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PUBLIC ACCOUNTANTS AND SECURITY ANALYSTS.

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DISCLOSURE:

A STUDY OF THE CONSENSUS AMONG PUBLIC
ACCOUNTANTS AND SECURITY ANALYSTS

DISSERTATION

Presented in Partial Fulfillment of
the Requirements for the Degree
Doctor of Philosophy in the
Graduate School of the Ohio
State University

By

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* * * * *

The Ohio State University

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INTRODUCTION

The purpose of the present study is to provide a piece of empirical evidence bearing on the question of adequacy of disclosure in published corporate annual reports. More specifically it examines whether the 'user' and the 'preparer' groups have any consensus on the value of disclosed information. Accounting literature contends that accounting information is useful to the extent it serves the end in view (Paton, 1922, p. 472; Moonitz, 1961, pp. 4, 8, 21-22; ASOBAT, p. 8). Investors and their counselors are major external users of corporate reports and there is not much controversy on the fact that corporate reports are prepared primarily with the major users in mind (Moonitz, 1961, pp. 9-10; Hendricksen, 1970, p. 561). The argument implies that those who are responsible for preparing such reports know what the users of corporate reports look for and what their information requirements are.¹

¹This has been very nicely put forward in the ASOBAT in the following words:

"Because of the great value of accounting information to external users, and because we have some knowledge of many users' need, it is possible to develop significant accounting information even though the precise and total needs of each user for each decision are unknown.until much more is known of the behavioral characteristics of external users, accounting information must be developed from a broad and imprecise understanding of the informational needs of external users" (ASOBAT, p. 20).

This brings forth two points clearly: one, the accountants have some knowledge (may be approximate) of the user needs and two, it emphasizes the need for more research in this area.

The proposed study deals with only one aspect of "disclosure" in the corporate financial statements. Our interest is in the information content of financial statements which a corporation annually releases to the public. Precisely, we would like to examine whether those who attest the corporate reports and those who use such reports -- the certified public accountants and the security analysts, in brief -- have any kind of consensus on what need be disclosed in corporate reports. Both the accounting and security analyst professions often claim or at least imply by their statements that they know what investors -- the major users of corporate reports -- look for in published corporate annual reports. Literature in Accounting and Security Analysis presents no evidence as to what extent accountants agree or disagree with the security analysts on users' information requirements.

A study of the proposed nature would be a step forward in the open ended controversy of "fuller", "fair" and "adequate" disclosure in corporate reporting. Once a consensus could be established between the two professional groups, further steps could be taken to ensure the desired effect. In the following pages an attempt will be made to outline the need, methodology and implications of such a study and a few hypotheses will be tested accordingly.

CHAPTER I
THE PROBLEM AND THE PLAN

Introduction

This chapter will present the problem, its implications, the hypotheses to be tested, the definitions of the terms to be used, a brief outline of the research design and the objectives of the study.

Objectives of Corporate Reporting

Standards of reporting on economic entities are determined largely by the objectives such entities carry out in the environment in which they operate. In a free enterprise economy many of these objectives emanate from the values which the major social groups try to hold. In societies committed to democratic principles, both public and private institutions work with a system of checks and balances (Rappaport, October, 1964). In public institutions, say in a two party system of government, two factors prompt the people in power to render an account of their stewardship to the public at large: public trust and fear. Being in a fiduciary position and holding trust of the public funds, statutes often require the power group to account for the use of the funds. The objective is to ensure that public funds are used for only authorized purposes. Fear emanates from the possibility of losing to the opposition in the next election if the present power group did not live up to its promises or the opposition group promises a better deal.

It is no sheer coincidence that the private governments -- privately owned large corporations -- also function under similar checks and balances. For they are only an extension of democratic principles to private affairs where interests of many members of society are involved. In the past when family owned small corporations dominated the scene, shareholders could protect their own interests. They had both the capability and the desire to understand the affairs of the corporation. However, with the growth of corporation in size and complexity and the wide distribution of stock ownership, the reality of self-protection has become a fiction. Only the informed and powerful stockholders can fend for themselves (Baum and Stiles, 1965, pp. 11, 155). Stockholders away from the scene and with small holdings are in a precarious situation. They depend on the trusteeship of the management and legal safeguards for protection of their interests in large corporations. Through corporate reports the management tries not only to account for what it has done with the entrusted funds but tries to win also the support of the investors as evidenced by the re-election of the same team of management, approval of its policies, keeping the investment in the same firm and attracting new investors (most of which is, generally, reflected in a rising price/earning ratio).

Arguments may be raised endlessly as to which of these two objectives of reporting -- 'stewardship' or 'information for decision making' -- dominates corporate reporting. Judged from the current practice of communication between the corporations and their stockholders, it can be contended that the present financial statements serve both

these objectives (ASOBAT, pp. 5, 21-22, 25-26; Moonitz, 1961, pp. 8, 10). Howsoever inadequate they may be, at present, they are the only major communication between the scattered stockholders and the corporate management (Bevis, 1965, pp. 45-46).

Whom to report to?

The answer to this question is clearly given in the Accounting literature. Subject to the overall obligations to the government of the land, corporate management's primary responsibility is to the owners of the enterprise and it is for this group that corporations prepare their reports primarily (Bevis, 1965, p. 43). This does neither deny others to use the statements nor corporations completely ignore others' interests in reporting. It is generally assumed that the information useful to investors and creditors is also useful to others. It appears that the objectives of presenting information to employees, customers and the so called other users have not been well formulated (Hendricksen, 1970, p. 559).

Disclosure

Webster's New Collegiate Dictionary gives the following meanings of the word disclosure: "to uncover and expose to view; to make known; to reveal". Disclosure involves communication of events affecting the reporting entity. It is the process through which an economic entity communicates with the outside world. In a free enterprise economy where most of the economic activity revolves around large joint stock corporations, corporate financial statements are the major vehicle of communication between the corporate managers and the owners. Corporate

reports communicate the economic events that affected the corporate entity in the period under review. In fact, "accounting" has developed out of this special situation. In the early days of industrial revolution when the size of business operations was small and the investment requirements of business were limited, small owner controlled and managed enterprises dominated the industrial scene. There was, probably, not much need for accounting reports then. The owner could keep a close watch on his business. In the present day, however, operations are so large and diverse and investment requirements so immense that a family or handful of people can hardly meet the dual requirements of investment and management. The concept of the modern corporation has grown with the philosophy that a large number of people contribute to the capital of a corporation, assume limited liability and delegate the power of transacting business to a chosen few who manage -- and in many cases control -- the corporation. This phenomenon of separation between ownership and control is, in fact, nothing more than an example of specialization of functions, the object of which is to do things more efficiently than before (thanks to Adam Smith for pointing it out) (Chambers, 1967, p. 36). Most stock owners have no desire, resources or time to take an active part in the management of their corporations. Annual reports and dividend checks are all they receive or care for and on that basis they decide whether to hold, buy or sell stocks in a corporation (Baum and Stiles, 1965, pp. 16, 155-156, 162).

The significance of proper disclosure can be fully realized only in the context of a free enterprise economy where market allocates the resources to different sectors of the economy on the basis of their

relative productivity. Needless to say, the rate of economic growth of a nation depends on such an allocation. The mechanism which allocates these capital resources can itself play an important economic role and that mechanism operates through the securities markets (Baumol, 1965). They provide a constant means of investment for savings in free nations. Information on uses of capital and the return therefrom helps build a strong and competitive market for securities and forms the basis for investors' decisions. Investors and their counselors (i.e., the securities analysts) review and analyze such information and decide which way to direct their savings. Fuller and freer information on economic entities in such an economy can only help make a better and more competitive capital market. Disclosure of information on economic events affecting the concerned entities may not only build a better capital market and attract more savings but may also lead to a better allocation of capital resources. Indeed availability of information on investment opportunities is one of the prerequisites for the efficient functioning of a competitive securities market. "In fact, without assurance of reliable economic data, the remote investor or creditor probably would not supply capital to the enterprise" (Bevis, February, 1962, p. 31).

Present State of Disclosure in Corporate Reports

Dissatisfaction with the present state of corporate disclosure has been frequently expressed in both Accounting and Security Analysis literature. The accounting profession has often been accused

of inadequate and unsatisfactory disclosure practices.¹ The security analysts going beyond the normal channels of gathering information on corporations and the diminishing reliance of investors on corporate reports for investment decisions also reflect this dissatisfaction (Singhvi, July, 1968; Anderson, 1967, p. 99).² Criticism of the accounting profession from within is, no doubt, healthy but only reinforces the users' dissatisfaction (Spacek, 1969, p. 332). Corporations did not like to disclose much in the past and whatever one can see in the corporate reports at present has been due much to the

¹A long list of such journal articles and papers can be cited here. See Anderson, 1967; Chambers, September, 1965; Horngren, October, 1957; Norr, December, 1966; Singhvi, July, 1968. A good idea of the extent to which this dissatisfaction prevails among the various parties concerned with the corporate reports can be had from the papers presented at the Symposium on Corporate Financial Report held in New Jersey at the Seaview Country Club on November 7 and 8, 1968. Four leading professional organizations, namely, the American Institute of Certified Public Accountants, the Financial Analysts Federation, the Financial Executives Institute, and the Robert Morris Associates representing national association of Bank Loan Officers; and Accounting Professors participated in the Symposium. The proceedings and papers presented at the Symposium are published by the American Institute of Certified Public Accountants under John C. Burton's editorship. See specially the papers of William C. Norby, and Charles T. McGarraugh, (Burton, 1969, pp. 97-111, 112-125).

²An idea as to what extent security analysts go out and try to gather privileged information can be had from the Security and Exchange Commission's administrative proceedings against Merrill Lynch, Pierce, Fenner and Smith, Inc. -- nation's largest security analysts firm. The Commission charged Merrill Lynch for violations of anti-fraud provisions of Federal securities laws. Allegedly, the firm disclosed to large institutional investors non-public information about declining earnings of a company, causing these investors to sell the stock, while small customers who were buying or holding that stock were not given the same information. Apparently Merrill Lynch managed to obtain non-public information because of their resources and influence which many others cannot obtain (Savoie, March-April, 1969, p. 47).

passage of Securities Act in 1933 (Baum and Stiles, 1965, p. 7; Graham, Dodd and Cottle, 1962, p. 24).³ Much of the blame for the pre-1929 boom and the following bust in securities prices could be put on the multiplicity and sometimes arbitrary accounting and disclosure practices. The 1929 economic depression dramatized the need for protecting investors' interests in corporations through proper accounting. Accordingly the Securities and Exchange Act was enacted in 1934 and the Securities and Exchange Commission was established in that year for the specific purpose of ensuring proper disclosure of information to the investors.

The Securities Act has often been described as a disclosure statute (Rappaport, 1959, p. 4) and its long title reads: "An Act To Provide Full And Fair Disclosure Of The Character Of Securities Sold In The Interstate And Foreign Commerce And Through The Mails And To Prevent Frauds In The Sale Thereof, etc...". The significance of disclosure in corporate reports can be well imagined from the

³Corliss D. Anderson, while reflecting his long experience in the security analysis, once observed: "We were lucky in those days to see an audited balance sheet; the income accounts were as brief as today's mini-skirt. As Carman Blough has told this Seminar, when the Securities and Exchange Commission in 1935 required listed companies to file income accounts which disclosed sales and cost of sales data, over 600 of the 2500 companies refused to make this information public, and filed confidentially under a rule which allowed this. Soon the requirement was mandatory.

"The registration of securities with the S.E.C., especially new issues, opened the door to disclosure" (Anderson, 1967, pp. 98-99).

following statement made in the course of a report:

Disclosure is the cornerstone of federal regulation of securities. It is the great safeguard that governs the conduct of corporate managements in many of their activities. It is the best bulwark against reckless corporate publicity and irresponsible recommendation and sale of securities (S.E.C., April, 1963, p. 20).

There is no denying the fact that the S.E.C. has brought about some improvements in corporate reporting, but the rate of progress has been extremely slow, principally due to its reliance on the initiative of the accounting profession itself. Professions often have a vested interest in the status quo. Sheer good intentions do not bring about well meaning changes in deep rooted practices. The accounting profession has also, probably, suffered from the same weakness (Spacek, 1969, p. 331). The growth in the multiplicity of generally accepted accounting principles (GAPP) and the investors' problems can be well imagined from the following example. Raymond Chambers quotes that there are 8190 ways of obtaining a figure 'cost of market whichever is lower' following GAPP. Even this is a conservative estimate (Chambers, September, 1965, pp. 14-15). But the problem does not end here. No doubt most corporations disclose the method of inventory valuation, however, "mixed bases" occur in an overwhelming majority of cases (AICPA, 1969, p. 40). Chambers continues,

The characteristic feature of all mixed bases is that they do not disclose which of the alternatives has in fact been used; note that every basis here listed contains 'or',

(say cost "or" market which ever is lower).
.... What is a user to make of such a
statement? Mixed bases are nothing
more than instruments of non-disclosure
(Chambers, September, 1965, p. 17).

It is rather strange that even on such key words as "generally accepted accounting principles", we do not have a common understanding between and among professional accountants, financial analysts and academicians (Briloff, 1967, pp. 219-230). In a recent symposium on financial reporting one participant minced no words when he said that the auditing firm is hired by and is reporting to management rather than to stockholders. Although management asks the shareholders to vote on the appointment of auditors, but this is merely a formality. He further observed:

If accounting principles and "nature of things" continue to be diverse then let's spell out the principles, reveal the diversities (in dollars) and perhaps the financial people can put them together again for investor use (Anderson, 1967, pp. 108-109).

These observations are nothing short of an indictment of a profession whose very existence depends on the usefulness of the product it turns out and the trust users of its product repose in it. Such a charge cannot be brushed aside lightly, considering the contributions accounting has made to the growth of free enterprise economy and the potential it has for furthering the

economic wellbeing of the people.⁴

Implications of Inadequate Disclosure

Maurice Moonitz postulates that financial statements are useful because, "Quantitative data are helpful in making rational economic decisions, i.e., in making choices among alternatives so that actions are correctly related to consequences" (Moonitz, 1961, p. 21). Accounting provides data needed for decision making -- both operational decisions taken by the management within the firm and the investment decisions taken by the investors vis a vis the firm. Since our objective in the present inquiry is limited to external uses of the accounting data, we shall confine our comments to only external reports of the corporations.

While corporate reports may have an historical perspective, the value of those reports cannot be judged solely by the accuracy with which they reflect the past when a particular transaction took place and affected the entity. Investment decisions, like other decisions concern the future and investors are interested in the past information to the extent it can be used to reveal or predict

⁴Yuji Ijiri very aptly concluded his recent treatise, The Foundations of Accounting Measurement, with the following words: "Just as culture affects and is affected by language, business affects and is affected by accounting. In fact, capitalism without accounting is simply inconceivable" (Ijiri, 1967, p. 165). The last sentence comes from Sombart, who observed: "One can scarcely conceive of capitalism without double-entry book-keeping. They are related as are form and content. It is difficult to decide, however, whether in double-entry book-keeping capitalism provided itself with a tool to make it more effective or whether capitalism derives from the 'sprit' of double-entry book-keeping" (Sombart, 1929, translated in Yamey, 1956, p. 1 and quoted by Ijiri, 1967, p. 165).

the future (ASOBAT, p. 5). In other words information on past is helpful to the extent it helps user make decisions about an uncertain future (Pankoff and Virgil, April, 1970, p. 270). "Usefulness" is a decision oriented concept and usefulness of accounting information can be measured to the extent it helps in predicting future and leads to appropriate investment decisions.

Cost of Ignorance and the Allocation of Resources. Accounting information is the chief means of reducing uncertainty under which the external users of accounting information act (ASOBAT, p. 19). More complete information can help the investor or his counselor know more about a corporation and assess (compare) the investment possibilities more efficiently.

Lack of information signifies a state of ignorance. Inadequate disclosure can affect the cost of capital adversely by way of influencing the price/earnings ratio of a security in the market place. To the extent a corporate report leaves an investor speculating on what is not disclosed, compared with what is disclosed by other similar entities, he is less willing to take risk or will expect a compensation for assuming such a risk. Given inadequately disclosed financial statements, investment decisions would involve more ignorance and speculation on the undisclosed information (assuming the omitted information is either not available anywhere else or is available to only a few in the market). In a competitive market investor would expect a higher return on the stocks of such corporations. This can thin the market for the securities of corporations with inadequate disclosure and affect the price of such securities adversely. For

investor's ignorance can be bought only at a price -- a higher return may be expected on securities of corporations with inadequately disclosed statements.

To sum up, corporations with inadequate disclosure may experience lower securities prices and higher cost of capital in comparison with similar corporations with adequate disclosure. Corporate reports are one of the devices available to a firm to minimize investor's ignorance in corporate investment and bring about a healthy change in the price of its securities and cost of capital (Summers, April, 1968).

In a recent study Benston found a significant relationship between "the rates of change of data found in corporate published reports and the rates of change of stock prices" (Benston, 1967, p. 27). In yet another study Singhvi and Desai found that "the superior quality of disclosure is related on an average with the lower price fluctuations" (Singhvi and Desai, January, 1971, p. 137). These studies have shown that inadequate disclosure can cause unnecessary price dispersions. Stigler writes, "Price dispersion is a manifestation -- and, indeed, it is a measure -- of ignorance in the market" (Stigler, June, 1961, p. 214). Adequate disclosure of corporate information minimizes market ignorance that could cause the market price to reflect the true value of the security. This in turn may narrow the dispersion between the market price and the true value of the security. True or intrinsic value of a security is defined as "that value which is justified by the facts, e.g., assets, earnings, dividends, definite prospects, including the factor of management" (Graham, Dodd and Cottle, 1962, p. 28). On the other

hand, the current market price is the price quoted in market. Dispersion between the market price and true value of a security can be attributed partly to the quality of information. "Investors tend to buy securities at a price which is higher than the intrinsic value, or they sell at the price which is lower than the intrinsic value, for several reasons, and one of the reasons is the lack of information which is necessary to determine the intrinsic value of the security" (Singhvi and Desai, January, 1971, pp. 136-137).

With full disclosure one can expect more scientific investment analysis, less reliance on rumors and manipulative practices (Friend and Herman, October, 1964, p. 391). Given identical intrinsic values of securities, the extent of disclosure can cause wide variations in their market prices which, consequently, could affect the cost of capital, and capital budgeting decisions of corporations unjustifiably. Corporations may reject certain projects because of the expected low rate of return, though such projects may be highly beneficial for the economy as a whole. This can even distort the market oriented resource allocation process (Singhvi and Desai, January, 1971, pp. 136-137).

Uneven Distribution of Information: Legal and Ethical Issues. In voluntary associations the right of each individual financial contributor to choose what is in his interest and to continue or discontinue his association is generally assured. Corporations are a kind of voluntary association and because of their size and inability of their stock owners to take part in their management, the law protects their rights with certain built-in checks. A corporation cannot

discriminate between its stockholders. Any information that is available to one equity stockholder should be available to all equity holders (Savoie, March-April, 1969, p. 47). For securities market operations, complex as they are, most small investors have to depend on the services of professional security analysts for investment research and counseling. However, lack of disclosure in corporate reports has created problems even within the security analysts' profession. The objective of security analysis is to find undervalued securities or investment opportunities and not to use one's position in getting inside or privileged information that is not available to the public. However, lack of adequate disclosure in corporate reports has created just that kind of problem. Security analysts keep busy more in knowing what is not given in the corporate reports than relying on what is included in them. The end result of all this is a, probably, unintentioned but an uneven distribution of corporate information to equity investment decision makers and their counselors and that may lead to investment decisions which may not be justified if the facts were known uniformly. Large stockholders, mutual funds and institutional stockholders, because of their size, strength and resources, often manage to acquire additional (most often privileged) information on their equity investment and benefit at the cost of small stockholders.⁵

⁵"As an influence in the corporation, the large share owners have been better able to obtain, analyze, and act on information to protect their economic interests. At times they have enhanced their own position at the expense of the uninformed, smaller shareholders" (Baum and Stiles, 1965, pp. 156, 35).

