FIRM'S GROWTH POTENTIAL AND AUDITOR LITIGATION RISK

By
Dong Young Lee

A DISSERTATION

Submitted to
H. Wayne Huizenga School of Business and Entrepreneurship
Nova Southeastern University

in partial fulfillment of the requirements
for the degree of

DOCTOR OF BUSINESS ADMINISTRATION

2004

INFORMATION TO USERS

The quality of this reproduction is dependent upon the quality of the copy submitted. Broken or indistinct print, colored or poor quality illustrations and photographs, print bleed-through, substandard margins, and improper alignment can adversely affect reproduction.

In the unlikely event that the author did not send a complete manuscript and there are missing pages, these will be noted. Also, if unauthorized copyright material had to be removed, a note will indicate the deletion.

ProQuest Information and Learning Company
300 North Zeeb Road
P.O. Box 1346
Ann Arbor, MI 48106-1346

A Dissertation
Entitled

FIRM'S GROWTH POTENTIAL AND AUDITOR LITIGATION RISK

By
Dong Young Lee

We hereby certify that this Dissertation submitted by Dong Young Lee conforms to acceptable standards, and as such is fully adequate in scope and quality. It is therefore approved as the fulfillment of the Dissertation requirements for the degree of Doctor of Business Administration.

Approved:

Joung W. Kim, Ph.D.
Chair

April 26 2004
Date

H. Young Baek, Ph.D.
Committee member

Apr 29, 2004
Date

Joseph L. Balloun, Ph. D.
Committee member

4/26/04
Date

Russell Abratt, Ph. D.
Chair, Doctoral Programs

5/5/04
Date

J. Preston Jones, D.B.A.
Associate Dean,
The Wayne Huizenga School of Business and Entrepreneurship

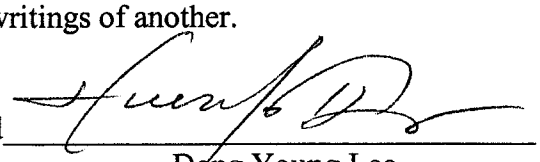
5/10/04
Date

Nova Southeastern University

2004

CERTIFICATION STATEMENT

I hereby certify that this paper constitutes my own product, that where the language of others is set forth, quotation marks so indicate, and that appropriate credit is given where I have used the language, ideas, expressions or writings of another.

Signed 

Dong Young Lee

ABSTRACT

FIRM'S GROWTH POTENTIAL AND AUDITOR LITIGATION RISK

By

Dong Young Lee

This study provides a better theoretical understanding of the reasons why audit failure may cause audit litigation influencing the growth potential for future earnings. This study examines whether a higher growth potential of future earnings for a firm's performance before the audit failure results in audit litigation. This study also investigates whether market variables such as variability of return can be served as useful indicators for measuring the level of audit risk. In addition, this study examines the relationship between the tenure of an independent auditor and the audit quality. The results may suggest practical implications for an external auditor. Also, the variables employed in this study are helpful for auditors in determining their level of business risk before an audit failure.

ACKNOWLEDGEMENTS

To the many individuals who helped to complete this dissertation, I express my gratitude and appreciation. I extend my appreciation to the members of my dissertation committee for their guidance and encouragement in processing this dissertation. I specially thank my chair person, Dr. Joung Kim.

Particular acknowledgement is due my family. To my parents, Gong Pil Lee and Mal Rae Park, I deeply thank for your helpful support and love by all the way during these years. To my wife, Myung Ye Lee, I sincerely appreciate your sacrifices and love. To my sons, Han Sol and Hyun Sup Lee, I thank you for your corporation during the dissertation period.

TABLE OF CONTENTS

LIST OF TABLES

CHAPTER I

INTRODUCTION

Purpose of the Study

In the context of auditing, business risk is the probability that an auditor will suffer a loss or injury to his or her professional practice (Brumfield, Elliott, and Jacobsen, 1983). These losses take such form as litigation or sanctions imposed by public or private regulatory bodies impairing their professional reputation. As audit failures are highly publicized and the damages against auditors increase, auditors should be careful to manage their business risks.

Pratt and Stice (1994) argue that auditors should be able to effectively screen potential clients and be able to accurately assess litigation risks. Also, many accounting firms already are more cautiously screening new clients and eliminating some previous clients who had been accepted and have been involved in a litigation incident (Pratt and Stice, 1994). Pacini and Sinason (1999) suggest that because of the public perception that accountants have a greater responsibility for financial misinformation, the gap between the auditor's responsibility and the public's beliefs, leads to high litigation risk.

Prior studies provide the empirical evidence that the variables, such as asset structure, size, and sales growth, are mainly affected by audit failure and may result in audit litigation. This study examines whether a higher growth potential of future earnings

for a firm's performance before the audit failure ultimately causes litigation. The current study utilizes more detailed investigation of the investors' expectations in the market before the audit failure, if the current price is higher than it should be when the market estimates a higher future performance. Management may be motivated to manipulate the earnings number to show growth performance that is close to what the market perceives the growth should be. Audit quality has been questioned recently due to the bankruptcy filings of several companies such as Enron and WorldCom. In those two cases, investors in the companies have taken a huge loss and have blamed the external auditors for the audit failures as the main reason for the huge loss. The current study provides a better understanding of those cases by figuring out another factor that may affect audit quality.

Also, to investigate whether market variables can serve as useful indicators for measuring the level of audit risk before the audit failure, this study examines the relationship between the audit litigation and stock market variables, such as variability of returns. The variability of stock returns proxies the level of the firm in the market. The assessments of firm risk are reflected in stock valuations along with the movement of the overall market. Therefore, when the auditor begins the audit at the end of the accounting period, the stock market has already considered the firm's risk related to the period being audited. On balance, the market risk assessment may be a valuable input to the auditor in evaluating audit risk and, thereby, managing its own business risk from potential audit litigations.

The results may suggest the practical implication for the external auditor. Before the audit failure, the external auditors have to determine their business risk for the audit contract with clients. Also, analyzing market variables is another way to figure out the

reason for the audit failure that may cause a huge liability lawsuit. This study contributes to give a better theoretical understanding of the reasons for the audit failure that may result in bigger shareholder's loss. Also, the variables employed in this study are helpful for the auditors to determine the level of their business risk before the audit failure.

Background

Accountants around the world have experienced losses in liability lawsuits, especially in the United States. According to Pacini, Martin, and Hamilton (2000), a rise in litigation has lead to accountants refusing to render services to high-litigation risk firms, decreasing the service availability and raising the liability cost. Palmrose (1988) suggests that an increasing incident of litigation against an auditing firm was viewed as a negative signal about the quality of auditing services provided by the firm, thereby, impairing its reputation. Inadequate service quality induces customer dissatisfaction or the high probability of bringing the issue of auditors' liability to the court (De and Sen, 2002).

The fear of litigation is causing emerging businesses to seek private financing rather than entering the capital markets, thus decreasing investment opportunities (O'Malley, 1993). The litigation phenomenon is not limited to the U.S. Audit firms in the U.S. routinely face lawsuits for work done outside the U.S. The higher level of auditors' liability resulted in the turnover of staffs and seniors in an accounting firm because of high audit pricing to compensate for possible future losses (Kanodia and Mukherji, 1994; Dalton et al., 1997).

Cook et al. (1992) insist that auditors are able to take insurance to protect themselves against enormous legal costs and they are forced to settle because of fear of damage to their reputation. Also, a study by the International Federation of Accountants notes that an insurance policy cannot reduce litigation problems. It can, however, increase the risk of litigation because of the availability of money from insurers. Because auditors provide a type of implicit insurance to users and investors, the auditors are considered a potential compensator if an investment or credit loss is experienced (Pacini and Sinason, 1999). Consequently, harsh and unwarranted litigation is a problem not just for the accounting profession but also for entire businesses and the economy, in general, because most accounting firms try to mitigate litigation risk by avoiding high-risk clients and even entire industries (Cook et al., 1992).

