment of audit evidence. For example, the auditor may detect conditions or circumstances that indicate that a material misstatement could exist. *Typically, these are conditions or circumstances that differ from the auditor's expectations* ... Professional skepticism requires that when such indications appear, the auditor should reconsider the audit plan in order to obtain sufficient competent evidence that the financial statements are free of material misstatement (AICPA, 2002, AU 230.07-09, emphasis added).

This suggests that an auditor exercising due professional care should not be overly influenced by an initial low planning-stage fraud risk assessment. Rather, an appropriate level of professional skepticism should be maintained at all times, allowing the auditor to adjust the low fraud risk assessment as new evidence is encountered. In other words, the evaluation of evidence should affect initial fraud risk assessments – initial fraud risk assessments should not affect the evaluation of evidence. This idea is reflected in SAS No. 99 as it reminds auditors of the importance of maintaining skepticism and that they should "... conduct the engagement with a mindset that recognizes the possibility that a material misstatement due to fraud could be present (...) regardless of the auditor's belief about management's honesty and integrity" (AICPA, 2002, AU 316.13). Failing to adjust low fraud risk assessments when the evidence indicates otherwise could result in audit failure. Rose and Rose (2003) found no differences in the level of cognitive elaboration between their participants predisposed to a low fraud risk assessment and those in a control group given no initial fraud risk assessment. Given these findings, we might also expect no differences in professional skepticism between these two groups of auditors.

On the other hand, auditors often anchor a belief on certain information, and fail to adjust that belief appropriately when new information is obtained (Joyce and Biddle, 1981; Butler, 1986). According to Wilks and Zimbelman (2004b, p. 181), "anecdotal evidence suggests that after performing pre-engagement acceptance procedures, auditors are unlikely to change their beliefs that fraud risk is low".

Based on the previous discussion, it is not clear whether auditors will display professional skepticism or succumb to an anchoring bias (created by planning-stage fraud risk assessments) when evaluating a managerial assertion. Our experimental evidence will allow us to examine and evaluate these competing theories. We also examine a moderate/high fraud risk assessment setting. The anchoring effect may also exist when initial fraud risk assessments are high. In this case, however, anchoring on a high risk assessment is considered appropriate. Arguably, if planning-stage risk factors indicate a high level of fraud risk, auditors should maintain a high level of skepticism throughout the entire engagement and should not adjust their skepticism downward during the course of the engagement.

As a secondary focus, we will also examine the effects of audit experience on professional skepticism. Since most auditors have never experienced fraud in their careers (Montgomery *et al.*, 2002; Pany and Whittington, 2001), they likely revise their

beliefs of the likelihood of fraud downward as they continue to experience audits without fraud, and become less skeptical over time *ceteris paribus*. Shaub and Lawrence's (1999) findings support this idea since staff auditors in their study demonstrated greater skepticism in thought and behavior than seniors. We expect auditors in our study with greater audit experience to demonstrate less professional skepticism than auditors with less audit experience.

## Method

### *Participants*

A total of 294 staff and senior auditors from three of the (then) Big 5 accounting firms completed the experiment during firm training sessions in the presence of the researchers. A total of 109 participants were discarded because they failed the manipulation check question (see further discussion in the results section) and one participant's response was identified as a significant outlier leaving a final sample size of 184. Participants ranged in age from 20 to 43 years, with an average age of 25.1 years. They reported a good deal of effort was expended on the task (7.7 on a ten-point scale) and that the case was moderately realistic (6.9 on a ten-point scale).

The study is a $3 \times 2$ between-subjects design. Participants were randomly assigned to one of three fraud risk conditions (low risk, control group, moderate/high risk). Two levels of experience were obtained by having only staff and senior level auditors participate. The case study was developed specifically for this study and was pilot tested with auditing students. Confirmation of accounts receivable (see the Appendix, Figure A1) was selected as the fieldwork task in the case study since fraud is perpetrated frequently through the creation of fictitious accounts receivable (see Knapp (1996) for actual cases) and because problems with confirming accounts receivable is frequently cited in audit failures (Beasley *et al.*, 2000).

The case begins with background information about a hypothetical computer retail client. Manipulations are made at this point indicating that planning-stage fraud risk is assessed to be low, moderate-high, or not mentioned (control group). Participants next read information relating to confirmation work on accounts receivable (see the Appendix, Figure A1). After mailing second requests for positive confirmations, many customers still did not respond. Alternative procedures were then performed for these non-responses, including examination of sales invoices. Sales invoices could not be located for some of the non-response accounts. (Missing evidence is a fraud risk factor identified in SAS No. 99) The client's controller provided an explanation for the missing invoices. The explanation is plausible, but is such that it may also be just a cover up for invoices that simply do not exist.

After reading the preceding information participants were asked to indicate the level of truthfulness of the client's explanation. The manipulation check questions were presented after this, along with a short demographic questionnaire.