No estimates are available as to what extent reliance or lack of reliance on corporate reports lead to improper investment decisions by the investor and to what extent it leads to misallocation of capital resources in the economy or what their costs are. However, one way to look at this question objectively, as Chambers suggests, is to examine the record of takeover bids in the corporate world.

Takeover Bids. A multitude of motives lead management of modern corporations to make takeover bids to acquire other corporations publicly. Prestige, advantages of size (whole is sometimes bigger than the sum of the parts), competition, and buying time -- catching up with industrial technology -- can lead to business acquisitions. There is little doubt, however, economic motives dominate most takeover bids (McKenna, July, 1961).

Prof. Chambers made a study of takeover bids to find out to what extent stockholders are misinformed on corporate accounting information (Chambers, September, 1965). He compared pre-bid and post-bid actual prices to study the extent to which, prior to the date of the offer, shareholders of subject companies were being misinformed. The percentage rise in the market prices was in many cases staggering. In some cases the rise exceeded 150%, i.e., post-bid price exceeded two and a half times the pre-bid price. In almost all cases the bid was made by a bidder having knowledge and experience in the business of the acquired company. The fact that bidders have experience in the same line of business as subject companies suggests that their bids are not without sound rational.

"It may be supposed that acquisition of similar businesses may be expected to yield certain operating economies; but this is certainly not sufficient to justify bids which are so far in advance of pre-bid market prices of the securities of subject companies." It is more reasonable to suppose that bidders regard their bids as an inexpensive method of purchasing the assets and operations of subject companies. This suggests that "some person or persons are particularly well placed to have knowledge about another company of a kind which is not available to the members themselves of that other company. The members of subject companies are at a clear disadvantage because they are denied information which is procurable by others who are not members" (Chambers, September, 1965, pp. 19-21).

Although Chambers' study of takeover bids is not a conclusive evidence on the extent of inadequate disclosure in corporate reports, it is certainly a very suggestive evidence in this respect. It shows the extent of discrepancy between the informed evaluations and the uninformed and misinformed evaluations of investment opportunities.

Statement of the Problem

The accounting literature contends that accounting information is useful to the extent it serve the end in view (Paton, 1922, p. 472; Moonitz, 1961, pp. 4, 8; ASOBAT, p. 8). Investors and their counselors are major users of published corporate annual reports and those reports are prepared primarily with the major users in mind. The argument implies that those who prepare such reports would know

what users' information requirements are and they provide the required information to the users. This implies that there is a consensus on the information requirements between the user -- security analysts -- and preparer groups -- accountants -- of such information. The writer plans to examine this hypothesis by examining how the two groups -- users and preparers -- value the importance of various information items in investment decisions. Since a major use of published corporate annual reports lies in the equity investment decisions, the value assigned to information items by the two groups should reflect the extent to which the two groups understand the information requirements. If accounting is use oriented and the accountants furnish accounting information with the users in mind, the value ratings placed by the preparers and the users on different information items should correspond.

This question of consensus between the accountants and the security analysts leaves some ambiguity as such. It may not be entirely clear to the responding accountants in the inquiry as to whether they are assigning value to the information items as "preparers" or as the "users". That is, "how they will use the information "if" they were the investors?" or "how they think the security analysts will use the information?" The study of responding accountants in the two groups on the above lines -- (1) as users themselves, and (2) as perceiving the users' requirements -- may serve two important objectives in the inquiry: (1) eliminate the ambiguity in the inquiry; and (2) establish a control group in the study. Thus we will have the following three subject groups in the study.

Group A. Accountants as they rate the value of information for equity investment decisions.

Group B. Accountants as they perceive the value of information for equity investment decision to security analysts.

Group C. Security analysts as they rate the value of information for equity investment decisions.

The problem of consensus between groups poses three questions for study. One, is there a consensus between the accountants (A) -- the preparer group -- and the security analysts (C) -- the user group -- on the information requirements as measured by their ratings on the importance of information for equity investment decisions (say, value of information, for short)? Two, is there a consensus between the accountants as they perceive the value of information to the security analysts (B) and the security analysts (C)? Finally, is there a consensus between the accountants, group A and group B, on the value of information? Group A is asked to rate the value of information as it thinks while group B is asked to perceive the value of information to group C, i.e.; we are asking the accountants to indicate how they think the security analysts value the accounting information items.

To sum up, the following hypotheses are proposed to be tested in the study:

H₁ : There is no significant difference between the accountants (Group A) and the security analysts (Group C) on the value of information items for equity investment decisions.

H₂ : There is no significant difference between the value of information items to security analysts (Group C) and the value of the information items to security analysts as perceived by accountants (Group B) for equity investment decisions.

- H_3 : There is no significant difference between the value of information items to accountants (Group A) and the value of information items to security analysts as perceived by accountants (Group B) for equity investment decisions.

Examination of consensus between groups introduces one more issue: the pattern of consensus within subject groups. It should be interesting to analyze whether there is any difference in the consensus pattern between different types of information items within each group of respondents. Since there is no a priori reason to believe a pattern of consensus exists within each group of respondents -- accountants and security analysts -- on different types of information items, we do not propose to test any specific hypotheses in this part of the study. Rather, our inquiry would be more of analytical nature here and very brief. The study would depend, to a large extent, on the resulting statistics themselves. The author's only conjecture is that it would be a rare event when the respondents in the three subject groups value all the information items in exactly the same manner. If this is so, it should be interesting to examine not only the existence of those variations but also the pattern of those variations in each subject group.

Working Definitions of Some Terms Used

"Investment decisions" are taken here as the decisions concerning buying, selling or holding equity (common) shares of non-regulated publicly owned corporations (i.e.; excluding banks, financial intermediaries, insurance companies, transportation and public utilities), whose stocks are listed and traded either on the New York Stock Exchange, American Stock Exchange or one of the regional stock exchanges (e.g., Midwest Stock Exchange, Pacific Coast Stock

Exchange, etc.). Furthermore, we are only concerned with investment decisions involving a quantity of shares not less than a round lot (100 shares) and not exceeding 5% of the total outstanding common shares of a corporation.⁶

By "Security Analysts" we mean professionally qualified people engaged in analyzing and interpreting the corporate annual reports and counseling equity investors for remuneration. More specifically this group includes Chartered Financial Analysts (CFAs). By "Accountants" we mean Certified Public Accountants (CPAs) who have

⁶It is necessary in this study to establish some limit on the size of investment involved so as to get objective responses from the subjects. The lower limit of 100 shares was envisioned because of the regulation of stock exchanges as they permit trading in only round lots. Besides, it is convenient to think, in terms of a round lot. The upper limit has a special objective. The writer wants to exclude the investment in equity stocks with the intention of 'control'. People interested in acquiring 'controlling stocks' are dealing in very large sums, have many kinds of considerations involved and do not wholly depend on published corporate annual reports.

As to a specific proportion of stocks required for control, Berle and Means assert that control by a minority interest can be obtained when only 15% of the stock is held by one group, but they draw the dividing line between management and owner control at roughly 20% (Berle and Means, 1932, pp. 84-93). Villarejo observed that financial analysts assume that a controlling interest can be obtained with a much smaller percentage holding than that which Berle and Means suggest. He cites the case of Armour & Co. in which holding of 6% common shares by Prince family is viewed as being ample for control (Villarejo, Autumn, 1961, pp. 54-55). The proposed study takes a rather conservative view and has taken 5% as the upper limit. Smith, who is currently working on his Ph.D. dissertation at the Ohio State University, has also taken a similar approach. Corporations with not over 5% stock holding by any one group are included in his "management controlled" group whereas corporations with over 10% stock holding by any single group are included in "owner controlled" group in his study (Smith, 1970, p. 15).

been associated with the national Big Eight firms of CPAs⁷ and who are engaged in auditing of publicly owned corporations in this country.

"Information items" include items which literature in Accounting and Security Analysis suggests should be used in investment decisions and included in the questionnaire prepared for the present study (see the appendix for a list of these items). They have been selected from the literature in Accounting and Security Analysis.

Research Design

The study will proceed in two parts: one, the development of a research environment, and two, the conduct of a field inquiry to test proposed hypotheses. Undoubtedly, a study of this kind will stem from a review of the existing literature having a bearing on the problem so as to create an environment for further research. The objective of the review would be to place the disclosure problem in proper perspective from the viewpoint of the user and preparer groups.

The second part of the study will involve a field inquiry to test the hypotheses proposed earlier in the paper. The data for the test will be collected from a questionnaire mailed to samples of the Certified Public Accountants (CPAs) associated with the national Big Eight firms of CPAs and the Chartered Financial Analysts (CFAs). Each of the proposed hypotheses will be statistically tested for each

⁷Namely, Arthur Andersen & Co.; Arthur Young & Co.; Ernst & Ernst; Haskins & Sells; Lybrand, Ross Bros. & Montgomery; Peat, Marwick, Mitchell & Co.; Price Waterhouse & Co.; and Touche Ross & Co.

information item. Statistics used will comprise Chi Square and Analysis of Variance (see Chapter III for a detailed exposition of the test design).

Possible Contributions

The author got interested in the proposed study for two reasons: intellectual curiosity and the practical need for the study. Study of the literature in accounting and security analysis raised many unanswered questions in the author's mind and a prominent one was, how much do the accountants know about the investor's information requirements? Is their understanding of investor information requirements just a myth or a reality? Is accounting really use oriented? Then there was a second layer of ignorance. How much do the academicians know about the practitioner's understanding of the user requirements?

The second reason for interest in the study lies in the practical significance of the problem. Much has been researched and written on corporate reporting yet reporting practices do not appear to satisfy the critics. In fact the literature in security analysis leads one to believe that the reliance of security analysts on corporate reports is declining (Anderson, 1967, p. 99). The accounting profession has been facing this challenge for some time and the security analysts have been pressing for results in this respect. Lately, even the Securities and Exchange Commission has joined the other groups in demanding better and more comparable corporate disclosure. The barrage of articles written in professional

journals in recent years supports this contention.⁸ In brief, the proposed study could make the following specific contributions:

The proposed study would enrich our understanding of the perception behavior of two important professional groups -- the certified public accountants and the security analysts. If accounting is use oriented, its success will depend on how effectively it meets the requirements of the users of its product. That in turn depends on how much of user requirements are understood by the practitioners. In areas where there is formal communication between the users and preparers, much of the details of the user requirements are specified. But where users and makers of a product are large in number, and scattered, formal communication is very difficult to develop. This is the kind of problem accounting faces in a modern industrial economy. Those who are responsible for providing the information may probably resort to guesswork, past conventions or to some other means. The proposed study could throw light on this aspect of the problem, i.e.; to what extent the preparer group understands the user group requirements in the absence of formal communication and is Accounting really use oriented as it pretends to be?

⁸ See the Financial Executive, December, 1966, the entire issue is devoted to the problems of disclosure in corporate reports. Further, see Barr (January, 1968) ; Cohen (May, 1968) ; Wheat (September, 1968) and Burton (1969).

Chapter Outline

The study will proceed in two parts. The first part, Chapter I, will be of introductory nature. It will introduce the problem, state the hypotheses to be tested, and briefly outline the research methodology to be followed in the study. Chapter II will be devoted to a brief review of the existing literature having a bearing on the present problem. The second part of the study, Chapter III & IV, will be devoted to a detailed exposition of the test design and to the testing of the proposed hypotheses. Chapter V, will bring together the findings of the study, state conclusions, and limitations, and offer suggestions for possible further research.

CHAPTER II

THE BACKGROUND

Introduction

Disclosure problems are probably as old as the first occurrence of separation between the ownership and management of economic affairs. Some authors trace it as far back as the days of ancient Babylon (Ladd, 1963, p. 1). However, in recent years the problem has acquired new dimensions with the growing size and diversity of business activities carried on by corporations and the separation of ownership and control. It was in the nineteen thirties that much public interest was aroused by corporate reporting practices. The stock market crash of 1929 shook much public confidence in the certitude of corporate financial statements and the auditor's certificate. Much of what followed from such a shock is part of American economic history. The securities market came under legislative control. The New York Stock Exchange and the American Institute of Certified Public Accountants started cooperating to exercise control of some sort over corporate reporting and an interest in research on corporate reporting and disclosure practices developed.

This chapter will attempt to set an environment for the primary research to test the proposed hypotheses. It will critically review significant researches which have a close bearing on the present

problem. The review will be confined, in most part, to the problem attempted, research methodology used and the conclusions reached in those studies.

Roper Survey

Sponsored by the Controllershship Foundation, Inc., Roper's survey, "A Report on What Information People Want About Policies and Financial Conditions of Corporations", seems to be the first of the organized researches on corporate reporting. The broad question which the survey attempted to answer, at least in part, was, "How can the modern corporation best tell the public what the public wants to know about the corporation's activities?" Being so general and broad, the objective of inquiry was broken down into three specific queries as "Who constitutes the public that wants to know?" "What do these people want to know?" and "How, and in what form, can the information best be brought to them?" (Roper, 1948, Vol. I, p. 1).

The readership public of corporate financial statements was broken down in five parts: run-of-the-mine stockholders, large investors, financial analysts and bankers, employees, and labor union officials. The technique of the depth interview was used to conduct the study and, in all, 2561 subjects were chosen to represent a cross section of the country. The majority of these subjects came from run-of-the-mine stockholders (1,111) and employees (1,242). Of special interest to the present study are the depth interviews conducted with 59 large investors and 61 financial analysts and bankers distributed over 10 cities.

The survey findings are both interesting and surprising. Although Roper feels that his study underestimates the level of average ignorance about corporate reports, it is fairly wide spread. "The general run-of-the-mine stockholder is not an avid consumer of information about the companies he owns stocks in." Women stockholders show relatively more ignorance than their male counterparts. The majority of the stockholders (60%) "named company annual reports as the place from which they got most of their favorite information about their favorite company" (Roper, 1948, Vol. I, pp. XXI, XVI). As expected, they depend on the counsel of their "advisors of various sorts" for investment decisions. The run-of-the-mine employees showed no greater curiosity or knowledge about the financial affairs of the companies they work in. Their curiosity was confined mainly to finding out the security of their jobs.

As opposed to the average stockholder and employee, large investors (specially men) are more sophisticated and avid consumers of information about the companies they invest in. They understand accountant's language and like the corporate reports to give more details on subjects such as: personnel, -- who runs the company, company's future plans, amount spent on research, complete exposure of expense items, contingent liabilities, salary deals with executives, and sales and cost breakdowns. The report adds that bankers and financial analysts are the most sophisticated consumers of corporation financial data. "They can be described as wanting what the large investors want, only more so" (Roper, 1948, Vol. I, pp. XXV, XXVII). They were both more specific and more in unison

about the items of information they wanted than were the large investors. Suggestions such as supply of comparative income statement and balance sheet figures, details on labor costs, reserves, breakdown of sources of income, quarterly or monthly figures supplementing annual reports, breakdown of operating expenses, plans for expansion, personnel practices, new products, customers and territories served, etc. were frequently mentioned in the depth interviews. Probably the most interesting finding of the survey was the lack of confidence shown by analysts and bankers in the annual report figures. They are less likely to take annual report figures at their face value. To them many annual reports appear to paint company progress in the best light possible for the benefit of stock owners. The annual report is a document that presents company financial operations from a particular point of view and one "that must be checked as a routine matter, by reference to other sources of information, like tax returns and S.E.C. reports" (Roper, 1948, Vol. I, p. XXVIII).

As stated earlier the study was an attempt to document the views of several "special publics" on the corporate annual reports. The results were revealing in their substance and thus must have served to provide "one part of the answer". However, the conduct of the study left much to be desired. The study relied heavily on unstructured interviews using no formal questionnaire. As the author explains:

A highly skilled interviewer conducted an informal, unstructured interview with each of them (respondents), using no formal questionnaire, but introducing at appropriate points a series of topics having to do with the

respondent's interest in corporation information and his reaction to present reporting practices (Roper, 1948, Vol. I, pp. V-VI).

The success of the depth interview in such a situation depends much on the high degree of rapport that the interviewer could establish with the subject. The degree of rapport will evidently vary from subject to subject and so the responses. False starts are not completely out of question in such a study and the author does not indicate what proportion of interviews confronted this problem and how such interviews were handled in the report. Another weakness arises from the fact that the background of interviewees and their interests will dominate such unstructured interviews, a factor which should make the interviews and topics covered therein very uneven. Given such limitations, it is difficult to draw any strong conclusions from the study and its author could make generalizations only with reservations. Roper's recommendations, which are equally interesting, are as follows: Divide the readership public into two groups -- those less sophisticated and those more sophisticated. The first group would receive a short, less sophisticated letter on the company progress while the second group and anyone else, who desires, would receive a "full-scale annual financial report, which can be designed to meet the needs of people who really want to dig into it" (Roper, 1948, Vol. I, pp. XLI-XLII).

Sanders Survey

At about the time Elmo Roper was conducting his readership survey for the Controllershship Foundation, Prof. Thomas H. Sanders of Harvard University undertook to study the views of company management,

investment analysts, stockholders, labor unions and employees on company annual reports. Prof. Sanders mailed several different kinds of letters to his subjects. Of special interest to the present problem is Sanders' study of the investment analysts.

Sanders mailed 156 questionnaires of three different kinds to three different groups of investment analysts and received 46 completed replies. The views expressed in these questionnaires were supplemented by personal interviews with several groups of men in the same field. Although the author has presented the tabulated replies along with verbatim excerpts of the comments from several replies, the basis of selecting the respondents is nowhere mentioned in the study.

Sanders' study confirms the ignorance of the average investor in general, and the limitation of multipurpose annual reports in satisfying all the different groups of users in particular (Sanders, 1949, pp. 7, 15, 181-226). The letters asking investment analysts about the "adequacy or otherwise of company annual reports" and about the areas of deficiency and improvement brought some interesting replies. He found company annual reports as the most important source of information for investment analysis, distantly followed by statistical services. "There is no heavy concentration of criticism pointing to any single part of the financial statements as generally calling for radical revision. This does not mean that there are not a good many matters on which security analysts would like more and better information..." As opposed to what Roper found, "As a general rule they (the security analysts) accept the accounts as the companies

issue them...." (Sanders, 1949, pp. 217-218). Thus they take the company reports at their face value. As variations in accounting practices make the task of interpretation difficult, a strong desire was expressed for full disclosure.

As to specific items of disclosure a long list was presented which included information items like future cash needs, breakdown of sales dollars, the description of activities, products, services and plant locations, research expenditures, personnel matters, etc.. In general, the investment analysts want to know more about the future. The author has himself paraphrased the requirements of analysts in a kind of open letter to company officers as follows:

You know your business -- what makes it do well or badly; tell us those things.
You know when favorable or unfavorable external factors are appearing: tell us.
You know when new developments are taking place inside the business which will affect its prospects and profits. We would like to know, too.
We recognize that in these times you must interest and entertain your stockholders, but don't make that an excuse for omitting important facts, nor use those devices for concealing unpleasant situations (Sanders, 1949, pp. 225-226).

The author approved the experimentation that has been going on in the preparation and presentation of company annual reports and encourages any changes that make them more meaningful to their users (Sanders, 1949, pp. 85-86).

Horngren Study

In 1954 as his doctoral dissertation, Charles T. Horngren undertook,

A survey of the existing literature on investment analysis, plus scrutiny of 123 written analytical reports and the collection of the opinions of 51 analysts in trust departments of banks, investment counseling firms, underwriting houses, insurance companies, investment trusts, brokerage houses, and investment research firms in New York City and Chicago.... (Hornsgren, 1955, p. 4).

to indicate an answer to the comprehensive question "what information shall be published for their (the investors) benefit". The study attempted to appraise accounting from the view-point of professional security analysts, as they are the primary users of published financial statements. They invest or counsel on a very large proportion of equity capital. Judgment as to usefulness is made fundamentally by the user, not by the producer. As security analysts depend upon the quantitative information issued by accountants as part of the raw material which is related to the final investment decisions, accountants should realize that financial reporting must be related to this objective (Hornsgren, 1955, pp. 164-167).