Even though Congress passed the Private Securities Litigation Reform Act (PSLRA) of 1995, replacing joint and several liability with proportionate liability for defendants involved in federal securities litigation, the debate over other aspects of legal liability regimes continues (King and Schwartz, 1997). The profession's liability exposure has doubled over the recent decade. Although Narayanan (1994) suggests that there is a potential increase in audit quality under proportionate liability, King and Schwartz (1997) contend that the actual impact of the Reform Act depends on how courts implement the Act and how states reform their securities laws.

Remainder of the Study

The remainder of this dissertation is organized as follows: Chapter Two provides relevant literature review in four major sections for auditor litigation. The first section

discusses a framework for applying growth potential of future earnings to auditor litigation. The second section provides a summary of auditor litigation research. The third section presents market variables related to audit risk. The fourth section provides relevant studies for growth potential of future earnings. Chapter Three develops and presents the three hypotheses. Chapter Four describes the research design method and the variables, and selection and composition of the samples. Chapter Five presents the results, conclusion and summary.

CHAPTER II

LITERATURE REVIEW

This chapter is divided into four sections and compares relevant studies from prior auditor litigation factors and market over-valuation. The first section constructs a framework for applying insights from future earnings expectation research to the auditor litigation. This section studies the reason that the future earnings expectation relates to the auditor litigation. The second section provides a comprehensive summary of auditor litigation research. The third section presents relevant research to market valuations related to audit risk, which increases the probability of audit failure, and finally causes the auditor litigation. The fourth section provides relevant studies for the growth potential of future earnings research.

Framework

The current stock price is higher than it should be when the market estimates a higher future performance about a firm. The management may be motivated to boost the earnings number on the statement to be close to the growth potential of future earnings that the market perceives or benchmarks. If earning numbers are managed to meet the future performance expectation, there is a high optimistic expectation for future performance created.

In general, most managers know that they can determine the accounting methods that are used to measure the earnings or whatever reasons they have as long as the selected methods are consistent with laws and generally accepted accounting principles (GAAP). Managers can exercise some judgment in managing earnings without violating GAAP. If the financial statement information distorts the application of GAAP, any decision maker who uses the information is in danger of misinterpretation, manipulation, or intentional fraud. Also, the current price can be higher than it should be when the market estimates a higher future performance based on the faulty information. As a result, the faulty information on the financial statement influences the stakeholders and they are unable to make the proper decision for their investment. They then file a lawsuit against the auditor when they acquire losses based on the faulty information previously received.

Most of the prior studies assume that the misrepresentation and audit failure cause the market over-valuation (Heninger 2001; Stice 1991; Pratt and Stice 1994; Palmrose and Scholz 2000). These studies provide empirical evidence that indicates the association of the audit litigation and several financial variables, measured at right before the occurrence of alleged audit failure, such as asset structure, financial condition, sales growth, and stock return variability. The current study extends the prior studies with more detailed investigation on the investors' expectation in the market before the audit failure. The current study may provide a better understanding of the Enron and WorldCom cases by figuring out another factor that may have affected audit quality in relation to the future performance expectation. The primary purpose of this study is to

examine whether the higher future performance expectation prior to the auditing increases the probability of the audit failure and ultimately causes the auditor litigation.

Auditor Litigation Researches

Regardless of the tremendous efforts made by the prior studies, the number of security class action lawsuits each year has stayed constant since PSLRA of 1995 (Cushing and Gilbertson, 2002).

The first intensity empirical study on auditor litigation is St. Pierre and Andersen's (1984) work. St. Pierre and Andersen (1984) identified errors made by public accountants that led to subsequent litigation. Their sample included 345 alleged errors in 129 cases against public accountants. The types of cases investigated are: 85 audit engagements, 19 write-up work engagements, 15 tax or special review work engagements, and 10 miscellaneous engagements.

St. Pierre and Andersen (1984) found that new clients who had an engagement of less than four years brought lawsuits against the public accountants. St. Pierre and Andersen (1984) also found that public accountants have a greater rate of litigation from clients in the following industries: Finance, Insurance, Real Estate, Manufacturing, Services, and Construction. Furthermore, public clients who are opposed to privately held clients carry a larger rate of litigation for public accountants. Finally, St. Pierre and Andersen (1984) contend that client financial condition plays a major role in auditor litigation. Out of 129 cases, 63 were started after client bankruptcy, significant financial difficulty, or drop in stock price without subsequent bankruptcy.

While St. Pierre and Andersen (1984) offer descriptive analysis on lawsuits against accountants in general, Palmrose (1987) focuses on lawsuits against auditors with a much bigger sample size. The major purpose of the study was to present systematic evidence of whether client business failures and client management fraud automatically trigger litigation against the auditor. The results indicated that litigation against auditors related to times of general economic difficulty.

Palmrose (1987) found that the auditor has a greater risk of litigation when plaintiffs allege that manipulating financial information covered the financial difficulties in a sample data of 472 firms. Also, management fraud governed a major role in auditor litigation. About half in this sample claimed irregularities involving management.

In a later study, Palmrose (1988) studied whether auditor litigation rates can be used to differentiate lower quality auditors from higher quality auditors when using data from a sample of 472 firms over a 25-year period. This study maintains that higher quality auditors will provide a higher quality audit. Therefore, higher quality auditors should reduce the possibility of audit failure and subsequent litigation. Palmrose (1988) asserted that auditor litigation provided an externally apparent proxy of audit quality even if it was not perfectly associated with audit failure. This paper notes that the Big Six (Eight) auditors have a lower litigation rate than the other auditors do because of audit quality.

However, Deis, Jr. and Giroux (1992) demonstrated that audit quality is not characteristic of quality differences within an auditor-size category. They propose that the audit quality decreases, when the tenure of the auditor increases. Rather, they further believed that audit quality increases with the number of clients. They insist that over a

long association with a client, the auditor may become less challenged and less likely to use innovative audit procedures, or may fail to maintain an attitude of professional skepticism. This paper presents the results of an investigation into the determinants of audit quality provided by small, independent CPA firms in Texas on audits of independent school districts. They analyze quality control review (QCR) findings to obtain a relatively more direct measure of audit quality. The Audit Division of the Texas Education Agency (TEA) conducted 308 QCRs between 1984 and 1989. They found that audit quality declined with the length of auditor tenure.

St. Pierre and Anderson (1984) found a larger proportion of audit failures in the early years of the auditor-client relationship. Also, Stice (1991) found shorter tenure for audit engagements meant less client-specific knowledge, which resulted in lawsuits. Latham et al. (1998) suggested that potential struggles and problems, because of lack of familiarity and power imbalance between the auditor and a client, are more likely to occur in the early stages of the relationship. In addition, Krishnan and Krishnan (1997) note that auditors can adjust their client portfolios by withdrawing from high-risk engagements through match-pairs comparison of auditor dismissal and resignation companies. Krishnan and Krishnan (1997) found longer auditor tenure is less likely to be associated with auditor resignations leading to higher auditor's liability.

In contrast Stice (1991), Lys and Watts (1994) suggested that the length of auditor tenure reduced the auditor independence so that the likelihood of litigation increased with the number of years the audit firm has held its position. However, Lys and Watts (1994) found no significant differences between their litigation and control samples in the length of auditor tenure in their analysis during the period of 1955-1994. Also, they argued that

because new auditors are positively expected to litigate through the misleading financial statement factors and negatively expected to the audit failure factor, due to the most independent in the first year of tenure, the overall relationship between both the new auditor and litigation is not clear.

Moreover, Behn et al. (1997) found a positive relationship between having new auditor and client satisfaction that induced very favorable light and justified auditor change decisions. Moreover, even if the client may have been satisfied with the predecessor, the new auditor's level of performance within the first few years of the engagement was so outstanding that it increased client satisfaction levels (Behn et al., 1997). They reported that client satisfaction with an auditor was strongly related to the auditor's responsiveness to the clients and active, personal involvement by engagement of partners. In addition, Behn et al. (1997) presented that client firms expected to receive value-added suggestions beyond GAAP as a business expertise or partner so that the clients wanted more interaction with their auditor. This closer relationship may make the auditors independence weaker.

