AN INVESTIGATION OF ASYMMETRICAL POWER RELATIONSHIPS
EXISTING IN AUDITOR-CLIENT RELATIONSHIP
DURING AUDITOR CHANGES

DISSERTATION

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Srinivasan Sriram, B.Sc., C.A.I.I.B., M.B.A.
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In recent years, considerable interest has been stimulated concerning potential conflicts of interest between a company's management and their independent auditors. Many researchers examined the association between corporations who changed their present auditors, and factors such as auditor's opinion on the financial statements, management changes, mergers, financial distress, etc. Some of these research efforts resulted in findings that were inconsistent with each other. The current research was therefore undertaken with the objective of developing a theoretical model of auditor change process and to explain the justification for considering certain specific factors that may be present in an auditor-client relationship.

The research design and the methodology for analyses were developed on the basis of the theory on power conflicts found in political science literature and by the use of Wrong's power model on authority relationship. Sources of power such as the size of an audit firm, size of a corporation, the stock exchange membership, the ability of an auditor to qualify the opinion on the financial
statements, the ability of the management of a corporation to terminate the audit contract following the issue of a qualified opinion, and change of a corporation's CEO were identified and converted into independent variables.

Data were collected from secondary sources on a sample of 200 corporations, 100 companies that had changed their audit firm at least once during the period 1983-85, and 100 corporations that did not change their audit firm during this period. The resulting data were analyzed using the MDS-ALSCAL procedure and logit regression with maximum likelihood estimators.

The findings of this research support the power model and its relevancy to the study of auditor-client relationship. The variables, client size, stock exchange membership, and audit firm size were found to have a significant association with corporations who changed their audit firms. However, the variable, change of CEO, was not found to be a significant cause of audit firm changes.
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CHAPTER I

INTRODUCTION

Role of Independent Auditors

Independent auditors lend credibility to the financial statements of a business entity when the auditors attest to their conformity with generally accepted accounting principles. Although an independent auditor (hereafter "auditor" refers to an independent CPA engaged in attest function) provides only reasonable, rather than absolute assurance, the growing complexities of the modern business environment cause management and external users of the audited financial statements to demand maximum efficiency and increased responsibility from external auditors. So, determining an appropriate level of audit responsibility is a major concern of the auditing profession [Carmichael and Whittington, 1970]. In 1978, the Cohen Commission recognized that this issue remained unresolved and recommended that additional research be conducted on audit responsibilities [AICPA, Cohen Commission Report, 1978].

The autonomy of auditors in the performance of their professional duties has always been considered a cornerstone of the profession. While discussing the concept of independence and professional ethics, Mautz and Sharaf wrote [1961, P. 204],
The significance of independence in the work of the independent auditor is so well established that little justification is needed to establish this concept as one of the cornerstones in any structure of auditing theory.

Independence is defined by the American Institute of Certified Public Accountants as "judicial impartiality that recognizes a condition of fairness." An auditor "must be intellectually honest, to be recognized as independent, he must be free from any obligation to or interest in the client, its management, or its owners" [AICPA, Sec. 220.03, 1985].

Separation of ownership and control created a need for a monitoring device due to a potential conflict of interests between a company's management and other corporate constituencies; independent audits emerged to meet that need [Previts and Merino, 1979]. Today, the auditor acts as an intermediary between the management and other financial statement users, objectively appraising managements' financial statement representations to ensure they adhere to established standards. When a dispute arises between the auditor and client management, the auditor is expected to take a stand that will uphold professional standards and the code of ethics. Financial reports must conform to generally accepted accounting principles, but selection of the appropriate treatment in a particular circumstance requires professional judgment. Therefore, insistence on a certain
method may result in loss of a client and revenue, and corporate management may "shop around" to find an audit firm that finds the accounting method management prefers acceptable. If "shopping" becomes excessive, then perceived power asymmetries may arise in the auditor and management relationship and that may impair auditor's independence.

Auditor-Client Relationships

An auditor is expected to evaluate the preferability of management choice whenever alternative accounting principles exist. The auditor must consider what effect management's decisions of selection and application of accounting principles have on financial statement fairness. Sterling [1973] remarked that although a public accountant is expected to act judiciously, he does not have the power to enforce his rulings. Critics of the auditing profession argue that the power asymmetry between auditors and clients seriously weakens the auditor's ability to exercise freely his/her professional judgement [Goldman and Barlev, 1974; Nichols and Price, 1976; Chee Chow and Rice, 1982]. Conflict between auditor and client occurs whenever the two do not agree on certain aspects (for example disagree on the interpretation of generally accepted accounting principles) of the performance of the attest function. The client, in such conflict situations, may attempt to influence the auditor and the performance of the attest function.
Since an auditor's report is an expression of the auditor's opinion on the fair presentation of the financial position and results of operations, management would be concerned with the content of the auditor's report. Nichols and Price [1976] concluded that

The firm with the tacit agreement of the shareholders has much to gain by influencing the auditor's report in order to present more favorable results before third parties.

Management may attempt to influence the auditors to act in ways that are in violation of professional standards, by threatening to terminate the audit contract. The impending loss of audit fees creates an internal conflict for the auditor. As Simunic [1980] noted, "an auditor may find himself in a situation where he can benefit by violating professional standards or lose by refusing to violate the standards."

The ability of the auditor to withstand management pressures and uphold the professional standards would depend on the relative powers of the management and auditors in conflict situations. Loeb [1972] concluded that a firm's management has greater incentives to exert power to obtain a favorable report from its auditors and the auditor has less power to resist such pressures, since an auditor depends on the management for the facilities and information needed for performance of his/her duties. Nichols and Price [1976] and Goldman and Barlev [1974] reached a similar conclusion,
arguing that power asymmetry in favor of the firm is inherent in firm-auditor conflict situations because the firm has the ability to choose its auditor, determine the terms of the contract and dispose of the auditor at will. Nichols and Price [1976], Goldman and Barlev [1974], and Sterling [1973] contended that if an asymmetrical power relationship exists between the auditor and client, this can compromise auditor independence. If such a power asymmetry exists, this raises the question of the viability of independent audits as society's primary monitoring device of corporate management.

Purpose of this Study

The Securities and Exchange Commission (SEC), audit practitioners, academics and the investment community have indicated concern over auditor changes resulting from management/auditor disagreements. The SEC has issued a number of Accounting Series Releases (ASR) related to auditor changes [SEC ASR No. 165, (1974); No. 194 (1976); and No. 247 (1978)] which require disclosures about auditor-management disagreements. By requiring disclosure (filing of form 8-K) of disagreements associated with auditor changes, the SEC sought to modify the coercive power of management so that the auditor could function more independently.
The objectives of this study are:

1. to explore a theoretical framework that could lead to greater understanding of auditor and client power relationships;

2. to investigate by tests of data, whether there is any significant association between power related variables and corporations that changed their auditors;

3. to describe the existence of possible power asymmetries in auditor and client relationships;

4. to infer whether the existing regulations and professional standards are adequate to protect the auditor's independence in auditor and client conflicts; and

5. to offer conclusions and suggestions for additional research.

In Section II, a review of prior accounting research that investigated audit firm changes and the various SEC promulgations on audit/client disagreements is undertaken. In Section III, the theoretical foundations of auditor and client conflicts are explored. The procedures followed for data collection and methodology to be used in the study are presented in Section IV. The last chapter will outline the conclusions of the study and suggest areas for future research.
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CHAPTER II

LITERATURE REVIEW

Prior Research

Since 1971, the SEC has mandated that a change in the principal auditor of a registrant is a reportable event. The SEC implemented this disclosure requirement because it believed that such a measure would discourage registrants from changing the principal auditor merely to obtain concessions in accounting treatment. Despite the importance of the issue of auditor switches, there have been few studies dealing with corporate practices on changing auditors.

Burton and Roberts [1967] conducted the first major study of auditor changes. They examined a sample of 620 Fortune 500 companies for a period of 13 years from 1952 to 1965 and found that auditor changes were rare. The two principal reasons found for auditor changes were a change in a firm's management or the need for additional services. Burton and Roberts examined the annual reports of the sample companies and then mailed questionnaires to those companies, requesting information on the principal reason for auditor change. The responses and other data indicated that disputes over accounting principles were not a primary
reason for auditor changes; therefore, the authors concluded that such changes did not constitute a threat to the proper exercise of the attest function.

In contrast to the Burton and Robert study, Carpenter and Strawser [1971] found that local and regional auditors were often replaced when a company "goes public." The authors selected 379 companies which issued securities for the first time on an interstate basis between the last quarter of 1969 and the first quarter of 1970 and, therefore, filed with the SEC. They forwarded a questionnaire which sought answers to questions such as whether the auditor had been retained for greater or fewer than five years, who (management or others) was responsible for the change of auditors and the reasons for the change.

The responses to the questionnaire led the authors to conclude that if the corporations had changed auditors within the previous five years there was a high probability that the new auditors were a national firm. The respondents also identified the following as primary reasons for auditor changes: "lack of satisfaction with the quality of service, cost of auditor's fees, dissatisfaction with former auditor's to supply prompt and accurate information on current problems, change in management and desire for reputation of a national accounting firm." Both the Burton and Roberts [1967] and Carpenter and Strawser [1971]
studies were undertaken prior to the SEC's mandated disclosure requirements on auditor changes. These two studies did not examine the role of power in auditor and client conflicts.

Bedingfield and Loeb [1974] conducted the first major study dealing with SEC mandated disclosures of auditor changes. The authors examined 8-K reports of 250 companies that changed auditors between November, 1971 and February, 1973 and found that in only 14 cases did the client report a disagreement between the company and its prior auditor. Timing of revenue recognition was the major cause of disagreement, followed by asset valuation, uncertainty of recovery of book value of assets and effective dates of transaction. An interesting finding of the study was that in the category "uncertainty of recovery of book value of assets," the prior auditors had insisted on a "subject to" opinion, whereas the succeeding auditors indicated that a "subject to" qualification would not be necessary. The authors mailed questionnaires to the companies to elicit the reason(s) that the companies changed auditors. The reasons cited included dissatisfaction with prior fees, lack of satisfaction with services of prior auditors and disagreement on certain accounting matters. Unlike the findings of Burton and Roberts, Bedingfield and Loeb [1974] reported that audit fee was a major cause of auditor switches.
The CPA letter published in 1976 and 1979 contained tables published by the AICPA of types of auditor and client disagreements. The most frequent causes of auditor change in the 1976 study were listed as "recoverability of some or all assets" followed by "timing of expense recognition," "timing of revenue recognition" and "need for recording a liability or disclosing a contingent liability." The 1979 study also found that "recoverability of some or all assets" was the most significant cause of disagreement, but differed in the rankings of other disagreements compared to the 1976 study. The AICPA study was solely descriptive and contained no analysis.

Coe and Palmon [1980] examined the questions (1) whether an auditor is more likely to be dismissed after issuing a qualified opinion and (2) whether the successor audit firm issued a clean opinion. Coe and Palmon selected a sample of 1000 companies and examined the financial statements of each company for the years 1973-77 to determine the type of audit opinion given for each of these years. The study found that in general, small industrial firms were more likely to dismiss both Big-8 and non-Big 15 auditors following the issue of a qualified opinion. The authors could not resolve the second issue, i.e., a more compliant auditor, due to non-independent observations.
Fried and Schiff [1981] examined ninety six companies that changed their auditors between 1972 to 1975. They sought to determine if auditor changes were associated with significant market reactions. They also examined the SEC’s required disclosure of conflicts between CPA’s and clients to determine if the cost of disclosure was justifiable. The study included in the sample only those companies that were listed by the Center for Research on Security Prices (CRSP). The results of the study indicated that there was some indication of negative reaction around the time of the announcement of an auditor change; however, the authors, could not find the reasons that motivated such a reaction.

McConnell [1981, 1984] conducted two extensive investigations of auditor changes. The author examined 748 auditor changes made by listed companies over a period of seven years between 1971-78. McConnell focussed on firms that reported disagreements with their auditors. The results indicated that auditor changes accompanied by reported disagreements were noticeably higher where the predecessor was a Big Eight firm. Also, there were significant differences among the Big Eight firms in reported rates of disagreement. The author remarked that the findings may provide tentative corroborative evidence in support of the Cohen Commission’s view that excessive competition exists in public accounting.
Chow and Rice [1982] also examined auditor changes following qualified audit opinions. The authors collected data on firms that had a qualified opinion in 1973 and those that changed auditors between 1973 and 1974. The analysis of data suggested that there may be some incentive to switch auditors to obtain a clean opinion. Also, those firms that did not switch auditors were more likely to get clean opinions in the following year than those firms that changed their auditors.

Schwartz & Menon [1985] examined the incentives of failing firms to change their auditors. They selected an experimental group of bankrupt companies and a control group of non-bankrupt companies and analyzed the companies that did change auditors with those that did not change auditors. The analysis of data supported the view that financial distress was a critical variable influencing the decision to switch auditors. However, contrary to some of the earlier findings, the study found that neither audit qualifications nor management changes were associated with auditor displacement.

Smith [1986] investigated the criticism of auditor shopping by management of corporations. The author examined one hundred thirty nine cases of auditor changes between January 1, 1982 and December 31, 1984 to determine whether the types of audit opinions being issued for the periods
surrounding an auditor change are consistent with the existence of "auditor opinion shopping." The author could find little evidence of "opinion shopping." The results of this study indicated that auditor shopping was successful because there were several reporting inconsistencies surrounding auditor change periods. In several of the cases examined, successor and predecessor auditors disagreed about the need for a report qualification.

The SEC and Auditor Changes

Prior to October, 1971, management could change auditors when a disagreement arose over an accounting or auditing issue and seek a more compliant auditor without disclosing the reason for the change. The successor auditor also might be unaware that a disagreement existed resulting in the predecessor's dismissal. Lack of disclosure of such disagreement, combined with "opinion shopping" created growing concern among professionals and others over the adequacy of the institutional structure for preserving auditor independence.

The SEC, perturbed over the impending threat to auditors' independence, issued Release No. 9169 in May, 1971 to elicit opinions about its proposed auditor change disclosure regulations. The Release read as follows:

If an independent accountant has been engaged as the accountant to audit the registrant's financial statements, who was not the principal accountant for the registrant's most recently filed certified financial statements, state the date of the change
in accountants and the reason for the change. The registrant shall request the former accountant to furnish the Commission with a letter setting forth his understanding of the reasons for the change and shall file such a letter as part of the report. In the event the former accountant had already begun the current year's audit, the letter should indicate the extent of the work done and any problems encountered in connection therewith. [Journal of Accountancy, 1971]

The AICPA [1971: 12] required certain modifications to the proposed rules. Specifically, The AICPA stated that

1. due to the subjectivity involved, the client should not be asked to report reasons for auditor changes, but should report the areas of disagreements. The AICPA also recommended that the predecessor auditor be allowed to review the former client's report on disagreements and express any reservations he might have with regard to the reported disagreements.

2. the reports relating to the disagreements filed by both client and auditor should be treated as non-public information.

On October 31, 1971, the SEC issued Securities Act Release No. 34-9344 which stated:

If an independent accountant has been engaged as the principal accountant to audit the registrant's financial statements who was not the principal accountant for the registrant's most recently filed certified financial statements, state the date when such independent accountant was engaged. The registrant shall also furnish the Commission with a separate letter stating whether in the eighteen months preceding such engagement there were any disagreements with the former principal accountant on any matter of accounting principles or practices, financial statement disclosures, or auditing procedure, which disagreements if not resolved to the satisfaction of former accountant would have caused him to make reference in connection with his opinion to the subject matter of the disagreement. The registrant shall also request the former principal accountant to furnish the registrant with a letter addressed to the Commission stating whether he agrees with the statements contained in the letter of the registrant and, if not, stating the respects in which he does
not agree; and the registrant shall furnish such letter to the Commission together with its own. [Journal of Accountancy, 1971]

The SEC incorporated most of the recommendations of the AICPA in this final pronouncement. However, the Commission did not accede to the AICPA's recommendation that the exhibit letters be treated as non-public information. The SEC required the reporting of any disagreements which occurred in the eighteen months preceding the hiring of the successor auditor, even if such disagreements were not considered to be the reason for the change.

The SEC concluded that SAR 34-9344 was inadequate to fulfill its objective, i.e., to discourage the practice of changing accountants in order to obtain a more favorable accounting treatment. The requirements of the Release were ambiguous; therefore, many companies did not adequately report some disagreements. This was due to the lack of clarity concerning what constituted reportable disagreements. The Commission was also concerned with (1) the adequacy of disclosure through form 8-K, (2) the sufficiency of an 18-month span between auditor changes and reporting disagreements and (3) the lack of definition of a reportable event, i.e., the termination of the predecessor auditor or engagement of a successor auditor. The SEC staff observed several instances of "auditor shopping" for more compliant auditors.
Securities Act Release No. 5534

As reported in the Journal of Accountancy (January 1975), the SEC proposed and invited comments on the following amendments to form 8-K and Regulation S-X:

1. a report of any disagreements with accountants within 24 months preceding termination as compared with 18 months currently.