The author based his findings on a careful scrutiny of the written reports of the security analysts and personal interviews with them. He makes no mention, however, of how such reports and security analysts were selected for the study. His most important finding was the 100 percent stand of security analysts against the application of price-level adjustments to accounting data (Hornsgren, 1955, pp. 6-7). They are adamantly against the proposed "tampering" with conventional financial statements. Some of his other recommendations are as follows: (1) Analysts find a fund flow approach

useful in examining both operating statements and balance sheets. They are particularly interested in capital expenditures and often relate them to future sales or profits or both. Evidently the accountants should supply a detailed funds statement in annual reports.

(2) The analysts's principal task is one of comparison. As investors or advisers to investors they are entitled to adequate disclosure of corporate information in order that they might be better able to make intelligent decisions. "Public accountants and controllers have an obligation to do all that is within reason to persuade management to report more fully about the operations of the firm." (3) Analysts firmly demand an income figure which "best reflects operations for the year". However, the author is not so sure whether such demand can be met to their complete satisfaction. "Net income is an opinion, not a fact. And opinions vary in almost direct proportion to the number of practicing accountants." The author attempts to give a format for a "Statement of Operations and Reconciliation of Retained Earnings" (Horngren, 1955, p. 126) as an improvement over the conventional Statement of Net Income. All that an accountant can do is to "supply the analyst with a well-told story of the past accompanied by ample information concerning management's misgivings or hopes for the future the accountant is not and should not become a financial analyst." (4) Inventory information should reveal: details of valuation method employed; breakdown by major classes, dollar amounts, and methods of valuation; physical quantities where possible, estimate of current replacement cost, and origin, function, classification and yearly changes and

adjustments in inventory reserves where they are used. (5) Information on fixed assets should include: past and planned capital expenditures by type of equipment, their impact on financial position, earnings and dividends, and a description of depreciation accounting policies followed.

Horngren concluded that "in general, analysts are reasonably satisfied with the present form and content of corporate information.However, accountants should remember that analysts must examine hundreds or thousands of financial statements yearly. Thus accountants have a standing obligation to improve their products." At the end the author exhorts that "Research in accountancy with respect to the serving of investors should give greater recognition to the analysts and should apply searching investigation to his position" (Horngren, 1955, pp. 166-173).

Cerf Study

In 1961 a fairly comprehensive study of corporate reporting practices was undertaken by Prof. Alan R. Cerf of the University of California. He reviewed the then existing literature, regulatory laws, interviewed members of the National Federation of Financial Analysts Societies of the San Francisco Bay Area and sent out questionnaires to members in other areas (the author does not indicate how many security analysts and what locations were covered by his questionnaire). To determine if reports were in fact deficient the author set out to test the influence of a variety of factors on the quality of disclosure. These factors

included, (a) method of trading shares; (b) size of the firm; (c) profitability; (d) frequency of external financing; (e) stability of growth in earnings and dividends; (f) product of the firm; (g) degree of competition; (h) nature of industry; (i) stage of development; (j) associated CPA firm; and (k) characteristics of management. After an extensive review of the literature and the financial services, an index of 31 information items was prepared and each item was given a weight -- ranging from 1 to 4 -- according to its importance in rational investment decisions. The quality of disclosure was then measured by computing a score for each corporation by using the aforementioned information index. The author used the mean of such scores for detailed analysis.

The author's analysis of the variation in mean scores associated with companies of varying asset size, number of stockholders, and profitability in separate trading groups supported his "hypothesis of a positive relationship between disclosure as measured by score and asset size, stockholder number, and profitability" (Cerf, 1961, p. 4). Companies listed with the New York Stock Exchange appeared to be significantly superior in disclosure to the other companies in the sample. The author's attempt of least squares regression analysis could not produce any significant conclusions.

He found little interest in the price level adjusted corporate reports among the security analysts. "However, the results of studies which compare adjusted and unadjusted statements indicate that perhaps the analysts should be more interested in price level adjustments

than they are" (Cerf, 1961, p. 60). He found deficiencies in the reporting of the following items: sales breakdown; capital expenditures, both current and planned; research and product development, both current and planned; information on management and their policies; long-term summaries of important financial items; information on the outlook; and disclosure of accounting procedures (Cerf, 1961, p. 111).

Cerf's recommendations, in general, implied an exhortation to everyone concerned, "continue to do more good work." Thus security analysts should do a better "selling job" concerning the advantages of good disclosure; management should realize the fulfillment of "self interest" in better disclosure; accountants should eliminate unnecessary divergencies and alternative practices; the Securities and Exchange Commission should extend its requirements to all companies of "sufficient investor interest"; and the stock exchanges should include good disclosure requirements in their listing agreements. Finally, he recommended closer cooperation among the concerned parties (Cerf, 1961, pp. 115-126).

The Effectiveness of Accounting Communication

In Spring, 1964, as a part of his doctoral dissertation, Abraham J. Briloff undertook to determine the extent to which "the financial community understands, accepts and is satisfied with the way in which the independent attest function is now being pursued". In addition the author also ascertained the financial community's views as to what should be the attesting accountants' involvement

in the corporate society, and the theoretical and structural basis for "generally accepted accounting principles" (Briloff, 1967, pp. 12-13).

To fulfil his research objective the author mailed a questionnaire to 177 subjects (of whom 138 replied) coming from the financial community, practicing accountants and professors of accounting. The subjects for the study were not selected randomly, but were solicited with the objective of obtaining a representative sampling from various segments of the financial community, as well as from the several sectors of the accounting profession (Briloff, 1967, pp. 239-240). It is surprising that the author chose such an arbitrary selection procedure (over random sampling) for his research.

On the basis of his questionnaire data and an extensive review of the literature, Briloff found a large number of breakdowns in accounting communication. He found a "major failure on the part of the auditors in getting their messages to those whom they are directed". There is an absence of consensus even on "axiomatic and self-evident truths" which form the foundation of accounting practice. Thus there is no consensus on basic terms like "objectivity", "consistency" and "conservatism" in accountancy. "Generally Accepted Accounting Principles" (GAPP), often mean different things to different groups of users and preparers of accounting information. There is no meeting of the minds on the "opinion clause" in the auditors' certificate either. The author found lack of agreement "both as to accounting

principles which now prevail as well as those which should prevail" in areas like reporting of extraordinary gains or losses, long-term leases, inventories determined on a LIFO basis, business combinations and consolidations, and the accounting for pension costs and research and development costs." The financial community shows general ignorance on the variety of proliferating management services rendered by auditing firms. If the community could realize the variety of services offered by attesting firms, the consensus is that it would oppose their offerings. Finally, the management of research through the American Institute of CPAs' Research Division is less than conducive to objective inquiry (Briloff, 1967, pp. 13, 219-223).

Among his principal recommendations, the author advocates,

.... the establishment of a commission, comprised of representatives from within and without the profession, and charged with the responsibility for determining and promulgating the body of principles presumed to be generally accepted (Briloff, 1967, p. 224).

This "Pugwash Conference" of concerned parties, the author believes, will help in bridging the so-called "gap in GAPP". The author believes that research in accounting should be centered in universities, away from vested interests of the profession. Although Briloff does not clearly advocate a ban on the CPA firms management services, he would welcome some kind of disciplining force from the AICPA and the Securities and Exchange Commission. Finally, as an interim measure, the author makes two recommendations. One, let the final wordings of the opinion paragraph in the auditors

certificate be changed to read that statements were prepared:

.... in conformity with the generally accepted accounting principles adopted by the corporation's management, which principles were applied on a basis consistent with that of preceding year.

Secondly, let the fact that auditing firm is rendering any non-audit or peripheral services be made known to the statement users through proxy statements (Briloff, 1967, p. 229).

Financial Analysts Federation Studies

Realizing the importance of corporate reports in their profession, the security analysts have also been trying to contribute in research pertaining to corporate disclosure. Both individually and collectively through their local chapters and the national Financial Analysts Federation they have responded to research conducted by others and by initiating their own research studies. The Federation provides media of expression for its members through its eleven standing committees and its journal, the Financial Analysts Journal.

One of the Federation's oldest standing committees is the Corporate Information Committee whose objective is, "to encourage, develop and improve the quality and quantity of financial information disseminated by corporations; and to prepare and publish surveys and studies with recommendations for the improvement of corporate financial reporting" (FAF, 1970, p. 18). The Committee works through a group of sub-committees on different industries. The sub-committees review and rate the annual reports of companies in their specific

area of assignment in the light of what information is needed for investment decisions. The industry-by-industry review approach was devised by the Federation in view of the varying information requirements in different industries. Until 1966 the Committee would single out one company in each industry for excellence in corporate reporting and present it with a "Citation for Corporate Reporting". In the Nineteenth Annual Report (1965-66) the Committee announced progress on an expanded program of review and rating. Henceforth the citation will be presented for overall excellence in corporate reporting rather than being based solely on company annual reports (Pearl, 1969, p. 50). Since Corporate Information Committee reports deal with specific topics in specific industries, the Committee sponsored a special study on "What the Financial Analyst Wants to Know" under Dr. Corliss D. Anderson in 1962 to review the reporting problems in general and make both general and specific suggestions (Anderson, 1962, p. 2). We propose to discuss Dr. Anderson's findings here.

To begin with, Anderson expanded the coverage of annual reports. His definition of annual reports included any supplemental or statistical report which may accompany the so-called annual report. This kind of supplement, available to any user from the company on request, will resolve problems of high cost of general publication, and of furnishing unnecessary details to everyone. Furthermore, the annual report is only one of several reports sent out to shareholders and/or to public agencies from time to time. These

include proxy statements, prospectuses, 10-K reports, interim statements, stock exchange listing statements, etc.. These other reports and the information contained therein are not always available to security analysts for reasons of time, expense and location. The author believes that the annual report (or its supplement) should include much of the material which is filed with public agencies periodically or at the time of new security offerings (Anderson, 1962, pp. 4-5).

The author has presented the following general principles for reporting. One, the shareholders and their representatives are entitled to the kind of financial and other information which is material and affects the future of the company. The author grants the exception of Government classified information. However, he does not think the argument of "undue advantage to competitors" is very strong. The competitors generally know such information from different sources and management often uses "competition" as an excuse for lack of disclosure. Two, "there is a twilight zone of knowledge and future plans which only management should know -- and not reveal. We do not intend our suggested informational needs of the professional investor encroach upon this confidential area." Three, with increasing size, complexity of corporations and widespread ownership of U.S. corporations, the investment management responsibilities have also grown. The corporate management should recognize this fact in developing reporting standards. The professional investor's task often involves comparison and the management should

see that information is comparable. Finally, rumors grow better in darkness than in the light of facts. The policy of providing complete information at the usual periodic reporting times has the advantage of precluding surprises to the shareholders and, more importantly it lessens the possibility of excessive over-valuation or under-valuation of the company's common stock in the securities market (Anderson, 1962, p. 7).

In the other parts of his study Anderson has listed many of the specific information items needed by the analysts both in general and also in specific industries and the reasons for their need. Such items include breakdown of sales -- figures and percentages in addition to pictorial depiction; pertinent economic correlation or relationship of the company's business with specific economic facts and trends where the correlation is known; review of new year's prospects; trends in the price of company products; the amount of tariffs on foreign trade and changes in them; details of foreign operations; basic company policies with different concerned parties; breakdown and results of research activities; marketing and advertising details; the nature and cost of acquisitions; plans of capital expenditure and sources of future financing; dividend policies; sources of earnings and many, many more (Anderson, 1962, pp. 9-76). We do not propose to review the list of information items here as this has been done in preparing our questionnaire for the present study.

Tulane University Symposium

On November 13-14, 1967, the Tulane University Graduate School

of Business Administration organized a symposium of corporate officers, certified public accountants, security analysts, academicians, lawyers, and regulatory authorities to discuss the pros and cons of public reporting of segmented profit information by corporations in the United States (Rappaport, Firmin and Zeff, 1968, p. V). The symposium proceedings, now published, are an extremely interesting collection of views of different parties on the problem and at times give the flavor of a highly pitched debate that might have taken place at Tulane. It seems each participant was either on the "offensive" or on the "defensive" and very little in between (see papers of Blair, Macallan, Halvorson, Davidson and Solomons in Rappaport, Firmin and Zeff, 1968).

In the Symposium, the representatives of the Securities and Exchange Commission and of the regulatory authorities emphasized the need of proper disclosure for enforcing various securities and anti-trust regulations. Proliferating conglomerates means loss of information on industry which is so important for investment decisions and enforcement of anti-trust statutes. To quote:

Acceleration of the trend toward absorption of these independent enterprises makes it increasingly difficult for investors and others to draw intelligent conclusions about the affairs and prospects of companies in the particular industries and this, of course, applies even to the conglomerate companies or to independent companies (Rappaport, Firmin and Zeff, 1968, p. 23).

While their objectives may be different, both regulatory authorities and security analysts wanted extended disclosure; the

former for enforcing anti-trust statutes and the latter for investment counseling. The analysts contend that disclosure is needed not for comparison purpose alone but "to build up a picture of the future of a given corporation to which must be attached some measure of the reliability of this projection" (Rappaport, Firmin and Zeff, 1968, p. 47). Perhaps the most forceful case for segmented disclosure was made by Prof. Solomons who argued that the objective of reporting by segments is to help investor make better informed investment decision. Therefore any aspect of a business, separate information about which could materially influence an investor should be the subject of separate reporting (Rappaport, Firmin and Zeff, 1968, p. 94).

The corporate officers and public accountants were rather on the defensive at the symposium. There were stock arguments against extended disclosure expressed by management and CPAs, such as, confusion created by too many details; inequity created between the sophisticated and unsophisticated users of the information; comfort to competitors; accounting problems of allocating joint costs; high cost of developing such information, lack of established standards for such disclosure, etc.. Arguments for extended disclosure and in refutation of the above claims were in abundance, too. For instance, competitive disadvantage is not a reasonable argument for not disclosing information as most competitors come to know such information through trade sources. Similarly, disclosure cannot hurt just because unsophisticated users cannot understand the information. Such users generally depend on professional counselors

who are qualified to make proper interpretation of the detailed information (Rappaport, Firmin and Zeff, 1968, pp. 6-16, 58-59, 94-104).

Perhaps the most interesting point to the present study was raised in the comments of Prof. Sidney Davidson. To him the most crucial question that dwarfs all others concerns the meaning of the central phrase in the auditor's report: "present fairly the financial position and results of operations". If important information on segments of a conglomerate is omitted can the statements be said to "present fairly"? Prof. Davidson thinks that the judgment as to how much disclosure is required for fair presentation must be made by the public accountants individually or collectively (Rappaport, Firmin and Zeff, 1968, p. 87). This is in sharp contrast to what Halvorson, a public accountant, thinks as the role of independent public accountant, "to pass upon the quality of reporting, the attest function" -- and not the role of being "innovator or instigator" or "to decide how to report." To him, the public accountant's position with respect to financial information is a secondary one (Rappaport, Firmin and Zeff, 1968, pp. 76-77). To some extent this reflects the sharp differences between the users and preparers of accounting information. To quote Prof. Davidson rather at length:

.... it is the certified public accountant, upon whom third parties rely, who must decide how much disclosure is necessary to "present fairly". Sufficient disclosure for fair presentation is a basic accounting principle -- one upon which the public accounting

profession must insist, one upon which the Accounting Principles Board should speak (Rappaport, Firmin and Zeff, 1968, p. 90).

In brief, the symposium served a useful purpose of bringing concerned parties to a face to face confrontation, albeit for highlighting the differences in the viewpoints.

Mautz Study

Prof. Mautz's study, "Financial Reporting by Diversified Companies", sponsored by the Financial Executives Research Foundation in 1965-66, reflects the increased institutional interest in research on problems of corporate reporting and professional concern on the problem "lest authoritative bodies issue requirements for additional reporting by conglomerates without adequate study of the need for and limitations of such reporting" (Mautz, 1968, p. V). Conducted by an academician, the study "must be regarded as an exercise in applied research". The research technique and the results are well documented and reported. From the very beginning the author's "intent was to find a practicable solution to a real problem". The objective of Prof. Mautz's research was,

.... to complete an investigation of the usefulness, practicability, and desirability of corporate disclosure in published and other generally available reports, of the scope, nature and results of operations on some basis more detailed than total company figures.... (Mautz, 1968, p. 145).

The author proceeded on two lines: conceptual research and a field inquiry. The latter involved mailing of two different

questionnaires to corporate executives and investment analysts and holding several group meetings at key locations in the United States. On the basis of conceptual research, the author developed the following definition of a diversified company which is the main focus of his study:

.... a company which either is so managerially decentralized, so lacks operational integration, or has such diversified markets that it may experience rates of profitability, degrees of risk, and opportunities for growth which vary within the company to such an extent that an investor requires information about these variations in order to make informed decisions (Mautz, 1968, pp. 7-8).

The field investigation yielded some interesting results and practical solutions. The author found a variety of responses to almost all questions and a lack of unanimity on any important point (Mautz, 1968, p. 147). The need for extended information on diversified companies is real as analysts do attempt to analyze diversified companies on a segmented basis. In the absence of a better source, the analysts use financial statements for segmentation, though the clues are often not satisfactory. Among his recommendations, Prof. Mautz included the following: (1) companies which to a "material degree" have activity in more than one broadly-defined industry should meet the requirements of recommended extended disclosure. Since no suitable industrial or product classification having uniform application exists, management should exercise discretion in defining broad industry groupings. "Material degree" means 15% or more of a company's gross revenue. (The

analysts preferred less while corporate executives preferred more than this percentage). For each such reporting component, diversified companies should disclose sales and other gross revenue, and relative contribution made by each component to the income of the enterprise. "The contribution to income made by each component may be calculated before or after the allocation of common or corporate costs but in any case should be clearly described. If the method of pricing intra-company transfers or allocating common or corporate costs significantly affects the reported contribution to income of the reporting components, the method used should be disclosed in general terms...." (2) The recommended disclosure could be included in parts of the annual report other than the formal financial statements at the discretion of management. (3) Because of the innovative nature of these recommendations and the complexities of reporting diversified activities the recommendations should be applied with judgment and flexibility. In those cases where the management believes the recommended disclosures would have a significantly adverse affect upon the interest of shareholders, a statement to this effect should be made in lieu of extended disclosures. The burden to prove otherwise rests on the user of the information rather than on the companies (Mautz, 1968, pp. 157-158).

National Association of Accountants' Study

In 1964 the National Association of Accountants sponsored a research study to test the hypothesis that,

the kinds of financial information relevant
to investor's and creditor's purpose can be

ascertained by studying how these groups make decisions and that such knowledge can be a useful guide to financial reporting practice (Backer and McFarland, 1968, p. 3).

To determine how financial information is used in making equity decisions 72 financial analysts (selected by the New York Society of Security Analysts) and 71 commercial bankers engaged in short and long-term credit decisions were depth interviewed. Almost every interviewee listed the absence of information about operating results for major segments of diversified companies as an important short-coming. Later on, executives of 70 large industrial corporations were also interviewed to ascertain reasons underlying their companies' financial reporting practices and to learn their reactions to findings from discussions with the financial analysts and bankers.

The authors used the word "segment" to designate "any reporting entity which is a subdivision of a larger business" (Backer and McFarland, 1968, p. 17). They realized that the demand for information on segments comes mostly from security analysts for reasons of investment appraisal, forecasting of consolidated profits and appraising success of acquisitions; from bankers to assess the credit worthiness of the borrower; and from regulatory agencies for enforcing anti-trust laws. Contrary to what company executives think, analysts do not expect to make inter-company comparisons of segment earnings. Instead the objective is to build up a segment by segment earnings forecast for a company.