### *Variables*

The dependent variable is measured on a scale from 1 to 10 (not at all truthful-completely truthful), and represents participants' responses to the question "Based upon the information provided to you in this case study, how likely is it that the explanation provided to you by the controller (for the missing sales invoices) is truthful?". Shaub and Lawrence (1999, p. 62) also use estimates of truthfulness to

measure professional skepticism: "... the exercise of professional skepticism requires the auditor to evaluate the reliability of management assertions ..."

The independent variable has three levels: low fraud risk, moderate/high fraud risk, or no mention of fraud risk in the control group. The first manipulation check question asked "Based on the information provided, do you have an understanding of the planning stage fraud risk assessment made by the senior auditor for this client?" Participants responded either yes or no. If they answered yes, they were asked to indicate the level of fraud risk on a 1 to 10 scale (extremely low fraud risk-extremely high fraud risk). The manipulation check questions were worded this way because participants in the control group should answer no to the first question since they had been given no knowledge of fraud risk for this client. Therefore, participants in the control group who answered yes to this question were discarded. Additionally, participants in the two fraud risk conditions who answered no to this question were also discarded since they should have knowledge of fraud risk.

*Results*

Based on the theoretical discussion earlier in the paper, auditors who exercise due professional care during the conduct of an audit should display a certain level of professional skepticism. If this is the case, professional skepticism (as measured by assessment of truthfulness of a client's assertion) should not decline because of a low planning-stage fraud risk assessment and we should expect no difference in skepticism between auditors in the low fraud risk group and those in the control group. On the other hand, if auditors anchor on the low planning-stage fraud risk assessment and fail to consider the possible implications of the missing evidence, we should expect to see lower skepticism displayed by auditors in the low fraud risk group than those in the control group. Due professional care also suggests that a high level of professional skepticism should be displayed throughout the audit when the planning-stage fraud risk assessment is high.

A two-way analysis of variance (ANOVA) was used for data analysis. The main effect for fraud risk was significant ($F_{2,178} = 7.78$, $p < 0.01$). Client assessed truthfulness is inversely related to the level of fraud risk; the marginal means of truthfulness are 7.09, 5.87, and 5.21 for the low, control, and moderate/high fraud risk groups, respectively.

For all auditors, the level of assessed truthfulness is significantly different between the low fraud risk and the control groups ($t = 2.86$, $p < 0.01$, two-tailed, $\text{df} = 133$). This difference is marginally significant for staff auditors ($t = 1.95$, $p < 0.06$, two-tailed, $\text{df} = 104$) and significant for senior auditors ($t = 2.18$, $p < 0.04$, two-tailed, $\text{df} = 27$). For all auditors, the level of assessed truthfulness is also significantly different between the control group and the moderate/high fraud risk group ($t = 2.12$, $p < 0.04$, two-tailed, $\text{df} = 149$). This difference is significant for staff auditors ($t = 2.33$, $p < 0.03$, two-tailed, $\text{df} = 113$) but not seniors.

As expected the staff auditors in our study were significantly more skeptical than the seniors as evidenced by the main effect of experience ($F_{1,178} = 2.87$, $p < 0.05$, one-tailed). We also tested for an interaction between the two independent variables and it was not significant.

Although the number of participants who failed the manipulation check question is larger than reasonably expected, additional analyses suggest the manipulation was

successful. For the participants who correctly answered yes in the first manipulation check question (do you have an understanding of fraud risk), the mean responses for the level of fraud risk (second manipulation check question) are 3.5 and 6.5 for the low and moderate/high groups, respectively, which is significantly different ($p < 0.01$). In addition, the statistical analyses in the study were repeated using all participants and the results are significantly different from those reported previously.

## Discussion

The main purpose of this study was to examine whether planning-stage fraud risk assessments affect the level of professional skepticism displayed by auditors as they evaluate a managerial assertion, and whether the effects are those intended by SAS No. 99. The standard reminds auditors that fraud can be present regardless of the auditor's belief about the integrity and honesty of management. Such a belief may be developed based on the planning stage fraud risk assessment. Auditors in this study were more skeptical of a managerial assertion during fieldwork when they were given no knowledge of planning-stage fraud risk than those who were predisposed to a low planning-stage fraud risk. These results suggest that auditors anchor on low fraud risk assessments, which has an undesirable affect on the level of professional skepticism displayed when later presented with a new fraud risk factor. This type of response may potentially have serious adverse affects on the quality of audit work performed. Overall, auditors predisposed to moderate/high fraud risk assessments displayed a higher level of skepticism than those in the control group; this result is consistent with the guidance of SAS No. 99.