2. footnote disclosure on Form 10-K of any material disagreements over accounting principles or practices within two years of the most recently filed statement.

3. additional disclosure of relationships between registrants and auditors via proxy rule changes.


Accounting Series Release 165

SAR No. 5534 resulted in ASR 165 which was issued on December, 20, 1974. ASR 165 improved on Release No. 34-9344 by clarifying what constituted a reportable disagreement and also by requiring disclosure on form 8-K (instead of as an exhibit letter) of the types of audit opinions rendered prior to the auditor change. The release also expanded the time span for reporting disagreements from 18 to 24 months.

The critical event for reporting was changed to termination of the predecessor auditor. Two form 8-Ks had to be filed, one reporting termination and one reporting hiring of a new auditor. Resignation by the principal auditors, disinclination of the auditors to be reelected for one more year, or a change of auditor for a significant
subsidiary or nonincorporated segment became reportable events.

To evaluate auditor and client relationships, ASR 165 required that a registrant must report on form 8-K whether the principal auditor's report for either of the two prior fiscal years contained an adverse opinion, qualified opinion (where the qualifications related to uncertainty, audit scope or accounting principles, except for consistency qualifications), or disclaimer of opinion. Because SAR 34-9344 was ambiguous with regard to what constituted reportable disagreements, a few companies had been able to avoid full disclosure. The SEC made it clear that under ASR 165, there was to be a description of all disagreements that occurred at decision making levels, including those which were ultimately resolved to the former auditor's satisfaction (ASR 165, 1974, pp. 3314-20).

In addition to the above requirements, the auditor's letter had to indicate agreement or disagreement with the client's statements contained in form 8-K and the letter had to be filed with each copy of form 8-K, instead of as a separate exhibit letter. With ASR 165, the SEC had taken a significant step in providing information for evaluating auditor and client relationships and to strengthen the auditor's position.
ASR 165 resulted in two controversies. Weiss [1975] pointed out that the new regulation had not clarified with certainty what constituted disagreements any better than SAR 34-9344 did, thereby increasing accountants’ potential legal liabilities.

The second controversy arose because of the requirement of pro forma disclosure of the nature of transactions and events that resulted in earlier disagreements. Also, disclosure was necessary if similar transactions and events happened subsequent to an auditor change and were accounted for differently from the manner in which the predecessor auditor concluded was necessary [SEC Release 165, 1974].

The AICPA strongly opposed pro forma disclosure, since in the AICPA’s opinion such disclosures would mislead the investors and would “cast one honest and sincere professional against another, frequently in cases involving legitimate differences in the audit engagement” [Journal of Accountancy, 1975, pp. 11-14].

SAR 5701 and ASR 194

Subsequent to the issuance of ASR 165 the Commission amended certain provisions set forth in Rule 3-16(s) of Regulation S-X because the rule was found to be misleading. Disagreements over accounting treatments may occur which can be resolved to the satisfaction of the auditor and have no impact on a firm’s financial statements. The required
Disclosure informs the users that financial statements would have been prepared differently, had the disagreements been resolved differently. The disclosure is not intended to reflect on the fairness of the financial statements.

Therefore, Rule 3-16(s) was revised effective from August, 31, 1976 to read as follows:

Disagreements on accounting and financial disclosure matters— if, (1) within the twenty four months prior to the date of the most recent financial statements, a Form 8-K has been filed reporting change of accountants, (2) included in the Form 8-K there was a reported disagreement on any matter of accounting principles or practices or financial statement disclosure, (3) during the fiscal year in which the change of accountants took place or during the subsequent fiscal year there had been any transactions or events similar to those which involved the reported disagreement and (4) such transactions or events were material and were accounted for or disclosed in a manner different from that which the former accountants apparently would have concluded was required, state the effect on the financial statements if the method had been followed which the former accountants apparently would have concluded was required. These disclosures need not be made if the method asserted by the former accountants ceases to be generally accepted because of authoritative standards or interpretations subsequently issued. [Securities and Exchange Commission, ASR No. 194, pp. 3436].

On January 13, 1977, the Commission issued ASR 206 which required that form 8-K reporting auditor changes would have to be filed within 15 calendar days after the date of occurrence of the event.
ASR 206 was issued mainly because of the difficulties of complying with the earlier time limit of 10 days to file form 8-K.

**ASR 247**

The SEC issued ASR 247 on May 26, 1978, to further strengthen the reporting requirements with respect to auditor changes. From 1972 the SEC had promoted use of corporate audit committees consisting of outside members of the board of directors to enhance the independence of auditors. The audit committee recommended or approved the engagement of the independent auditor. ASR 247 required registrants to report in form 8-K whether the decision to change accountants was recommended or approved by:

1. any audit or similar committee of the Board of Directors, if the issuer had such a committee, or,
2. the Board of Directors, if the issuer had no such committee [ASR 247, 1978, pp. 3650-53].

A second amendment (requiring the citing of reasons for auditor changes) attracted vociferous AICPA criticism. The AICPA opposed these disclosures due to the impracticability of obtaining the true reasons for changes. The Commission agreed and did not implement the amendment mandating disclosure of reasons for a change. ASR 247 encouraged both auditors and registrants to include additional information, on a voluntary basis.
Summary

This chapter provides a general review of the literature on auditor changes from 1971 to 1986. Prior research on auditor changes and the results of each of these studies are discussed.

In the second section of this chapter, the various mandatory regulations promulgated by the SEC on auditor and client disagreements are delineated. The impact and problems that were associated with the various SEC rules are discussed.

The conclusions formed by some of these studies were inconsistent with each other and no consensus appeared to exist as to the reasons for auditor changes. The absence of a consensus and a theoretical framework to explain auditor changes warrants further research into auditor changes and selections. Therefore, in chapter III, a theoretical framework to explain auditor changes is explored.
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CHAPTER III

AUDITOR CHANGES, A THEORETICAL FRAMEWORK

Power Theory

Evaluating auditors' independence had always been difficult because the concept of independence is not operationally defined. Independence can, however, be viewed as a power relation among individuals or groups interested in the outcome of an audit [Coe and Palmon, 1980]. Goldman and Barlev [1974] suggested that by focusing on the conflicts of interest between auditor and client and by positing the auditor and client relationship as a power relationship, one can gain a better understanding of the independence issue. Therefore, to determine if an auditor's independence is impaired, first one has to establish a theoretical framework that would identify the relevant constructs and relationships that exist between auditor and client.

In this section an overview is presented of the power/influence relationships and the functional relationships between the auditor, management and institutions like the Securities and Exchange Commission (SEC) and American Institute of Certified Public Accountants (AICPA). Power theory and agency theory from political
science and economics are also examined and related to the auditor and client conflict and audit firm replacement by management of client firms.

**Power and Its Bases**

Wrong [1979] defined power as "the capacity of some persons to produce intended and foreseen effect on others." Power is considered to be an intended and effective influence. Nagel [1975] maintained that whenever one person (A) conforms his or her behavior to that which he/she believes are the desires of another person (B) without having received explicit messages about B's intentions, then A's behavior is ruled by the reaction he/she anticipates from B. A expects to be rewarded by B for conforming to B's wishes or to be punished for deviating from such wishes. Wrong's and Nagel's definitions of power allow for persons other than client and auditor to be included in the power relations. It is also possible, using these definitions, to consider separate and distinct preferences of various persons. Both Goldman and Barlev [1974] and Nichols and Price [1976] considered only the auditor as the unit responding to the client's power and do not explicitly consider the power of the auditor over the client. Coe and Palmon [1980] suggested that differences in preferences of auditors, management, SEC, audit committees, FASB and others must be included to fully explicate an audit outcome.
Wrong [1979] treated all power relations as asymmetrical. If power relations are treated as exclusively hierarchical and unilateral, one may overlook an entire class of relations between persons or groups in which the control of one person or group over the other with reference to a particular scope is balanced by the control of the other in a different scope [Dahl, 1963; Wrong, 1979; Cartwright and Zander, 1953]. Nichols and Price [1976] described the power held by a management of a company to replace its auditor to be greater, when the work performed by an auditor is routine in nature. Goldman and Barlev [1974] also contended that higher the proportion of specialized services the professional renders directly to the paying client, the more important are these services to the client and therefore greater the professional's power. The auditor/client/others relationships could therefore be characterized as "intercursive power." Intercursive power exists when the power of each party in a relationship is counterbalanced by that of another party, "with procedures for bargaining or joint-decision making governing their relations when matters affecting the goals and interests of both are involved [Wrong, 1979]."

Wrong [1979] provided a model of power (Figure 1) identifying four primary types of power: force, manipulation, persuasion and authority. Wrong's definition
Fig. 1 - Typology of Wrong's Power Model
of power and the model for studying power provides a meaningful basis for examining the issue of audit firm changes and auditor independence. However, the proposed research will restrict its focus to authority, since authority is most relevant to the relationship that prevails in auditor and client contracts.

Authority Relationships

Wrong [1979] classified authority as follows:

1. Coercive: A, the power-holder threatens B, to comply with A's wishes, because B 'believes' that A has the capability or intentions of using force.

2. Induced: B complies with A's wishes because A has economic power and can reward B.

3. Legitimate: A has an acknowledged right to command and B, an acknowledged obligation to obey.


5. Personal: B accedes to A's wishes to please A.

The authority an auditor exercises over management can be legitimate, coercive, induced, competent or personal. Management may attempt to influence the auditor to violate professional standards and render an inappropriate opinion. If the auditor refuses to comply, management may impose sanctions on the audit firm, for example, termination of the audit contract [Nichols and Price, 1976].

An auditor issuing a qualified opinion can be considered to exercise coercive, induced, or competent
authority. Of course, there are limits to such induced or coercive power, because some areas of disagreement between auditors and management are interpretive in nature. Auditors derive their competent authority from: (1) their education, (2) membership in professional bodies, (3) expertise and experience in accounting and reporting. Personal authority may arise and be exercised because of the long-term association between the client management and audit firm partners.

**Auditor and Client Sources of Power**

Dahl [1967, 1976] contended that distribution of power among the various parties is of interest in studies of large scale power systems. The scope of each party's power would depend on the matters over which each party can influence the other. In the auditor and client relationship, the client derives power because of the ability to choose the auditor that the client prefers from a large group of professionals. The client management, not only selects the auditor, but also determines the auditor's working conditions, i.e. providing the facilities and information needed for the performance of his duties. The client can replace an auditor at will in the absence of regulatory constraints [Goldman and Barlev, 1974]. A client's power may extend to the entire audit or to parts of it. Coe and Palmon [1980] wrote that a client's power may be greater
over issues that require the exercise of "managerial judgement" than those matters that require the exercise of "accounting judgement." Similarly, management of a large company may be able to exercise more influence over a small audit firm than over a large audit firm.

Auditors derive their source of power primarily from the services they render to the client and statutory requirements for audits, i.e., SEC, financial institutions, SASs, etc. [Nichols and Price, 1976]. Performing additional non-audit services for the client such as management services, tax work and computer consulting and related work may increase the auditor's source of power. The company's dependency on the particular CPA firm for non-audit services could increase and management of the company would be less inclined to replace the auditor [Dahl, 1967; Nichols and Price, 1976; Rose, 1967]. Changing to a new auditing firm may cause a reduction in these services until the new audit firm becomes familiar with the client policies and procedures.

**Bases of Power**

Any explanation of auditor and client relationship would have to consider the following factors [Dahl, 1967]:

1. some of the parties in a power relationship would have more resources at their disposal than others.

2. given the resources at their disposal, some of the parties would use them to gain influence,
3. Given the resources at their disposal, some persons would use the resources more skillfully than others.

Both auditors and clients possess resource bases. Political resources include money, information, threat of force, friendship, social standing and a variety of other things in the resource base. [Dahl, 1967; Lasswell, 1936]. The client management has financial resources, the most conspicuous being the audit fees paid. The client management also may increase their power base when they award additional non-audit service contracts to the audit firm, thereby increasing the total fees received. The CPA firm's resources include the skill with which the auditor can audit the financial operations of the client, i.e. quality of audit service and the perceived credibility the auditor's opinion lends to the client-prepared financial statements.

Coe and Palmon [1980] stated that the client's prestige may be part of a client's resource base. Fortune 500 companies, firms listed in New York Stock Exchange or the largest companies in a specific industry may be considered a valuable client by an auditor. Thus, the client's size and prestige may become important to the auditor if size and prestige helps in attracting more clients.

Nichols and Price [1976] hypothesized that due to the competition existing in the auditing profession, the client may not consider the individual audit firm's expertise or
special skill as a significant resource. The client could "shop around" and select other audit firms who could perform the work. However, if a few well known CPA firms dominate in a particular industry, then the client's choice of auditor would be limited. The audit firm's expertise and skill may be perceived as valuable resources. Client size and stock exchange listing can be considered as surrogates for resources such as audit fees and prestige.

Failing companies often consider switching from smaller to larger audit firms to provide greater assurance to its investors and creditors. A large audit firm would have a larger client base and be more widely known. Its attestation may provide greater prestige to the client than that of a small firm of auditors. Carpenter and Strawser [1971] remarked that when companies go public, they replace their local or regional auditors by nationally known auditors. Schwartz and Menon's [1985] research also suggested that a national reputation is a critical variable. Thus, audit firm size may be a useful surrogate for resources held by an auditor [Shank, 1978; Shank and Murdock, 1978].

Goldman and Barlev [1974] theorized that a company gains when it can influence its auditor to give a favorable report. The auditor, however, is expected to decide on the audit opinion without concern for the client's preferences.
Determining preferences of individuals is a fundamental difficulty in the study of power relations. Nevertheless, it is not unreasonable to assume that management of companies would prefer an unqualified report to a qualified report.

Auditor’s preferences can not be so easily assumed. Auditors can use audit qualification as a power resource. But the impending audit qualification could strain the auditor and client relationship. Schwartz and Menon [1985] suggested that the client may initiate a search for a new auditor whose views on important reporting matters are more in line with client preferences. If an audit firm disagrees with the client and issues a qualified opinion but retains the client, this may indicate that a power asymmetry exists that favors the auditors. The type of audit report issued by the auditor may be a useful surrogate for auditor resources.

Management changes also result in distributions or transfer of power within an organization. The new management may want to dissociate itself from the prior management’s policies. Schwartz and Menon [1985] pointed out that personal and other preferences of the new managers may also result in changes in company policies, including a switch to a new audit firm. Thus, management changes may explain some of the resources and preferences involved in auditor and client relationships.
Agency Theory

Agency costs are an important component of audit contracts. Jensen and Meckling [1976] defined an agency relationship as a contract under which "one or more persons (the principals) engage another person (the agent) to perform some service on their behalf which involves delegating some decision making authority to the agent."

Agency costs arise due to the conflict of interest between management (agent) on the one hand and stockholders, bondholders (principals), on the other. Williamson [1981] wrote that agents may not always act in the best interest of the principal due to bounded rationality and guile. Agency theory assumes that the principal generally anticipates divergence in the behavior of the agent and incorporates this anticipation by increasing the contract price. Agency costs would, therefore, include:

... the costs of structuring, monitoring and bonding a set of contracts among agents with conflicting interests, plus the residual loss incurred because the cost of full enforcement of contracts exceed the benefits [Fama and Jensen, 1983, pp.327].

Jensen and Meckling [1976] hypothesized that the principals, in order to limit divergence from their interests, establish incentives for the agent to incur monitoring costs.

Watts, [1977] Benston, [1980] and Watts and Zimmerman [1981] stated that auditing services provide a basic
monitoring device to enforce agency contracts. DeAngelo [1981a] concluded that audited financial statements are "one of the least-cost methods of responding to management, stockholder, bondholders, and other conflicts of interest." Demand for audit services also increases because principal/agent relationships cause an information asymmetry problem. In most circumstances, management (the agent) holds a comparative advantage in deciding the kind and quantity of information that they will provide to other contracting parties. Management may bias the information provided because they can enjoy both pecuniary and non-pecuniary incentives [Jensen and Meckling 1976]. Watts [1978] and Palmrose [1984] argued that audit independence helps reduce the costs associated with divergent behavior of the agent and also reduces management's incentive to exploit the prevailing information asymmetry. The cost of an audit depends on the client-firm size, dispersion, complexity, audit firm size and quality of audit demanded [Watts, 1977]. DeAngelo [1981a] pointed out that agency costs arising out of audit contracts would vary across potential client firms and change over time for a given client. Jensen and Meckling [1976], Watts and Zimmerman [1983], and DeAngelo [1981] concluded that the variation in auditing costs across firms and over time for a particular client, indicates the existence of diverse demand for audit services.
Audit/Client Conflicts In An Agency Setting

Audit services can be viewed as an economic good to the auditee. Services demanded by the client would be a function of equalizing marginal benefits and costs [Demski and Swieringa, 1974; Simunic, 1980]. DeAngelo [1981a] posited that the benefits users of audited financial statement derive would depend on the auditor's perceived ability to discover material errors and irregularities that may exist in client prepared financial statements and to report such material errors and irregularities despite client pressures to report selectively. The incentives for an auditor to report these deviations depend on the auditor and client contractual arrangements and involve audit quality evaluation. The strength of these incentives depends on factors such as audit fees, auditor independence from client, probability of detection of error and potential litigation and the reputations of the audit firm and its client.