Some of the authors' other findings were as follows: No standard classification of segments for reporting can yield meaningful results, as the pattern of organization varies in every company. Uniformity for all companies is not required either. In most cases disclosure on broad segments will satisfy the analysts and this the management can do best as it is most aware of its organization, market and products.

On the basis of interviews and study of annual reports of 70 companies the authors concluded that "segment contribution margin" (excess of segment revenue over separable costs of the segment) would be the most useful measures of segment profitability where joint revenue and cost are material. Disclosure of short-run variable, annual programmed and long-run capacity costs can be even more helpful to analysts in forecasting earnings.

While interviewing company executives, the authors found little or no opposition for disclosure of segment sales. However, the opposition to the disclosure of segment earnings was very strong. Often the opposition was based on grounds such as, investors and analysts cannot appreciate the inner complication of business from the published reports, competitive disadvantage, difficulty in preparation of such reports, etc.. Surprisingly, such objections are readily dismissed by the executives whose companies have been on the forefront of segment disclosure namely, Glidden Co., and National Distillers and Chemical Corporation. These executives feel that such disclosure has brought a better understanding of their companies

in the financial community with no objectionable consequences.

The authors have made a suggestion of much interest to the present study. They feel that investors' confidence will improve if reporting on segment operations is also covered by the auditors' opinion. Professional accountants' associations in the United Kingdom have also endorsed such a view. Investors in the United States would place more credence in segment operating results if the auditors accept the responsibility of auditing for such data. This would require CPAs to satisfy themselves that segments reported can give a meaningful picture of company operations (Backer and McFarland, 1968, pp. 99-102).

Seaview Symposium

The Symposium on "Corporate Financial Reporting" held in New Jersey at the Seaview Country Club on November 7 and 8, 1968, to develop better communication and understanding among corporate information users and preparers, brought some sharp differences in thinking of different parties to focus. Members of four important professional organizations -- representatives of the American Institute of Certified Public Accountants (AICPA), the Financial Analysts Federation, the Financial Executives Institute and the Robert Morris Associates and Accounting professors -- wrote papers, critiques and participated in the Symposium for two days. The Symposium proceedings, now published (Burton, 1969), are not a research study in the traditional sense. However, they have a special relevance to the present study as they bring the views of

the concerned professions together.

A careful review of the Symposium papers gives an impression that the differences between the professions are sharp and are not narrowing with the passage of time. Growing size of corporations and wide spread stock ownership have changed the investment climate. However, the principal vehicle of communication between the corporation and the investors -- the corporate financial statements -- have not kept pace with the changing environment. The security analysts and the auditors both claim to be standing between the investors and corporations with all the professional responsibilities for counseling and reporting. Surprisingly, while the security analyst is viewed by everyone as representing the investor, the auditor is considered ".... closest to the company management" and ".... in fact responsive to the wishes of management so long as they are within accepted accounting principles which are very broad" (Burton, 1969, pp. 105-107). The professional independence of CPAs -- the first requirement for an effective audit -- itself has been subject to various attacks both within the profession and from without. Thomas D. Flynn, past president of AICPA, wrote, "we are usually grouped with the preparers, as distinguished from the users of financial statements. Independent auditors, however, resist the implications that the word "preparers" connotes" (Burton, 1969, p. 144). In yet another context, Joseph L. Roth, a practicing CPA, argued that CPAs' involvement in management services does not affect their professional independence in any manner. Professional auditors find themselves rendering management

services mostly because of their qualifications and the needs of the business community. To wit,

Any investigation, I am sure, would establish that the various auditing firms have unquestionable competence in the particular fields of service each may offer. Further, investigation would also prove it extremely difficult to demonstrate that the performance of any one of these services affects in any way the independence of the auditor (Burton, 1969, p. 255).

To such an emphatic assertion, a pungent retort was made by Albert J. Bows, another practicing CPA. He questioned the compatibility of professional independence and rendering of management services. He asked "whether it (accounting profession) will continue to be a profession or become a business. If it is to be a profession it must decide to remain independent of its clients in carrying out its role of expressing opinions on their financial statements. How can an auditing firm really be independent of a corporate president that it has recently recruited for a substantial fee?" (Burton, 1969, p. 259).

Besides the question of independence, the Symposium brought three important differences in the thinking of various professions to sharp focus: objectives of reporting; comparability and flexibility; and information on budgets. It seems that users and preparers do not have a meeting of minds on the objective of financial statements. To the user, as Sprouse put it, "the purpose of financial statements is to provide information which is useful in making rational economic decisions" (Burton, 1969, p. 201), and

a major use lies in making equity investment decisions. The results reported form the basis of many projections. The management does not concur with such an objective. To them, "the primary purpose of corporate financial statements is to discharge management's obligation to report to its stockholders on its stewardship and to society on the progress of business." The CPAs seem to concur with the management by hiding behind the legal safeguards and conventions that reporting is management's obligation and auditors are only attesting the reports (Burton, 1969, pp 144, 152-153, 229, 248-252).

The management's argument for flexibility and CPA's support for it is fairly well known. Differences in businesses, operations and risks "create disparity in the reports of similar businesses, and the use of uniform accounting principles will not make them the same. There is no suggestion, nor should there be one, that businesses engaged in similar activities must employ the same business methods. And, similarly, there is no reason why they must employ the same accounting principles in reporting the results obtained by the business methods they select" (Burton, 1969, p. 230). This unrestricted flexibility creates serious problems to the users of such statements who want to compare the investment opportunities between companies and over time. Securities analysts, in particular, feel that there is too much flexibility in the present arrangement of "GAAP". The management, being human, wants to put the best foot forward. It chooses the method that helps in improving the earnings. Otherwise, how can varying rates of depreciation be justified on the

same computer hardware in different companies, all having a clean audit certificate? One wonders how an auditor can include the words, "In our opinion, the accompanying balance sheet and statement (s) of income and retained earnings present fairly the financial position of X Co." in his audit report and justify, "accounting principles should help make like things look alike, and unlike things look different" (Burton, 1969, p. 141), and how can his certificate lend credibility to the statements.

Finally, the Symposium could not develop any consensus on the disclosure of future expectation and budgets. The security analysts asserted a definite need for such disclosure and since most companies assemble such information, it could be disclosed without too much additional cost. Such disclosure would be desirable both to the investor and to the management. The bankers, being in a privileged position, ask for such information and receive it from the borrowing companies. However, the management and the CPAs do not seem to agree with the security analysts on such information requirements (See Burton, 1969, pp. 256, 259-260 and 268 for an elaboration of conflicting views on the subject).

Summary

This chapter reviewed some of the important published researches relating to the present problem. Although only three of the studies, the Briloff study, the Tulane symposium and the Seaview symposium, brought the certified public accountants and the security analysts

specifically together, the other studies, nevertheless, highlighted concern of other parties. Hence, they deserved a review in the present study.

The review has brought two points to focus. Even those studies which have included accountants and security analysts in their fold could not conclude any of the findings in a convincing manner, mainly because the format of each study was very informal and loose. Such studies can serve only the purpose of developing a dialogue between the parties -- not an insignificant objective by itself. They cannot go beyond that. The task of researching the consensus between the views of parties objectively cannot be accomplished in a symposium or a seminar. Though Briloff did contact both CPAs and security analysts, his method of selecting the subjects was questionable. Besides, he was interested mainly in finding out the meaning of "generally accepted accounting principles" in the auditor's certificate. The problem of researching consensus between parties on the value of information still remains and sets the stage for the present study.

Second weakness, emanating from the format of studies itself, deals with the kind of conclusions developed out of face to face exchange of views. People often start playing "offensive" or "defensive" -- perhaps unknowingly. True feelings often get submerged by the anxiety to make a point -- even an exaggerated one. Such weaknesses can taint the conclusions of a symposium type study and can be avoided by a statistical study of the present kind.

CHAPTER III

TEST OF THE HYPOTHESES - RESEARCH

DESIGN AND DATA

Introduction

This chapter will present in detail the research design for testing the hypotheses proposed in Chapter I, and for examining the pattern of consensus within groups of users and preparers of accounting information. In addition, it will also discuss the procedure used in collecting data and selecting the respondents for the study.

The Hypotheses

In chapter I we proposed to test the following null hypotheses:

- H_1 : There is no significant difference between the accountants and the security analysts on the value of information items for equity investment decisions.
- H_2 : There is no significant difference between the value of information items to security analysts and the value of the information items to security analysts as perceived by the accountants for equity investment decisions.
- H_3 : There is no significant difference between the value of information items to accountants and the value of information items to security analysts as perceived by accountants for equity investment decisions.

The writer plans to test the proposed null hypotheses for each information item included in the questionnaire of the study by Chi Square (χ^2) statistics and Analysis of Variance (Anova) technique. It may be added here that the questionnaire contains 58 information items. Each information item is rated by the respondents for its value in equity investment decisions on a five point interval scale, namely, VU = Very Unimportant ; U = Unimportant ; N = Neither Important Nor Unimportant ; I = Important ; and VI = Very Important and weighted as 1, 2, 3, 4, and 5 respectively. Since there are three groups of respondents, making three pairs for comparison (two groups of respondents at a time) we shall have, in effect, $58 \times 3 = 174$ separate hypotheses in both Chi Square and Anova statistics.

General Notations

We shall use the following general notations through the rest of this study:

- A = Accountants as they rate the value of information items for equity investment decisions.
- B = Accountants as they perceive the value of information items for equity investment decisions to the security analysts.
- C = Security analysts as they rate the value of information items for equity investment decisions.
- i = 1, 2, 3,, 58 ; the information items included in the questionnaire of the study.
- j = A, B, C ; the three subject groups in the research study.
- j' = A, B, C ; subject group, j' , chosen from one of the remaining subject groups, j, and
- p = j, j' , where j, j' = A, B, C, i.e.; AC ; BC ; and AB ; a particular pair of j and j' .

Test Design

Chi Square

The writer will test each of the proposed null hypotheses by Chi Square statistics at a significance level of 5% ($\alpha = .05$). For Chi Square test the null hypotheses can be summed up as, "the user and preparer groups do not differ with respect to the value of an information item for equity investment decisions". Precisely, the proposed null hypotheses can be restated as follows:

$$H_1 : A_i = C_i$$

$$H_2 : B_i = C_i$$

$$H_3 : A_i = B_i$$

where,

A_i = Subject group A with respect to the value of information item, i in the study.

B_i = Subject group, B with respect to the value of information item, i in the study.

C_i = Subject group, C with respect to the value of information item, i in the study.

In addition to the general notations introduced earlier in this chapter the following notations will also be used in the Chi Square tests carried out in this paper:

k = 1, 2, 3, 4, 5; value rating assigned to an information item, i, by a respondent in the research study.

E_{ijk}^p = Expected frequency for information item, i, in subject group, j, of the subject pair, p, in value rating class, k.

$E_{ij'k}^p$ = Expected frequency for information item, i, in subject group, j', of the subject pair, p, in value rating class, k.

O_{ijk} = Observed frequency for information item, i, in the subject group, j, in value rating class, k.

$O_{ij'k}$ = Observed frequency for information item, i, in subject group, j', in value rating class, k.

O_{ipk} = ($O_{ijk} + O_{ij'k}$) ; total observed frequency for information item, i, subject group pair, p, in value rating class, k.

n_{ij} = $\sum_{k=1}^5 O_{ijk}$; total observed frequency for information item, i, for subject group, j, over all value rating classes, k.

$n_{ij'}$ = $\sum_{k=1}^5 O_{ij'k}$; total observed frequency for information item, i, for subject group, j', over all value rating classes, k, and

O_{ip} = ($n_{ij} + n_{ij'}$) = $\sum_{k=1}^5 O_{ipk}$; total observed frequency for information item, i, in subject group, j, j', in the subject group pair, p, over all value rating classes, k.

The Chi Square statistics can be expressed in the following formal way for testing the proposed hypotheses:

$$\chi_{ip}^2 = \sum_{k=1}^5 \left[\frac{(O_{ijk} - E_{ijk}^p)^2}{E_{ijk}^p} + \frac{(O_{ij'k} - E_{ij'k}^p)^2}{E_{ij'k}^p} \right]$$

where,

$$E_{ijk}^p = \frac{(n_{ij}) (O_{ipk})}{O_{ip}}$$

$$E_{ij'k}^p = \frac{(n_{ij'}) (O_{ipk})}{O_{ip}}$$

and,

χ_{ip}^2 is Chi Square statistics for information item, i, for subject group pair, p in the research study.

The contingency table for χ_{ip}^2 will take the following shape: (table 1).

$$\text{Formulation } \chi_{ip}^2 = \sum_{k=1}^5 \left[\frac{(O_{ijk} - E_{ijk}^p)^2}{E_{ijk}^p} + \frac{(O_{ij'k} - E_{ij'k}^p)^2}{E_{ij'k}^p} \right]$$

directs one to sum the Chi Square contribution of each cell over all rows, j and j', and all columns, k, i.e., to sum over all cells of the contingency table. The values of χ_{ip}^2 are distributed approximately as χ^2 distribution with degrees of freedom, $(df) = (r-1)(c-1)$, where, r is the number of rows and, c is the number of columns in the contingency table. The observed frequencies $(O_{ijk}, O_{ij'k})$ are the number of responses in ith information item, j, j'th subject group

TABLE 1
CONTINGENCY TABLE FOR χ^2_{ip}

(H_0 : No difference between subject groups with respect to the value of information item, i , i.e., $j_i = j'_i$).

Ra- tings Sub- ject Groups	k=1	k=2	k=3	k=4	k=5	Total
j_i	E_{ij1}^P O_{ij1}	E_{ij2}^P O_{ij2}	E_{ij3}^P O_{ij3}	E_{ij4}^P O_{ij4}	E_{ij5}^P O_{ij5}	n_{ij}
j'_i	$E_{ij'1}^P$ $O_{ij'1}$	$E_{ij'2}^P$ $O_{ij'2}$	$E_{ij'3}^P$ $O_{ij'3}$	$E_{ij'4}^P$ $O_{ij'4}$	$E_{ij'5}^P$ $O_{ij'5}$	$n_{ij'}$
Total	O_{ip1}	O_{ip2}	O_{ip3}	O_{ip4}	O_{ip5}	O_{ip}

where,

j_i is subject group, j with respect to the value of information item, i .

j'_i is subject group, j' with respect to the value of information item, i .

and k^{th} rating class respectively. The expected frequency for each cell, $(E_{ijk}^p, E_{ij'k}^p)$ is obtained by multiplying the two marginal totals common to a particular cell, and divide this product by the total observed frequencies, O_{ip} , in the contingency table (Siegel, 1956, pp. 104-105). Since we have 58 information items and three pairs of subject groups, $(p = AC, BC, AB)$, to test in H_1 ; H_2 ; and H_3 , we will have $58 \times 3 = 174$ contingency tables, a contingency table for each test.

Analysis of Variance (Anova)

In addition to the Chi Square statistics, the writer will test the proposed null hypotheses by Anova technique also at a significance level of 5% ($\alpha = .05$). For Anova testing the hypotheses can be summed up as, "there is no significant difference in the mean of the value of an information item for equity investment decisions between the user and preparer groups." Precisely, the proposed null hypotheses can be restated as follows:

$$H_1 : \mu_{iA} = \mu_{iC}$$

$$H_2 : \mu_{iB} = \mu_{iC}$$

$$H_3 : \mu_{iA} = \mu_{iB}$$

where,

μ_{iA} = Mean of the value assigned to an information item, i , by the respondents in the subject group, A.

μ_{iB} = Mean of the value assigned to an information item, i by the respondents in the subject group, B., and

μ_{iC} = Mean of the value assigned to an information item, i by the respondents in the subject group, C.

Besides the general notations introduced earlier in this chapter following notations will also be used in the Anova tests carried out in this paper:

- l = 1, 2, 3,, n_{ij} ; individual response in the subject group, j for information item, i .
 V = 1, 2, 3, 4, 5 ; value assigned to an information item, i , by a respondent in the study.
 n_{ij} = Number of responses for information item, i , in subject group, j .
 $n_{ij'}$ = Number of responses for information item i , in subject group, j' .
 n_{ip} = $(n_{ij} + n_{ij'})$; Total number of responses for information item, i , in the subject groups, j, j' in the subject group pair, p .

We shall use the following linear model:

$$V_{ijl} = u_i^p + a_{ij}^p + e_{ijl}^p$$

where,

V_{ijl} = is the value assigned to information item, i , by respondent, l , in subject group, j .

$$u_i^p = \frac{(n_{ij})(u_{ij}^p) + (n_{ij'})(u_{ij'}^p)}{(n_{ij} + n_{ij'})}$$

u_i^p = is the pooled mean of the value assigned by respondents of subject groups of pair, p for information item, i .

u_{ij}^p = is the mean population value of subject group, j in pair, p for information item, i .

u_{ij}^p = is the mean population value of subject group, j in pair, p for information item, i .

$$a_{ij}^p = u_{ij}^p - u_i^p$$

a_{ij}^p = is the effect of subject group, j , of pair, p , in the information item, i .

e_{ijl}^p = is the random error associated with the response, l , of subject group, j of pair, p , in the information item, i .

The model asserts that, V_{ijl} , the value assigned by respondent, l , in group, j , is based on the sum of three components: the grand mean of the value of all the j different treatment populations in the subjects pair, p for information item, i ; the effect associated with the particular treatment, j ; and another part which is strictly peculiar to the response, l , made under treatment, j . This last term, e_{ijl}^p , is the random error associated with that particular treatment subject combination (Hays, 1963, pp. 360-373). Any response, l , observed under treatment, j , is a random sample of one from corresponding treatment population j , so that the expectation over all individuals, given treatment, j , is,

$$E(V_{ijl}) = u_{ij}^p$$

assuming,

(1) Independence of e_{ijl}^p

(2) $\text{Var.}(e_{ijl}^p) = \sigma^2$ (a constant)

(3) e_{ijl}^p is normally distributed for all, i, j, l .

TABLE 2
ANOVA SUMMARY TABLE

$$(H: \mu_{ij} = \mu_{ij'})$$

Source	Sum of Squares (SS)	Degrees of Freedom (df)	Mean Square (MS)	F
Treatments (Between Groups)	$\left[\frac{\left(\sum_{l=1}^{n_{ij}} v_{ijl} \right)^2}{n_{ij}} + \frac{\left(\sum_{l=1}^{n_{ij'}} v_{ij'l} \right)^2}{n_{ij'}} \right] - \frac{\left(\sum_{l=1}^{n_{ij}} v_{ijl} + \sum_{l=1}^{n_{ij'}} v_{ij'l} \right)^2}{n_{ip}}$	1	$\frac{\text{SS Between}}{1}$	$\frac{\text{MS Between}}{\text{MS Within}}$
Error (Within Groups)	(SS Total - SS Between Groups)	$n_{ip} - 2$	$\frac{\text{SS Within}}{n_{ip} - 2}$	
Total	$\left[\sum_{l=1}^{n_{ij}} (v_{ijl})^2 + \sum_{l=1}^{n_{ij'}} (v_{ij'l})^2 \right] - \frac{\left(\sum_{l=1}^{n_{ij}} v_{ijl} + \sum_{l=1}^{n_{ij'}} v_{ij'l} \right)^2}{n_{ip}}$	$n_{ip} - 1$		

Since we have 58 ($i = 58$) information items and three pairs of subject groups, ($p = AC ; BC ; AB$), to test in $H_1 ; H_2 ; H_3$, we will have $58 \times 3 = 174$ Anova tables, an Anova table for each test. To illustrate the computations, a general Anova table follows: (table 2).

Pattern of Consensus Within Subject Groups

The question of pattern of consensus on the value of information items for investment decisions within subject groups can be analyzed by examining the standard deviation (s) for each information item in the three subject groups separately. Since standard deviation is a measure of variability (Hays, 1963, pp. 176-177), we can use this statistics to examine which information items show extreme - very high or very low - variations. As a practical measure, however, discussion would be limited to 20 information items - ten items with highest standard deviation and the other ten items with lowest standard deviation in each subject group.