In connection with auditor independence, Deis, Jr. and Giroux (1992) defined the audit quality as the probability that an auditor both discovered and reported a breach in the client's accounting information. Also, they insisted that both discovery and reporting the breach relied on the auditor's independence. Recently, the audit quality has been questioned due to the bankruptcy filings of several companies such as Enron and WorldCom.

Deis, Jr. and Giroux (1992) indirectly studied the issue of whether auditor tenure affects audit quality. They insisted that over a long association with a client, the auditor

may become less challenged and less likely to use innovative audit procedures, or may fail to maintain an attitude of professional skepticism and independence. Regarding the audit quality, investors of the companies have taken a huge loss and have blamed the external auditors on the audit failures as the main reason of the huge loss in those two cases (Enron and WorldCom).

Stock Market Variables and audit Risk

Dopuch, Holthausen, and Leftwich (1987) provided evidence of an association between audit qualifications for contingencies and a firm's financial and stock market variables. They sampled firms from the New York and American Stock Exchanges and formed two groups: qualification group for 275 firms and clean opinion group for 441 firms during the period 1969-1980. A probit model is employed to test the predictive value of several financial ratios and market variables for the audit opinion. There are nine of the financial and stock market variables in the model. Five financial statement variables (change in leverage, the changes in the ratio of receivables to total assets, the changes in the ratio of inventories to total assets, a size measure, and whether the firm reported a loss in the year of the qualification) are included in the model. The four market variables used are time listed, change in beta, change in the residual standard deviation from a market model regression, and abnormal returns (measured as the common stock return minus an equally weighted industry return). They found that while a change in beta is not significant, a change in residual standard deviation of returns is positively significant. The predictability of this latter change suggests that auditors may use market

variables to assess audit risk. In other words, the information in market price variables, which is beyond the financial statement variables, and financial statement variables are correlated with the auditor's decision because both variables have incremental explanatory power.

Recent research in finance suggests that beta cannot sufficiently explain market risk (Fama and French, 1992). This may explain Dopuch, et al.'s (1987) lack of significant findings for a change in beta. Fama and French (1992) document an association between the book-to-market ratio and security returns. Thus, the book-to-market ratio may be more helpful in explaining the relation between audit opinion and market risk. Although Dopuch, et al. (1987) described associations between audit opinion and various variables, they did not attempt to explain why the audit opinion should be related to market risk factors. Neither did they consider the information cost of the variables from a practical viewpoint.

Future Performance Expectation

Evidences from a variety of studies show that earnings are managed to meet future performance expectation and related to equity value (e.g., Payne and Robb 1997; Burgstahler and Eames 1998; Kasznik 1999). These studies usually rely on that management may be motivated to misrepresent the financial statements if the market has a higher expectation in valuing firms. The current earnings are an adequate characterization of expected future performance. Therefore, when the market estimates higher future earnings, the current price is higher than it should be. Indeed, Healy and

Wahlen (1999) define that earnings are managed either to mislead some stakeholders or to influence contractual outcomes.

In a typical case, plaintiffs allege that they bought stock at inflated prices because managers misled the market by distributing overly positive information or by failing to disclose material undesirable information. In other words, earnings-based securities litigation is based on plaintiffs' allegations that managers knew (or should have known) that earnings would be lower than expected. However, this information is withheld from investors.

Concerning to the typical allegation, Francis, Philbrick, and Schipper (1994) examined the corporate disclosures of companies involved in shareholder litigation brought under Rule 10b-5 of the Securities Exchange Act of 1934 during 1988-1992. The companies are in the bio-technology, computing, electronic, and retail industries, who are identified as companies "at risk" for litigation due to their disclosure of adverse earnings news and companies that experienced earnings-based securities litigation. However, they do not find support that a decline in accrued earnings directly relates to a shareholder lawsuit. Companies with lawsuits have about three times the number of disclosures as the "at risk" companies in the year before the adverse earnings news. An analysis of forecast revisions also presents no evidence of greater expectation of bad news by the analysts as the "at risk" companies. They found a considerable relationship between size and the probability of litigation. They also found that lawsuits are related to higher payment of dividends and higher systematic risk. They propose that their findings concerning beta and size may proxy for firm-specific characteristics that generate a particular vulnerability to securities litigation. They generally found a lack of support to

the premise that defective disclosures lead to inflated share prices as the plaintiff alleged. They also found that companies, which have greater litigation risk, appear to make more frequent disclosures.

SEC (Securities and Exchange Commission) Chairman Arthur Levitt has expressed distress about the use of earnings management to meet the earnings expectations set by analysts' expectation on September 1998. There was an examination of the influence of analysts' forecast dispersion. Payne and Robb (1997) investigated whether managers used the utilization of discretionary accruals to adjust reported earnings toward analysts' expectations regarding firm profitability. The results are consistent with managers aligning earnings with future performance expectations established by analysts' forecasts. Additionally, the evidence is consistent with managers behaving as though they have greater incentives to increase income in settings, particularly where pre-discretionary accrual earnings are below analysts' expectations. If pre-discretionary accrual earnings are above analysts' forecasts and analysts are not in consent, managers use tactics to hold their ability to increase earnings in future periods by recording income decreasing discretionary accruals in the current period. On balance, many managers seem focused on maintaining steadily increasing earnings. Two alternative conditions to manage for possible measurement error in their design produced results consistent with their primary analysis.

In addition, fearing litigation by stakeholders and loss of reputation for accuracy, Kasznik (1999) investigated whether managers who issued annual earnings forecasts managed reported accounting earnings toward their forecasts. The study hypothesized that managers make income-increasing accounting decisions when earnings would

otherwise be below management forecasts. Indeed, they develop that the earnings management activity is increasing in expected forecast error costs. They found evidence that firms whose managers have over-estimated earnings have significant levels of positive discretionary accruals of which magnitudes are positively related to most of the litigation cost proxies. These findings are understood as evidence that managers manage reported accounting earnings on the way to their forecasts. On the other hand, however, the abnormal level of discretionary accruals may stimulate the issuance of a forecast, or the two could be simultaneously determined as part of an overall reporting strategy.

In a different approach, Burgstahler and Eames (1998) tested cross-sectional distributions of scaled annual earnings and earnings changes for all available observations on the annual industrial Compustat database for the years 1975-1993. The distributions are bell- shaped and comparatively flat with the exception of in the regions near zero. For both earnings and earnings change distributions, there is a trough instantaneously to the left of zero. Also, there is a peak immediately to the right of zero, which is incoherent with the overall shape of the remainder of the distribution. For example, the frequencies of small losses and decreases in earnings are unusually low. Alternatively, the frequencies of small positive income and small increases in earnings are unusually high. They support the distributional evidence that earnings management are engaged to avoid losses by crucial five components of earnings: Cash flow from operations, changes in working capital, non-operating income, special items, and other accruals. The evidence suggests that the cash flow and change in working capital components participate the significant role in earnings management in the region near zero.

In addition, because of limited evidence of earnings management, Dechow and Skinner (2000) discuss two main issues from some rethinking of views about earnings management. First, they argue that a more productive approach to discover firms whose managers perform earnings management is to focus on managerial incentives. Second, with regarding to this focus on incentives, they argue that academics' research works should focus more on capital market incentives for earnings management instead of focusing bonus plans and debt-covenants. For capital market consequences of earnings management, they suggest that market participants respond to whether earnings meet practically simple benchmarks. Therefore, they also suggest that managers who are motivated to practice earning management meet these simple earnings benchmarks. Consequently, market participants, investors, can be fooled by somewhat simple earnings management practices. However, they argue the fact that the firm may face relatively harsh penalties if the market discovers the earnings management. Based on their research, they conclude that understanding management's incentive is the key to understanding the aspiration to engaging earnings management in particular for capital market.