DeAngelo [1981] wrote that it is reasonable to assume that in some circumstances auditors would deviate from management's position. Otherwise, external users would perceive the value of an auditor's opinion to be zero. Watts and Zimmerman [1980], on the other hand, argued that auditors can never be perfectly independent from their clients because of the expectation of future 'quasi-rent'
specific to a particular client relationship. Quasi-rent is the excess of revenues over all avoidable costs, including the cost of auditing the next best alternative client [DeAngelo, 1981b]. When the auditor expects no quasi-rent from a client, or if the expected quasi-rent is negligible, the auditor would be indifferent to a termination of the audit contract. The auditor would have no economic incentive to be influenced by client preferences to modify the report when a breach occurs. DeAngelo [1981a] contends that in a conflict situation, auditors of larger audit firms would have less incentive to 'cheat' because of the potential loss associated with damage to their reputation. Thus, she assumes that audit firm size is an appropriate surrogate for quality. Arnett and Danos [1979] disagreed that audit firm size is an appropriate surrogate for quality. They point out that partners of small audit firms claim they provide personal expertise, care and judgement to a particular engagement unlike their large firm competitors. Large firm auditors counter that they can provide highly specialized expertise and organizational power. Arnett and Danos [[1979] concluded that size of audit firm should not be considered a prime determinant of audit services quality.
Agency Costs and Auditor Changes

Audit contracts with new clients are costly and involve start-up costs. Arens and Loebbecke [1976] suggested the following reasons for high start-up costs in a new engagement:

1. It is necessary to verify the details making up those balance sheet accounts that are of a permanent nature, such as fixed assets, patents, and retained earnings.

2. It is necessary to verify the beginning balances in the balance sheet accounts on an initial engagement.

3. The auditor is less familiar with the client's operations in an initial audit.

Therefore, replacing auditors can impose real costs on both auditors and clients although each of these parties can also gain by the threat of termination. For example, a client can use the threat of termination to obtain selective disclosure by the auditor; auditors can in turn use the threat of withdrawing to force adjustments to financial statements. In spite of the costs associated with termination, termination remains a possible event. For example, the client may perceive that the benefit from preventing suggested auditor adjustment to financial statements or audit report disclosure of a financial condition outweighs the start-up costs associated with hiring a new auditor. This would be a likely scenario if outside users of audited financial statements have to incur
high costs to verify the reasons for replacement of the auditor. When users cannot ascertain the real reasons for the termination of the contract, benefits of disclosure become greater. The SEC's rationale for its disclosure requirement in ASR 165 followed this logic. The Commission suggested that disclosure of the reasons for auditor changes would discourage companies from replacing their auditors to obtain concessions in audit disclosures. The Cohen Commission report [1978] concurred, stating that the SEC's mandated reporting requirements on auditor changes would "increase the outside scrutiny of a change in independent auditors and are likely to inhibit the tendency to apply pressures to the independent auditor by dismissal."

The audit firm also is affected by agency costs. If an auditor compromises independence by not reporting a breach in a client's records and if other users are able to discern such irregularities, then the audit firm may lose credibility. The auditor may be subjected to criticism by an AICPA peer review, or the SEC and the audit firm may be exposed to litigation. The indirect loss of reputation may cause termination of audit contracts by other clients and reduction in total audit fees revenues of the audit firm.

DeAngelo [1981a] argued that large audit firms benefit when there are significant start-up costs since they have advantages due to size economies. Watts and Zimmerman
[1981] also assert that large audit firms have a comparative advantage in monitoring individual auditor behavior. Alchian and Demsetz [1972] disagreed by pointing out that in large audit firms, partners have more incentives to shirk.

Audit firm size can further be viewed as an important variable in auditor selection because of the artificial barriers existing in the audit services market. Arnett and Danos [1979] mention five factors that create such artificial barriers:

1. The "bigness syndrome" — bigness is considered as synonymous with quality and competence.
2. Audit committees promote the bigness syndrome.
3. Underwriters and bankers recommend big audit firms because security prices will improve.
4. Sectionalization of AICPA — those who can audit companies registered with SEC and others.
5. Business advantages enjoyed by large audit firms such as resources used to promote their reputation through research support.

Carpenter and Strawser [1971] found that clients going public changed their auditors from small to large nationally known firms. Such clients may have experienced significant growth and may have become a sizable factor in a small audit firm's portfolio. The client-specific quasi rent may become significant in a small audit firm's total value of quasi-rent stream [DeAngelo, 1981]. McConnell [1981] found a greater Big Eight dominance of the New York Stock Exchange (NYSE) market and NYSE auditor changes within the same
auditor tier. He also found that Over the Counter (OTC) firms resisted switching from a smaller audit firm to a Big Eight audit firm. NYSE and American Exchange (AMEX) listed companies are subject to certain specific monitoring arrangements as a precondition for listing, including conditions such as existence of outside directors and audit committees. These and other such factors may affect the choice of auditors.

Audit firm expertise in a specific industry can be a possible cause of audit firm selection bias. Eichenseher and Danos [1981] found that ninety per cent of the industries served appear to have four or fewer audit firms receiving at least fifty per cent of the audit fees paid by clients subject to SEC filings.

Rhode, Whitsell and Kelsey [1974] concluded that Big Eight accounting firms dominate certain industries. For example, Haskins and Sells is the leader in the auto, machinery-agricultural and the railroad industries. Arthur Anderson's clients are concentrated in air transport, building, sugar and utilities industries. Peat, Marwick, Mitchell & Co. has a strong hold on companies in electronics, electrical and retailing-food supermarkets. Ernst & Whinney and Arthur Young & Co. rank high in several industries, while Touche Ross & Co. leads in retailing and trucking. Coopers and Lybrand specializes in aluminium and
copper fabricating, telephone and tobacco industries [Rhode, Whitsell and Kelsey, [1974]. Substantial economies of scale appear to exist for those audit firms in dealing with regulatory complexities faced by their clients.

An audit firm incurs significant cost in developing expertise related to a particular client's SEC disclosure and reporting requirements. Once such expertise has been acquired, the cost to serve additional clients subject to such SEC requirements are lowered. Similar cost savings may occur when clients issue publicly traded securities or comply with industry specific regulations [Eichenseher and Danos, 1981; Cohen Commission, 1978; Arnett and Danos, 1979].

From the above section, it can be inferred that audit firm size, audit client size, stock exchange listing, industry concentration, and management changes may have some association with auditor replacements. Both power theory and agency theories support selection of these variables. This study, therefore proposes to examine these attributes to determine the sources of difference between companies that changed their auditors and companies that did not change their auditors. The study is limited to those attributes that are identified by power and agency theory frameworks, as discussed in the previous chapter.
Summary

In this chapter, an attempt is made to develop a theoretical framework that could explain the conflicts and relationship that exist between auditors and their clients. In the first section, a general review of Wrong's power theory is undertaken. The theory was subsequently used to integrate a power model for explaining auditor-client relationship during auditor changes.

In the second section, agency theory is discussed as a possible alternative explanation to auditor-change process and as complementary to the power theory. The specification of the exact variables and the model are however deferred to Chapter IV. Both theories suggest that audit firm size, client firm size, the type of opinion given by the auditors, stock exchange membership and changes in CEO may be associated with auditor selection process. The next chapter will therefore contain a discussion on the methodology to examine the presence and association of these power and agency theory related variables during auditor changes.
CHAPTER BIBLIOGRAPHY


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CHAPTER IV

METHODOLOGY

Introduction

The objective of the current research is to explore a theoretical framework of auditor and client power relationship and examine by data analysis the auditor selection process. The results of the study are expected to enhance understanding of auditor's independence. Although current institutional arrangements and regulations have improved auditor's independence, the levels of such improvement are not easily measured. Prior researchers had indicated the presence and influence of management, financial institutions, the SEC and others in the auditor selection process. Chow and Rice [1982] concluded that future research should explore the roles played by management and others in the auditor selection decisions.

The present research will be associational and descriptive, i.e. the focus will be on understanding the distinctive characteristics and preferences of management of corporations that change their auditors. The study does not attempt to demonstrate causation but will attempt to find out whether the attributes associated with audit firm changes are consistent with the power theory and agency theory framework.

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Identification of Variables

Wrong's power model used in this study as a theoretical framework reveals the power structure that underlies auditor and client contracts and the audit process. Presently, there is insufficient data available for examining the causal path that is inherent in the auditor selection process. The model can, however, be used to understand certain aspects of the auditor and client power relationship, one important aspect being auditor changes. After reviewing prior studies on auditor independence and the political science literature on power relationships, the following variables have been identified as potentially significant for the purpose of this research.

Audit Report Qualification

The audit report qualification is a power resource held by auditors and is a useful surrogate for auditor power. Auditor’s opinions are classified for the purpose of this study as: (1) unqualified opinion (including opinions qualified for inconsistent application of generally accepted accounting principles) and (2) qualified opinions, including (a) qualification due to uncertainties, (b) adverse opinions or (c) disclaimer of opinions. The second group of qualifications can provide reasonable evidence that the auditor exercises power over the audit outcome, although the extent and amount of that power cannot be determined. The
first group of opinions is more difficult to interpret. The opinion may have resulted because it was the most appropriate (perhaps, a change in generally accepted accounting principles), or because of client influence over auditors [Coe and Palmon, 1980]. Since auditor's preferences are not observable, it will be difficult and subjective to determine the cause of such opinions. However, if auditors are changed subsequent to a client receiving a report qualification, it can be reasonably inferred that the client has strong preferences about the audit outcome. It can also be inferred that the auditor apparently holds power over the audit outcome and that the auditor is willing to bear the costs associated with the loss of a client.

Size

Audit firm size and client company size are important variables in an auditor/ and client relationship. A large corporation has the ability to coerce auditors by the threat of termination of the audit contract. An increase in organizational size will increase the comparative advantage of management in producing financial information and increase information asymmetry. The audit firm size and client corporation size may influence the type of opinion rendered [Shank (1978), Shank and Murdock (1978)].
The demand for auditing services may be partially explained as search for insurance against corporate liabilities [Wallace, 1980]. Small corporations may change to new auditors because of the credibility that the new auditors can provide to the client prepared financial statements. Such changes may also be made to suppress, even if temporarily, dissemination of negative information about the corporation. Hence, size (of both audit firm and client corporation) can be treated as a surrogate for economic power.

Management Changes

Burton and Roberts [1967], identified management changes as a probable cause associated with auditor changes. This study will consider a change in the CEO of the client corporation as a significant change in management that may influence a change in the auditors.

Stock Exchange Listing

Another variable included in the model to supplement client size is stock exchange listing. Corporations listed in the New York Stock Exchange are subjected to certain specific monitoring arrangements (such as outside directors, or audit committees) as compared to corporations listed in Over the Trading Counter markets. Hence, the choice of an audit firm may be affected by the stock exchange listing of the corporation.
Auditor Change

The dependent variable in the model is dichotomous. That is, companies either change or do not change their auditors during the period. A variable that is not included in the present study is data on auditor and client disagreements. ASR 165, issued by the SEC, requires that companies disclose any significant accounting or auditing disagreements between the company and auditors within the eighteen months (later amended to twenty four months) that preceded a change in the company's principal auditors. Most of the earlier studies on auditor changes did not find auditor and client disagreements as a significant reason for auditor change [Burton and Roberts, 1967; Fried and Schiff, 1981]. But, the information content of reported disagreements in form 8-K may not be reliable. Chow and Rice [1982] remarked that if management changed their auditors with the intention of gaining more control over the contents of audited financial statements, management will not reveal such intentions to outsiders. On the other hand, if auditors are already influenced by management preferences and are applying 'convenient' accounting standards, there will be no disagreements between the auditor and management.

Moreover, the SEC mandated that only 'material' disagreements not resolved to the auditor's satisfaction be disclosed. Disputes that happened at the decision making
level were reportable events. In the absence of any clear definition on 'material disagreements' reporting of disputes will be a matter subject to judgment and negotiation. Coe and Palmen [1980] stated that client reported disagreements, such as excessive audit fees, audit rotation policy and audit committee preferences, may not indicate the real reasons for auditor changes. These disclosures may be misleading, disguised to hide management's motivations. Hence, data on auditor and client disagreements are not included in the present study.

**Research Design**

Prior studies have identified several factors associated with auditor changes. However, the theoretical basis for the association of these factors (either individually or collectively) had not been fully explained. Auditors may be changed for several reasons. Access to data on several of these reasons for change are not publicly available. The present research therefore used historical and publicly available data. Since the researcher can have no control over the occurrence of the dependent variable, i.e. the audit firm being changed or not changed, the present study used a quasi experimental design.

Because the objective of this study is exploratory in nature, multidimensional scaling (MDS) was used as the primary methodology to test the differentiation among firms
that changed auditors and firms that did not change their auditors. MDS is a useful technique to identify inherent structures in a data set. MDS is a method by which the perceived relationships between objects can be represented as geometric points in an n-dimensional map [Takane, Young and DeLeeuw, 1977]. The geometric representation of the various attributes theoretically identified as related to auditor selections can help answer two fundamental questions. (1) What dimensions or attributes differ between corporations changing auditors and those not changing auditors? (2) What is the perceived position of these corporations on each of these dimensions or attributes?

To understand the significance and obtain estimators on each attribute associated with auditor changes, logit analysis was used. When the researcher is interested in a mode that assesses the effects of categorical variables on a dichotomous "response variable" (for example, "1" if an audit firm was changed and "0" if an audit firm was not changed), then a logit model is more appropriate [Fienberg, 1980]. Discriminant analysis also has been used in the past when the researcher's aim was prediction, not discrimination. The aim of the present study is discrimination and not prediction. Because the independent variables are not expected to follow a multivariate normal distribution with equal covariance matrices for each group
(the changers and non-changers), use of standard
discriminant function estimators may not be statistically
consistent [Fienberg, 1980].

Logit analysis, in contrast, allows for the testing of
non-linear relationships and is a maximum likelihood
estimation procedure which applies a transformation to the
dependent variable [McFadden, 1973]. Since the dependent
variable in this study is dichotomous, either change or no
change, the estimating equation will be unbounded. The
residuals from the analysis may be heteroskedastic and may
not be normal. Logit analysis avoids all of these problems
[Theil, 1971; Knoke and Burke, 1983]. Moreover, logit
procedures allow for the calculation of maximum likelihood
estimators for the parameters associated with each
independent variable. The maximum likelihood logit
procedure to be used in the present research to test the
various hypotheses assumes the estimators are asymptotically
normally distributed.

Statement of Hypotheses

An auditor’s independence from the client and autonomy
in the performance of audit functions are considered
essential qualities. However, several researchers have
posited that auditors’ lack of power is a major constraint
in auditor and client relations [Goldman and Barlev, 1974;
Nichols and Price, 1976; Chow and Rice, 1982; Coe and
Palmon, 1980]. While the auditor is expected to act judiciously during an audit, the auditor has very little authority to enforce his/her power [Nichols and Price, 1976]. Competition among public accountants also may erode the auditor's authority. Power attributes can influence the audit firm selection processes. These attributes include, size of the client firm, size of the audit firm, changes in management, clients going public and audit report qualifications. This study examined whether any differences exist with respect to these attributes between firms that changed auditors as opposed to those that did not. By examining several variables that are posited to be associated with auditor changes, this study should enhance understanding of the power/influence relationship inherent in auditor and client contracts. Therefore, in the present research, the following null hypotheses would be tested:

**Hypothesis 1**

H₀: There is no significant difference in attributes between corporations that changed their auditors and firms that did not change their auditors.

The actions taken with respect to mandated disclosure of the reasons for auditor changes implies that attributes of corporations that change auditors should be significantly different from attributes of corporations that did not change auditors. In the theory section it was pointed out
that the auditor selection process is influenced by (1) difference in preferences of auditors, (2) management and (3) other external users of audited financial statements. Since 1971, the SEC has increased the reporting requirements related to auditor changes. Several Congressional committees (Moss Committee [1976]; Metcalf Committee [1976]; Dingell Committee [1985]; as well as the Cohen Commission [1978]), expressed concern over auditor independence.

While companies may change audit firms to avoid a qualified opinion, there are several other reasons why management or auditors might terminate an audit relationship. For example, artificial barriers created by the SEC, financial institutions and others can influence auditor selection. Industry expertise, need for a more prominent firm to gain greater credibility for financial representations and price competition also might result in audit changes. The above hypothesis implies that the various factors that are associated with an auditor selection cannot distinguish between changing and non-changing firms. In other words, the attributes exhibited by changing firms may not be very different from non-changing firms.
Hypothesis 2

H₀: Audit report qualifications are not significantly associated with management’s propensity to change the firm’s auditors.