In the next chapter we shall examine the pattern of consensus for one subject group at a time. In addition to general notations introduced earlier in the chapter, the following notations will also be used in the upcoming formulations:

$l = 1, 2, 3, \dots n_{ji}$; respondents in the subject group, j for an information item, i in the questionnaire.

$V = 1, 2, 3, 4, 5$; value assigned to an information item by respondent, in the subject group, j of the study.

$$s_{ji} = \sqrt{\frac{\sum_{l=1}^{n_{ji}} (v_{jil} - \bar{v}_{ji})^2}{n_{ji} - 1}}$$

where,

v_{jil} is the value assigned to an information item, i by respondent, l in the subject group, j of the study.

$$\bar{v} = \frac{\sum_{l=1}^{n_{ji}} v_{jil}}{n_{ji}}$$

s_{ji} is the standard deviation of the values assigned to an information item, i by the respondents in subject group, j .

Formulation s_{ji} gives the square root of the variance -- average of the squared deviations of an information item values from its mean value -- which is known as standard deviation.

Source of Data

Data for testing the proposed hypotheses was collected from a questionnaire mailed to the certified public accountants (CPAs, for short) and the security analysts holding membership of the Institute of Chartered Financial Analysts (CFAs, for short). Perhaps the most difficult part of the assignment was the preparation of a suitable questionnaire that could reflect the thinking of the user and preparer groups in an objective manner, and securing cooperation from

the subjects selected for the study. Much of the problem of questionnaire preparation could have been resolved if we knew the actual investment decision process, i.e., what inputs go in an investment decision and how an investor assays them. However, this was not the objective of the present study. Rather the study assumed that the user uses the information to take or counsel rational investment decisions. Here rational investment decisions are taken as those which maximize the investor's net economic wealth -- measured both in terms of dividend and capital appreciation. Under such circumstances, given the limited scope of the present study, the only way a testable list of items could be compiled would be through the study of relevant literature in Corporate Reporting and Security Analysis. Such a study could reveal what kind of information is sought out by the user groups. Graham and Dodd's, "Security Analysis" (1962), Hayes' "Investment Analysis and Management" (1961), Bernhard's, "Evaluation of the Common Stocks" (1959), published annual reports of leading corporations in this respect (many of which have received awards on excellence in reporting from the Financial Analysts Federation), namely, U.S. Steel, General Foods, Martin Marietta, Caterpillar, International Harvester, Ford Motor Co., etc.; and scores of other books and papers published in the periodicals like, the Journal of Finance, Financial Analysts Journal, Financial Executive, Accounting Review, the Journal of Accountancy, Harvard Business Review, Fortune, Forbes, etc. were reviewed to prepare the questionnaire.

Alan Cerf., while preparing an index of disclosure in his study selected 31 items from the studies of the Committee on Corporate Information of the Financial Analysts Federation (Cerf, 1961, p. 27). This Committee of the Federation has been continually at work and has been submitting periodic reports to the Federation members. The writer took advantage of such reports. The list of 35 items prepared by Pankoff and Virgil in a recent study were also helpful in this respect (Pankoff and Virgil, April, 1970, p. 274).

Preparation of the Questionnaire and Selection of the Information Items.

In general, there are three kinds of information items which the questionnaire would include: (1) the information concerning the past on the economic events that have already taken place in the life of the entity (say, "actuals"); (2) the information on future (essentially budgets prepared by the entity to chart its future course of action and are prepared in the light of what has actually happened, say, "projections"); (3) the derived information. This is the kind of information which is already included in either of the first two categories but has been subjected to more arithmetic or algebraic manipulations to condense it in the form of some easily recognizable number, ratio, etc. (say, "derived" for short). These three categories will cover information that could appear either in Income Statement, Statement of Retained Earnings, Balance Sheet or other parts of the published corporate annual reports.

Size. Since we are using a mailed questionnaire asking the valuable time of many professional people, the size of questionnaire was kept to a reasonable length. Let us say, it should not take more than 10-12 minutes of the reader's time. This puts a burden on the writer as to how many items to include in the questionnaire. Given the time limit, it should be emphasized that the questionnaire cannot be exhaustive, thorough, and complete. It can only be representative in nature. Items will have to be selected on some basis and the selection was reviewed with the reading committee.

As to the relative proportion of items from the three categories described earlier, a major portion of the questions came from the "actuals" category as this kind of information is normally recorded, classified and summarized within the conventional accounting framework. Besides, the accountants are normally required to vouch also for this kind of information. Although "projections" are, probably, the most important information items, as decision maker is more interested in future than in past, only a limited number of such items were included in the questionnaire. The criteria for their selection was, their relative importance, availability within the existing framework of corporate accounting and possibility of their being vouched by auditors -- presently or in not too distant a future. Finally, the list of "derived" items, like ratios, percentages, proportions, per share figures, etc. was kept to the minimum as most of these are published by financial reporting services or can be computed by the professional users of

the financial statements. In fact items in this category are being included more as exceptions than any thing else.

Source of Information Items

Following are the major sources of information items (see the bibliography for details):

1. Anderson. Corporate Reporting For the Professional Investor, (1962).
2. Annual reports of 20 randomly selected industrial companies from the 1970 Fortune list of 500 largest U.S. industrials and 5 randomly selected retailing companies from the 1970 Fortune list of 50 largest U.S. retailing companies.
3. Bernhard. The Evaluation of Common Stocks, (1959).
4. Bradish. "Corporate Reporting and the Financial Analyst", (October, 1965).
5. Cerf. Corporate Reporting and Investment Decisions, (1961).
6. Standard Statistics Co., Inc.. Compustat Information Manual, (1970).
7. Graham, Dodd and Cottle. Security Analysis -- Principles and Technique, (1962).
8. Pankoff and Virgil. "On the Usefulness of Financial Statement Information: A Suggested Research Approach", (April, 1970).

As a first step in preparing the Questionnaire a detail list of all the information items appearing in the above sources was prepared. Obviously, the list was too long to be included in the questionnaire in its entirety. Therefore, the following set of criteria was developed to select the items for the questionnaire from this list:

1. Relative importance of the information item. Importance being judged in relation to total revenue, income or size of the firm.
2. The frequency with which an item is mentioned and the emphasis it has received in the literature on security analysis.
3. Existence of controversy on the information item or variability of the amount involved in information because of the existence of alternative methods of accounting for the item.

It should be realized that no matter how precisely these criteria were set their application was not simple. For one thing they cannot be set precisely as we are not dealing with a physical phenomenon that can be measured in quantitative terms with absolute precision. Measurement of social phenomena is a problem by itself worthy of many separate researches in its own right. The criteria outlined here were followed by the writer in as objective a manner as possible and then were reviewed by the reading committee. As indicated earlier, an element of subjectivity may still remain in the selection because of the nature of problem. It is hoped that discussion with others and pilot testing of the questionnaire have helped in eliminating this subjectivity. Finally, it may be added here that one of the premises we are starting with in the study is that we do not know enough about investment decisions and as to what inputs really go in the investment decisions. Our research problem is not the determination of these inputs but whether a consensus exists on various information items suggested in literature on investment decisions.

Nature of the Items. There are three aspects of the disclosure of accounting information: information on the method used; amount involved; and presentation of the information. Our interest in the study lies in the first two aspects of the information. For instance when one talks of inventory one might be interested both in the method of inventory valuation as well as in the amount of inventory. An effort was made to keep the information on method and amount separate from each other. They were combined where the combination did not violate the objective.

Format of the Questionnaire

The questionnaire has four parts: (1) the courteous introductory letter explaining the purpose of the study; (2) instructions on how to answer the questions; (3) the actual questions; and (4) a profile form to get data on the professional background of the respondents. A personally addressed introductory letter, promised complete anonymity to the respondents. Part two of the questionnaire on instructions explained the meaning and limits on equity investment decisions envisioned in the study. Part three of the questionnaire presented information items on a five point scale. The participants were asked to rate the importance of each information item for equity investment decisions. Part four on profile collected only the basic data on the professional background and experience of the subjects. Participants could write their names and addresses at their discretion, if they wanted to share the research results.

It may be added here that the questionnaire included information items that have a direct bearing on the corporate reports of non-regulated corporations. Since accounting of banks, insurance companies, financial intermediaries, transportation and public utilities is state regulated, the writer confined the study to only non-regulated companies and the respondents were told so in the questionnaire instructions (Please see the appended questionnaire and the introductory letter for the details).

Prior to the mailing of the questionnaire, the rough drafts of the questionnaire and the introductory letter were reviewed by persons other than the writer and by the reading committee. The questionnaire was pilot tested and then reviewed again in the light of responses of the pilot study. The writer feels that considering the geographic spread of the population questioned and the resources available to conduct the study mailed questionnaire is the most desirable approach to collect the data needed to test the proposed hypotheses. A postage paid addressed envelope was enclosed with the questionnaire to ensure maximum return.

The Participants

The population for the purpose of this study consists of the Certified Public Accountants (CPAs, for short) working with the national BIG EIGHT firms of certified public accountants in this country, namely, Arthur Andersen & Co.; Arthur Young & Co.; Ernst & Ernst; Haskins & Sells; Lybrand, Ross Bros. & Montgomery; Peat, Marwick, Mitchell & Co.; Price Waterhouse & Co.; and Touche

Ross & Co., who are listed in the "Alphabetical List of Members of the American Institute of CPAs", published by the American Institute of Certified Public Accountants, New York and the Chartered Financial Analysts (CFAs, for short) listed in the "Seventh Directory of Members of the Institute of CFAs", Charlottesville, Virginia. The writer selected a random sample of 300 CPAs for group A and another random sample of 300 CPAs for group B from CPAs directory and a random sample of 400 CFAs from CFAs directory. It is assumed in the present study that in their training and professional development, the CPAs associated with the Big Eight firms of CPAs in this country have been well exposed to audit work. Thus even if they are currently not spending all or major portion of their time in auditing, they are not completely out of touch with basic audit work. Likewise, it is assumed that the CFAs are also well exposed to security analysis work in their professional development.

There is no sacredness about the numbers chosen for the sample size. In a recent research study using mailed questionnaire approach Estes was successful in getting 32.7% (98/300) questionnaires back from the members of the Financial Analysts Federation (Estes, Autumn, 1968, p. 202), Stallman got only 12% (121/1068) usable replies back from a similar sample (Stallman, 1969, pp. 35-36), and Pearl got 34.3% (120/350) replies back from a sample of CFAs (Pearl, 1969, p. 127). And in a mailed questionnaire to CPAs working with Ernst & Ernst, a national CPA firm, Marshall was successful in attaining a response rate of 91% (382/420) (Marshall, 1969, pp. 86-95).

Although there is no uniformity in the response rates in the studies cited above, the writer expected to receive anywhere from 10 to 25% replies back from the mailing list in each group. However, the actual response to the mailed questionnaire was very encouraging and far exceeded the writer's expectations (see chapter IV for details).

Why Chartered Financial Analysts and Certified Public Accountants?

Ideally a study of this nature should involve four classes of participants: security analysts, investors, certified public accountants, and corporate accountants. The proposed study, however, involves only the security analysts and certified public accountants. Besides convenience, economy, and the size of the project, there are some very important reasons for our selection of the two groups. Investors, in general, are too diverse and scattered. They often obtain financial information indirectly and in a modified form -- via studies prepared by the security analysts (Pankoff and Virgil, April, 1970, p. 276). Besides, the security analysts are the major consumers of corporate accounting information and they are the most active and vocal group in this respect. They represent investors as their information needs are not independent of investors, but are derived from the needs of the investors they advise (Stallman, 1969, p. 30). They counsel on, dollarwise, a large percentage of equity investment decisions. As investors or advisers to investors, they assume a weighty responsibility. They are sophisticated professionals who demand and deserve full and accurate information. The nature of their profession, their constant use of the corporate accounting information and their

technical competence make them extremely important and influential users of accounting information (Horngren, October, 1957, pp. 598-604). There are certain practical advantages also in using security analysts. They are more readily identifiable than the individual investors, and they, probably, more uniformly meet the knowledge requirements (Pankoff and Virgil, April, 1970, p. 276).

Even among the general class of security analysts, only CFAs have been chosen for the study. They are well educated and qualified in their profession as they have passed all the examinations of the Institute of CFAs. In short, they represent a sophisticated group of information users for investment decisions.

Certified public accountants (CPAs) have been chosen for the study because they represent a qualified and well trained group of accountants in the country. They are tightly organized and professionally research conscious and thus cooperative in this kind of study. Although the corporate management has the initial and prime responsibility of preparing and presenting corporate reports to the external users (Bevis, 1965, p. 184), CPAs enjoy the unique privilege of determining largely as to what set of information to be presented to the stockholders and in what form. They are closest to the corporate management on preparer side and are usually grouped with the preparers of the corporate financial statements (Burton, 1969, pp. 105, 144).

Before economic events could be reported to the external users, under our present system, they have to be attested by the CPAs. They

enjoy an immensely important place in the organized capital market and not many incorporated firms ever venture to bring out either uncertified annual reports or reports with qualified opinion from their auditors. They enjoy, what one security analyst calls, "a point of leverage" in this respect (Burton, 1969, p. 108). Thus individually through their audit reports and collectively through the pronouncements of the American Institute of CPAs they have exercised influence and continue to influence corporate reporting practices. Even the Securities and Exchange Commission, which is empowered with much legal authority to impose accounting practices and procedures on corporations, realizes this and has left the task of developing sound accounting principles and practices on the organized accounting profession (Burton, 1969, pp. 108, 149). While discussing what each member of the user-preparer group could do to make corporate reports more meaningful, Leonard Spacek, a Senior Partner with Arthur Andersen & Co., found that security analysts, the stock exchanges, the Securities and Exchange Commission, and even corporate management rely on the corporation's public accountant for adequacy and reliability of the financial information provided for the investor. He comments:

Thus we have gone the full circle of financial statement responsibility to the investor, and we end up with the public accountant. In the last resort, all others rely on him to justify what is adequate and reliable information for the investor (Spacek, 1969, p. 327).

Furthermore, if CPAs do not control what is not included in the corporate reports, they certainly affect the corporate reports

by attesting and vouching what is included in them and this affects their professional obligations (Rappaport, Firmin and Zeff, 1968, pp. 75-75). Hence, their participation in the study is important.

A few words may be added here to explain as to why CPAs of only national Big Eight firms have been selected for the present study. These are giant national public accounting firms with tremendous prestige, power, resources and personnel. They not only dominate the profession but they are the profession in public accounting of large publicly owned corporations in this country. Among themselves they share most of the major corporate public accounting work. They dominate the professional committees and research work and to a large extent determine accounting practices. Besides, the kind of equity investment decisions the present study envisions, none else but the Big Eight dominate the field (Wise, November and December, 1960, July, 1966; Louis, December, 1970). Hence their inclusion in the study.

CHAPTER IV
RESPONSES AND THE TESTS
OF THE HYPOTHESES

Introduction

This chapter picks up where we left off in the previous chapter. In brief, it will present the data on the professional background of the respondents who participated in the research study, and will present the statistics developed from the responses for testing the proposed hypotheses and for examining the pattern of consensus on information items within each subject group.

Respondents' Profile

Table 4-8 present a profile of the respondents. Table 3 summarizes the basic data on the response rates in the three subject groups. These tables are, to a large extent, self-explanatory and do not require any detailed explanation. As stated earlier in chapter III, section, "The Participants", the writer selected a random sample of 300, 300 and 400 respondents from the three subject groups. In all 498 replies were received in the three subject groups, giving an overall response rate of 49.8%. In general, CPAs were more cooperative as 53% of the questionnaire

mailed to them were received back, whereas CFAs returned only 45% of the mailed questionnaires. Considering the fact that subjects were not approached in any way other than the general introductory letter, nor any follow up letters were mailed, the writer was very encouraged by the high response rate. One possible reason for such a high response rate may lie in the format and contents of the introductory letters and the questionnaires mailed to the respondents (see the appendixes for their copies).

There were in all 51 undelivered questionnaires in the first mailing which were later replaced by an equal number of random samples in the different subject groups. These questionnaires could not be delivered to the subjects for a variety of reasons, namely, the subject named has retired or deceased, left no forwarding address, no longer with the firm, firm liquidated, etc..

As table 3 indicates the number of clear refusals was surprisingly very low (below 1%). Those who refused to respond gave a variety of reasons. To sample, some of the CPAs commented, ".... involved in tax work not in auditing"; "In checking with our Home Office in Chicago, I have been informed that a completed questionnaire was returned to you on behalf of our firm. Therefore to avoid duplication of replies I am returning the questionnaire to you uncompleted." ; ".... questionnaire could be more appropriately answered by an investment banker or security analyst." , etc. CFAs' refusals read like the followings: "I now operate a wholesale growing (nursery) business and am five years away from the regular

TABLE 3
QUESTIONNAIRE RESPONSES

Subject Groups	Questionnaires mailed (No.)	Responses Received (No.)	Response Rate Percentage (3) ÷ (2) (4)	Refusals (No.) (5)
(1)	(2)	(3)	(4)	(5)
CPAs -Group A	300	159	53%	2
CPAs -Group B	300	159	53%	3
CFAs -Group C	400	180	45%	4
TOTAL	1,000	498	49.8%	9

use of corporate annual reports. Perhaps this copy should go to another," ; "Thank you. I am not interested in participating" ; "As you may realize, I receive a great many questionnaires each year. Since I find it difficult to answer all these inquiries, I have decided to limit myself answering just those questionnaires sent to me by the Financial Analysts Federation or the Institute of CFAs, etc..

Table 19 in the appendix gives a list of cities covered by the survey and the number of responses from those cities. As expected the large metropolitan areas of New York, Chicago, Los Angeles, Boston, San Francisco and Philadelphia constituted a substantial portion of responses. Since part II of the questionnaire on respondents background was optional, many chose not to complete it. Of those who completed part II, many did not write their names and addresses, as it was optional too. Questionnaire carried specific instructions that part II is "optional but useful for detailed statistical analysis", and "Name and address: (Optional, include only if you would like a statistical summary of the survey results)". This was done intentionally to assure anonymity to the respondents and to encourage responses. The result, a good number of unfilled profile forms (part II), in general, and a large number of questionnaires without respondents' addresses, in particular, were found in the responses. Whenever an address was not given in the questionnaire the writer checked the post-marks on the envelopes. If the post-marks were present and legible then the questionnaire was considered as originating in the city of post-mark. The writer

TABLE 4
PRESENT PROFESSIONAL STATUS
OF RESPONDENTS - CPAs

		CPAs	
	Professional Status	Group A	Group B
(1)	Independent CPAs	6	3
(2)	Working for one of the BIG EIGHT* national firm of CPAs	129	128
(3)	Working for a local or national CPA firm, other than the Big Eight national firms	-	3
(4)	Others	14	10
(5)	Not given	10	15
	Total	159	159

* namely, Arthur Andersen & Co.; Arthur Young & Co.; Ernst & Ernst; Haskins & Sells; Lybrand, Ross Bros. & Montgomery; Peat, Marwick, Mitchell & Co.; Price Waterhouse & Co.; and Touche Ross & Co.

TABLE 5
PRESENT POSITION (TITLE) OF
RESPONDENTS - CPAs

Title	CPAs	
	Group A	Group B
Partner	74	53
Manager	53	61
Supervisor	7	15
Others	14	14
Not given	11	16
Total	159	159

would add the caveat that this procedure, in many cases, gave either the city of the respondents' residence or a transitory city (away from office on assignment or in travel). Thus the list of cities in table 19 need not necessarily represent the city of the respondents' professional work in all cases.