The results also suggest that the level of skepticism displayed by these auditors depends on the experience of the auditor. Consistent with the findings of Shaub and Lawrence (1999), senior auditors were overall less skeptical than staff auditors. Seniors showed significantly less skepticism in the low fraud risk group than in the control group. In addition, their level of skepticism was not significantly different between the control and moderate/high risk groups. In sum, they displayed a lower level of professional skepticism in response to a low planning-stage fraud risk assessment, but did not display a higher level of skepticism in response to a high fraud risk assessment. This type of experience effect may be due to the fact that very few auditors experience fraud in their careers, and thus a decline in skepticism results over time. A declining level of skepticism over time has troublesome implications for the profession. As auditors reach levels of increased responsibility, skepticism and the ability to deal objectively with client representations becomes more important.

Overall, the results of this study suggest a need for increased focus on professional skepticism, which is one of the recommendations included in SAS No. 99. Firms need to consider efforts to insure that auditors do not lose skepticism as they gain experience. These efforts need to include ongoing training for auditors, as well as continual reminders during the course of an engagement of the responsibilities for due professional care and maintaining an appropriate level of skepticism. Future research can potentially identify other factors that may help this situation. The anomaly of seniors in the high/moderate fraud risk group showing the same level of skepticism as those in the control group also warrants further investigation.

As with any experimental study, this study has limitations. The results of this study should not be generalized to all audit tasks, firms, and experience levels of the

auditors. Moreover, we used auditors' assessment of client truthfulness as our measure of professional skepticism. We believe this is consistent with the discussion in SAS No. 99 and with previous studies. However, there is reasonable disagreement on the exact meaning of professional skepticism, and some readers' interpretation of the term may be different than our own.

Data collection for this study took place in the mid-to-late summer of 2001 prior to the issuance of SAS No. 99. The financial reporting climate at this time revealed record-breaking SEC accounting investigations and restatements in the wake of accounting scandals such as Cendant, Sunbeam and Rite Aid (*Wall Street Journal*, 2001). In addition, the Enron scandal was beginning to unfold during this time. We believe this environment at the time of data collection should have heightened skepticism. However, there is a possibility that a replication of the study at the present time may show different results if SAS No. 99 and other legislation such as the Sarbanes Oxley Act have effectively led to even greater increases in auditor skepticism. Future research can examine this issue.

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(The Appendix is shown overleaf.)

## Appendix

### Research Instrument

In this study, assume that you have been assigned to a four-person audit team that will be performing the year-end audit for Computer World, Inc., a large retailer of computer equipment and supplies. A few days before the audit begins, you meet with the audit team to be briefed on the upcoming engagement. A senior auditor has performed all of the planning work for the job, including the budget and staff assignments. In particular, the senior auditor has made an assessment of fraud risk for Computer World, Inc., by considering such things as 1) the characteristics, style and attitude of management, 2) industry and economic conditions, and 3) the operating characteristics and financial stability of the company. Based upon such factors, the senior auditor has assessed fraud risk to be low (or moderate-high).

One of your assignments relates to accounts receivable. On the following screen, please read the information relating to your work on this task, and then answer the question at the end.

***NOTE:*** *Text underlined above was not included in the control group copy.*

**ACCOUNTS RECEIVABLE**

A portion of the audit program for accounts receivable relates to confirmation of year-end accounts. A sample of accounts is selected, and a form sent to customers asking them to verify that the amount is correct and return the confirmation. This procedure provides evidence that the receivables exist, that Computer World, Inc. has rights to these receivables, and that the amounts of the receivables are reported correctly.

You randomly select 350 accounts to confirm. These 350 accounts total $1,400,000, which is approximately 20% of the total accounts ($7,000,000). Of the 350 positive confirmations mailed out, 300 are returned without any exception (i.e. the customer agreed the balance was correct). Fifty are not returned, so second requests are mailed to these customers. Of these 50 second requests that are mailed, 20 are returned without exception, and 30 customers still do not respond.

The audit program states that you should perform alternative procedures for confirmations that are not returned. One such procedure involves examining deposits after year-end to look for collection of these accounts, which provides evidence of their existence at year-end. You do this for the 30 customers who did not respond to their confirmations, and find that 20 of the 30 were collected during the month after year-end, but 10 are still outstanding. For these 10 accounts, you perform another alternative procedure which involves examining sales invoices to determine that the client was billed. You are unable to locate sales invoices for 5 of these customers, so you make an inquiry with the controller.

The controller states that the manager of the sales department has left town to meet with several of the company's clients to negotiate sales agreements for the following year. More than likely, the sales manager pulled some of these recent invoices while gathering information for the meeting and did not return them. You document this explanation.

(*continued*)

**Figure A1.**

Based upon the information provided to you in this case study, how likely is it that the explanation provided to you by the controller (for the missing sales invoices) is truthful? Indicate your response below.

| **The explanation is** **Not at all truthful** | | | | | | | | | **The explanation is** **Completely truthful** |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |

Based on the information provided, do you have an understanding of the planning-stage fraud risk assessment made by the senior auditor for this client?

Yes ○ No ○

If yes, please indicate the level of fraud risk on the scale below.

| **Extremely *low*** **Fraud Risk** | | | | | | | | | **Extremely *high*** **Fraud Risk** |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |

**Figure A1.**