Power theory suggests that one of the power resources held by auditors is their ability to qualify an audit report, thereby bringing erring corporate management into order. Client management will, however, prefer an unqualified opinion and may attempt to prevent dissemination of negative information. The resulting conflict between an auditor and client may induce the client management to search for a new auditor. Although changing auditors involves significant costs, client management may consider such costs less harmful than the cost of negative information on firm value. The client can use the threat of termination of audit contract to influence the auditor to give a clean opinion. Schwartz and Menon [1985] found financial distress to be associated with auditor changes. The new auditors from a large audit firm may be viewed by the market as strong guarantors to the fairness of the financial statements of the distressed company. Chow and Rice [1982] found that some corporations had a tendency to change auditors after receiving a qualified opinion. They posit that a corporation may change auditors to seek a more amenable auditor and to obtain a more favorable audit report. These studies support the view that client
management may use auditor changes as one of the means of reducing negative information about the firm. This study posits that management of corporations receiving qualified opinions will have a higher propensity to change the auditor in the year following the qualified opinion than management of corporations who receive a clean opinion.

**Hypothesis 3**

H₀: The size of the client firm or the size of the audit firm have no significant influence on the fact that the firm has changed auditors.

Power theory implies that the management of a large corporation can induce auditors to comply with its wishes because of the economic power held by the corporation. A large company can coerce the auditors by the threat of termination of the audit contract. Agency theory also suggests that when the client-specific quasi rent is high, the auditor cannot be perfectly independent.

Usually, large audit firms have a higher resource base and should be able to resist client pressures to modify the audit opinion or disclosures. Management of client firms also may have less power to coerce or induce large audit firms to comply with management preferences. Regulatory agencies such as the SEC, NYSE, FASB or AICPA interpose "norms of procedural fairness". The Cohen Commission (1977:134) recognized that the presence and participation by outsiders in setting standards would indirectly influence...
decision outcomes. Regulatory procedures such as audit committees, outside board of directors, or sectionalization of the AICPA imposed by the NYSE or the SEC on large corporations, may constrain the management of regulated corporations and restrict them from frequently changing auditors. On the contrary, managements of small corporations, who are not so constrained by extensive regulations, may make more auditor changes. From a power theory perspective, the regulatory environment should reduce power asymmetry between an auditor and client, and strengthen auditor's independence. However, the power model used in this research may not adequately explain the impact and extent of power asymmetry, when both the audit firm and client corporations are large by size or when both are small by size. Clients may consider larger audit firms as insurers against financial distress and as providing prestige and a higher level of credibility to the financial statements. Due to the economies of scale enjoyed by large audit firms or because of expertise acquired in auditing clients from specific industry groups, large audit firms may have a comparative advantage over their small firm competitors. Therefore this study posits that when an audit firm is large and is prestigious, the client will have less authority to change the auditor. And when a change in auditors takes place, the direction of the change will be
from a small to a large audit firm or from one large audit firm to another.

**Hypothesis 4**

H₀: There is no significant association between stock exchange membership of the firm and auditor changes.

Preferences of parties other than auditors and client sometimes influence auditor changes. Financial institutions, the SEC and others may insist on client financial statements being audited by a given group of auditors. Regulations and reporting requirements may differ between firms registered with the NYSE and OTC firms. Certain CPA firms may have an edge over other CPA firms because of the acquired expertise in auditing corporations who are registered with a particular exchange and therefore subjected to certain specific reporting requirements. Large corporations who are listed in the NYSE may prefer certain CPA firms because of a particular audit firm's concentration in specific industry groups, size, or reputation. This study posits that the client firm's stock exchange membership and reporting requirements may be significantly associated with audit firm changes.
Hypothesis 5

$H_0$: Management changes (CEO change) have no influence on the likelihood of an accounting firm being changed.

Management changes result in reallocation of power within an organization. Changes in the top executives of the corporation may result in change of auditors to facilitate a review of accounting practices. Firms also may seek auditors who would be more amenable to the new thinking of management. Power theory suggests that personal preferences of the new management or a desire to seek more competent auditors may induce an auditor change. This study posits that preference of new management will result in auditor changes.

Model

The model used in the present study for comparison of companies that changed their auditors with companies that did not change their auditors was:

\[
Y = f(Q, CF, AF, Mg, Se)
\]

where

\[
Y = \text{companies that changed their auditors during the period under study}
\]

\[
Q = \text{type of opinion issued by the auditors}
\]

\[
CF = \text{client corporation size}
\]

\[
AF = \text{audit firm size}
\]

\[
Mg = \text{management changes}
\]

\[
Se = \text{stock exchange membership}
\]
The use of the MDS technique may identify the relationship or the proximity of these attributes with corporations that changed auditors. The primary question of interest in the present study is whether certain attributes related to auditor selection can systematically differentiate between changing and non-changing companies. MDS may indicate which particular characteristics are important (in contrast to attributes which are just plausible) to distinguish between client firms. The theoretical framework relating to auditor changes will help in explaining the dimensions. However, MDS suffers from one drawback. When an apparent relationship is found between companies that changed auditors and attributes related to auditor selection, it may not always be clear whether or not the relationship is proved. If the relationship is strong, there will be no doubt, but if it is weak, it becomes necessary to avoid researcher bias to see patterns where there are none [Kruskal and Wish, 1978]. To test the statistical significance of the individual attributes to audit firm changes, the following equation, obtained from logit analysis would be used:

\[ Y = a + b_1Q + b_2CF + b_3AF + b_4Mg + b_5Se \]

where

\[ Y = \text{firms that changed auditors (1) or did not change (0)} \]

\[ Q = \text{type of opinion issued by the auditors} \]
CF = client corporation size
AF = audit firm size
Mg = management change
Se = stock exchange listing

The coefficients obtained by using a logit transformation for each independent variable would be used to test hypothesis 2 through 6. McFadden [1973] stated that logit transformation yields estimators which are reasonably good, even in small samples. Since the independent variables used in this study may have been affected by multicollinearity, correlations among the variables would be tested and reported in Chapter V. The coefficient obtained for each variable would be compared with the measurement weights obtained using MDS to indicate the relative importance of each dimension. If an authority relationship exists, significant grouping of the variable around firms that changed auditors, can be expected.

Data Collection

Sample data for the current research will be collected from two populations: corporations listed in the New York Stock Exchange (NYSE) and corporations listed in Over the Counter Markets (OTC). A sample of 200 corporations will be selected. A corporations will be included in the sample if the corporation was listed at least for one year in the NYSE
or OTC markets during the period 1983-85. A second limiting criterion used for sample selection will be to include 100 corporations that did not change their auditors even once during the period 1983-85 and 100 corporations who changed their auditors at least once during the period 1983-85.

The collection of data for companies that changed auditors required a definition of change and specification of the population from which the sample companies will be drawn. In this study, change is defined as changing from one audit firm to another audit firm at least once during the period under examination. The period 1983-85 is chosen because it is the most recent period. Companies from the NYSE and the OTC exchange are selected to differentiate between big and small firms. The data will not include non-industrial companies like utilities, transportation and finance companies because these companies differ with regard to control and reporting requirements from other industrial firms. The data will be collected through sources such as Moody's Industrial Manual, the Fortune 500 Industrial List, Standard & Poor's Register of Corporate Directors and the Wall Street Journal Index, and The Moody's OTC Manual.

The financial statements of each firm included in the sample will be examined (using microfiches of form 10-K) for the years 1983 to 1985 to identify the type of opinion given in each of these three years. By noting the name of the
audit firm which is denoted as the signing audit firm for each of these years, change of audit firm in any particular year/years will be identified.

Client company size will be determined on the basis of sales revenue. It is assumed that a large client will generate greater revenue for an audit firm. Audit billings may explain some of the resource bases of both auditor and client. Since data on auditor billings is not easily available, particularly for small clients, the present study will use client sales (Fortune 500 list ranks corporations on the basis of their asset and revenue sizes) as a surrogate for such billings. It is not unreasonable to assume that corporations with large asset and sales bases will also incur large audit costs.

Data on management (CEO) changes, sales volume and stock exchange listing will be obtained from secondary sources such as Moody's Industrial Manual, Wall Street Journal Index and annual reports filed with the SEC (from 10-Ks).

Procedure Used for Data Classification

The sample of 200 firms will be then classified into audit firm changers and non-changers. To prevent misclassification of firms, the name of the audit firm for a particular corporation for each of the three years, i.e., 1983-85 will be compared with the name of the auditor listed
in 10-K microfiche, annual reports and the Moody's Industrial Manuals and Moody's OTC Manuals. The 1985 Annual Auditor Changes Report prepared by Public Accounting Report [PAR, 1985] will be used to cross verify the names of corporations that changed their auditors during 1985 and the names of the predecessor and successor audit firms of each of those corporations. A similar procedure will be used to identify the types of audit opinion given in each of the three years. However, the type of audit opinion given will be obtained only for the years 1982-84, since a corporation is more likely to change its auditors during 1985, if the audit opinion on its financial statements was qualified during the year 1984.

**Data Analysis**

The data collected on the sample firms will be analyzed through the use of MDS and logit regression techniques. The MDS technique will be used to test hypothesis no. 1, i.e. to identify the dimensions and the systematic groupings or relationship of the independent variables with corporations which changed their auditors and corporations which did not change auditors. The maximum likelihood logit analysis will be used to understand the collective and individual contribution of the independent variables to the explanatory power of the model. Data analysis will be performed using Statistical Package for Social Sciences and Biomedical Data
Processing logit analysis procedure with maximum likelihood estimators.

Limitations of the Study

There are some limitations that confront the study:

1. The empirical tests used in this study will be associational rather than causal. Hence, the results of the study have to be interpreted with caution and cannot lead to a positive conclusion that power asymmetry exists between client and auditor. The results can only explain consistency or inconsistency with power theory and agency theory frameworks.

2. Authority relationships can exist and be influenced by other parties associated with auditor selection such as financial institutions, major stockholders, creditors and industry associations. Particularly, small audit firms may be subjected to more influence. Knowing the preferences of these various other parties may lead to a better understanding of auditor selections, but data on such preferences is difficult to obtain. Excluding these relationships may bias the results of the present study and the full scope of the power theory will not be explored.

3. The selection of variables is made on the basis of both the power theory and agency theory frameworks. Power theory is derived mainly from political science literature and very few studies in accounting have used this theory as
a framework. Certain other variables such as individual audit partner's years of association with the client firm, fees derived from performing non-attest audit functions, etc., also may also be associated with audit firm selection. Such variables can be included and explained from a power theory perspective. Nevertheless, due to the non-availability of data and limited frame of the present study, these variables are not considered in the present study.

4. An examination of the variables included in this study cannot confirm that significant power resides with the client or other parties in auditor selections or dismissals. Several other indicators of power such as management's or auditor's coercive or unethical practices cannot be directly observed. The results of the present study can only lead to an indirect inference of the presence of power asymmetries in auditor and client relationships.

5. The use of multidimensional scaling as a statistical technique restricts the ability to identify all relevant dimensions and to anticipate correctly all of the factors relevant to the auditor selection process.

6. The study will be based on a limited time span and on a limited sample and further research will be necessary before substantiating the existence of power imbalances if any present in auditor and client contracts.
Summary

The chapter starts with a discussion of the variables that were identified by power theory. Following the identification of the variables, the discussion of the research design and the model is undertaken. The procedures followed for data collection and the statistical techniques that will be used to analyze the data are explained in this chapter. In the following chapter, the results of the analyses of data will be discussed.
CHAPTER BIBLIOGRAPHY


AICPA Codification of Statements on Auditing Standards, Nos. 1 to 23, (AICPA, 1979).


CHAPTER V

DATA ANALYSES AND RESULTS

This chapter reports the results of the analyses of the sample data. The data analyses were conducted in four phases. The first phase involved the examination of the power resources held by various parties in an auditor and client relationship. The second phase of the research investigated the presence of power asymmetry if any in the auditor and client relationship, while the third phase was related to the understanding of the characteristics associated with audit firm changers. In phase four, the power model was tested with the objective of understanding the extent and effect of power resources on the auditor and client relationship.

The Sample Data

As noted in the preceding chapter, sample data were collected on two hundred industrial corporations listed on the NYSE and OTC. The sample selection was made using stratified sampling techniques. Stratification of the sample into sub groups of audit firm changers and non-changers was expected to provide a more homogeneous group than the original population. Usually, estimators obtained from stratified samples have smaller variances than
estimators resulting from simple random sampling [Daniel and Terrell, 1983]. The final sample consisted of an equal number of corporations that changed their auditors at least once during the years 1983-85 and an equal number of corporations that did not change auditors even once during the years 1983-85.¹

After the selection of the companies to be included in the sample, information was collected on the following variables:

1. CHAMAG: Whether there was a change in the company's CEO during the period under study.

2. QUAL: Whether the auditor's opinion on the company's financial statements was qualified for one or more of the years 1982-84.

3. BIG8: The size of the audit firm (coded "1" if Big Eight audit firm and coded "0" if Non-Big Eight audit firm).

4. CSIZE: Whether the company's size was big (included in the Fortune-500 list of companies) or small (not included in the Fortune-500 list of companies).

5. STEX: Name of the stock exchange (NYSE or OTC) in which the shares of the corporation was listed.

6. OLDA: Name of the predecessor audit firm for those companies which changed audit firm.

7. NEWA: Name of the successor audit firm for those companies that changed audit firm.

8. SALES: Amount of sales (in millions) for the year ended 1985 for each corporation.

¹ The names of corporations included in the sample are alphabetically listed in Appendix A.
Sales data were collected to support the variable 'CSIZE'. Since Fortune-500 lists companies on the basis of sales, this variable was not expected to provide any additional explanation of the auditor and client relationship. Therefore, the data collected on the variable 'SALES' are not included in the statistical analyses.

The data on each of these variables were collected from the microfiches of 10-K reports, Moody's Industrial Manual, Moody's OTC Manual, and 1985 Annual Auditor Change Report [PAR, 1986], published by Public Accounting Report, and were cross-verified for accuracy with each source. The raw data were then "dummy coded" and reconciled with the machine output using SPSSX routines. Table I provides a descriptive summary of the variables used in the model.

Power Resources

In the first phase of the research, the power resources held by each party in an auditor-client relationship is examined. Cartwright [1965] stated that one of the important explanations of power is the ability to control and use valued resources to facilitate or hinder the goal attainment of another person. Dahl [1967] wrote that understanding the distribution of power among various parties is essential for an understanding of large scale power systems.
### TABLE I
DESCRIPTIVE STATISTICS OF VARIABLES

<table>
<thead>
<tr>
<th>Variable Name</th>
<th>Value or Interval</th>
<th>Freq</th>
<th>Design Variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUDITOR CHANGE</td>
<td>0</td>
<td>100</td>
<td>-1</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>100</td>
<td>1</td>
</tr>
<tr>
<td>CHAMAG</td>
<td>0</td>
<td>170</td>
<td>-1</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>30</td>
<td>1</td>
</tr>
<tr>
<td>QUAL</td>
<td>0</td>
<td>162</td>
<td>-1</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>38</td>
<td>1</td>
</tr>
<tr>
<td>BIG8</td>
<td>0</td>
<td>48</td>
<td>-1</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>152</td>
<td>1</td>
</tr>
<tr>
<td>STEX</td>
<td>0</td>
<td>97</td>
<td>-1</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>103</td>
<td>1</td>
</tr>
<tr>
<td>CSIZE</td>
<td>0</td>
<td>99</td>
<td>-1</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>101</td>
<td>1</td>
</tr>
</tbody>
</table>

The following sections discuss how the individual phases of research were conducted and the results of the analyses. Both auditors and clients possess power resources. These resources were identified in Chapter III during the discussion on power theory. Therefore, the first question investigated was whether any perceivable relationship exists between corporations that changed auditors and each power resource, such as audit report qualification, size of an audit firm, size of a client corporation, and stock exchange membership.
Audit-Firm Change and Audit Report Qualification

In an auditor-client relationship, a power resource held by auditors is their ability to issue a qualified audit opinion. The management of a corporation, in turn has the power to terminate their association with their present auditors, if dissatisfied with the audit opinion. If an audit firm change occurs after issuance of a qualified opinion, then it might be inferred that management has dominant authority in auditor and client relationship. Conversely, if no change occurs after issuance of a qualified opinion, it might be inferred that the audit firm has exercised power. A significant association between qualified opinions issued by auditors and subsequent audit firm changes should indicate the existence of power resources held by auditor and client. The relationship between corporations that changed auditors (coded "1") and corporations that did not change auditors (coded "0") was cross-tabulated. The results are reported in Table II.