In a following-up study to Francis et al. (1994), Francis et al. (1998) investigated whether firms subject to earnings-based litigation during 1983-1993 experienced an unexpected decline in sales in the quarter in which the earning shortfall occurred. They also studied whether these firms were characterized by high level of business risk. They argue that earnings-based securities litigation is based on allegations that managers knew (or should have known) that earnings would be lower than expected but withheld this information from investors. They exploit published financial statement data to estimate measures of business risk, which uncertainty about a firm's ability to earn a satisfactory

return on invested capital. They believe there are three factors that affect business risk: sales volatility, operating leverage, and financial leverage. They consider these three elements of business risk enable a firm vulnerable to adverse earnings surprises in a number of ways. They develop two explanations for the increased litigation risk. First, the "surprise" adverse announcements are hypothesized to cause the launch of an error search that could eventually result in a lawsuit. They find that companies with unpredictable sales have a higher occurrence of litigation. Secondly, they think that companies with high operating leverage, a proxy for an inflexible cost structure, have higher litigation rates. On balance, the evidence shows that litigation-prone industries and firms are characterized by operating environments that make them particularly vulnerable to earnings surprises.

The next chapter develops testable hypotheses to investigate whether the evidence of future performance expectation and market variables are associated with the auditor litigation risk base on the prior literature review in this chapter.

CHAPTER III

HYPOTHESES DEVELOPMENT

The Future Performance Expectation

The audit litigation is generally brought with a 'big' shareholders' loss in the market. If the auditor does not adequately detect any misrepresentation of the firm's financial statements and the client's stakeholders incorrectly value the firms in the market because of the misrepresentation, the risk of litigation to the client and the auditor is increased. The penalties of high future performance expectation arise after the audit failure as the shareholders' loss in the market is realized when the market correctly values the firm with reflecting true information about the firm performance.

Prior studies, such as Payne and Robb (1997), Burgstahler and Eames (1998), and Kasznik (1999), found empirical evidence that earnings are managed to meet the expectations of the market. Kasznik (1999) found that firms have used unexpected accruals to manage earnings upward if they are in danger of failing to meet management earnings goals. Burgstahler and Eames (1998) found evidence that was consistent with firms managing earnings to meet analysts' forecasts. Therefore, management may be motivated to misrepresent the financial statements to meet the higher future performance expectation in valuing firms. In particular, Dechow and Skinner (2000) argue that managers have become increasingly sensitive to their firms' stock value and their relation

to earnings numbers as stock market valuations (related to accounting benchmarks such as earnings or book values) increased during the 1990s. Therefore, managements may be motivated to boost earnings to achieve a fair value for stock issues after obtaining a higher stock issuing prices.

A firm's earnings number is a critical factor for valuing its stock price and a sufficient description of expected future earnings. Dechow and Skinner (2000) concluded that understanding management's incentive for beating benchmarks and boosting the price is the main point to recognizing the desire to manage earnings. They argue that share offerings to the managers motivate a direct incentive to manage earnings. Therefore, the managers can increase reported earnings undetectably so they can improve their firms' share value that provides direct monetary benefits to themselves as well as their firms. Healy and Wahlen (1999) argue that managers use the accounting judgment to increase earnings-based bonus awards in actual compensation. It could be argued that the extent to which top executives' personal wealth is tied to their firms' stock prices has provided a corresponding increase in managers' incentives to avoid earnings surprises.

Within the current GAAP, managers may use their knowledge about the business to select a strategy for accounting policy and disclosure that is used for communicating management information. Therefore, management's accounting judgment may allow managers to boost earnings to meet the future performance expectation and to justify their compensation. The accounting judgments are linked to the implementation and interpretation of GAAP. Generally, plaintiffs often allege that the audited financial statements are misleading by an auditor as the audit failure so that the shareholders can recover their losses from the client and the auditor. Due to imperfect auditing, Francis et

al. (1994) develop 59 out of 103 lawsuit cases allege the disclosed financial condition of the firms are not correctly representative of their financial condition. Furthermore, they find 37 out of 103 cases allege bad accounting practices with improper revenue recognition and earnings manipulation. In addition to imperfect auditing, Latham and Linville (1998) argue that the management involvement in creation of misrepresentation cannot eliminate auditor's liability with respect to third parties in whole. The management involvement of material misstatement merely reduces the amount auditors individually pay for their liability. Thus, the responsibility of the auditor to the third parties as audit failure still remains regardless management's involvement.

Managers are motivated to manage accounting earnings to meet the consensus forecast of analysts, which is a proxy of the future performance expectation in valuing firms. In turn, the market may have higher expectation for the firms' performance before representation of financial statements. With regard to valuation of a firm, valuation based on earnings and book value is typical complementary alternative approaches to valuation in accounting systems because of more realistic settings with market imperfections (Burgstahler and Dichev, 1997). They present that the value of the firm is a convex function of both earnings and book value as long as the firm has the ongoing option to either its present activities or its resources. In addition, Skinner and Sloan (1999) draw a connection between market responses to earnings news and the apparent over-pricing of stocks. They provide that the stocks are trading at high valuation multiples such as market-to-book and price-to-earnings ratios that can be justified by high growth rates of expected future earnings.

The higher firms' growth potential in valuing firms is due to the estimation of a higher future performance, between right before the audit failure and after the audit failure, related to the shareholder's loss. During the period between the audit failure and shareholder's loss, the higher future performance expectation still exists because an auditor may fail to detect the factors for correcting the future performance expectation. When the market corrects a value of the firm, shareholders' loss, poor stock price performance, in the market is realized. The higher expectation for future earnings growth, the bigger possibility of shareholder loss is occurred. Finally, the shareholders' loss in the market is related the audit litigation because poor stock performance is the major cause of damages to the shareholders. Therefore, the higher future performance expectation before the audit failure may be related to the higher expectation of the firm after audit failure, and finally result in audit litigation due to the poor stock price performance. This leads to the following hypotheses:

H1: Auditor litigation risk increases with the higher market's expectation right before audit failure.

The Tenure of the Auditor-Client Relationship and Auditor Litigation

The empirical findings related to audit tenure are mixed. Stice (1991) finds shorter tenure for audit engagements meant less client-specific knowledge that may be resulted in lawsuits. Latham et al. (1998) suggest that prospective struggles and troubles because of lack of familiarity and power imbalance between the auditor and a client are more expected to arise in the early periods of the relationship. Also, St. Pierre and

Anderson (1984) find a larger proportion of audit failures in the early years of the auditor-client relationship. In addition, Krishnan and Krishnan (1997) find longer auditor tenure is less likely to be associated with auditor resignations that result in higher auditor's liability.

Interestingly, Lys and Watts (1994) expect that the length of auditor tenure reduced the auditor independence so that the likelihood of litigation increased with the number of years the audit firm has held its position. Therefore, a new auditor is negatively expected to contribute to the audit failure factor due to the most independence of the early years of tenure. If an auditor believes the financial statements are likely to be misleading, it may resign or be replaced by management. When the new auditor accepts the management's desire not to correct the misstatement, the auditor may be associated with lawsuits. Consequently, they argue that new auditors through misleading financial statement factors are positively expected to participate in audit failure. Therefore, considering the results of the prior studies, they argue that the overall relationship between both the new auditor and litigation is not clear.

Deis and Giroux (1992) assert that as the auditors tenure increases in length, the auditor may become more familiar with its client. Thus, auditors may become less likely to apply innovative auditing procedures, or may fail to maintain the auditor's professional skepticism and independence.

As the tenure of the auditor-client relationship increases, a close behavioral relationship develops between auditor and client. Behn et al. (1997) report a positive relationship between having new auditors and client satisfaction that induced very favorable light and justifies a change in the auditor's decisions because of the initial fee

discounting engagements with active personal involvement by engagement partners. Moreover, even if the client may have been satisfied with the predecessor, the new auditor's level of performance within the first few years of the engagement is so outstanding as to increase client satisfaction levels (Behn et al., 1997). The client - oriented audit means a lack of independence for the auditor, which, in turn, may create misleading financial statements. When a conflict situation arises between the auditor and a client for misrepresentation of financial statements, the client may attempt to pressure the auditor for favorable audit report. Auditor's independence may be weakened as the behavioral relationship is increasing because the auditor wants to keep the client due to a competitive market (fear of losing the client). Therefore, a closer relationship with increasing audit tenure can lead to a lack of auditor independence and, in turn, can lower audit quality. The auditors who have more independence are more likely to report detected misrepresentation in financial statements. Thus, the following hypothesis is developed:

H2: The litigation risk increases with auditor's tenure.