Although table 4 through 8 speak for themselves, a word of general clarification may be added here. In all of these tables, there is this final category of "not given" responses. This category consists of those responses where the respondents did not provide the required information in the questionnaire. In table 4 one may wonder why we have frequencies in items (1), (3) and (4), i.e.; CPAs not working with Big Eight national firms of CPAs when the sample was confined to only Big Eight national CPA firms. As stated earlier the CPA sample was randomly selected from the latest edition of the "Alphabetical List of Members of the American Institute of CPAs". Apparently, some of them (36 out of 318 responding CPAs) have moved to other positions since the publication of the above list. Tables 5 and 7 show a majority of the respondents hold important positions -- managers and partners among CPAs and security analysts, managers, partners, etc. among CFAs -- in their respective professions. In terms of experience (table 8) the respondents represent three groups of highly experienced professionals. Majority of the respondents had professional experience ranging from 6 to 20 years.

TABLE 6
PRESENT PROFESSIONAL STATUS OF
RESPONDENTS - CFAs

Professional Status	CFAs
	Group C
Working for national security analysts firms based in New York	45
Working for local or regional firms of security analysts	26
Working for some other organization	78
Others	19
Not given	12
Total	180

TABLE 7
PRESENT POSITION (TITLE) OF
RESPONDENTS - CFAs

Title	CFAs Group C
Partner	35
Manager	26
Security Analyst	58
Salesman	2
Others *	47
Not given	12
Total	180

* Includes such titles as Vice-President, Fund Manager, Trust Investment Officer, Executive Vice-President, Consultant, Investment Counselor, President, Portfolio Manager, Assistant Treasurer, Investment Manager, Trustee, etc.

TABLE 8
LENGTH OF EXPERIENCE OF
RESPONDENTS IN THEIR
PROFESSIONS

Years	CPAs		CFAs
	Group A	Group B	Group C
Below 5	3	4	18
6 - 10	56	58	50
11 - 15	39	42	39
16 - 20	21	14	21
21 - 25	9	11	7
26 - 30	9	6	6
31 - 35	7	5	4
Over 35	2	3	4
Not given	13	16	31
Total	159	159	180

Part II on the respondents background of the questionnaires addressed to the CPAs had a question (#4) asking them to indicate the proportion of time they spend on auditing, tax work, management services or other activities. Analysis of the responses to the above question showed a large majority of the CPAs included in the investigation (69%) spend a major portion (50% or more) of their time on audit work.

Our samples consisted of CPAs associated with the Big Eight national firms of CPAs. It is assumed that in their training and professional development these CPAs have been well exposed to audit work. Even if they are currently not spending all or major portion of their time in auditing, it is assumed that they are not completely out of touch with basic audit work.

Tests of the Hypotheses

In Chapter I we proposed to test three null hypotheses and in Chapter III we outlined the design to test those hypotheses. Further, it was also stated in the previous chapter that each of the proposed hypotheses will be tested for one information item at a time both by Chi Square and Analysis of Variance statistics. Thus we have a set of 174, (58 x 3), hypotheses both in Chi Square and Anova. Tables 11-16 summarize the resulting statistics -- Chi Square statistics and F ratios -- with the associated degrees of freedom for each information item. For the sake of brevity, however, the discussion of the results is patterned after the information items rather than the subject groups. Thus when we discuss the test results

of a hypothesis, we propose to discuss all the information items relating to that hypothesis for both Chi Square and Anova statistics. The test results are discussed at a significance level of 5% ($\alpha = .05$), unless otherwise stated.

The hypotheses proposed in Chapter I and tests proposed in Chapter III are summarized in table 9 for quick reference. These hypotheses (stated in table 9) were tested for the information items listed in table 10 (see the appended questionnaires for details). Henceforth, the discussion will refer to the serial numbers of the items in table 10.

Tables 11-15 summarize the test results for the three hypotheses proposed in Chapter I. Tables 11 and 12 present the Chi Square and F statistics for each hypothesis, tables 13 and 14 condense the test results by information item under the two tests and table 15 gives a tally of the results under the two tests. Table 14 presents the results along with the direction of the mean of value ratings for the information (see appendix for the table of means for the three subject group). We do not plan to discuss the direction of the mean in the following analysis as it was beyond the scope of the present study.

Analysis of the data collected for testing the proposed hypotheses brought out some very interesting results. Our principal hypothesis was of no difference between the user and preparer groups (A and C), which was extended to eliminate any confusion that responding accountants may have on the value of information as users or as preparers (Chapter I). Quantitatively H_1 was rejected for a

TABLE 9
SUMMARY OF TESTS

Hypothesis	Chi Square	Anova
H_1	$A_i = C_i$	$\mu_{iA} = \mu_{iC}$
H_2	$B_i = C_i$	$\mu_{iB} = \mu_{iC}$
H_3	$A_i = B_i$	$\mu_{iA} = \mu_{iB}$

where,

A = Accountants as they rate the value of information items for equity investment decisions.

B = Accountants as they perceive the value of information items for equity investment decisions to security analysts.

C = Security analysts as they rate the value of information items for equity investment decisions.

i = 1, 2, 3,, 58 ; the information items included in the questionnaire of the study.

A_i , B_i and C_i are the subject groups A, B and C respectively with respect to the value of information item, i (as defined in Chapter III).

μ_{iA} , μ_{iB} , and μ_{iC} are the means of the value assigned to information item, i by the respondents in the subject groups, A, B, and C respectively (as defined in Chapter III).

TABLE 10
INFORMATION ITEMS TESTED

#	Items
1.	Total assets reported, end of period (e.o.p.).
2.	Total current assets reported, e.o.p.
3.	Total current liabilities, e.o.p.
4.	Cost of marketable securities, e.o.p.
5.	Market value of marketable securities, e.o.p.
6.	Amount of revenue and the method used in its recognition (e.g., franchise business, construction firms, etc.), for the period (f.t.p.).
7.	Operating income reported (before non-recurring gains and losses), f.t.p.
8.	Amount and breakdown of operating expenses reported, f.t.p.
9.	Cost of goods sold reported, f.t.p.
10.	Earnings per share reported, f.t.p. and the method used in its computation.
11.	Compounded rate of growth in earnings per share for the last five to ten years.
12.	Dividend per share on common shares, f.t.p.
13.	Amount of inventory reported and the method used in its valuation, e.o.p.
14.	Breakdown of inventory reported under major categories, e.o.p.
15.	Fifo cost of inventory, e.o.p.

TABLE 10--Continued.

#	Items
16.	Market value of inventory, e.o.p.
17.	Amount of depreciation reported and the method used in its computation, f.t.p.
18.	Amount of straight-line depreciation on long-lived assets, e.o.p.
19.	Amount of accelerated depreciation on long-lived assets, f.t.p.
20.	Amount of non-recurring gains and losses reported, f.t.p.
21.	Amount expended on human resources (e.g., hiring, training, etc.), if material, f.t.p.
22.	Amount of past pension fund liability, if material, e.o.p.
23.	Accounting method followed for research and development, and exploration costs.
24.	Amount expended on research and development and exploration, f.t.p.
25.	Accounting method followed for advertising and publicity costs.
26.	Amount expended on advertising and publicity, f.t.p.
27.	Accounting method (purchase vs. pooling) followed for each acquisition and merger completed during the period.
28.	Amount of goodwill recognized in each acquisition completed during the period.
29.	Amount of goodwill and other intangibles amortized, if material, f.t.p.
30.	Amount of income tax expense, f.t.p.

TABLE 10--Continued.

#	Items
31.	Amount of deferred income tax liability or prepaid income tax, e.o.p.
32.	Amount of each subsidiary's earnings and parent co's. share of its earnings, f.t.p.
33.	Investment in each subsidiary co., e.o.p.
34.	Minority interest reported in each consolidated subsidiary, e.o.p.
35.	Breakdown of sales, income after tax and investment by continent or hemisphere (where international operations contribute over 15% of co's. revenues, f.t.p.).
36.	Breakdown of sales, net operating income and investment of diversified cos. by operating division, product, line of business, or customer group (segmented on the basis of 15% or more contribution to gross revenue or operating income, f.t.p.).
37.	Reported capital expenditures (additions to physical facilities), f.t.p.
38.	Planned capital expenditure for next twelve months.
39.	Planned expenditure on research and development and exploration for next twelve months.
40.	Planned expenditure on advertising and publicity for next twelve months.
41.	Method followed for reporting long term leases, f.t.p.
42.	Rent payments or receipts on long term leases, f.t.p.
43.	Terms, annual rentals and breakdown of long term leases by the type of property leased (e.g., real estate, equipment, etc.), e.o.p.
44.	Backlog and projection of orders, e.o.p.

TABLE 10--Continued.

#	Items
45.	Productive capacity and actual output (e.g., steel mills, oil cos., etc.), f.t.p.
46.	Extent of dependence on a few customers (e.g., defense contracts, foreign markets, etc.).
47.	Share of market in major product areas, f.t.p.
48.	Total common shareholders' equity and number of common shares outstanding, e.o.p.
49.	Number of stock warrants and convertible securities outstanding, e.o.p.
50.	Number and type of common shareholders (e.g., individuals, institutions, etc.), e.o.p.
51.	Number of shares in the company owned by its officers, e.o.p.
52.	Terms of stock option plan and shares involved, e.o.p.
53.	Amount and breakdown of preferred stock and long-term debt by type, dividend and interest rate and maturity, e.o.p.
54.	Contractual restrictions on common dividend, if any, e.o.p.
55.	Source and application of funds statements, f.t.p.
56.	Cash flow projections for next two to five years.
57.	Price level adjusted annual corporate reports as supplementary statements.
58.	Names of top executives, lines of authority and their remuneration.

TABLE 11
CHI SQUARE STATISTICS
(Degrees of freedom 4, unless stated otherwise)

Information Item #	Hypotheses		
	1	2	3
1	7.7083	3.3267	1.7196
2	5.0329	2.2319	2.1323 a
3	4.7825 a	1.9716	6.0918
4	4.8309	7.2503	10.9728 *
5	6.1968	10.3248 *	5.4337
6	0.0113 b	1.5228 b	1.2752 b
7	1.2890 b	1.9195 b	4.1538 b
8	68.4882 **	48.0876 **	6.3336
9	12.0396 *	8.0339	2.1936
10	8.9354 * a	3.7102 b	5.4117 a
11	3.6031	4.6712	1.6410
12	1.8909 a	.8416 a	1.3024 a
13	9.1538 * a	1.3842 a	4.7245 a
14	30.8204 **	14.6261 **	3.4120
15	19.0719 **	9.4112	3.7209
16	34.8953 **	40.1047 **	1.0584
17	51.4687 **	29.4796 **	8.9148

See footnotes at the end of the table.

TABLE 11--Continued.

Information Item #	Hypotheses		
	1	2	3
18	82.7123 **	55.7539 **	4.5597
19	88.0304 **	53.2705 **	11.0084 *
20	1.5608 a	2.4362 a	1.2953 a
21	14.2516 **	17.8856 **	2.0068
22	16.9462 **	5.2996	5.0043
23	16.6582 **	6.7417	3.0342
24	36.4027 **	23.0880 **	7.1432
25	22.4977 **	19.4375 **	1.5106
26	49.0298 **	41.2157 **	1.3185
27	4.7182	2.1635 a	2.3276 a
28	3.4511	2.9632	9.4325
29	19.3622 **	3.1386	11.4073 *
30	11.3607 *	8.3194 * a	3.4057
31	3.2405	4.0412	.4387
32	65.2620 **	56.1255 **	.9937
33	59.9314 **	48.7249 **	1.8605
34	47.6072 **	33.3521 **	2.6566
35	38.3400 **	35.1609 **	2.0848

See footnotes at the end of the table.

TABLE 11--Continued.

Information Item #	Hypotheses		
	1	2	3
36	51.8965 **	47.2856 **	8.1994
37	87.0341 **	86.0196 **	8.5715
38	83.2313 **	83.2663 **	0.5253
39	40.0120 **	58.6773 **	4.2122
40	20.5958 **	26.9129 **	1.7336
41	8.6002	9.8676 *	1.1524
42	40.0490 **	27.1831 **	6.1339
43	8.8070	9.1918	1.5760
44	29.3450 **	39.8825 **	1.5523
45	40.7108 **	60.0520 **	3.7841
46	7.4112	7.7031	3.0642
47	27.9873 **	35.2013 **	0.9925
48	20.4338 **a	19.1535 **a	2.9348 a
49	12.2177 *	10.7624 *	2.2637
50	3.6915	1.5054	1.7042
51	6.9335	0.5116	4.6344
52	9.8494 *	17.6054 **	5.3678 a
53	4.3399	5.1559	1.9622
54	9.2978	8.2051	1.6098 a

See footnotes at the end of the table.

TABLE 11--Continued.

Information Item #	Hypotheses		
	1	2	3
55	18.2157 **	14.2876 **	2.0137
56	45.6911 **	49.6829 **	2.8855
57	5.5317	12.9723 *	4.1279
58	28.6310 **	19.5253 **	8.4419

* significant at 5% level.

** significant at 1% level.

a : df 3

b : df 2

TABLE 12

ANOVA - F STATISTICS

(H₁ : Degrees of freedom 1/337H₂ : Degrees of freedom 1/337H₃ : Degrees of freedom 1/316)

Information Item #	Hypotheses					
	1		2		3	
1	2.9177	a	.3744	a	1.2078	
2	0.0484		.6564		1.2844	
3	.2196		.0789		.5485	
4	.4031		.4394		.0052	
5	3.2516	a	5.7859 *		0.5635	e
6	0.0100	a	1.0067		.9361	e
7	.3818		1.5312		3.0861	
8	74.1745 **		51.9755 **		2.5635	
9	8.9702 **a		3.5621	a	1.3027	
10	8.9218 **b		1.7743	b	3.4027	
11	3.0693		2.2683		0.0412	
12	.2675		0.1803		.8769	
13	6.6162 *		1.2660		1.7817	
14	31.7201 **		14.7510 **a		2.4736	e
15	11.6624 **b		3.5614	a	1.8355	g

See footnotes at the end of the table.

TABLE 12--Continued.

Information Item #	Hypotheses			
	1	2	3	
16	34.6221 **a	38.9430 **b	.1670	g
17	53.0271 **	28.0324 **	2.0803	
18	83.3223 **a	55.4712 **	1.9633	e
19	90.0045 **	53.9772 **b	2.2161	f
20	.8400	0.1150	.2569	
21	13.4459 **	16.5314 **	.2233	
22	15.2499 **	4.7951 *	2.4169	
23	5.4148 *	1.6223	1.1570	
24	27.8481 **a	19.5764 **	.0206	e
25	20.0720 **	18.1154 **a	.0262	e
26	51.7207 **a	44.4495 **	.1810	e
27	0.1268	.9417 a	.3304	e
28	.2546	.0052	.1486	
29	9.0854 **	.7053	4.1222 *	
30	6.5710 *	2.1558	1.4417	
31	2.4279	2.0428	.0195	
32	63.7592 **	54.7880 **	.3844	
33	56.8172 **	41.4226 **	.5187	
34	42.8132 **	29.5762 **	.6031	

See footnotes at the end of the table.

TABLE 12--Continued.

Information Item #	Hypotheses		
	1	2	3
35	34.4928 **	26.4488 **	.7450
36	58.3115 **a	49.7337 **a	1.7793
37	105.5651 **	105.8945 **a	.4082 e
38	102.5227 **	103.4552 **	.0448
39	31.1426 **	53.1817 **	3.4488
40	20.5979 **	25.6153 **	.1406
41	6.7413 **	7.2064 **	0.0002
42	39.5816 **	19.9884 **	4.2845 *
43	6.4630 *	8.4974 **	.1539
44	21.7415 **	33.9911 **	1.4185
45	32.0398 **	52.6559 **	2.7118
46	0.6802 a	4.2707 * a	1.5257
47	24.0643 **a	32.3132 **b	.5901 e
48	21.2788 **	18.5209 **	.3450
49	8.3645 **	9.8090 **	.1687
50	0.9987	0.6145	.0363
51	1.8201	0.3330	.6019
52	9.9072 **	12.4420 **	.3837
53	3.0655	2.0334	.1353

See footnotes at the end of the table.

TABLE 12--Continued.

Information Item #	Hypotheses			
	1	2	3	
54	8.7669 **a	7.3926 **	.1322	e
55	17.6672 **	14.5659 **	.4108	
56	37.2616 **a	43.3595 **	0.9014	e
57	1.6244 c	0.3974 d	.4473	e
58	28.6931 **c	16.3291 **b	1.3952	f

* significant at 5% level.

** significant at 1% level.

a : df 1/336

b : df 1/335

c : df 1/333

d : df 1/332

e : df 1/315

f : df 1/314

g : df 1/313

The numerator in the df for F ratio represents the degrees of freedom for MS Between and the denominator represents the degrees of freedom for MS Within.

TABLE 13
 SUMMARY OF TEST RESULTS -- CHI SQUARE
 (Significance level 5%)

	Hypothesis	
	Rejected Information Items #	Not Rejected Information Items #
H_1	8, 9, 10, 13, 14, 15, 16, 17, 18, 19, 21, 22, 23, 24, 25, 26, 29, 30, 32, 33, 34, 35, 36, 37, 38, 39, 40, 42, 44, 45, 47, 48, 49, 52, 55, 56, 58	1, 2, 3, 4, 5, 6, 7, 11, 12, 20, 27, 28, 31, 41, 43, 46, 50, 51, 53, 54, 57
H_2	5, 8, 14, 16, 17, 18, 19, 21, 24, 25, 26, 30, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 44, 45, 47, 48, 49, 52, 55, 56, 57, 58	1, 2, 3, 4, 6, 7, 9, 10, 11, 12, 13, 15, 20, 22, 23, 27, 28, 29, 31, 43, 46, 50, 51, 53, 54
H_3	4, 19, 29	1, 2, 3, 5-18, 20-28, 30-58

TABLE 14
SUMMARY OF TEST RESULTS -- ANOVA
(Significance level 5%)

	Hypothesis	
	Rejected Information Items #	Not Rejected Information Items #
$H_1 : \mu_{iA} = \mu_{iC}$		
$\mu_A > \mu_C$	52, 54	4, 5, 11, 27, 57
$\mu_C > \mu_A$	8, 9, 10, 13, 14, 15, 16, 17, 18, 19, 21, 22, 23, 24, 25, 26, 29, 30, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 47, 48, 49, 55, 56, 58	1, 2, 3, 7, 12, 20, 28, 31, 46, 50, 51, 53
$\mu_A = \mu_C$	-	6
$H_2 : \mu_{iB} = \mu_{iC}$		
$\mu_B > \mu_C$	5, 52, 54	2, 3, 4, 7, 11, 12, 27, 57
$\mu_C > \mu_B$	8, 14, 16, 17, 18, 19, 21, 22, 24, 25, 26, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 55, 56, 58	1, 6, 9, 10, 13, 15, 20, 23, 28, 29, 30, 31, 50, 51, 53

TABLE 14--Continued.

	Hypothesis	
	Rejected Information Items #	Not Rejected Information Items #
$H_3 : \mu_{1A} = \mu_{1B}$		
$\mu_A > \mu_B$	-	6, 11, 16, 21, 38, 39, 40, 43, 44, 45, 46, 47, 49, 54, 56, 57
$\mu_B > \mu_A$	29, 42	1, 2, 3, 4, 5, 7, 8, 9, 10, 12, 13, 14, 15, 17, 18, 19, 20, 22, 23, 24, 25, 26, 27, 28, 30, 31, 32, 33, 34, 35, 36, 37, 48, 50, 51, 52, 53, 55, 58
$\mu_A = \mu_B$	-	41

TABLE 15
SUMMARY OF TEST RESULTS

	Hypothesis		
	1	2	3
	Number of Information Items		
<hr/>			
<u>Chi Square</u>			
Rejected			
Significance level 5%	6	6	3
Significance level 1%	31	27	0
Not Rejected	21	25	55
<u>Anova</u>			
Rejected			
Significance level 5%	4	3	2
Significance level 1%	36	32	0
Not Rejected	18	23	56

majority of information items by the two statistical tests. Though F statistics rejected H_1 for 40 items as compared to 37 items by Chi Square statistics, the interesting fact is that the items rejected by Chi Square (37) are the ones rejected by F statistics also (Table 16). The three items rejected by F statistics but not rejected by Chi Square, # 41, 43, 54, yielded very high Chi Square statistics and are rejected at a significance level of 10%. As table 15 shows, H_1 is rejected for most information items even at a significance level of 1%.