An examination of the total responses indicated that 38 of the 200 corporations included in the sample had received at least one qualified audit report during the period 1982-84. Thirty five of these corporations that changed auditors received qualified opinions prior to switching. Only three companies did not change their CPA firm after receiving a qualified opinion. The corrected chi-square
### TABLE II

AUDIT-FIRM CHANGES AND AUDIT REPORT QUALIFICATION

<table>
<thead>
<tr>
<th>Audit Report Qualification</th>
<th>Not Qualified</th>
<th>Qualified</th>
<th>Row Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not-Changed</td>
<td>97</td>
<td>3</td>
<td>100</td>
</tr>
<tr>
<td>Changed</td>
<td>65</td>
<td>35</td>
<td>100</td>
</tr>
<tr>
<td>Column</td>
<td>162</td>
<td>38</td>
<td>200</td>
</tr>
<tr>
<td>Total</td>
<td>81.0%</td>
<td>19.0%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CHI-SQUARE</th>
<th>D.F.</th>
<th>SIGNIFICANT</th>
<th>MIN E.F.</th>
</tr>
</thead>
<tbody>
<tr>
<td>31.22157</td>
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<td>0.0000</td>
<td>19.000</td>
</tr>
<tr>
<td>33.26935</td>
<td>1</td>
<td>0.0000</td>
<td>(BEFORE YATES CORRECTION)</td>
</tr>
</tbody>
</table>

Statistics for one degree of freedom for this classification was 33.27 and significant at the .05 level. The results indicate a strong association between qualified audit opinions and subsequent auditor changes, and also indicates that the management exercises significant authority.
Audit-Firm Change and Client Corporation's Size

As discussed in the theory chapter, the size of a corporation could be considered a power resource held by the management. Auditors may derive more revenue from the audit of big corporations and may even consider association with the managements of large corporations, prestigious. Thus, the size of a corporation could create a power asymmetry in an auditor-client relationship. Managements of smaller corporations may not have such resources. Large corporations also are subject to significant constraints due to external monitoring, i.e., SEC. The regulatory environment may provide auditors who audit large corporations with, legitimate authority and, consequently, the management of these corporations may have less freedom to change auditors. Conversely, since small corporations may not have audit committees and may be subjected to less stringent stock exchange or SEC regulations, they may have more freedom to change auditors than big corporations.

Table III, presents the relationship between the dependent variable "audit firm changers" and size of the corporation included in the sample. The size variable was coded as "0" if the name of the corporation was included in the Fortune-500 industrial list and "1" if the corporation's name was not listed in the Fortune-500 industrial list. Table III shows that 97% of the corporations that made audit
### TABLE III

**AUDIT-FIRM CHANGES AND CLIENT SIZE**

<table>
<thead>
<tr>
<th>Audit Firm</th>
<th>Client Corporation's Size</th>
<th>Big</th>
<th>Small</th>
<th>Row Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>100</td>
</tr>
<tr>
<td>Not-Changed</td>
<td></td>
<td>96</td>
<td>4</td>
<td>100</td>
</tr>
<tr>
<td>Changed</td>
<td></td>
<td>3</td>
<td>97</td>
<td>100</td>
</tr>
<tr>
<td>Column</td>
<td></td>
<td>99</td>
<td>101</td>
<td>200</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>49.05%</td>
<td>50.05%</td>
<td>100%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CHI-SQUARE</th>
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<th>SIGNIFICANCE</th>
<th>MIN E.F.</th>
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<tbody>
<tr>
<td>169.296</td>
<td>1</td>
<td>0.0</td>
<td>49.0500</td>
</tr>
<tr>
<td>172.997</td>
<td>1</td>
<td>0.0</td>
<td>(BEFORE YATES CORRECTION)</td>
</tr>
</tbody>
</table>

firm changes, were categorized as small corporations. Among the changers, only three corporations belonged to the category "big clients" listed in Fortune-500 list. The auditors of large corporations appeared to derive more legitimate authority because of the presence of regulatory bodies such as the SEC or NYSE. The size of a corporation, could therefore be considered a significant factor in explaining audit firm changes. The chi-square statistic of
169.29 supports such a contention. However, a large value of chi-square corresponds to a value in the right-hand tail of the chi-square distribution and may be indicative of a skewed and non-normal distribution. The use of maximum likelihood logit analyses in the third phase of the research corrects for this abnormality and provides more efficient estimators.

Audit-Firm Change and Audit-Firm Size

While the size of a client corporation is a power resource held by management, the size of the audit firm to which the auditor belongs can be considered a power resource held by the auditors. In a conflict situation, a nationally reputed CPA firm with a large client base will be less threatened by the management of a big corporation than a regional or local CPA firm. To analyze whether audit firm size is significantly related to audit firm changes, the frequency distribution between audit firm size and audit firm changes was computed and the results are presented in Table IV. An audit firm was categorized as Big Eight (coded “1”) if the present audit firm of the corporation was one of the Big Eight firms and as non-Big Eight (coded “0”) if the present auditors was not one of the Big Eight firms. The results indicate that 152 of the 200 corporations (or 76% of the total sample) were audited by Big Eight CPA firms. Big Eight firms audited 91% of the corporations that
TABLE IV
AUDIT-FIRM CHANGES AND AUDIT-FIRM SIZE

<table>
<thead>
<tr>
<th>Audit Firm Size</th>
<th>Non-Big8</th>
<th>Big8</th>
<th>Row Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Audit Firm</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not-Changed</td>
<td>9</td>
<td>91</td>
<td>100</td>
</tr>
<tr>
<td>Changed</td>
<td>39</td>
<td>61</td>
<td>100</td>
</tr>
<tr>
<td>Column</td>
<td>48</td>
<td>152</td>
<td>200</td>
</tr>
<tr>
<td>Total</td>
<td>24.0%</td>
<td>76.0%</td>
<td>100%</td>
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</table>

<table>
<thead>
<tr>
<th>CHI-SQUARE</th>
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<th>SIGNIFICANCE</th>
<th>MIN E.F.</th>
</tr>
</thead>
<tbody>
<tr>
<td>23.05373</td>
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<td>0.000</td>
<td>24.000</td>
</tr>
<tr>
<td>24.67105</td>
<td>1</td>
<td>0.000</td>
<td>(BEFORE YATES CORRECTION)</td>
</tr>
</tbody>
</table>

did not change auditors, while small audit firms audited only 9% of the non-changing corporations. An inference that could be made at this juncture is that size is an important variable. The chi-square statistic of 23.05 is significant at the .05 level and points out to a relationship between the dependent variable 'Audit-Firm Changers' and audit firm size.
Audit-Firm Change and Stock Exchange Membership

Corporations listed on the NYSE generally are subjected to more specific regulations, such as audit committees, outside directors, etc., than corporations listed in OTC markets. Thus, stock exchange membership may have an influence on management's selection and retention of an audit firm. The relationship between stock exchange membership and audit firm changes also may indicate the influence of third parties in auditor selections. Table V presents the results of the cross-tabulation between audit firm changes and stock exchange membership. The corporations listed in OTC markets were coded "1" and the corporations listed in NYSE were coded "0".

An examination of the frequencies reveal that 96% of the corporations that changed auditors were listed on the OTC markets, and 4% on the NYSE. In contrast, 93% of the corporations that did not change auditors were listed on NYSE, and 7% on the OTC. The lack of auditor changes associated with stock exchange membership may reflect (1) the more stringent reporting requirements associated with corporations listed in NYSE and (2) the size of the audit client (most bigger corporations are listed in NYSE). The analyses (chi square of 155.01) clearly indicates that corporations listed in OTC markets changed auditors more frequently than corporations listed on the NYSE. Less
TABLE V

AUDIT-FIRM CHANGES AND STOCK EXCHANGE MEMBERSHIP

<table>
<thead>
<tr>
<th>Stock Exchange Membership</th>
</tr>
</thead>
<tbody>
<tr>
<td>NYSE</td>
</tr>
<tr>
<td>------</td>
</tr>
<tr>
<td>Audit Firm</td>
</tr>
<tr>
<td>Not-Changed</td>
</tr>
<tr>
<td>Changed</td>
</tr>
<tr>
<td>Column</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CHI-SQUARE D.F. SIGNIFICANCE MIN E.F.</th>
</tr>
</thead>
<tbody>
<tr>
<td>155.01952 1 0.000 48.0500</td>
</tr>
<tr>
<td>158.05626 1 0.000 (BEFORE YATES CORRECTION)</td>
</tr>
</tbody>
</table>

Stringent regulatory requirements may enable the management of OTC corporations to shop around for auditors. As mentioned earlier (while discussing the contingency table for client corporation's size), the high chi-square value points to a possible non-linear relationship and skewed distribution.
Audit-Firm Change and Change in Management

The change in a corporation's CEO may lead to a change in auditors. The new CEO may not agree with the policies followed by the previous management and may wish to employ a new audit firm. Burton and Roberts [1967] found management changes to be a significant cause associated with auditor changes. The results of a cross classification of the association between management changes and audit firm changes appear in Table VI. If a corporation included in the sample changed its CEO at least once during the years 1983-85, the corporation was considered to have had a change in management (coded '1'). Only 15% (3) of the companies included in the sample had a CEO change.

Asymmetrical Power Relations

Although, the previous analyses identified some of the power sources controlled by an auditor and the management of a corporation, the existence of power resource does not necessarily indicate that these resources are being exercised.

Table VI shows that 21 of the 30 companies that changed the CEO also changed audit firms. The chi-square value of 4.74 is significant at the .05 level. While a change in CEO may have some association with change of audit firm, the strength of such a relationship should be interpreted with caution. Goldman and Barlev [1974] argued, that in an
TABLE VI
AUDIT-FIRM CHANGES AND CEO CHANGES

<table>
<thead>
<tr>
<th>Management Changes</th>
<th>Not Changed</th>
<th>Changed</th>
<th>Row Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Audit Firm</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not-Changed</td>
<td>91</td>
<td>9</td>
<td>100</td>
</tr>
<tr>
<td>Changed</td>
<td>79</td>
<td>21</td>
<td>100</td>
</tr>
<tr>
<td>Column</td>
<td>170</td>
<td>30</td>
<td>200</td>
</tr>
<tr>
<td>Total</td>
<td>85.0%</td>
<td>15.0%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

The auditor-client relationship the power asymmetry favors the management of a corporation more than the auditors. This leads to a basic question: is the auditor likely to comply with the management demands because the management is favored with more power? In Chapter III, it was suggested that the size of both an audit firm and a client corporation could cause power asymmetry and size also could be considered a surrogate for prestige and reputation. Therefore, in the following section the results of examining the relationship between size and audit report qualification are discussed.
Audit Report Qualification and Audit-Firm Size

Table VII presents the results of association between qualified audit opinion and size of the audit firms whose auditors had issued the qualified opinion.

TABLE VII
AUDIT REPORT QUALIFICATION AND AUDIT-FIRM SIZE

<table>
<thead>
<tr>
<th>Audit-Firm Size</th>
<th>Big Eight</th>
<th>Non-Big Eight</th>
<th>Row Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Audit Report Qualification</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not-Qualified</td>
<td>32</td>
<td>130</td>
<td>162</td>
</tr>
<tr>
<td>Qualified</td>
<td>16</td>
<td>22</td>
<td>38</td>
</tr>
<tr>
<td>Column</td>
<td>48</td>
<td>152</td>
<td>200</td>
</tr>
<tr>
<td>Total</td>
<td>24.0%</td>
<td>76.0%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CHI-SQUARE</th>
<th>D.F.</th>
<th>SIGNIFICANCE</th>
<th>MIN E.F.</th>
</tr>
</thead>
<tbody>
<tr>
<td>7.25016</td>
<td>1</td>
<td>0.000</td>
<td>9.120</td>
</tr>
<tr>
<td>8.43107</td>
<td>1</td>
<td>0.000</td>
<td>(BEFORE YATES CORRECTION)</td>
</tr>
</tbody>
</table>

A total of 38 companies (19%) included in the sample had a report qualification. Big Eight auditors issued 22 (58%) of the qualified opinions, while small audit firms
issued 16 (42%) qualified opinions. The chi-square value of 7.25 is significant. The ability to issue a qualified opinion represents a power source of the auditors. However, the management of a corporation may resist the issuance of a qualified opinion by their auditors and a conflict situation may arise. Size may enable large audit firms to resist client pressures more effectively than small audit firms. If size were an important variable, then we would expect that big firms would be more likely to issue qualified opinions than small audit firms. The results of this study did not support such a view. The nearly equal percentage of report qualifications issued by auditors from both Big Eight firms and non-Big Eight firms indicate that auditors were not deterred from issuing a qualified opinion because the size of their audit firm was small.

Audit Report Qualification and Client-Size

An association between audit report qualification and a client corporation's size also could indicate the existence of power asymmetry between auditors and their clients. A big corporation may be able to resist the issue of a qualified opinion by the auditors more effectively than a small corporation, because an audit firm derives more audit fee revenue from the audit of such corporations and also because of the competition existing in the audit services market. A big corporation also has less probability of
getting a report qualification on the financial statements because of the more intense monitoring and reporting requirements to which such corporations are subjected. If big corporations receive fewer qualified opinions than small corporations, it may indicate either that (1) managements of big corporations have sufficient authority to resist issuance of a qualified opinion or (2) big corporations have better internal control, less risk, i.e., fewer instances of financial distress. Table VIII reports the results of frequency distribution between client size and report qualification.

TABLE VIII

AUDIT REPORT QUALIFICATION AND CLIENT SIZE

<table>
<thead>
<tr>
<th>Corporation's Size</th>
<th>Big</th>
<th>Small</th>
<th>Row Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Audit Report Qualification</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not-Qualified</td>
<td>96</td>
<td>66</td>
<td>162</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>50%</td>
</tr>
<tr>
<td>Qualified</td>
<td>3</td>
<td>35</td>
<td>38</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>50%</td>
</tr>
<tr>
<td>Column</td>
<td>99</td>
<td>101</td>
<td>200</td>
</tr>
<tr>
<td>Total</td>
<td>49.05%</td>
<td>50.05%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>
Among the 38 corporations that received qualified opinions from their auditors, 92% were small firms. The table also shows that only three large corporations received a qualified opinion. The findings indicate that small corporations were more likely to receive a qualified opinion than big corporations.

**Individual CPA Firms and Audit-Firm Changes**

An attribute related to audit firm size is the competition existing in the audit services market. Auditor's operate in a buyer's market and therefore the source of power to an auditor would depend on how clients perceive their prestige and reputation. Watts and Zimmerman [1981] argue that firms compete in a market for reputations. Several researchers found evidence to support that reputational differences exist between large and small accounting firms [Libby, (1979); Shockley, (1981); Shockley & Holt, (1983). DeAngelo (1981)], argued that audit quality and size are directly related. Studies that examined concentration [See Survey by Buckley and O'Sullivan (1980)] indicated that Big Eight firms dominate the supply of audits to companies listed in NYSE and AMEX.²

² The Metcalf Committee [Staff Study (1977:46)] concluded that "The information which this subcommittee has received from the "Big Eight" firms and other sources clearly shows an excessively high concentration of auditing influence among the "Big Eight" firms. The degree of concentration in providing independent auditing services to major corporations is so great that it constitutes evidence of a serious lack of competition." Dopuch and Simunic [1980], however, argued that there
McConnell [1983] found that the Big Eight firms hold the dominant share of the auditing services market, particularly auditing of large corporations. The data used in this study corroborated Big Eight dominance. Table IV shows that 76% of the sample corporations were audited by Big Eight CPA firms. To test the impact of auditor changes on Big Eight audit firms, a cross-tabulation of the data on old and new audit firms was computed. The results are presented in Table IX.

**TABLE IX**

CROSS-TABULATION OF OLD AND NEW AUDIT FIRMS

<table>
<thead>
<tr>
<th>New Audit-Firm</th>
<th>Non-Big Eight</th>
<th>Big Eight</th>
<th>Row Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Old Audit-Firm</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-Big Eight</td>
<td>25</td>
<td>22</td>
<td>47</td>
</tr>
<tr>
<td>Big Eight</td>
<td>14</td>
<td>39</td>
<td>53</td>
</tr>
<tr>
<td>Column</td>
<td>39</td>
<td>61</td>
<td>100</td>
</tr>
<tr>
<td>Total</td>
<td>39.0%</td>
<td>61.0%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

appeared to be no real barriers to any one entering the auditing profession and the available evidence on pricing of auditing services is consistent with the view that the markets are competitive.
Of the 100 corporations that made audit firm changes, 39 of them changed from one Big Eight firm to another Big Eight firm. Twenty five corporations changed from one non-Big Eight firm to another non-Big Eight firm. However, fourteen corporations changed from a predecessor Big Eight audit firm to a successor non-Big Eight audit firm. In contrast, twenty two corporations changed from a non-Big Eight firm to a Big Eight firm. While such a change may denote a market share gain by Big Eight firms, the significance of such gains and penetration into the audit services market cannot be determined from the sample size used in this study. Table X presents the gain/loss of clients associated with each individual Big Eight firm and non-Big Eight firm.³

³ The value labels for variable names listed in the tables are given in Appendix B.
### TABLE X
GAIN AND LOSS OF CLIENTS BY AUDIT FIRMS

<table>
<thead>
<tr>
<th>Audit Firm</th>
<th>NonB</th>
<th>AA</th>
<th>AY</th>
<th>CL</th>
<th>DHS</th>
<th>EW</th>
<th>PMM</th>
<th>PW</th>
<th>TR</th>
<th>ROW</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not-Changed</td>
<td>6</td>
<td>15</td>
<td>15</td>
<td>11</td>
<td>7</td>
<td>10</td>
<td>9</td>
<td>21</td>
<td>6</td>
<td>100</td>
<td>50.0%</td>
</tr>
<tr>
<td>Changed</td>
<td>40</td>
<td>13</td>
<td>4</td>
<td>10</td>
<td>2</td>
<td>8</td>
<td>7</td>
<td>5</td>
<td>11</td>
<td>100</td>
<td>50.0%</td>
</tr>
<tr>
<td>Column Total</td>
<td>46</td>
<td>28</td>
<td>19</td>
<td>21</td>
<td>9</td>
<td>18</td>
<td>16</td>
<td>26</td>
<td>17</td>
<td>200</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

**Characteristics of Audit-Firm Changers**

A review of accounting literature on auditor changes revealed several explanations why certain corporations changed their audit firms. These prior studies identified factors that could lead to an auditor switch by management of a corporation and added to an understanding of the auditor selection process. Nevertheless, a common theory that would provide a framework and explain the characteristics associated with corporations that changed auditors was not available. This study therefore, provided power theory as a basis for discussing auditor-client conflicts during auditor changes and sought to examine the sources of difference between companies that changed auditors and those companies that did not change auditors.
Since this research was exploratory, i.e., to develop and test a theoretical model of auditor changes, MDS procedure was used to understand the attributes that are different between corporations categorized as changers and non-changers. In subsequent analyses, logit procedure was used to obtain estimators for the magnitude and direction of these attributes, and to test the validity of the power model in explaining the auditor change process.