Variance of Stock Returns and Auditor Litigation

Audit risk is a measure of the auditor's assessment of the likelihood that there are material misstatements in a segment before considering the effectiveness of the internal control structure. Some pervasive factors affect many accounts covered by the audit, while other factors (account-specific) affect only one or more specific accounts. These

pervasive risk factors are also evaluated by the market in pricing the company's stock. As supported by the evidence in Dopuch, et al. (1987), these same factors can affect both the stock price and audit risk.

In this study, the standard deviation of daily stock return volatility (SRV), which is the proxy for investment risk, is employed. The assessments of firm risk are reflected in stock valuations along with the movement of the overall market. By considering the market risk, the auditor may be better able to assess the audit risk before the audit failure. From the auditor's perspective, a high level of firm risk increases the audit risk along with the possibility of misrepresentation in the financial statements, which induces the auditor litigation. In other words, the auditor may filter the clients who have higher litigation risk or be necessary to raise audit effort to avoid such litigation when the stock return variation is high. This study argues that the market variable for investor risk assessment could also serve as proxy variables to explain for auditor risk assessment before the audit failure. This consideration of the market's risk assessment may thus help the auditor to potentially reduce the litigation risk and increase the effectiveness and efficiency of the audit work.

The variation of daily returns (SRV) during the accounting period is a broader measure reflecting investor beliefs, and thus may proxy for any other risk factors including systematic (market-wide) and unsystematic (firm-specific) risk. This variable may be more strongly related to audit risk level if audit risk includes more than just systematic risk factors. A high audit risk level implies high SRV. Therefore, this variable is expected to be positively related to the audit risk level. Higher variance of daily stock return means higher uncertainty of stock market. Consequently, there is a

higher probability of getting a "big loss" in terms of shareholders due to the volatility. The audit litigation is generally brought with the shareholder's loss in the market. Thus, the following hypothesis is developed:

H3: Auditor litigation risk increases with the standard deviation of daily stock returns.

Summary

This chapter has developed the hypotheses of this study. The main hypothesis is concerned with whether the evidence of the high market expectation increases auditor litigation risk. The rest of the hypotheses deal with auditor tenure and market variables. The next chapter discusses the operational variables and methodology employed to test these hypotheses.

CHAPTER IV

VARIABLES AND METHODOLOGY

This chapter presents the variables and methodology used to test the hypotheses in the previous section. The first section of this chapter provides the basic framework and the logit model used in this study. The second and third section explain the selection of the dependant variables and independent variables employed to test the hypotheses such as price earning ratio, the standard deviation of daily stock return, and auditor tenure. The next section summarizes the chapter.

Framework

The following model shows the relation between the audit failure and the variables employed in this study.

Audit failure = f (Market valuation, Sales growth, Asset structure, Financial condition, Auditor Tenure, Market variable) ----- (1)

To test this model, the firms that experience the audit litigation are compared with the firms that do not have the litigation. Table 3 presents how to measure the test variables. To find out the valuation multiples, price-earning (PE) ratios and market-to-

book ratio are used. To measure the market assessment of risk, standard deviation of daily stock return (SRV) is employed. SRV provides the dispersion of return from the expected average returns. The more volatility stock would have a large standard deviation when compared with similar period results. Therefore, higher SRV may present a higher possibility of audit failure that may result in bigger loss of shareholders. Audit tenure is also studied. The audit tenure affects audit quality resulted from professional skepticism and independence. The other variables are measured same as in Stice (1991) and Pratt and Stice (1994). Table 3 represents the summary of variables.

A logit model is employed as follows:

$$AF_t = a_1 + a_2 \bullet \Delta PE_{t-1} + a_3 \bullet \Delta MB_{t-1} + a_4 \bullet \Delta SRV_{t-1} + a_5 \bullet AUTR_t + a_6 \bullet \Delta SG_{t-1} + a_7 \bullet \Delta AR_{t-1} + a_8 \bullet \Delta INV_{t-1} + a_9 \bullet \Delta FC_{t-1} + \varepsilon$$

------ (2)

Where:

AF_t = 1 for firms with litigation and 0 for otherwise,

ΔPE_{t-1} = the industry adjusted change of PE ratio from year t-2 to t-1,

ΔMB_{t-1} =the industry adjusted change of Market-to-Book ratio from year t-2 to t-1,

ΔSRV_{t-1} = the industry adjusted change of standard deviation of daily stock return from year t-2 to t-1,

$AUTR_t$ = the years of audit,

ΔSG_{t-1} = the change of SG (sales growth) from year t-2 to t-1,

ΔAR_{t-1} = the change of AR (accounts receivable) from year t-2 to t-1,

ΔINV_{t-1} = the change of INV (inventory) from year t-2 to t-1,

ΔFC_{t-1} = the change of FC (Altman Z-score) from year t-2 to t-1.

Dependent Variable

The dependent variable, audit failure, is a dichotomous variable. If the firm is an audit failure firm, the observation originates from the sample where the auditor is a defendant in a lawsuit. If the firm is a control firm, there is no litigation against the auditor. The dependent variable, audit failure, indicates a 1 for firms with litigation and 0 for otherwise.

Independent Variables

Price-Earnings Ratio

Price-earnings ratio (PE) is one of the oldest and most frequently used metrics when it comes to valuing stocks. Usually, the PE ratio is a better metric to value of a stock than the market price itself. The PE ratio can be used as a comparison against other companies or within the historical performance of its own stock. Although the PE is actually quite difficult to interpret, the ratio is actually a reflection of the market's optimism concerning a companies growth prospects. It is difficult to state whether a particular PE is high or low without taking into explanation two main factors such as company growth rates, and same industry average. In general, a company with a PE higher than the market or industry average means the market is expecting big changes over the next few months or years. A company with a high industry adjusted change of PE ratio will eventually have to survive up to the high rating by substantially increasing its earnings, or the stock price will need to drop. Consequently, the shareholder's big loss is due to the stock price drop and they may bring a lawsuit against the external auditors.

Market-to-Book ratio

Market-to-Book (MB) ratio provides a company's market valuation. If a company's stock price is relatively high compared with the book value, the auditor must be careful when increasing the audit effort to avoid litigation risk because stock price is strongly linked earnings. A higher MB ratio represents the operations of company, which are less tangible. In other words, the book value of the company is based as much on intangible assets. In addition, companies with high growth opportunities may have a very high MB ratio that reflects high stock price performance. Therefore, the higher industry adjusted change of MB ratio means the higher market valuation for the firm.

Daily Stock Return Volatility

SRV provides the level of return volatility. Volatility, another term for risk, measures the rate and range of up and down price movements. With standard deviation, it is the most workable method for calculating volatility. Therefore, the variability of returns SRV is employed as a measure of the market's assessment of total risk, including unsystematic and systematic risk. Kim and Coller (2000) find that the standard deviation of daily stock returns, among other proxy for market assessments of risk, is significantly associated with audit risk proxy in both time-series and cross-sectional analysis. Higher SRV may present higher level of audit risk, which is related to auditor litigation. For the positive relation between variability of stock price and the occurrence of the audit litigation, Pratt and Stice (1994) present that as the industry adjusted change of variability increases, the probability that a stockholder will incur a significant loss also increases,

and that a big shareholder's loss in the market may bring a lawsuit against external auditors.

Auditor Tenure

The variable, auditor tenure, is specified as the number of years audit. This variable has been shown in previous studies [St. Pierre and Anderson (1984), Stice (1991), Lys and Watts (1994), Krishnan and Krishnan (1997)]. These prior studies provide the empirical evidence for auditor tenure that affects on the audit quality. The audit tenure affects the audit quality in both positive and negative ways in previous studies. These prior researches use audit tenure as a dummy variable, but do not focus on the tenure itself that shows the actual term of auditing to study the relationship between audit tenure and auditor litigation. Therefore, this study tries to use the actual length of the auditor-client relationship until the year of the alleged audit failure based on the availability of COMPUSTAT data.