H_2 is rejected for 33 information items by Chi Square and for 35 items by F test; 31 of these items are common in these two sets of rejected items. H_2 is rejected for items # 22, 43, 46 and 54 by F test alone whereas Chi Square rejected it for items # 30 and 57 alone. However, the obtained statistics were fairly high for most of these items. Of the items rejected under H_2 , most of them were rejected even at a significance level of 1%.

H_3 is rejected for only one information item (#29) by both tests. In addition Chi Square rejected H_3 for two more items (# 4 and 19) and F test rejected H_3 for item # 42 also.

A quick review of table 16 shows that not only there is a close similarity between Chi Square and F statistics in terms of hypotheses rejected for the information items, there is a similarity between H_1 and H_2 also in terms of rejected hypotheses for most information items within and between the two statistical tests. There are, however, seven information items (# 9, 10, 13, 15, 22, 23 and 29) rejected in H_1 but not rejected in H_2 and three items

TABLE 16
COMPARISON OF THE HYPOTHESES REJECTED
UNDER TWO TESTS

(Significance level 5%)

Chi Square Hypothesis			Anova Hypothesis		
1	2	3	1	2	3
#	#	#	Information Item	#	#
-	-	4	-	-	-
-	5	-	-	5	-
8*	8*	-	8*	8*	-
9	-	-	9*	-	-
10	-	-	10*	-	-
13	-	-	13	-	-
14*	14*	-	14*	14*	-
15*	-	-	15*	-	-
16*	16*	-	16*	16*	-
17*	17*	-	17*	17*	-
18*	18*	-	18*	18*	-
19*	19*	19	19*	19*	-
21*	21*	-	21*	21*	-
22*	-	-	22*	22	-
23*	-	-	23	-	-
24*	24*	-	24*	24*	-
25*	25*	-	25*	25*	-
26*	26*	-	26*	26*	-
29*	-	29	29*	-	29
30	30	-	30	-	-
32*	32*	-	32*	32*	-
33*	33*	-	33*	33*	-
34*	34*	-	34*	34*	-
35*	35*	-	35*	35*	-
36*	36*	-	36*	36*	-
37*	37*	-	37*	37*	-
38*	38*	-	38*	38*	-
39*	39*	-	39*	39*	-
40*	40*	-	40*	40*	-

See footnote at the end of the table.

TABLE 16--Continued.

Chi Square Hypothesis			Anova Hypothesis		
1	2	3	1	2	3
#	#	#	Information Item	#	#
-	41	-	41*	41*	-
42*	42*	-	42*	42*	42
-	-	-	43	43*	-
44*	44*	-	44*	44*	-
45*	45*	-	45*	45*	-
-	-	-	-	46	-
47*	47*	-	47*	47*	-
48*	48*	-	48*	48*	-
49	49	-	49*	49*	-
52	52*	-	52*	52*	-
-	-	-	54*	54*	-
55*	55*	-	55*	55*	-
56*	56*	-	56*	56*	-
-	57	-	-	-	-
58*	58*	-	58*	58*	-

* Significant at 1% level.

(# 5, 41 and 57) rejected in H_2 but not rejected in H_1 under Chi Square tests. And there are seven information items (# 9, 10, 13, 15, 23, 29 and 30) rejected in H_1 but not rejected in H_2 and two items (# 5 and 46) rejected in H_2 but not rejected in H_1 under Anova tests. There are not many information items for which H_3 is rejected but for whatever items H_3 is rejected in general, those items were rejected for H_1 and H_2 also in the two statistical tests.

Analysis of the data in terms of the nature of the information items for which H_1 and H_2 were rejected, perhaps, yielded most interesting results in the present study. H_1 of no difference between public accountants and security analysts was, in general, rejected by the two tests either for information items relating to projections, such as, planned capital expenditure for next twelve months, planned expenditure on research and development and exploration, planned expenditure on advertising and publicity, projection of orders, and cash flow projections for two to five years or breakdowns and details of certain information items, e.g., amount and breakdown of operating expenses reported, breakdown of inventory reported under major categories, amount of each subsidiary's earnings and parent company's share of its earnings, investment in each subsidiary, minority interest reported in each consolidated subsidiary, breakdown of sales, net operating income, income after tax and investment by continent or hemisphere for companies with international operations and by operating division, product, line of business or customer group for diversified companies, and terms, annual rentals and breakdown of long term leases by the type of property leased or for

information items not traditionally reported by corporations, such as, both fifo cost and market value of inventory, amount expended on human resources, planned expenditure on research and development, advertising and publicity and planned capital expenditure, share of market in major product areas, cash flow projections for next two to five years, names of top executives, lines of authority and their remuneration etc..

As H_1 was rejected for the following information items also it seems differences exist between the two subject groups on a large number of popularly reported information items too, such as, amount of operating expenses reported, cost of goods sold reported, earnings per share reported and the method used in its computation, amount of inventory reported and the method used in its valuation, amount of depreciation reported and the method used in its computation, amount of goodwill and other intangibles amortized, amount of income tax expense, investment in each subsidiary company, minority interest reported in each consolidated subsidiary company, reported capital expenditure, total common shareholders' equity and number of common shares outstanding, source and application of fund statements, etc.. Similarly, differences between public accountants and security analysts were not confined to projection alone. The two groups disagreed (H_1 was rejected) on a large number of information items pertaining to past also, such as, cost of goods sold reported, amount of depreciation reported and the method used, amount of past pension fund liability, amount expended on research and development and

exploration, amount of goodwill and other intangibles amortized, amount of income tax expense, reported capital expenditure (additions to physical facilities), rent payments or receipts on long term leases, etc..

The questionnaire had two specific information items relating to derived figures, namely, earnings per share reported, and compounded rate of growth in earnings per share for the last five to ten years. H_1 was rejected, however, for only earnings per share. Similarly, there were four items specifically on the disclosure of method followed for particular items (# 23, 25, 27, and 41). H_1 was rejected on three of these items, namely, accounting method followed for research and development, and exploration costs, accounting method followed for advertising and publicity costs, and the method followed for reporting long term leases. Interestingly enough, no difference was found on the accounting method (purchase vs. pooling) followed for each acquisition and merger completed during the period. Perhaps the most interesting results were found in case of the following two outstanding items in the questionnaire: earnings per share reported for the period and the method used in its computation, and the source and application of funds statements for the period. H_1 was rejected for both these items and the existence of difference on the value of these items was surprising in view of the emphasis they receive in the literature.

In general, H_1 is not rejected by the two tests for the traditionally reported items, such as, total assets reported, total current

assets reported, total current liabilities, amount of revenue, operating income reported, dividend per share on common shares, etc.. However, H_1 is not rejected for certain traditionally undisclosed information items also, such as, compounded rate of growth in earnings per share for the last five to ten years, extent of dependence on a few customers, number of shares in the company owned by its officers, etc.. But such items were very few in number. Interestingly, no difference exists on the value of price level adjusted annual corporate reports as supplementary statements between subject groups A and C. Similarly, since H_1 is not rejected for items like accounting method followed for each acquisition and merger completed during the period, amount of goodwill recognized in each completed acquisition, etc. it seems there does not exist any difference between subject groups A and C on the value of these items.

H_2 , in general, closely followed the pattern established in H_1 in terms of information items for which first hypothesis is rejected. There were, however, some deviations from this pattern. As opposed to H_1 , H_2 was not rejected for information items such as cost of goods sold reported, earnings per share reported and the method used in its computation, amount of inventory reported and the method used in its valuation, amount of goodwill and other intangibles amortized, etc.. Since the pattern of rejection or non rejection was, in most part, common between H_1 and H_2 , the reader should refer to preceding paragraphs for the discussion of H_2 .

H_3 was rejected for only one information item by both tests, namely, amount of goodwill and other intangibles amortized, if

material, for the period. It seems that accountants seldom make a distinction between what they themselves think and what they perceive as the value of information to users.

As a general conclusion of the tests of the proposed hypotheses, we may state the following: (1) The two statistical tests -- Chi Square and Analysis of Variance -- gave similar results, perhaps, because of large sample size. (2) Differences exist on the value of a large number of information items between accountants and security analysts (H_1 and H_2). Where such differences exist, they are (in many cases) on information pertaining to projections, breakdowns, and traditionally undisclosed information items. However, the lack of difference is not confined solely to traditionally disclosed information items. (3) H_3 was rejected on only a few information items which tend to show that CPAs do not make such distinction between what they themselves think and what they perceive as the value of information items to users. There was a close similarity between the information items rejected or not rejected under H_1 and H_2 but a vast difference was found between H_1 and H_3 , and H_2 and H_3 .

The Consensus Pattern Within Subject Groups

As discussed earlier in Chapter I, there is no a priori reason to believe that information items should show any particular pattern of consensus within each subject group. In fact this issue was left to be revealed by the statistics themselves. The author's only conjecture was that it would be a rare event to find a uniform pattern -- witnessed by either the same degree of variation or lack of variation in the value ratings for all information items by the respondents

TABLE 17
STANDARD DEVIATIONS OF INFORMATION
ITEMS FOR THE THREE
SUBJECT GROUPS

Information Item #	Subject Group		
	A	B	C
1	.997	.934	.974
2	.600	.586	.731
3	.576	.629	.627
4	.911	1.019	.975
5	.662	.762	.822
6	.359	.429	.357
7	.438	.318	.384
8	.886	.793	.534
9	.767	.705	.698
10	.579	.371	.334
11	.988	1.002	.992
12	.716	.719	.756
13	.667	.678	.621
14	.928	.961	.863
15	.977	1.050	.968
16	1.031	1.063	.908
17	.713	.763	.534
18	.887	.939	.891

TABLE 17--Continued.

Information Item #	Subject Group		
	A	B	C
19	.830	.952	.867
20	.538	.562	.478
21	.918	.968	.901
22	.963	.982	.884
23	.667	.688	.772
24	.647	.848	.650
25	.982	.998	1.004
26	.906	.927	.855
27	.491	.430	.516
28	.642	.802	.720
29	.614	.709	.689
30	.709	.592	.622
31	.828	.809	.754
32	1.179	1.136	.772
33	1.055	1.115	.787
34	1.038	1.106	.881
35	.939	.877	.855
36	.971	.783	.534
37	.811	.713	.602
38	.772	.799	.604

TABLE 17--Continued.

Information Item #	Subject Group		
	A	B	C
39	.781	.848	.764
40	.931	.875	.906
41	.898	.840	.821
42	.925	.805	.824
43	.963	1.003	.903
44	.817	.877	.644
45	.794	.840	.741
46	.615	.742	.570
47	.813	.826	.737
48	.816	.710	.546
49	.635	.726	.571
50	1.090	1.074	.998
51	.829	.760	.768
52	.667	.782	.794
53	.789	.737	.776
54	.703	.650	.851
55	.846	.727	.525
56	.938	1.049	.963
57	1.115	1.019	1.135
58	1.014	1.028	.905

TABLE 18
INFORMATION ITEMS IN THEIR ORDER OF VARIATION

Order	Subject Group			C
	A	B		
	Information Item			
	#	#		#
<hr/>				
Lowest Ten Standard Deviations				
1	6	7		10
2	7	10		6
3	27	6		7
4	20	27		20
5	3	20		27
6	10	2		55
7	2	30		8
8	29	3		17
9	46	54		36
10	49	13		48
.				
.				
.				
.				
Highest Ten Standard Deviations				
.				
.				
.				
49	25	4		40
50	11	57		16
51	1	58		56
52	58	56		15
53	16	15		1
54	34	16		4
55	33	50		11
56	50	34		50
57	57	33		25
58	32	32		57

in every subject group -- of consensus in each subject group for all information items.

As per the methodology outlined in Chapter III, the pattern of consensus within subject groups was examined by arranging the standard deviations (s) for the information items in an ascending order. The standard deviations for all of the items and the lowest ten and highest ten s are presented in the following tables. The discussion in most part is brief and confined to only ten items with lowest s and another ten items with the highest s .

Information item #32, subsidiary's earnings and parent company's share of its earnings, showed highest variation in both subject group A and B. Information item #6, the amount of revenue and the method used in its recognition, showed smallest variation in value rating in subject group A and item #7, operating income reported, showed smallest variation in subject group B. The examination of the pattern of consensus within CFAs, subject group C, revealed two very interesting features: (1) CFAs showed smallest variation in value ratings for information item #10, the earnings per share reported for the period and the method used in its computation ($s = .334$). But the mean of their value ratings was highest for this item (mean = 4.888), which only shows that earnings per share tend to be a very important information to the users of corporate reports and it is one information on which they tend to think more homogenously as a group than on any other item (Burton, 1969, pp. 10, 90-100, 140), and (2) CFAs showed highest variation in their value ratings for information item

#57, the price level adjusted annual corporate reports as supplementary statements ($s = 1.135$). However, the mean of their value ratings was lowest for this item (mean = 2.943) which tend to confirm that security analysts are not interested in the price level adjusted corporate reports (Horngren, 1955, pp. 6-7) and it is one item where they think less homogeneously than other items.

In general, the information items with smallest and highest degree of variations were common in the three subject groups. The examination of individual information items with the smallest or highest degree of variation revealed two interesting features. One, the traditionally disclosed information items, such as amount of revenue, operating income, current assets and liabilities, income tax expense, amount of inventory reported, etc., in general, showed smaller degree of variation in the three subject groups. Two, information items not popularly disclosed by corporations, such as, compounded rate of growth in earnings, market value of inventory, price level adjusted annual corporate reports, cash flow projections for next two to five years, planned expenditure on advertising, etc., in general, showed larger degree of variation in value ratings in the three subject groups.

CHAPTER V

SUMMARY, LIMITATIONS AND FURTHER RESEARCH

Introduction

This chapter briefly summarizes the results of the investigation, discusses some of the limitations of the study and suggests possible further research on the problem.

Summary of the Results

The purpose of this study was to provide a piece of empirical evidence bearing on the question of adequacy of disclosure in published corporate annual reports. More specifically it examined whether the 'user' and 'preparer' groups have consensus on the value of disclosed information in published corporate annual reports.

Chapter I proposed to test the following hypotheses:

- H_1 : There is no significant difference between the accountants and the security analysts on the value of information items for equity investment decisions.
- H_2 : There is no significant difference between the value of information items to security analysts and the value of the information items to security analysts as perceived by accountants for equity investment decisions.
- H_3 : There is no significant difference between the value of information items to accountants and the value of information items to security analysts as perceived by accountants for equity investment decisions.

Data for testing these hypotheses was collected from a questionnaire mailed to random samples of 600 CPAs and 400 CFAs. The hypotheses were tested by Chi Square and Analysis of Variance techniques. Tables 11-16 in Chapter IV presented the results in detail. The findings of the tests of the hypotheses can be summarized as follows:

- (1) The two statistical tests -- Chi Square and Analysis of Variance -- gave similar results, perhaps, because of large sample size.
- (2) Differences exist on the value of a large number of information items between accountants and security analysts (H_1 and H_2). Where such differences exist, they are (in many cases) on information pertaining to projections, details and breakdowns and traditionally undisclosed information items. However, the lack of difference is not confined solely to traditionally disclosed information items.
- (3) H_3 was rejected on only a few information items which tend to show that CPAs do not make much distinction between what they themselves think and what they perceive as the value of information items to users. There was a close similarity between the information items rejected or not rejected under H_1 and H_2 but a vast difference was found between H_1 and H_3 , and H_2 and H_3 .

The study examined the pattern of consensus also within each subject group. There was no a priori reason to believe that information items should show any particular pattern of consensus within each subject group. The issue was left to be revealed by the statistics themselves. The examination of the information items with very high or very low standard deviations in each subject group

revealed the following two interesting features. One, the traditionally disclosed information items, such as amount of revenue, operating income, current assets and liabilities, income tax expense, amount of inventory reported, etc., in general, showed smaller degree of variation in the three subject groups. Two, information items not popularly disclosed by corporations, such as, compounded rate of growth in earnings, market value of inventory, price level adjusted annual corporate reports, cash flow projections for next two to five years, planned expenditure on advertising, etc., in general, showed larger degree of variation in value ratings in the three subject groups.

Limitations

The proposed study has three important limitations. One, the study does not inquire into any specific investment decision model or process. We do not ask our subjects to specify as to how they take investment decisions and even how they use the corporate accounting information along with their risk preferences. All we ask is to specify how they value the accounting information items for equity investment decisions. This assumes a basic training and proficiency on the part of CPAs and CFAs in the preparation and use of information. It is assumed that both subject groups are sophisticated enough in their training to go through the "source figures" (e.g.; Assets, Liabilities, Owners Equity, Earnings etc., as opposed to "derived" or "developed" statistics like Rate of Return on Investment, Inventory Turnover, Current Ratio, etc.) in their working papers and use them to

develop certain popularly used ratios, proportions and percentages for comparison purposes. That is, they have an understanding of accounting process. Or even if they do not develop such ratios themselves, say, depending on financial news services, the mechanism for such computations is standard and widely known and given time the subjects can develop these ratios themselves. The idea is that in their work these professionals do not depend just on magic numbers or hot tips. They have some consistently rational approach to their professional work. Further, even if they depend much on these ratios and proportions, being aware of the mechanism, they will value the "source figures" the same way as they would have valued the "derived" and "developed" statistics. Given the qualifications of the subjects, it seems to be a reasonable assumption to make in the study.

The second limitation concerns the complete spectrum of accounting. Reporting of economic events affecting an economic entity goes through three phases: (1) interpretation of the event, (2) measurement of the consequence of that event, and (3) the disclosure of the consequence of that event on the entity. There is no doubt that all these phases are of extreme importance and affect the corporate reporting practice immensely, but the present study does not inquire into all of these phases. Our interest is confined to only the third phase of the process, i.e.; disclosure of the consequences of the economic events occurring in the life of a corporation. We assume that there exist accepted ways of interpretation and measurement of economic events in accounting, and if not, they need to be researched in another inquiry.

Last but not the least important limitation relates to the applicability of results. No sweeping generalizations can be made from a study of this size nor they are intended. The results would be valid only in the light of assumptions made in the study.

Possible Further Research

Academic world's understanding of the professional world is at best limited. In fact how much even the two closely related professionals -- CPAs and CFAs -- understand each others requirements is also not known. This study is intended to make some contribution to this knowledge. To be a really effective contribution to understanding in any field the modest findings of any single study should suggest the next step of research. As a concluding note to this study, we present some potential extensions of the present study here.

The results of this study are limited in scope as the samples of the subject groups in the study covered only a small portion of the users and preparers. The fact that response rate in the study was high encourages one to include broader groups of preparers and users of published corporate annual reports in future inquiries. The present study covered only the CPAs of Big Eight national public accounting firms and CFAs. Apparently this leaves out CPAs not working with Big Eight national public accounting firms and the security analysts who are not members of the Institute of Chartered Financial Analysts. Future study should make an attempt to include such other certified public accountants and security analysts.

The study left corporate accountants out of the study completely. This was intentional because of the limited resources available for the study. To be more effective, future studies in this area should include corporate accountants also.

Finally, the mailed questionnaire restricted the investment decisions to the following meaning:

These are decisions concerning buying, selling or holding equity (common) shares of non-regulated publicly owned corporations (i.e., excluding banks, financial intermediaries, insurance companies, transportation and public utilities) whose stocks are listed and traded either on New York Stock Exchange, American Stock Exchange or one of the regional stock exchanges (e.g., Midwest Stock Exchange, Pacific Coast Stock Exchange, etc.). Furthermore, we are only concerned with "investment decisions" involving a quantity of shares not less than a round lot (100 shares) and not exceeding 5% of the total outstanding common shares of a corporation. (Questionnaire Instructions, p. 1).