**MDS Analysis**

Multidimensional Scaling enables a researcher to examine the underlying structure of the data, which make it easier to comprehend and interpret. MDS uses proximities value among the variables used in the auditor change model. The resulting MDS configurations would indicate the extent of similarity or association (or dissimilarity) between corporations that changed their audit firm and the corporations that did not change their audit firm and the variables identified by the power theory. The extent of association or relatedness between changing or non-changing corporations and each independent variable can be regarded as a measure of their association. The SPSSX routine used in this research computed Euclidean distances between the column variables in the model and used the resulting data to create a spatial map.
This study uses the MDS algorithm, Alternating Least-Square Scaling (ALSCAL) to generate the spatial configuration from the computed proximities. Takane, Young and deLeeuw [1977] developed ALSCAL, and Young, Takane, and Lewyckyj [1978] improved the technique. The procedure is extremely flexible and robust [Kruskal and Wish, 1978]. ALSCAL requires that data and analyses options must be specified. In the analyses, the derived representations assumed interval data characteristics with a simple Euclidean distance model and a symmetric dissimilarity matrix. Stress values were used to determine the goodness of fit of the model to the spatial configurations [Kruskal, 1964, p. 3].

The MDS procedure does not require the specification of a dependent available. The objective of using the MDS technique in the present research, was to build a model of auditor change and explain the consistency of the model with power theory. This requires identification of distinguishable attributes that are associated with corporations changing their audit firms, in contrast to corporations that did not change audit firms and, the extent of such association. Therefore, two new variables, (1) changers, (2) and non-changers were created from the data on the dependent variable auditor changes.
MDS analyses was used to investigate the following specific research questions: (1) Are power variables associated in any discernible pattern with corporations that changed their CPA firms? (2) Do certain attributes present in an auditor and client relationship exert a significant influence on the existence of power asymmetry between auditor and client? and (3) If there is a power asymmetry, what is its direction?

The data were analyzed in four stages: (1) a correlational analyses of the variables used in the MDS procedure; (2) the construction of a one dimensional solution of the difference between changing and non-changing groups of corporations, based on the dissimilarity data and comparison of the parameters associated with each of these groups; (3) the analyses of the individual variables associated within each group; and (4) construction of higher dimensional solutions and analyses of perceptual dimensions associated with such solutions.

**Relationship Among Variables**

Power theory provided the basis for identifying certain variables. If the theoretical constructs used in this research are relevant, these variables should have structural, functional, or complementary relationship to each other, and to the dependent variable 'Auditor Changes'. Computing the correlations among the variables can lead to a
preliminary understanding of the relationship and association among the variables. Table XI presents the correlations among the variables obtained using the MDS technique.

TABLE XI
CORRELATION MATRIX OF VARIABLES

<table>
<thead>
<tr>
<th></th>
<th>STEX</th>
<th>CHAMAG</th>
<th>QUAL</th>
<th>BIG8</th>
<th>CSIZE</th>
<th>NCHANF</th>
<th>CHANF</th>
</tr>
</thead>
<tbody>
<tr>
<td>STEX</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CHAMAG</td>
<td>0.033</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>QUAL</td>
<td>0.243</td>
<td>0.051</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BIG8</td>
<td>-0.055</td>
<td>-0.055</td>
<td>-0.638</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CSIZE</td>
<td>0.824</td>
<td>0.124</td>
<td>0.337</td>
<td>-0.059</td>
<td>1.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NCHANF</td>
<td>-0.831</td>
<td>-0.296</td>
<td>-0.478</td>
<td>0.459</td>
<td>-0.798</td>
<td>1.000</td>
<td></td>
</tr>
<tr>
<td>CHANF</td>
<td>0.887</td>
<td>0.071</td>
<td>0.279</td>
<td>-0.055</td>
<td>0.777</td>
<td>-0.864</td>
<td>1.000</td>
</tr>
</tbody>
</table>

The correlation between the dependent variable Changers (CHANF) and stock exchange membership, qualification, and client size were respectively, 0.887, 0.279, and 0.777 and points to a basic association. The correlation between changers and CEO changes was 0.071 and the relationship can not be considered significant. One pattern of interest in the matrix is the correlation between changers and audit firm size. The negative correlation of 0.0550 implies that big audit firms are changed less than the small audit firms. However, the correlation value of 0.459 between audit firm
size and non-changers and nearly the same level of correlation between audit firm size and changers, indicate the separate position of big audit firms among both changers and non-changers.

The correlation matrix indicates the existence of an important degree of structuring in this body of data. However, a correlation matrix is restricted in its analyses and interpretation. The interrelationship between variables requires the use of a more sophisticated procedure for dimensional analyses. The results of analyses using MDS ALSCAL procedure is discussed in the following section.

Attributes of Audit Firm Changers

An objective of the present research is to understand the distinctive characteristics and preferences of management of corporations that change their auditors. To understand the perceived differences in attributes between corporations that changed auditors and corporations that did not change auditors, an one-dimensional MDS map was generated, and the composite spatial map is presented in Figure 2. Figures 3 and 4 show the configurations for changing and non-changing corporations respectively. Since the MDS technique does not use significance tests, the following steps were used to evaluate the MDS maps: (1) clustering of the variables; (2) position of changers and non-changers among these clusters and (3) analysis of the stimulus coordinates associated with each stimulus variable.
The one dimensional results reflect a changers versus non-changers dimension. Corporations that did not change auditors and the Big Eight auditors appear on the left side of the configuration. Corporations that changed auditors, client size, stock exchange membership, audit report qualification and change in CEO are positioned on the right side of the configuration. The stimulus coordinates shown in Table XII support the configurations, while, Table XIII shows the stress values for the one dimensional solution.

**TABLE XII**

**STIMULUS COORDINATES - ONE DIMENSIONAL SOLUTION**

<table>
<thead>
<tr>
<th>Stimulus Number</th>
<th>Stimulus Name</th>
<th>Plot Symbol</th>
<th>Dimension</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>STOCK EXCHANGE MEMBERSHIP</td>
<td>1</td>
<td>0.8403</td>
</tr>
<tr>
<td>2</td>
<td>CHANGE IN CEO</td>
<td>2</td>
<td>0.1011</td>
</tr>
<tr>
<td>3</td>
<td>REPORT QUALIFICATION</td>
<td>3</td>
<td>0.3738</td>
</tr>
<tr>
<td>4</td>
<td>AUDIT FIRM SIZE</td>
<td>4</td>
<td>-1.2418</td>
</tr>
<tr>
<td>5</td>
<td>CLIENT SIZE</td>
<td>5</td>
<td>0.7707</td>
</tr>
<tr>
<td>6</td>
<td>CHANGERS</td>
<td>6</td>
<td>0.9292</td>
</tr>
<tr>
<td>7</td>
<td>NON-CHANGERS</td>
<td>7</td>
<td>-1.7733</td>
</tr>
</tbody>
</table>

The variables were clustered into three groups: (1) Non-changers and Big Eight audit firms; (2) Change in management and audit report qualification; and (3) client
size, stock exchange listing and CPA firm changers. The close positioning of client size, stock exchange membership and audit firm changers indicated a few of the characteristics that were associated with audit firm changers. As discussed in the earlier section on contingency table analyses, most of the corporations that changed their auditors were, by size, small, and were listed in OTC markets.

A final observation regarding the MDS uni-dimensional map concerns the position of Big Eight audit firms. The Big Eight firms appear closer to the corporations that did not change the auditors. The distance between changing corporations and Big Eight firms is significant. This is a possible indication that non-Big Eight audit firms were exposed to frequent change of clients. Big Eight auditors, because of their national reputation, experience with auditing of corporations subjected to SEC reporting requirements, and also because of the size of their total audit revenues, may hold greater power to change clients when a conflict arises. The visual examination of the map reveals that although Big Eight firms appear closer to corporations that did not change auditors than to corporations that changed auditors, the Big Eight firms appeared to stand alone and therefore, could be labeled as outliers. The configurations also indicate that there is a
visible distinctness in characteristics between audit firm changers and non-changers. The finding should be interpreted in the light of the fact that the changing firms included in the sample are only a subset of all audit firm changers.4

4 A basic question is whether a single dimension can account for understanding the differences between audit firm changers and non-changers. A two-dimensional analyses was made to observe whether there was any improvement in the configurations and goodness of fit. Figure 5 shows the results of the two-dimensional solution obtained.

The stress value for the two-dimensional solution was 0.002; the improvement from adding to the one dimensional solution was negligible. Table XIV contains the stress value and stimulus coordinates for the two-dimensional solution.

Since the total number of parameters being estimated is small, the results for a two dimensional solution may not be reliable. The SPSSX routine issued a warning, while computing the two dimensional solution, to reduce the number of parameters or, use fewer dimensions. Hence, the interpretation and conclusions on the MDS procedure for the present research were mainly based on the one-dimensional analyses.
TABLE XIII
ONE-DIMENSIONAL ANALYSIS - STRESS VALUES

<table>
<thead>
<tr>
<th>Iteration</th>
<th>S-Stress</th>
<th>Improvement</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.01396</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>0.00481</td>
<td>0.00915</td>
</tr>
</tbody>
</table>

FOR MATRIX
STRESS = 0.003  RSQ = 1.000

TABLE XIV
TWO-DIMENSIONAL ANALYSIS - STATISTICAL ESTIMATORS

<table>
<thead>
<tr>
<th>Stimulus Number</th>
<th>Stimulus Name</th>
<th>Plot Symbol</th>
<th>Dimension 1</th>
<th>Dimension 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>STOCK EXCHANGE MEMBERSHIP</td>
<td>1</td>
<td>1.0196</td>
<td>-0.0502</td>
</tr>
<tr>
<td>2</td>
<td>CHANGE IN CEO</td>
<td>2</td>
<td>0.1250</td>
<td>1.0686</td>
</tr>
<tr>
<td>3</td>
<td>REPORT QUALIFICATION</td>
<td>3</td>
<td>0.4549</td>
<td>0.8639</td>
</tr>
<tr>
<td>4</td>
<td>AUDIT-FIRM SIZE</td>
<td>4</td>
<td>-1.0504</td>
<td>-1.0620</td>
</tr>
<tr>
<td>5</td>
<td>CLIENT SIZE</td>
<td>5</td>
<td>0.9363</td>
<td>-0.2024</td>
</tr>
<tr>
<td>6</td>
<td>CHANGERS</td>
<td>6</td>
<td>1.1160</td>
<td>-0.0538</td>
</tr>
<tr>
<td>7</td>
<td>NON-CHANGERS</td>
<td>7</td>
<td>-2.1479</td>
<td>0.3733</td>
</tr>
</tbody>
</table>

FOR MATRIX
STRESS = 0.002  RSQ = 1.000
Test of the Power Model

Power theory and results of the MDS configurations identified the characteristics associated with audit firm changers and non-changers. However, the extent of association between power resource variables that comprise the model and, the anticipated effect of these variables on audit firm changers, was yet to be tested. A test of the multivariate relationship between audit firm changers, and power resources was expected to provide evidence relating to the following questions:

1. Do corporations have a propensity to change auditors if they are issued an qualified opinion by the auditors?

2. Does an auditor determine the audit outcome without concern for the client's preferences?

3. Does presence of third parties such as stock exchanges indirectly influence auditor selection?

4. Do certain corporations have a higher propensity to "shop" around for auditors?

Logit analyses was used to find evidence and answers to these questions. The main purpose of using the logit procedure is to help researchers test each hypothesis by a multivariate procedure. For a multivariate test of the relationship between the audit firm changers and the posited explanatory variables, ordinary least square regression is inappropriate. Since the dependent variable in the model was dichotomous, the error terms may not have constant
variance and the resulting estimators will be biased [Knoke and Burke, 1982]. Logit procedure calculates maximum likelihood estimators (MLEs) for the parameters associated with each explanatory variable, and avoids the problems associated with ordinary least square regression assumptions. The hypothesis test assumes that the estimators are asymptotically normally distributed.

Logit models are appropriate for categorical variables. One variable (audit firm changers) is taken conceptually as dependent upon variation induced by the five explanatory variables. The criterion analyzed in this model was the odds of the expected cell frequencies for the dependent variable. Knoke and Burke [1982] state that the parameters in the logit model can be interpreted similarly to the additive coefficients of an ordinary regression. Positive values indicate that the independent variables or interaction raises the odds on the dependent variable, while negative values show that the odds are decreased.5

5 A correlation matrix of the variables used in the model was computed as the first step in the logit procedure. Table XV presents the results. The results indicate a significant correlation (0.0514) between stock exchange listing and client size. This suggests that the estimators using both variables in the model could be biased. However, power theory suggests that both client size and stock exchange membership determine power asymmetry in an auditor-client relationship. From a theoretical standpoint, omission of either of these variables could cause a loss of explanatory power. Since the objective of the present research is to identify the variables that may be associated with auditor selection processes, the interactive effect of two or more variables cannot be ignored. Therefore, a new variables SSIZE - a product of
TABLE XV
CORRELATIONS AMONG VARIABLES UNDER LOGIT ANALYSIS

<table>
<thead>
<tr>
<th></th>
<th>STEX</th>
<th>QUAL</th>
<th>BIG8</th>
<th>CHAMAG</th>
<th>CSIZE</th>
</tr>
</thead>
<tbody>
<tr>
<td>STEX</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>QUAL</td>
<td>0.073</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BIG8</td>
<td>0.124</td>
<td>-0.048</td>
<td>1.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CHAMAG</td>
<td>-0.082</td>
<td>-0.286</td>
<td>-0.037</td>
<td>1.000</td>
<td></td>
</tr>
<tr>
<td>CSIZE</td>
<td>-0.051</td>
<td>-0.047</td>
<td>0.008</td>
<td>-0.128</td>
<td>1.000</td>
</tr>
</tbody>
</table>

Significance of Power Resources

Since the choice of a model should be guided by theory and previous empirical findings, the full model included variables that were identified by power theory and earlier research on auditor changes. The analyses was performed using logit step-wise procedure with entry levels of 95% and with the help of BMDP logit analyses routines. The statistical results obtained using the full model are shown in Table XVI.

An examination of Table XVI indicates that the variables stock exchange membership and client size (SSIZE) provided maximum explanation of auditor changes (with a t-score of 6.651, significant at the .05 level). The results point out that small corporations have a higher propensity to change auditors than big corporations. Also, membership of the stock exchange appears to influence the interaction between stock exchange membership and client size was created and used in subsequent analyses.
<table>
<thead>
<tr>
<th>Term</th>
<th>Coefficient</th>
<th>Standard Error</th>
<th>Coeff/S.E.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHAMAG</td>
<td>-0.1870</td>
<td>0.3824</td>
<td>-0.489</td>
</tr>
<tr>
<td>QUAL</td>
<td>0.9225</td>
<td>0.4373</td>
<td>2.109</td>
</tr>
<tr>
<td>BIG8</td>
<td>-0.7881</td>
<td>0.2918</td>
<td>-2.701</td>
</tr>
<tr>
<td>SSIZE</td>
<td>2.1758</td>
<td>0.3271</td>
<td>6.651</td>
</tr>
</tbody>
</table>

Log Likelihood Ratio = -63.250

The auditor selection process. The size of the audit firm was negative and significant, with a value of -2.701. This indicates that the Big Eight audit firms were less likely to be changed. DeAngelo [1981a] says that Big Eight auditors hold a comparative advantage over small audit firms because of the size of the audit firm, reputation and expertise. When a conflict arises with their clients, these resources may cause a favorable power asymmetry in favor of the auditors from the Big Eight firms. The audit report qualification was also significant at the .05 level, with a t-score of 2.109. The significant estimator for audit report qualification indicates that there was some incentive to change auditors to avoid a qualified opinion. The
estimators for change in CEO was 0.4892 and was not significant. Therefore, the extent to which audit firm changes were made following a change in management could not be confirmed from the sample used in this research.