Control Variables

Sales Growth

Stice (1991) and Lys and Watts (1994) argue that client firms experiencing periods of high growth bring higher litigation risk than client firms in low-growth periods. Pratt and Stice (1994) also suggest that the high rates of sales growth can give rise to significant changes in both the revenue/receipt and expenditure/disbursement transaction cycles, which in turn can over-burden the client's internal control system,

reducing its ability to properly process transactions. Finally, sales growth, which is the effectiveness decrease of the internal control, is positively related to the audit litigation.

To control for sales growth, this study follows Stice (1991) in using the change in sales between the year prior and the year of the alleged audit failure as a control variable. The variable sales growth is specified as the percentage change in sales from year t-2 to year t-1.

Accounts Receivable and Inventory

St. Pierre and Anderson (1984) found that inventories and account receivables are related to audit litigation. Also, Pratt and Stice (1994) show that the asset structure of receivables and inventory requires subjective judgment in determining the value and are difficult and risky to audit. Therefore, the increases of these account balances are positively associated with the audit litigation. The variables, accounts receivable and inventory, are specified as the change in asset structure from year t-2 to year t-1.

Financial Condition

Most of the prior studies (Heninger 2001; Stice 1991; Pratt and Stice 1994; Palmrose and Scholz 2000) provide empirical evidence that indicate the association of the audit litigation and several financial variables, measured at right before the occurrence of alleged audit failure, such as asset structure, financial condition, sales growth. Kinney and McDaniel (1989) show that firms in poor financial condition are likely to hide their financial troubles with "window dressing". Stice (1991) found the weaker financial condition of the client, the more potential auditor litigation risk by using Altman Z-score.

Also, Carcello and Palmrose (1994) found that when sample companies have litigation with bankruptcy, 74% of litigation involves the auditor. This study uses the bankruptcy prediction model, Altman Z-score, for the firm's financial condition as the change from year t-2 to year t-1.

Sample Selection and Data Sources

This section explains the sample selection process, and data sources regarding the sample of litigation cases against the auditor and their client firms.

The litigation samples consist of two parts. The first part of the litigation samples came from the Studies in Accounting Research #33 (SAR #33) made by Palmrose. The database contains 1,071 clients with litigation against Big 5 and their legacy firms for audit services from 1960 through 1994. Due to the availability of firm's market and accounting data, only litigation since 1985 is used. A total of 140 litigation cases whose data was available from COMPUSTAT were chosen. In addition to that data, this study searched the second part of litigation samples that were identified from 1995 through 2001 in the LEXIS-NEXIS search. The keywords for the LEXIS-NEXIS search are lawsuits, litigations, and auditors. A total of 104 litigation cases were listed. From this total, 54 cases were selected which represented companies for which data was available for the years of the litigation from COMPUSTAT. Therefore, the final sample of 194 litigation cases was used in this study. Table 1 presents a summary of the sample selection process. The length of the client-auditor relationship (auditor tenure) is determined by COMPUSTAT and the information provided in the cases. The daily stock

return from year t-2 to t-1 is obtained by CRSP database. Table 2 describes the samples by year and industry.

The non-litigation control sample group consists of randomly selected client firms matched with industry classification (four-digit SIC code), assets size, and accounting year from the COMPUSTAT. 169 cases were successfully matched using four-digit SIC code. Among the 25 cases, 20 cases were matched using three-digit SIC codes, and five cases were matched using two-digit SIC codes.

Summary

This chapter presents variable specifications and methodology for testing three hypotheses in this study. Also, this chapter explains the sample selection process, and data sources regarding the sample of litigation cases against the auditor and their client firms. The next chapter presents the empirical results.

CHAPTER V

ANALYSIS OF RESULTS

This chapter presents the results of the study. The first two sections show the descriptive statistics and correlations for the control sample. The next section provides the results of the hypothesis tests. The last section presents a summary of the empirical results.

Descriptive Statistics

Table 4 shows descriptive statistics for the independent variables tested in this study. The descriptive statistics include means, standard deviations, t-statistics, and p-values between the litigation and control samples for each independent variable.

Table 4 indicates that the mean values of AUTR (auditor tenure) in both are 4.040 for the litigation sample and 4.426 for the control sample. The difference in means is not significant at p=0.155 for a two-tailed test. This indicates that the litigation and control firms are not different in population means for auditor tenure.

The mean value for SG (sales growth) is 0.649 for the litigation sample and 1.510 for the control sample. The positive sign for both means implies that sales growth for those two samples is increasing. The difference between the means of the two samples is not statistically significant (p=0.491).

The variable INV (the change of inventory) shows that the litigation firms do not have higher inventory change than the control firms (p= 0.167). The mean value for INV is 0.998 for the litigation samples and 0.310 for the control samples. The difference in means is not statistically significant at p=0.167.

The mean value for FC (the change of Altman Z-score from year t-2 to t-1) shows that the difference in means is not statistically significant (p=0.348). The mean for the litigation firms is -0.015 while the mean for the control firms is -2.653. The litigation samples' mean for price earnings ratio (PE) is -15.031 and -0.525 for the control samples. The difference in means is not statistically different at p=0.286. The litigation samples' mean for the industry adjusted change of market-to-book ratio (MB) is -0.244 and -1.586 for the control firms. The difference is also not statistically significant (p=0.508). The litigation samples' mean for the industry adjusted change of standard deviation of daily stock return (SRV) is 0.942 and -0.052 for the control sample. The difference in means is not statistically different at p=0.518. Therefore, there is no evidence of any difference between the litigation and control firms' populations in the mean change of the financial condition, the mean change of price earnings ratio, the mean change of market-to-book ratio, or the mean change of standard deviation of daily stock return.

Consistent with prior research, litigation firms' mean for the change of accounts receivable (AR) is larger than the control firms' mean. The difference in the mean value of AR is significant at p=0.005. The mean for the litigation sample is 1.151 and 0.373 for the control sample. Even though the mean differences of PE, MB, and SRV ratios between the two groups are quite big, the mean differences are not significant at p=0.286, 0.508, and 0.518 respectively due to the high standard deviations.

Correlations

Table 5 presents the pair-wise correlations. The correlation coefficient indicates the degree of linear association of two variables. The correlation between the years of audit (AUTR) and the change of inventory (INV) from year t-2 to t-1 is -0.126 and significant (p= 0.021). The two variables reflect an inverse relationship. This correlation indicates that the longer auditor tenure firms tend to have the smaller change of inventory.

The correlation between the audit tenure (AUTR) and the change of accounts receivable from year t-2 to t-1 (AR) is -0.097 and in almost significant (p= 0.082). The negative correlation between two variables means that AUTR and AR have an inverse relationship. The correlation between the audit tenure (AUTR) and the industry adjusted change of market-to-book value from year t-2 to t-1 (MB) is -0.126 and significant at p= 0.028. This result implies that the longer the auditor tenure the smaller change of market-to-book value.

The correlation between the change of sales growth (SG) and the change of accounts receivable (AR) is 0.120 and significant (p= 0.025). This result is consistent with the results in Table 4 that the mean values of accounts receivable and sales growth change are positive.

The correlation between the change of accounts receivable (AR) and the change of inventory (INV) from year t-2 to t-1 is 0.097 that is significant (p= 0.079). This marginally indicates that firms in general have a direct association between AR and INV. The more accounts receivable change the more inventory changes. The correlation between the change of accounts receivable (AR) and the industry adjusted change of

standard deviation of daily stock return (SRV) from year t-2 to t-1 is 0.154 is significant (p= 0.006).

Logit Results for Audit Failure

Table 6 shows the primary results of this study. Table 6 presents the results from the audit failure model using a cross-sectional logit regression of 194 litigation firms and 194 control firms. The Chi-Square statistic is 14.517 with 8 degrees of freedom and a p-value of 0.069. The R2 is 0.095.

The hypotheses are tested with a series of multiple regression models where one dependent variable is estimated with eight independent variables. SG (the change of sales growth) is marginally significant (p=0.079). The coefficient is 0.464. This finding presents that the larger change of sales growth incur a higher risk of audit failure. This result is consistent with Stice (1991) and Pratt and Stice (1994).

Hypothesis H1 is not strongly supported. However, the significance of price earnings ratio (PE) is marginal (p=0.153), and the coefficient is -0.049.

Hypothesis H2 is not supported. The litigation risk does not increase with the auditor's tenure. This result is consistent with St. Pierre and Anderson (1984), and Krishnan and Krishnan (1997) but does not agree with Stice (1991). The significance of the number of year audit (AUTR) is p=0.486. The coefficient is -0.035.

Hypothesis H3 is not supported. The significant of the industry adjusted change of standard deviation of daily stock return is p=0.827. The coefficient is 0.002. This result is not consistent with Kim and Coller (2000) who found that the standard deviation of daily

stock returns is significantly associated with audit risk proxy in both time-series and cross-sectional analysis.

CHAPTER VI

SUMMARY AND CONCLUSION

This chapter presents this study's summary and contribution, and limitations are discussed.

Summary and Contribution

Accountants around the world have experienced loss or injury on their professional practice in liability lawsuits, especially in the United States. Litigation risk has become an increasing concern and significant for United States public accounting firms. Because of the public belief that accountants should bear the responsibility for financial information, the gap between the auditor's responsibility for auditors and the public, leads to high litigation risk (Pacini and Sinason, 1999). According to Pacini, Martin, and Hamilton (2000), rising litigation has led to auditors refusing to render services to high-litigation-risk firms, decreasing the service availability and raising the liability cost. Also, the fear of litigation has brought emerging businesses to seek private financing rather entering the capital markets along with decreasing investment opportunities (O'Mally, 1993).

The prior studies show evidence that several variables are mainly affected by audit failure that may result in audit litigation, such as asset structure, size, and sales

growth. To tet further litigation risk, this study empirically tests the relationship between future performance expectations and audit failure, ultimately causing the audit litigation. The particular interest is in more detailed investigation of the investors' expectation in the market before the audit failure. In addition, this study examines the relationship between the level of audit risk and stock market variables, such as variability of returns to investigate whether market variables can serve as useful indicators for measuring the level of audit risk before the audit failure. Also, this study examines the relationship between audit tenure as a factor of auditor independence and audit quality.

The study's results show that the auditor does not incur a greater risk of litigation when there is evidence of a firms' higher growth potential before audit failure. This study finds that the litigation risk does not increase as the auditor's tenure increases. Also, the study finds that the investment risk is not related to the audit risk level, in terms of shareholders' loss.

Even though the results are not statistically significant, the variables employed in this study are helpful for the auditors to set the level of their own business risk before the audit failure. The industry-adjusted change of price earnings ratio is marginally helpful for setting the level of their business risk.

Limitations

This study has several limitations. The auditor tenure is calculated by the information COMPUSTAT provides. However, COMPUSTAT shows only a twenty-year

period so that the number of years audited is limited to a maximum of 20 years, which does not represent the whole lifetime of some samples.

Next, due to data limitations, this study is missing data. Some of the control firms rarely have all nine variables. This limitation reduces the statistical power of this study.

Lastly, the alleged financial statement years are not clear for some litigation sample. Some complaints have alleged wrongful financial statements during the period from the portion of a year through the portion of the next year. If the sample firm is an initial public offering company, it is not possible to get the change of variable for any prior year data.

References

Behn, B.K., Carcello, J.V., Hermanson, D.R.& Hermanson, R.H. (1997). The Determinants of Audit Client Satisfaction Among Clients of Big 6 Firms. *Accounting Horizons* 11 (March): 7-24.

Brunfield, C.A., Elliott, R.K. & Jacobson, P.D. (1983). Business Risk and The Audit Process. *Journal of Accountancy,* April: 60-63.

Burgstahler, D.C.and Dichev, I.D. (1997). Earnings, Adaptation and Equity Value. The *Accounting Review 72* (April): 187-215.

_____, and Eames, M.J. (2003). Earnings Management to avoid losses and the earnings decreases: Are analysts fooled? *Contemporary Accounting Research 20* (Summer): 253-281.

Carcello, J.V. and Palmrose, Z. (1994). Auditor litigation and modified reporting on bankrupt clients. *Journal of Accounting Research 32 (Supplement):* 1-30.

Cook, J.M., Freedman, E.M., Groves, R.J., Madonna, J.C., O'Malley, S.F. & Weinbach, L.A. (1992). The Liability Crisis in the United States: Impact on the Accounting Profession. *Journal of Accountancy 174* (November): 18-25.

Cushing, B.E. and Gilbertson, D.L. (2002). Strategic Analysis of Securities Litigation against Independent Auditors. *Auditing: A Journal of Practice & Theory 21* (September): 57-78.

Dalton, D.R., Hill, L.W. & Ramsay, R.J. (1997). The threat of litigation and voluntary partner/manager turnover in Big Six firms. *Journal of Accounting and Public Policy 16 (Winter):* 379-413.

De, S. and Sen, P.K. (2002). Legal Liabilities, Audit Accuracy and the Market for Audit Services. *Journal of Business Finance & Accounting 29* (April/May): 353-410.

Dechow, P.M. and Skinner, D.J. (2000). Earnings Management: Reconciling the Views of Accounting Academics, Practitioners, and Regulators. *Accounting Horizons 14* (June): 235-250.

Deis, D.R., Jr. and Girous, G.A. (1992). Determinants of audit quality in the public sector. *The Accounting Review 67 (July):* 462-479.

Dopuch, N., Holthausen, R.W. & Leftwich, R.W. (1987). Predicting Audit Qualifications with Financial and Market Variables. *The Accounting Review 62* (July): 431-454.

Fama, E.F., and French, K.R. (1992). The Cross-Section of Expected Stock Returns. *Journal of Finance 7*: 427-465.

Francis, J., Philbrick, D. & Schipper, K. (1994). Shareholder Litigation and Corporate Disclosures. *Journal of Accounting Research 32 (Autumn)*: 137-164.

_____, _____, and _____. (1998). Earnings Surprises and Litigation Risk. The *Journal of Financial Statement Analysis (Winter)*: 15-27.

Healy, P.M. and Wahlen, J.M. (1999). A Review of the Earnings Management Literature and Its Implications for Standard Setting. *Accounting Horizons 13 (December):* 365-383.

Heninger, W.G. (2001). The Association between Auditor Litigation and Abnormal Accruals. *The Accounting Review 76 (January)*: 111-126.

Kanodia, C. and Mukherji, A. (1994). Audit Pricing, Lowballing and Auditor Turnover: A Dynamic Analysis. *The Accounting Review 69 (October)*: 593-615.

Kasznik, R. (1999). On the Association between Voluntary Disclosure and Earnings Management. *Journal of Accounting Research 37 (Spring)*: 57-81.

Kim, J.W. and Coller, M. (2000). An Empirical Test of the Relation between Audit Risk and Market Variables at the Audit Planning Stage. Working Paper. Concordia University.

King, R.R. and Schwartz, R. (1997). Commentary: The Private Securities Litigation Reform Act of 1995; A Discussion of Three Provisions. *Accounting Horizons 11 (March)*: 92-106.

Kinny, W. and McDanial, L. (1989). Characteristics of Firms Correcting previously Reported Quarterly Earnings. *Journal of Accounting and Economics 11*: 71-93.

Krishnan, J. and Krishnan, J. (1997). Litigation Risk and Auditor Resignations. The *Accounting Review 72 (October)*: 539-560.

Latham, C.K., Jacobs, F. A. & Roush, P.B. (1998). Does Auditor Tenure Matter? *Research in Accounting Regulation 12*: 165-177.

_____ and M. Linville. (1998). A Review of the Literature in Audit Litigation. *Journal of Accounting Literature 17*: 175-213.

Lys, T. and Watts, R.L. (1994). Lawsuits against auditors. *Journal of Accounting Research 32 (Supplement)*: 65-93.

Narayanan, V.G. (1994). An Analysis of auditor Liability rules. *Journal of Accounting Research 32 (Supplement)*: 39-64.

O'Malley, S.F. (1993). Commentary: Legal Liability is Having a Chilling effect on the Auditor's Role. *Accounting Horizons 7 (June)*: 82-87.

Pacini, C., Martin, M.J. & Hamilton, L. (2000). At the Interface of Law and Accounting: An Examination of a Trend Toward a Reduction in the Scope of Auditor Liability to Third Parties in the Common Law Countries. *American Business Law Journal 37*: 171-235.