Statistical Validity of the Results

A question that remains to be answered is whether stock exchange membership and client size have explanatory power in the absence of one or the other in the model. To test this aspect, the model was first analyzed using either the variable stock exchange membership or client size along with the other variables in the model. The results are shown in Tables XVII and XVIII.

**TABLE XVII**

**LOGIT ANALYSIS - REDUCED MODEL**

<table>
<thead>
<tr>
<th>Term</th>
<th>Coefficient</th>
<th>Standard Error</th>
<th>Coeff/S.E.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stock Exchange Membership</td>
<td>2.0565</td>
<td>0.3088</td>
<td>8.309</td>
</tr>
<tr>
<td>Report Qualification</td>
<td>0.8597</td>
<td>0.0507</td>
<td>1.673</td>
</tr>
<tr>
<td>Audit-Firm Size</td>
<td>-0.3769</td>
<td>0.3888</td>
<td>-0.977</td>
</tr>
<tr>
<td>Change in Management</td>
<td>-0.1056</td>
<td>0.4230</td>
<td>1.113</td>
</tr>
</tbody>
</table>
### TABLE XVIII

**LOGIT ANALYSIS - REDUCED MODEL**

<table>
<thead>
<tr>
<th>Term</th>
<th>Coefficient</th>
<th>Standard Error</th>
<th>Coeff/S.E.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Client Size</td>
<td>2.1758</td>
<td>0.3271</td>
<td>6.651</td>
</tr>
<tr>
<td>Report Qualification</td>
<td>0.9225</td>
<td>0.4373</td>
<td>2.109</td>
</tr>
<tr>
<td>Change in Management</td>
<td>-0.1870</td>
<td>0.3824</td>
<td>-0.489</td>
</tr>
<tr>
<td>Audit-Firm Size</td>
<td>-0.7881</td>
<td>0.2918</td>
<td>-2.701</td>
</tr>
</tbody>
</table>

The results of the reduced logit analyses indicate that stock exchange membership, with a t-score of 8.309 (Table XVII) and client size with a t-score of 6.651 (Table XVIII) were significant at the .05 level. The significance of both these variables in the model could not be ignored. The size and stock exchange membership interaction were further classified into the following four variables:

NYB: listed on the NYSE and is big.

OTCS: included in OTC markets and is small.

NYS: listed on the NYSE and is small.

OTCB: included in OTC markets and is big.

Only two out of the two hundred corporations were listed on the NYSE and were considered small by size, while seven corporations were included in OTC markets and were considered big by size. Hence, a four way interaction would not add to the explanatory power, because the variables NYS and OTCB were insignificant in the total sample.
Multicollinearity Among The Variables

The independent variables used in this model could have been affected by multicollinearity and bias the resulting coefficients. The correlation matrix for the full model presented in Table XIX shows that while there is some multicollinearity, none of the correlations appeared to be high enough to cause concern.

### TABLE XIX

**CORRELATION MATRIX - FULL MODEL**

<table>
<thead>
<tr>
<th></th>
<th>CHAMAG</th>
<th>QUAL</th>
<th>BIG8</th>
<th>SSIZE</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHAMAG</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>QUAL</td>
<td>-0.361</td>
<td>1.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BIG8</td>
<td>-0.012</td>
<td>-0.057</td>
<td>1.000</td>
<td></td>
</tr>
<tr>
<td>SSIZE</td>
<td>-0.127</td>
<td>0.042</td>
<td>-0.068</td>
<td>1.000</td>
</tr>
</tbody>
</table>

**Reduced Model**

Since the highest correlation (-0.361) was between change in CEO and audit report qualification, the logit analyses was repeated by a reduced model omitting the variable change in management (CHAMAG), the coefficient for which was found to be insignificant in the full model. The reduced model included the variables, audit firm size, audit report qualification and the transformed variable (SSIZE) for stock exchange membership and client size. The
resulting statistical estimators are presented in Table XX. The results indicate that the coefficients changed very little for each of the variables when compared with the results from the full model, and the t-scores remain significant at the 0.05 level. The goodness of fit for the full and reduced models did not change. These results could be interpreted as follows: (1) the variable change in management does not have adequate explanatory power; (2) the multicollinearity between the variables audit report qualification and change in CEO did not bias the coefficients associated with each independent variable. The results of the full and reduced models confirmed the significant association between the dependent variable, auditor changes and the independent variables audit report qualification, audit firm size, client size and stock exchange membership.
TABLE XX
LOGIT ANALYSIS - REDUCED MODEL

<table>
<thead>
<tr>
<th>Term</th>
<th>Coefficient</th>
<th>Standard Error</th>
<th>Coeff/S.E.</th>
</tr>
</thead>
<tbody>
<tr>
<td>QUAL</td>
<td>0.9147</td>
<td>0.4072</td>
<td>2.246</td>
</tr>
<tr>
<td>BIG8</td>
<td>-0.7883</td>
<td>0.2918</td>
<td>-2.702</td>
</tr>
<tr>
<td>SSIZE</td>
<td>2.1739</td>
<td>0.3245</td>
<td>6.699</td>
</tr>
</tbody>
</table>

Log Likelihood Ratio = -63.250

Goodness of Fit of the Models

The question remains as to which of these various combinations of logit models provided the best fit. The log likelihood ratio estimated by the maximum likelihood analyses of the logit procedure was used to test the best fit of each model. A very large log likelihood ratio implies a bad fit. However, the present research was guided by theory and explicit apriori hypotheses about the relationship among the variables, and the models were tested keeping this aspect in mind. Knoke and Burke [1982] suggest that one can start with a simple model and successfully add increasingly complex interaction terms until an acceptable fit is obtained. Therefore, to find a good model that would explain the audit firm change process, several combinations
of the model of audit firm change were analyzed. The results are shown in Table XXI.

<table>
<thead>
<tr>
<th>Model No.</th>
<th>Variables in The Model</th>
<th>Log-Likelihood Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>STEX</td>
<td>-45.273</td>
</tr>
<tr>
<td>2.</td>
<td>CSIZE</td>
<td>-69.629</td>
</tr>
<tr>
<td>3.</td>
<td>BIG8</td>
<td>-124.005</td>
</tr>
<tr>
<td>4.</td>
<td>CHAMAG</td>
<td>-134.809</td>
</tr>
<tr>
<td>5.</td>
<td>QUAL</td>
<td>-119.991</td>
</tr>
<tr>
<td>6.</td>
<td>SSIZE</td>
<td>-69.629</td>
</tr>
<tr>
<td>7.</td>
<td>STEX, QUAL</td>
<td>-43.051</td>
</tr>
<tr>
<td>8.</td>
<td>SSIZE, BIG8</td>
<td>-65.898</td>
</tr>
<tr>
<td>9.</td>
<td>QUAL, BIG8, SSIZE</td>
<td>-63.250</td>
</tr>
<tr>
<td>10.</td>
<td>CHAMAG, QUAL, BIG8, CSIZE</td>
<td>-63.250</td>
</tr>
<tr>
<td>11.</td>
<td>CHAMAG, QUAL, BIG8, SSIZE</td>
<td>-63.250</td>
</tr>
<tr>
<td>12.</td>
<td>SSIZE, BIG8, QUAL</td>
<td>-63.250</td>
</tr>
</tbody>
</table>

An examination of the table indicates that the log likelihood ratio varied from -43.0519 to -134.809. Models 1
and 7 with low likelihood ratios were unacceptable because the variables included in the model, i.e. stock exchange membership and/or audit report qualification were insufficient to explain auditor-client relationship. Models 9, 10, 11 and 12 all had the same likelihood ratios and any one of them could have been fitted as the best model. However, model 9 which included the variables, audit report qualification, audit firm size and the interaction between the variables, client size and stock exchange membership, was considered the best fitting model because of the theoretical support that could be provided for the inclusion of these variables.

Comparison of MDS and Logit Analysis Results

The present research used two distinctive statistical approaches to test the model. Nevertheless, the results obtained from both approaches should be consistent with each other, if the theoretical constructs are sound. The association of each independent variable with the dependent variable and, among the independent variables, as denoted by the stimulus coordinates from the MDS procedure and by the t-scores from the logit approach, should complement each other. Table XXII shows the results of a comparison of the estimators from these two procedures.

Stock exchange listing had the highest statistical estimator under both approaches (0.8403 and 8.309), followed
TABLE XXII
COMPARISON OF MDS AND LOGIT RESULTS

<table>
<thead>
<tr>
<th>Variable Name</th>
<th>Stimulus Coordinates</th>
<th>Coeff./Std. Error Using Logit Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>STOCK EXCHANGE</td>
<td>0.8403</td>
<td>8.309</td>
</tr>
<tr>
<td>CHANGE IN MANAGEMENT</td>
<td>0.1011</td>
<td>-0.489</td>
</tr>
<tr>
<td>REPORT QUALIFICATION</td>
<td>0.3738</td>
<td>2.109</td>
</tr>
<tr>
<td>AUDIT-FIRM SIZE</td>
<td>-1.2418</td>
<td>-2.701</td>
</tr>
<tr>
<td>CLIENT SIZE</td>
<td>0.7707</td>
<td>6.651</td>
</tr>
</tbody>
</table>

by audit report qualification, audit firm size, client size and change in management, respectively. Audit-firm size had negative estimators (-1.2418 and -2.701) under both MDS and Logit approaches. The results are consistent with one another, and with the theory.
Test of Hypotheses

The results of the analyses using MDS and logit analyses formed the basis for the test of the five hypotheses discussed in Chapter IV.

**Hypothesis 1**

Hypothesis 1: There is no significant difference in attributes between corporations that changed their auditors and firms that did not change their auditors.

This hypothesis implied that the independent variables used in the model could be associated differently with audit firm changers and non-changers. The attributes associated with audit firm changers were expected to be identified by a test of this hypothesis. Hypothesis 1 was very important, because if the audit firm changers and non-changers did not differ in their characteristics or attributes, the theory would have no empirical support. The model would have been untenable and no further hypothesis could be tested. The results of the MDS analyses presented in Figure 2 on page 106 exhibits clearly distinguishable characteristics associated with audit firm changers. The stimulus coordinates support the visual configurations. Hypothesis 1 was therefore rejected and it was concluded that discernible differences do exist between corporations that changed their auditors and corporations that did not change their auditors.
Hypothesis 2

Hypothesis 2: Audit report qualifications are not significantly associated with management's propensity to change the firm's auditors.

This hypothesis tests the significance of association between audit report qualification and the propensity of management of corporations who received such qualified opinion to change the audit firm in the following year. The results of the logit analyses presented in Table XX indicate that the variable audit report qualification was significant (t-score of 2.109) at the .05 level and hypothesis 2 was therefore rejected. Qualifying the opinion on the financial statements is a power resource held by auditors. Nevertheless, the management of corporations who received qualified opinion, also may exercise authority by their ability to terminate the audit contract. Rejection of hypothesis 2 tends to support the contention that a firm's management may be induced to change their audit firm following the issuance of a qualified opinion by the auditors.

Hypothesis 3

Hypothesis 3: The size of the client firm and the size of the audit firm have no significant influence on the fact that the firm has changed auditors.

This hypothesis was related to size - size of a client corporation and size of an audit firm. Size is a power resource that may be held by both parties or by either of
them. If the size of a corporation and its audit firm did not match, it would imply the presence of power asymmetry in an auditor-client relationship. Size is also associated with reputation and prestige. The logit analyses results presented in Table XX (SSIZE with a t-score of 6.651 and BIG8 with a t-score of -2.701 being significant) leads to the rejection of both these hypotheses. The negative sign for the size variable audit firm size (BIG8) and positive sign for the size variable CSIZE indicate that these two power resources act in opposite directions. Power theory suggests this relationship and the results are consistent with the power theory.

**Hypothesis 4**

**Hypothesis 4**: There is no significant association between stock exchange membership of the firm and auditor changes.

The membership in a stock exchange could reveal the presence of power resources such as prestige or reputation and also indicate the indirect influence brought on by third parties such as the stock exchange or the Securities and Exchange Commission. The stock exchanges may indirectly influence the management of a corporation to select an audit firm that has national reputation or an audit firm whose auditors have acquired expertise in auditing specific industries. The attestation by such an audit firm may be considered to provide greater credibility to the financial
statements. Auditors, who audit companies listed on the NYSE or AMEX may derive more legitimacy and power than auditors who audit companies not listed in national exchanges. Stock exchange membership may limit the management's power to frequently change their auditors. Management of corporations listed on regional exchanges or OTC markets on the other hand, may select an audit firm, because of the view that association with certain audit firms is in their best interests. The variable stock exchange membership, when used individually (Table XVII) and as a transformed variable (SSIZE in Table XX), was significant at the .05 level. The results support the view that stock exchange membership may have an impact on the decisions of a management of a corporation during selection of an audit firm for their corporation. Hypothesis 4 was therefore rejected and stock exchange membership was considered significantly associated with audit firm selections.

**Hypothesis 5**

Hypothesis 5: Management changes (CEO change) have no influence on the likelihood of an accounting firm being changed.

Change in a company's CEO can theoretically lead to a conflict of interest between auditors and client. The new CEO may not wish to be associated with auditors connected with the previous management. However, the results of the
logit analyses show that the estimator for this variable was only 0.4892 and was not significant. Hypothesis 5 was therefore not rejected. While some corporations may change their audit firm when a new CEO is appointed, the change in CEO was not considered a significant factor in audit firm selections.

Summary

The results of the research are presented in this chapter. The results are discussed in four sections; power resources, asymmetrical power relations, characteristics of audit firm changers, and test of the power model.

Tables I through XXII present different classifications, relationship and estimators of the data analyses. Figures 2 through 5 present the results of the MDS procedure. The significance of each analyses and relationship among variables is briefly discussed. Chapter VI discusses in detail the inferences and conclusions that are to be drawn from this research.
CHAPTER BIBLIOGRAPHY


"Registrants Must Disclose if Auditor Change was Confirmed by Outside Audit Committee," The Journal of Accountancy (July, 1978), p. 10.


CHAPTER VI

SUMMARY AND CONCLUSIONS

The purpose of this chapter is to summarize the objectives of the current research and the conclusions formed, based on the data analyses results discussed in Chapter V, to examine the implications of the results on auditor selections, and to offer suggestions for possible extensions of this research.

Summary

Since 1971, there has been considerable interest generated by perceived potential conflicts of interest between a company’s management and their independent auditors. The Securities and Exchange Commission, audit practitioners, academics, and the investing community have indicated concern over auditor changes resulting from management/auditor disagreements. The SEC imposed mandatory reporting procedures requiring disclosure of disagreements when associated with auditor changes. The Commission believed that these disclosure requirements would discourage companies from changing the principal auditor merely to obtain concessions in accounting treatment.

In an attempt to understand audit firm changes, several researchers examined the association between audit firm
changers, and issuance of qualified opinions, management changes, mergers, financial distress, as well as reported disagreements. However, prior research resulted in inconsistent findings. Therefore, the current research was undertaken with the objective of developing a theoretical model of the auditor change process in order to specify variables that might be expected to have an impact on auditor changes.

Goldman and Barlev [1974] and Nichols and Price [1976] considered the auditor-client relationship as a power relationship between two parties with differing objectives that are possibly contradictory and mutually exclusive. The authors posited that this created power asymmetry between an auditor and client and this weakened the auditor's ability to exercise freely his/her professional judgement. This study was designed to provide analytical evidence on the role of power in an auditor-client relationship and the validity of Wrong's power model in explaining audit firm changes.

Dahl [1967, 1976] argued that to understand the role of power, researchers should examine the distribution of power among the various parties. Wrong [1979], classified these power sources as force, manipulation, persuasion and authority. The present research examined the role of authority existing in an auditor and client relationship.
In an auditor-client relationship, management of a corporation may derive their power from the size of their corporation, their ability to choose the auditor from a large group of professionals, and the extent of revenues the auditors derive from the audit of their corporation. The auditors derive power from the national reputation of their audit firm, expertise in auditing specific industries, and their ability in providing credibility to management prepared financial statements. The identification of these various power sources, their strength, and direction should determine if a power asymmetry exists and what its impact is on the auditor-client relationship. In particular, how these power resources influence audit firm selections should in turn lead to an understanding of the differences that exist between corporations that changed audit firms and corporations that did not change audit firms. In the current research, the decision to change the present CPA firm or not to change the CPA firm were labeled as "Auditor Changes" and used as the dependent variable to be examined in order to gain an understanding of how conflicting power resources between an auditor and clients were associated with an audit firm choice process.

After reviewing prior literature on auditor-changes as well as the literature on power conflicts and agency costs, the researcher identified the criteria (or power resources)
involved in modeling the auditor-client relationship and
used these criteria as the independent variables in the
model. These independent variables were discussed and
presented in Chapter IV as they relate to the general
categories of the proposed Wrongs' power model.

The research design was developed and the methodology
for further research was delineated on the basis of the
theoretical model. Two hundred corporations that had an
equal number of audit firm changers and non-changers were
identified as the sample for analyses. Data on the
independent variables were obtained from secondary sources
using the criteria discussed in Chapter V.

Data collected on the dependent and independent
variables were analyzed using the MDS-ALSCAL algorithm and
logit analyses. Data analyses results were reported under
the sections: power resources, asymmetrical power relations,
characteristics of audit firm changers, and test of the
power model, respectively. The results were presented in
Chapter V and reported in Tables II through XXIII and
Figures 2 through 5. The significance of each independent
variable in explaining the auditor-client power relationship
and the strength and direction of the relationship of each
independent variable to "Auditor Changes" were indicated by
the asymptotic t-scores, stimulus coordinates and chi-square
values shown in the tables under each section. A discussion
on multicollinearity among variables, and interaction among two or more variables also was presented in Chapter V.

Conclusions

The data analyses resulted in the following conclusions. Comparison to prior studies also are made where appropriate.

**Characteristics of Audit-Firm Changers**

The first research hypothesis tested dealt with the attributes that were associated with audit firm changers. The results of MDS analyses presented in Figures 2 through 5 reveal that characteristic differences do exist between audit firm changers and non-changers. The nearness of the variable, audit report qualification to audit firm changers indicates that qualifying the opinion on the financial statements can lead to conflicts between auditors and management of corporations. Small corporations listed primarily in OTC markets, appeared to be best able to resist issuance of a qualified opinion. This may be due to the restrictions imposed by stock exchanges on corporations as a condition for listing and the disclosure regulations imposed by the SEC. The regulatory environment appears to restrict management power and strengthen the auditor's legitimate authority and independence.
Auditor and Client Power Resources

The existence, magnitude, and direction of the power resources at the command of the auditor and their clients were tested by hypotheses 2 through 5. The first research question tested was the relevance of the "power model" in explaining auditor changes. The results of the full model (Table XVI) and the reduced model (Table XX) indicate that the model had explanatory power. All the independent variables, except management changes, were significantly associated with "Auditor Changes". The association of explanatory variables identified by the power theory point to the presence of conflicts and differences in objectives between clients and auditors.

Test of hypothesis 2 found significant association between the type of opinion rendered by an auditor and the change of an audit firm. Small companies, in particular, appeared to change their audit firm following the issuance of a qualified opinion. These results corroborate the earlier findings of Coe and Palmon [1980] and Chow and Rice [1982] who found that small companies were more likely to change auditors following a qualified opinion.

An auditor is expected to maintain his/her independence. This requires freedom to issue an impartial audit opinion, i.e., without coercion from the client. But the preference of each party, is both difficult to know and
to measure. However, this study indicates that management has an incentive to change auditors following a report qualification. Not unexpectedly, managers prefer unqualified opinions that reflect favorably on their company rather than qualified opinions that reflect unfavorably. The ability to select a new audit firm after issuance of a qualified opinion creates a power asymmetry that favors management. The current research points out that this power is limited when a firm is subjected to regulatory controls. While small firms appear to have coercive and induced authority to change auditors, large companies appear to have less freedom.

The ability to issue qualified opinions is a power resource held by auditors. The results of this study suggest that auditors possess and use this resource. The issuance of qualified opinions indicates that auditors possess power over the audit outcome. Subsequent auditor changes, however, indicate that small audit firms have limited authority. No conclusions were formed regarding the extent of such power held by the auditor. The data on an auditor's preferences during the issuance of an unqualified opinion are not currently available.\(^7\)

\(^7\) To measure the extent and use of such a power by auditors, the preferences an auditor has when issuing an unqualified opinion also must be analyzed and compared with preferences by the auditor during when issuing a qualified opinion.
Significance of Size

Shank [1978] and Shank and Murdock [1978] found that audit outcomes were influenced by factors such as client size and audit firm size. A comparison of the differences in characteristics such as size of audit firms and corporations were examined by test of hypothesis 3 and 4. Both the size of an audit firm and the size of a corporation were found to be significantly related to auditor-changes. Small corporations were found to make audit firm changes more frequently than big corporations and such changes affected non-Big Eight audit firms more than Big Eight audit firms.

Size is a power resource that may be held and used by both management of corporations and auditors. The findings of this study reveal that Fortune 500 corporations were subjected to fewer qualified opinions than companies listed in OTC markets. The results may be indicative of the higher value placed by auditors on the audit of a Fortune 500 client. The less frequent changes of clients associated with Big Eight audit firms and Big Eight dominance of audits of Fortune 500 corporations indicate that an auditor's prestige and reputation are important. Big Eight firms appear to possess such a resource.

Audit-firm size is an important variable in the auditor selection process, because of the artificial barriers
existing in the audit services market. Factors such as the presence of audit committees, perceptions that "bigness" is synonymous with quality and competence, or the business advantage enjoyed by large audit firms, appeared to have an impact on the auditor selection process [Arnett & Danos, (1979); Simunic (1980)]. The presence of these factors during auditor selection should, at least to a limited extent, enhance an auditor's power resources and independence.

Role of Third Parties in Auditor Selection

The auditor-client relationship is sometimes affected by the presence and influence of third parties such as the SEC, financial institutions or stock exchanges. McConnell [1983] found correlations between stock exchange membership and audit firm size. The role of stock exchange membership during audit firm changes was examined in the current research by testing hypothesis 5. OTC listed companies, unlike NYSE listed companies, made significantly more audit firm changes.

Companies, traded in the OTC market are not, generally, subjected to external monitoring arrangements, i.e., outside directors, audit committees, or SEC disclosure requirements. In the absence of such arrangements, the managements of OTC corporations can effect more frequent changes in their audit firms, when they find the present auditors not to their
liking. As Arnett and Danos [1979] remarked, audit committees and sectionalization of AICPA, restrict the choice and frequency of change of auditors. Companies listed on OTC are not hampered by such restrictions. Therefore, this study concludes that the external monitoring devices decrease management's autonomy with respect to auditor changes. The barriers created by the SEC, financial institutions, audit committees, etc., should narrow the power asymmetry between management and auditors and increase the auditor's independence.

Most NYSE listed companies were found to be audited by Big Eight audit firms. Arnett and Danos [1978] concluded that underwriters and bankers perceived Big Eight audit firms as more competent than smaller audit firms. Therefore, they recommended that corporations employ Big Eight audit firms to increase credibility of the financial statements. Arnett and Danos [1978] assumed that bankers and underwriters believed that increased credibility would be reflected in stock prices. This study does not assume a relationship between quality of audits and audit firm size. While results support the notion that Big Eight audit firms dominate the audits of corporations listed on the NYSE, smaller firms issue a significant percentage of qualified opinions despite the higher probability of dismissal. The power model does indicate that, parties other than
management of a corporation or their auditors, may be involved in determining the selection of an audit firm. Burton and Roberts [1967] found that a change in management as a potential factor that may influence the change of auditors. The results of this study do not support that this factor was statistically significant in explaining audit firm changes.

Implications and Suggestions

Many prior researchers have examined the auditor and client relationship in order to determine if a power asymmetry existed [Loeb, 1972; Nichols and Price, 1976; and Goldman and Barlev, 1974]. The question is important since existence of an asymmetrical power relationship between an auditor and client could impair auditor independence. If such a power asymmetry exists with respect to the auditor selection process then, the viability of independent audits, as society’s primary monitoring device of corporate management, would be open to question.

This research used power theory to examine audit firm changes and the relationship between an auditor and client. The independent variables identified by the power theory pointed to areas in an auditor-client relationship where current knowledge is deficient. Some of the research questions examined led to an understanding of this power relationship and opened vistas for further research.
Most of the prior research on auditor-changes did not provide a theoretical framework to explain the auditor-client relationship during auditor changes. The present research is one of the first serious attempts to explore the theoretical foundations of auditor-client relationships. The data analyses and results supported many of the tenets of power theory. Future investigations should lead to a greater understanding of auditor-client relationships and the need to support or modify existing regulations and professional standards to protect the audit profession's independence.

In the present research, some of the research issues identified were (1) a few of the power resources at the disposal of various parties during auditor changes; (2) the magnitude and impact of such resources; and (3) how these resources varied among different categories of clients. While these issues identified some of the resources in a power relationship, these resources alone are insufficient to explain the whole process of audit firm changes. The cost associated with audit firm changes, skill, motivation, and negotiating capabilities of each party also may have to be examined by future researchers.

The type of audit opinion issued by an auditor points out a power resource held by an auditor. However, the preferences of an auditor during the issuance of an
unqualified opinion or a qualified opinion may differ. The preferences of an auditor, and the role played by parties such as the SEC, or management of a corporation during the issuance of an audit opinion, are not well understood and also need to be examined further.

This study did not examine the specific role played by the SEC, financial institutions, and the stock exchanges. The results of the study only supported the inference, that these regulatory institutions increase auditor's autonomy and limit management's freedom to switch auditors.

The explanatory power variables used in this study are not comprehensive. Other potential power variables such as mergers, the client going public, financial condition, industry classification, etc., may have additional explanatory power and enrich the model used in this study.

The results of this research are preliminary and are based on a limited sample and time span. Hence, it is suggested that further work in this area can lead to a greater understanding of the auditor-client relationship.


"Registrants Must Disclose if Auditor Change was Confirmed by Outside Audit Committee, The Journal of Accountancy (July, 1978), pp. 10.


APPENDIX A

LIST OF CORPORATIONS INCLUDED IN THE SAMPLE

1. Acro Energy Corporation
2. Advanced Micro Devices, Inc.
3. Alabama By Products Corporation
4. Allegheny Beverages Corporation
5. Allegheny International, Inc.
7. Aluminium Co. of America
8. AM International, Inc.
9. Amdahl Corporation
10. Amax, Inc.
11. Amerada Hess Corporation
12. American Bakeries Company
13. American Cytogenetics, Inc.
15. American Fuel Technologies Inc.
16. American Home Products Corporation
17. Ametek, Incorporated
18. Amstead Industries Incorporated
19. Anchor Hocking Corporation
20. Anderson Clayton and Company
22. Aquanautics Corporation
23. Armco, Inc.
25. Arvin Industries, Inc.
26. Ashton-Tate Corporation
27. Atlantic Richfield Company
28. Avery International Corporation
29. AW Computer Systems, Inc.
30. Bairnco Corporation
31. Baker International Corporation
32. Ball Corporation
33. Barden Corporation
34. Barnes Group, Inc.
35. Baxter Travenol Laboratories, Inc.
36. Baystar Petroleum Corporation
37. Bell & Howell Company
38. Bemis Company, Inc.
39. Benedict Nuclear Pharmaceuticals, Inc.
40. BFI Communications Systems, Inc.
41. Big Three Industries, Inc.
42. Biostim, Inc.
43. Bohemia Inc.
44. Bolt Technologies Corporation
45. Bowles Fluidics Corporation
46. Brockway, Inc.
47. Brown-Forman Inc.
48. Brunswick Corporation
49. Brush Creek Mining Development Corporation, Inc.
50. Burroughs Corporation
51. Business Exchange Inc.
52. Cabot Corporation
53. Cadmus Communications Corporation
54. California Engels Mining Co.
55. Cam-Or Inc.
56. Campbell Soup Co.
57. Cancer Diagnostics Inc.
58. Carlisle Corporation
59. CBI Industries, Inc.
60. Centcor Inc.
61. Cibola Energy Corporation
62. Coastal Corporation
63. Codercard Inc.
64. Coelco, Ltd.
65. Colorado Gold & Silver, Inc.
67. Computer Entry Systems Corporation
68. Computer Networks Corporation
69. Computervision Corporation
70. Cooper Industries, Inc.
71. Crown Cork & Seal Co., Inc.
72. Crown Zellerbach Corporation
73. Cyclops Corporation
74. Cyamaticolor Corporation
75. Dayco Corporation
76. Deere & Company
77. Devry Inc.
78. Dexter Corporation
79. Diversified Technologies, Inc.
80. DOL Resources, Inc.
81. Dorsey Corporation
82. Dover Corporation
83. Eastman Kodak Co.
84. Eaton Corporation
85. Econo-Therm Energy Systems Corporation
86. Edudata Corporation
87. Engraph, Inc.
88. Envirossearch Corporation
89. Equinox Solar, Inc.
90. Ethyl Corporation.
91. Excalibur Technologies Corporation
92. Falcon Products, Inc.
93. Falstaff Brewing Corporation
94. Federal-Mogul Corporation
95. Ferro Corporation
96. Flamemaster Corporation
97. FMC Corporation
98. Foxboro Company
99. Fruehauf Inc.
100. Gannett Co., Inc.
101. General Instruments Corporation
102. Gifford-Hill and Co., Inc.
103. Gillette Company
104. Goodyear Tire & Rubber Co.
105. Gould Inc.
106. Grace (W.R.) & Co., Inc.
108. Gulf Nuclear, Inc.
109. Gull Inc.
110. Hadco Corporation
111. Hadron Inc.
112. Halifax Engineering, Inc.
113. Hallman Data Systems, Inc.
114. Hammermill Paper Co.
115. Hercules Inc.
116. Hillenbrand Industries, Inc.
117. Illinois Tool Works, Inc.
118. Industrial Electronic Hardware Corporation
119. Infisy Systems, Inc.
120. Interlab Robotics, Inc.
121. Invacare Corporation
122. Joy Manufacturing Company
123. Kellet Corporation
124. Koppers Co., Inc.
125. Koss Corporation
126. Laclede Steel Co.
127. Lee Pharmaceuticals
128. Legget & Platt, Inc.
129. Lewis Galoob Toys, Inc.
130. Loch Exploration Inc.
131. Lone Star Industries, Inc.
132. Macmillan, Inc.
133. Marquest Medical Products, Inc.
134. McCormick and Company, Inc.
135. MCR Associates, Inc.
136. Mead Corporation
137. Meredith Corporation
138. Metro-Tel Corporation
139. Midland South West Corporation
140. Mohasco Corporation
141. Monsanto Company
142. Moxie Industries, Inc.
143. National Business Corporation
144. Neodontics, Inc.
145. Neutrogena Corporation
146. Norris Oil Co.
147. Norton Company
148. Nova Petroleum Corporation
149. Occidental Petroleum Corporation
150. Osmonics, Inc.
151. Outboard Marine Corporation
152. Oxford Industries, Inc.
153. Pacific Resources Inc.
154. Pasquale Food Co., Inc.
155. Pastabalities Food Service Corporation
156. Patton Oil Co.
157. Pennwalt Corporation
158. PepsiCo., Inc.
159. Pettibone Corporation
160. Phone Mate Inc.
161. Photographic Sciences Corporation
162. Piezo Electric Products Inc.
163. Potlatch Corporation
164. Power Resources Corporation
165. Precision Technologies
166. Preway, Inc.
167. Pro-Cel International, Inc.
168. Ralston Purina Company
169. Raychem Corporation
170. Republic Resources, Inc.
171. Rubbermaid Inc.
173. Saxton Products Inc.
174. Scott Paper Corporation
175. Seagram & Sons, Inc.
176. Sovereign Chemicals
177. Space Microlabs.
178. Sperry Corporation
179. Target Oil
180. Teledyne Inc.
181. Teledyne Corporation
182. Texas Oil & Gas Corporation
183. Times-Mirror Company
184. Timken Company
185. Top Air Manufacturing, Inc.
186. TPEX Exploration, Inc.
188. Transcontinental Energy Corporation
189. Transducer Systems, Inc.
190. Trinity Industries, Inc.
191. Tyler Corporation
192. Union Carbide Corporation
193. Velo-Blind, Inc.
194. Veta Grande Companies, Inc.
195. Walbro Corporation
196. Wang Laboratories, Inc.
197. Warnaco Incorporated
198. Washington Post Company
199. Witco Chemical Corporation
200. Wrigley (Wm.) Jr. Company
APPENDIX B

LIST OF VARIABLES USED IN VARIOUS ANALYSES

CHAMAG: A change in the company’s CEO during the period under study.

QUAL: The type of opinion issued by the auditor’s on a corporation’s financial statements.

BIG8: The size of the audit firm.

CSIZE: The size of the corporation.

STEX: The stock exchange in which the corporation is a member.

OLDA: Name of the predecessor audit firm.

NEWA: Name of the successor audit firm.

CHANF: A corporation had a change in its audit firm.

NCHANF: A corporation did not have a change in its audit firm.

NON8: The audit firm belonged to a non-Big Eight category

AA: Arthur Anderson & Co.

AY: Arthur Young & Co.

CL: Coopers & Lybrand & Co.

DHS: Deloitte, Haskins & Sells.

EW: Ernest & Whinney

PMM: Peat, Marvick, and Mitchell.

PW: Price Waterhouse & Co.

TR: Touche Ross & Co.


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