Palmrose, V. (1987). Litigation and Independent Auditors: The Role of Business Failures and Management Fraud. Auditing: A Journal of Practice and Theory 6, 90-103.

_____ (1988). An Analysis of Auditor Litigation and Audit Service Quality. *The Accounting Review 63 (January)*: 55-73.

_____ and Scholz, S. (2000). Restated Financial Statements and Auditor Litigation. Working Paper, University of Southern California and University of Kansas.

Payne, J.L., and Robb, S.W.G. (2002). Earnings Management: The Effect of Ex Ante Earnings Expectations. Working Paper. University of Oklahoma.

Pratt, J. and Stice, J.D. (1994). The effects of client characteristics on auditor litigation risk judgments, required audit evidence and recommended audit fees. *The Accounting Review 69 (October)*: 639-656.

Skinner, D.J.and Sloan, R.G. (1999). Earnings Surprises, Growth Expectations, and Stock Returns or Don't Let an Earnings Torpedo Sink Your Portfolio. Working Paper. University of Michigan Business School.

St. Pierre, K. and Anderson, J.A. (1984). An Analysis of the Factors Associated with Lawsuits Against Public Accountants. *The Accounting Review 59 (April)*: 243-263.

Stice, J. (1991). Using financial and market information to identify pre-engagement factors associated with lawsuits against auditors. *The Accounting Review 66 (July)*: 516-533.

Table 1

Summary of the Sample Selection Criteria

	SAR #33	Lexis-Nexis	Total
Identified Auditor Lawsuits	222	104	326
Less firms with data not available on COMPUSTAT	82	50	132
Total firms with data available in the sample	140	54	194

Table 2

Description of Sample

Panel A: By Industry

Industry	Number (Percentage)
Agriculture, Mining, and Construction	10 (5.2%)
Manufacturing	59 (30.4%)
Transportation	13 (6.7%)
Wholesale and Retail	26 (13.4%)
Financial Services	49 (25.3%)
Services	35 (18%)
Public Administration	2 (1%)
Total	194 (100%)

Table 2 Continue

Panel B: By Year

Year	Number (Percentage)
1986	16 (8.2%)
1987	21(10.8%)
1988	10 (5.2%)
1989	23 11.9%)
1990	15 (7.7%)
1991	12 (6.2%)
1992	11 (5.7%)
1993	11 (5.7%)
1994	15 (7.7%)
1995	12 (6.2%)
1996	6 (3.1%)
1997	9 (4.6%)
1998	15 (7.7%)
1999	5 (2.6%)
2000	7 (3.6%)
2001	6 (3.1%)
Total	194 (100%)

Table 3

Variables

1. Market Valuation	
a. Price-Earnings ratio (PE)	= The industry adjusted change of close price at the end of the fiscal year divided by EPS from operation of the year from t-2 to t-1
b. Market-to-Book ratio (MB)	= The industry adjusted change of close price for the fiscal year divided by common equity per share from t-2 to t-1
2. Other Variables	
a. Sales growth (SG)	= The change of net sales from t-2 to t-1
b. Asset structure	
Accounts receivables (AR)	= The change of total receivables from t-2 to t-1
Inventory (INV)	= The change of total inventory from t-2 to t-1
c. Financial Condition (FC)	= The change of Altman Z-score from t-2 to t-1
d. Auditor Tenure (AUTR)	= Number of years audited
e. Return volatility (SRV)	= The industry adjusted change of standard deviation of daily stock returns from t-2 to t-1

Table 4

Descriptive Statistics for Litigation and Control Samples

Variable	A/L	N	Mean	Std. Deviation	t-statistic	p-value
AUTR	1	169	4.040	2.984	-1.428	0.155
	0	169	4.426	0.171		
SG	1	177	0.649	1.285	-0.689	0.491
	0	177	1.510	16.846		
AR	1	162	1.151	3.724	2.815	0.005
	0	162	0.373	1.042		
INV	1	163	0.998	6.144	1.388	0.167
	0	163	0.310	1.556		
FC	1	134	-0.015	2.633	0.943	0.348
	0	134	-2.653	32.175		
PE	1	126	-15.031	151.955	-0.071	0.286
	0	126	-0.525	3.903		
MB	1	156	-0.244	7.516	0.663	0.508
	0	156	-1.586	23.921		
SRV	1	166	0.942	18.767	0.648	0.518
	0	166	-0.052	8.689		

Where,

A/L = 1 for firms with litigation and 0 for otherwise,

PE = the industry adjusted change of Price Earnings ratio from year t-2 to t-1,

MB =the industry adjusted change of Market-to-Book ratio from year t-2 to t-1,

SRV = the industry adjusted change of standard deviation of daily stock return from year t-2 to t-1,

AUTR = the years of audit,

SG = the change of sales growth from year t-2 to t-1,

AR = the change of accounts receivable from year t-2 to t-1,

INV = the change of inventory from year t-2 to t-1,

FC = the change of Altman Z-score from year t-2 to t-1.

Table 5

Correlation Coefficients and P-value between Independent Variables

Variable	AUTR	SG	AR	INV	FC	PE	MB	SRV
AUTR	1							
	.							
SG	-0.072	1						
	(0.186)	.						
AR	-0.097	0.120	1					
	(0.082)	(0.025)	.					
INV	-0.126	-0.001	0.097	1				
	(0.021)	(0.981)	(0.079)	.				
FC	0.045	-0.004	-0.029	0.025	1			
	(0.448)	(0.951)	(0.623)	(0.674)	.			
PE	-0.017	0.004	0.029	0.018	0.024	1		
	(0.787)	(0.944)	(0.633)	(0.765)	(0.717)	.		
MB	-0.126	0.012	0.015	0.003	-0.001	-0.002	1	
	(0.028)	(0.834)	(0.798)	(0.957)	(0.986)	(0.976)	.	
SRV	-0.012	-0.015	0.154	0.020	0.003	0.007	-0.003	1
	(0.829)	(0.781)	(0.006)	(0.723)	(0.961)	(0.902)	(0.950)	.

Where,

PE = the industry adjusted change of Price Earnings ratio from year t-2 to t-1,

MB =the industry adjusted change of Market-to-Book ratio from year t-2 to t-1,

SRV = the industry adjusted change of standard deviation of daily stock return from year t-2 to t-1,

AUTR = the years of audit,

SG = the change of sales growth from year t-2 to t-1,

AR = the change of accounts receivable from year t-2 to t-1,

INV = the change of inventory from year t-2 to t-1,

FC = the change of Altman Z-score from year t-2 to t-1.

Table 6

Results from a dichotomous Logit Model

$$AF_t = a_1 + a_2 \bullet \Delta PE_{t-1} + a_3 \bullet \Delta MB_{t-1} + a_4 \bullet \Delta SRV_{t-1} + a_5 \bullet AUTR_t + a_6 \bullet \Delta SG_{t-1} + a_7 \bullet \Delta AR_{t-1} + a_8 \bullet \Delta INV_{t-1} + a_9 \bullet \Delta FC_{t-1} + \varepsilon$$

Variable	Coefficient (p-value)
AUTR	-0.035
	(0.486)
SG	0.464
	(0.079)
AR	0.091
	(0.403)
INV	0.134
	(0.480)
FC	-0.080
	(0.333)
PE	-0.049
	(0.153)
MB	0.005
	(0.626)
SRV	0.002
	(0.827)

Chi-Square Test = 14.517, 8 degrees of freedom, p = 0.069, R^2 = 0.095, N = 197

Where:

AUTR = the years of audit,

SG = the change of sales growth from year t-2 to t-1,

AR = the change of accounts receivable from year t-2 to t-1,

INV = the change of inventory from year t-2 to t-1,

FC = the change of Altman Z-score from year t-2 to t-1.

PE = the industry adjusted change of Price Earnings ratio from year t-2 to t-1,

MB =the industry adjusted change of Market-to-Book ratio from year t-2 to t-1,

SRV = the industry adjusted change of standard deviation of daily stock return from year t-2 to t-1,