These limitations on the investment decisions in the present study suggest themselves for further investigation in their own right.

One possible extension of the study could be the inquiry into the investment decisions in regulated corporations such as banks, financial intermediaries, insurance companies, transportation and public utilities. Another extension could be the inquiry into investment decisions in the securities not listed with the stock exchanges. Three, the value of information in investment decisions with the intention of control should also be investigated.

APPENDIX A

TABLE 19
CITIES OF RESPONDENTS

CITY	CPAs		CFAs
	Group A	Group B	Group C
Atlanta	-	3	1
Baltimore	1	1	2
Battle Creek (Mich.)	-	2	-
Birmingham (Ala.)	-	2	2
Boston	4	4	10
Chicago	12	9	8
Cleveland	4	4	5
Columbus (Ohio)	3	2	-
Dallas	1	2	4
Dayton	2	-	-
Denver	2	3	2
Detroit	2	2	2
Fortworth (Tex.)	-	2	-
Hartford (Conn.)	1	7	-
Honolulu	3	-	-
Houston	5	5	-
Kansas City	1	-	3
Los Angeles	12	9	7
Louisville (Ky.)	1	-	2
Milwaukee	5	-	1
Minneapolis	3	3	-
New Orleans	2	3	-
New York	9	22	48
Omaha	-	2	-
Philadelphia	2	6	11
Phoenix	3	1	-
Pittsburgh	2	1	-
Richmond (Va.)	1	-	2
Rochester	1	2	1
St. Louis	4	6	-
San Francisco	5	5	7
San Jose (Calif.)	2	1	-
Seattle	1	2	-
Tulsa	2	-	-
Washington, D.C.	3	-	1

TABLE 19--Continued.

CITY	CPAs		CFAs Group C
	Group A	Group B	
Other Cities	37*	32**	31***
Not given	23	16	30
Total	159	159	180

*Includes one response from each of the following places:

Amarillo (Tex.), Belevue (Wash.), Beverly Hills (Calif.), Birmingham (Mich.), Brea (Calif.), Brookhaven (Pa.), Cincinnati, Des Moines (Iowa), Garden City (N.Y.), Grand Rapids (Mich.), Gravenhage (Netherland), Indianapolis, Ithaca (N.Y.), Kalamazoo (Mich.), Kingston (N.Y.), LaJolla (Calif.), Lake Forest (Ill.), Melrose (Mass.), Menlo Park (Calif.), Midland (Tex.), Nashville, Oakland, Oklahoma City, Orchard Lake (Mich.), Pasadena, Providence (R.I.), Portland (Ore.), Rockford (Ill.), Saginaw (Mich.), St. Paul, Santa Ana (Calif.), Spokane (Wash.), Summit (N.J.), Taylors (S.C.), Toledo, Westminster (Colo.), Wheelridge (Colo.)

**Includes one response from each of the following places:

Akron, Albany (N.Y.), Albuquerque (N.M.), Beachwood (Oh.), Birmingham (Mich.), Brackfield (Wis.), Charlotte (N.C.), Cincinnati, Fullerton (Calif.), Glendale (Ariz.), Huntsville (Ala.), Miami (Fla.), Middletown (N.J.), Midland (Tex.), Moones Town (N.J.), Nashville (Tenn.), New Rochelle (N.Y.), Oklahoma City, Pampano Beach (Fla.), Pasadena, Portland (Ore.), Providence (R.I.), Reseda (Calif.), San Juan (P.R.), Santa Fe (N.M.), South Bend (Ind.), Statesboro (Ga.), Toledo, Wakefield (Mass.)

***Includes one response from each of the following places:

Appleton (Wis.), Barre (Vt.), Bowling Green (Oh.), Charlotte (N.C.), Chattanooga, Columbia (S.C.), Denton (Tex.), Des Moines, Granada Hills (Calif.), Indianapolis, Kalamazoo (Mich.), Lexington (Mass.), Moline (Ill.), Monterey (Calif.), Nashville (Tenn.), Newark (N.J.), Orlando (Fla.), Portland (Ore.), River Edge (N.J.), Roanoke (Va.), Sacramento (Calif.), San Diego (Calif.), Santa Barbara (Calif.), Springfield (Mo.), St. Paul, Tacoma (Wash.), Tempe (Ariz.), Terrytown (N.Y.), Toledo, Webster Groves (Mo.), Westfield (N.J.)

APPENDIX B

TABLE 20
MEAN OF THE VALUE RATINGS FOR
INFORMATION ITEMS FOR THE
THREE SUBJECT GROUPS

Information Item #	Subject Group		
	A	B	C
1	4.107	4.226	4.291
2	4.572	4.648	4.589
3	4.591	4.642	4.622
4	3.994	4.000	3.928
5	4.437	4.497	4.289
6	4.867	4.824	4.867
7	4.811	4.887	4.839
8	3.975	4.126	4.650
9	4.264	4.358	4.503
10	4.736	4.836	4.888
11	3.811	3.786	3.622
12	4.264	4.340	4.306
13	4.314	4.415	4.494
14	3.396	3.563	3.944
15	3.465	3.620	3.828
16	3.241	3.191	3.861
17	4.189	4.308	4.683
18	3.127	3.270	4.011

TABLE 20--Continued.

Information Item #	Subject Group		
	A	B	C
19	3.239	3.389	4.117
20	4.660	4.692	4.711
21	2.843	2.792	3.206
22	3.642	3.811	4.033
23	4.283	2.365	4.467
24	4.038	4.050	4.411
25	3.132	3.152	3.617
26	2.994	3.038	3.683
27	4.792	4.823	4.772
28	4.440	4.472	4.478
29	4.302	4.453	4.517
30	4.459	4.547	4.644
31	4.233	4.245	4.367
32	3.528	3.610	4.383
33	3.226	3.314	3.983
34	3.151	3.245	3.833
35	3.667	3.755	4.239
36	4.006	4.138	4.648
37	3.692	3.747	4.483
38	3.597	3.579	4.356

TABLE 20--Continued.

Information Item #	Subject Group		
	A	B	C
39	3.648	3.478	4.117
40	3.019	2.981	3.472
41	3.874	3.874	4.117
42	3.447	3.648	4.044
43	3.409	3.365	3.667
44	4.063	3.950	4.433
45	3.906	3.755	4.378
46	4.522	4.428	4.575
47	3.849	3.778	4.263
48	4.333	4.384	4.678
49	4.472	4.440	4.661
50	3.164	3.189	3.278
51	3.711	3.780	3.828
52	4.069	4.119	3.817
53	4.151	4.182	4.300
54	4.392	4.365	4.139
55	4.327	4.384	4.644
56	3.434	3.308	4.067
57	3.101	3.019	2.943
58	3.191	3.327	3.753

APPENDIX C

THE OHIO STATE UNIVERSITY

**COLLEGE OF ADMINISTRATIVE SCIENCE
1775 SOUTH COLLEGE ROAD
COLUMBUS, OHIO 43210**

FACULTY OF ACCOUNTING

PHONE: 422-2081

January 11, 1971

Mr. A. B. Celler
Arthur Andersen & Co.
Certified Public Accountants
1345 Avenue of the Americas
New York, N. Y. 10019

Dear Mr. Celler:

For a long time there has been a controversy on what to disclose in published corporate annual reports. Surprisingly, little is known about which information items should be included in such reports. Few have gone to the people concerned with these reports to determine their views on the issues involved.

As a part of my doctoral research, I am surveying a random sample of Certified Public Accountants interested in published corporate annual reports. Your response is highly desirable for the success of this study.

Enclosed you will find a questionnaire and a postage paid return envelope. This is an ANONYMOUS questionnaire, no name or professional affiliation is required. Your response will only be used to develop statistical tables. Under no circumstances will your individual responses be made available to any outsider.

The total time required to complete this questionnaire is approximately TEN MINUTES. Specific instructions are given at the beginning of the questionnaire.

Your participation in this research will be greatly appreciated.

Sincerely yours,

Gyan Chandra

Enclosures

THE OHIO STATE UNIVERSITY

COLLEGE OF ADMINISTRATIVE SCIENCE
1775 SOUTH COLLEGE ROAD
COLUMBUS, OHIO 43210

FACULTY OF ACCOUNTING

PHONE: 422-2081

January 11, 1971

Mr. X. Y. Ziegler
Merrill Lynch, Pierce, Fenner
& Smith, Inc.
70 Pine Street
New York, N. Y. 10005

Dear Mr. Ziegler:

For a long time there has been a controversy on what to disclose in published corporate annual reports. Surprisingly, little is known about which information items should be included in such reports. Few have gone to the people concerned with these reports to determine their views on the issues involved.

As a part of my doctoral research, I am surveying a random sample of Chartered Financial Analysts interested in published corporate annual reports. Your response is highly desirable for the success of this study.

Enclosed you will find a questionnaire and a postage paid return envelope. This is an ANONYMOUS questionnaire, no name or professional affiliation is required. Your response will only be used to develop statistical tables. Under no circumstances will your individual responses be made available to any outsider.

The total time required to complete this questionnaire is approximately TEN MINUTES. Specific instructions are given at the beginning of the questionnaire.

Your participation in this research will be greatly appreciated.

Sincerely yours,

Gyan Chandra

Enclosures

APPENDIX D

**DISCLOSURE IN THE PUBLISHED
CORPORATE ANNUAL REPORTS
QUESTIONNAIRE**

**Faculty of Accounting
College of Administrative Science
1775 South College Road
The Ohio State University
Columbus, Ohio 43210**

Gyan Chandra

QUESTIONNAIRE INSTRUCTIONS

The problem of "Disclosure in the Published Corporate Annual Reports" was chosen for the present study because of the controversy that centers around it. The information items included in the enclosed questionnaire have been chosen from the published literature in Accounting and Security Analysis. Please rate each item independently for its importance in "investment decisions" to you and draw a circle around the symbol that best describes your rating. Do this for each item.

VI = Very Important
I = Important
N = Neither Important Nor Unimportant
U = Unimportant
VU = Very Unimportant

A word may be added here to explain what we mean by "investment decisions." These are decisions concerning buying, selling or holding equity (common) shares of non-regulated publicly owned corporations (i.e., excluding banks, financial intermediaries, insurance companies, transportation and public utilities) whose stocks are listed and traded either on New York Stock Exchange, American Stock Exchange or one of the regional stock exchanges (e.g., Midwest Stock Exchange, Pacific Coast Stock Exchange, etc.). Furthermore, we are only concerned with "investment decisions" involving a quantity of shares not less than a round lot (100 shares) and not exceeding 5% of the total outstanding common shares of a corporation.

The questionnaire includes, in general, only source information and avoids rates, ratios, proportions and percentages (like current ratio, rate of return on investment, etc.). We assume that you will rate the importance of these items in the light of their possible use in computing some of these rates, ratios, etc.

Space is provided for you to add additional items which you think should also be considered in this questionnaire.

OPTIONAL BUT USEFUL FOR DETAILED STATISTICAL ANALYSIS

1. Name and address: (Optional, include only if you would like a statistical summary of the survey results.)

2. Present professional status:

- ☐ A. Independent C.P.A.
☐ B. Working for one of the Big Eight* national firms of C.P.As.
☐ C. Working for a local or national C.P.A. firm, other than the Big Eight national firms.
☐ D. Other.

3. Present position (title):

- ☐ A. Partner
☐ B. Manager
☐ C. Supervisor
☐ D. Other

4. Indicate the proportion of time you spend in the following activities:

- ☐ A. Auditing
☐ B. Tax work
☐ C. Management Services
☐ D. Others

5. How long have you been in public accounting (years).

THANK YOU VERY MUCH FOR YOUR COOPERATION

*namely, Arthur Andersen & Co.; Arthur Young & Co.; Ernst & Ernst; Haskins & Sells; Lybrand, Ross Bros. & Montgomery; Peat, Marwick, Mitchell & Co., Price Waterhouse & Co.; and Touche, Ross, Bailey & Smart.

APPENDIX E

**DISCLOSURE IN THE PUBLISHED
CORPORATE ANNUAL REPORTS
QUESTIONNAIRE**

**Faculty of Accounting
College of Administrative Science
1775 South College Road
The Ohio State University
Columbus, Ohio 43210**

Gyan Chandra

QUESTIONNAIRE INSTRUCTIONS

The problem of "Disclosure in the Published Corporate Annual Reports" was chosen for the present study because of the controversy that centers around it. The information items included in the enclosed questionnaire have been chosen from the published literature in Accounting and Security Analysis. Please rate each item independently for its importance in "investment decisions" to security analysts and draw a circle around the symbol that best describes your rating. Do this for each item.

VI = Very Important
I = Important
N = Neither Important Nor Unimportant
U = Unimportant
VU = Very Unimportant

A word may be added here to explain what we mean by "investment decisions". These are decisions concerning buying, selling or holding equity (common) shares of non-regulated publicly owned corporations (i.e., excluding banks, financial intermediaries, insurance companies, transportation and public utilities) whose stocks are listed and traded either on New York Stock Exchange, American Stock Exchange or one of the regional stock exchanges (e.g., Midwest Stock Exchange, Pacific Coast Stock Exchange, etc.). Furthermore, we are only concerned with "investment decisions" involving a quantity of shares not less than a round lot (100 shares) and not exceeding 5% of the total outstanding common shares of a corporation.

The questionnaire includes, in general, only source information and avoids rates, ratios, proportions and percentages (like current ratio, rate of return on investment, etc.). We assume that you will rate the importance of these items in the light of their possible use in computing some of these rates, ratios, etc.

Space is provided for you to add additional items which you think should also be considered in this questionnaire.

OPTIONAL BUT USEFUL FOR DETAILED STATISTICAL ANALYSIS

1. Name and address: (Optional, include only if you would like a statistical summary of the survey results.)

2. Present professional status:

- ☐ A. Independent C.P.A.
☐ B. Working for one of the Big Eight* national firms of C.P.As.
☐ C. Working for a local or national C.P.A. firm, other than the Big Eight national firms.
☐ D. Other.

3. Present position (title):

- ☐ A. Partner
☐ B. Manager
☐ C. Supervisor
☐ D. Other

4. Indicate the proportion of time you spend in the following activities:

- ☐ A. Auditing
☐ B. Tax work
☐ C. Management Services
☐ D. Others

5. How long have you been in public accounting (years).

THANK YOU VERY MUCH FOR YOUR COOPERATION

*namely, Arthur Andersen & Co.; Arthur Young & Co.; Ernst & Ernst; Haskins & Sells; Lybrand, Ross Bros. & Montgomery; Peat, Marwick, Mitchell & Co., Price Waterhouse & Co.; and Touche, Ross, Bailey & Smart.

APPENDIX F

**DISCLOSURE IN THE PUBLISHED
CORPORATE ANNUAL REPORTS
QUESTIONNAIRE**

**Faculty of Accounting
College of Administrative Science
1775 South College Road
The Ohio State University
Columbus, Ohio 43210**

Gyan Chandra

QUESTIONNAIRE INSTRUCTIONS

The problem of "Disclosure in the Published Corporate Annual Reports" was chosen for the present study because of the controversy that centers around it. The information items included in the enclosed questionnaire have been chosen from the published literature in Accounting and Security Analysis. Please rate each item independently for its importance in "investment decisions" to you and draw a circle around the symbol that best describes your rating. Do this for each item.

VI = Very Important
I = Important
N = Neither Important Nor Unimportant
U = Unimportant
VU = Very Unimportant

A word may be added here to explain what we mean by "investment decisions." These are decisions concerning buying, selling or holding equity (common) shares of non-regulated publicly owned corporations (i.e., excluding banks, financial intermediaries, insurance companies, transportation and public utilities) whose stocks are listed and traded either on New York Stock Exchange, American Stock Exchange or one of the regional stock exchanges (e.g., Midwest Stock Exchange, Pacific Coast Stock Exchange, etc.). Furthermore, we are only concerned with "investment decisions" involving a quantity of shares not less than a round lot (100 shares) and not exceeding 5% of the total outstanding common shares of a corporation.

The questionnaire includes, in general, only source information and avoids rates, ratios, proportions and percentages (like current ratio, rate of return on investment, etc.). We assume that you will rate the importance of these items in the light of their possible use in computing some of these rates, ratios, etc.

Space is provided for you to add additional items which you think should also be considered in this questionnaire.

OPTIONAL BUT USEFUL FOR DETAILED STATISTICAL ANALYSIS

1. Name and address: (Optional, include only if you would like a statistical summary of the survey results.)

2. Present professional status:

- ☐ A. Working for one of the national security analysts' firms based in New York, like, Merrill Lynch, Pierce, Fenner & Smith, Inc., Paine, Webber, Jackson & Curtis, etc.
- ☐ B. Working for a local or regional firm of security analysts, like, Ohio Co.
- ☐ C. Working for some other organization
- ☐ D. Other

3. Present position (title):

- ☐ A. Partner
- ☐ B. Manager
- ☐ C. Analyst
- ☐ D. Salesman
- ☐ E. Other (please specify) _____

4. Are you presently engaged in the process of evaluating firms for possible recommendation of common stock investment or disinvestment? ☐ Yes; ☐ No.

If yes,

- ☐ A. Approximate number of years spent in this activity.
- ☐ B. Approximate percent of weekly time spent in this activity.
- ☐ C. In the process of evaluating securities do you make an extensive use of company annual reports? ☐ Yes; ☐ No.
- ☐ D. Do you specialize in a particular industry(ies)? ☐ Yes; ☐ No.

THANK YOU VERY MUCH FOR YOUR COOPERATION

APPENDIX G

Part I

Information Items

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VI = Very Important ; I = Important ;
N = Neither Important Nor Unimportant ;
U = Unimportant ; VU = Very Unimportant

1. Total assets reported, end of period (e.o.p.).	VI	I	N	U	VU
2. Total current assets reported, e.o.p.	VI	I	N	U	VU
3. Total current liabilities, e.o.p.	VI	I	N	U	VU
4. Cost of marketable securities, e.o.p.	VI	I	N	U	VU
5. Market value of marketable securities, e.o.p.	VI	I	N	U	VU
6. Amount of revenue and the method used in its recognition (e.g., franchise business, construction firms, etc.), for the period (f.t.p.).	VI	I	N	U	VU
7. Operating income reported (before non-recurring gains and losses), f.t.p.	VI	I	N	U	VU
8. Amount and breakdown of operating expenses reported, f.t.p.	VI	I	N	U	VU
9. Cost of goods sold reported, f.t.p.	VI	I	N	U	VU
10. Earnings per share reported, f.t.p. and the method used in its computation.	VI	I	N	U	VU
11. Compounded rate of growth in earnings per share for the last five to ten years.	VI	I	N	U	VU
12. Dividend per share on common shares, f.t.p.	VI	I	N	U	VU
13. Amount of inventory reported and the method used in its valuation, e.o.p.	VI	I	N	U	VU
14. Breakdown of inventory reported under major categories, e.o.p.	VI	I	N	U	VU
15. Fifo cost of inventory, e.o.p.	VI	I	N	U	VU
16. Market value of inventory, e.o.p.	VI	I	N	U	VU
17. Amount of depreciation reported and the method used in its computation, f.t.p.	VI	I	N	U	VU
18. Amount of straight-line depreciation on long-lived assets, e.o.p.	VI	I	N	U	VU

VI = Very Important ; I = Important ;
 N = Neither Important Nor Unimportant ;
 U = Unimportant ; VU = Very Unimportant

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19. Amount of accelerated depreciation on long-lived assets, f.t.p.	VI	I	N	U	VU
20. Amount of non-recurring gains and losses reported, f.t.p.	VI	I	N	U	VU
21. Amount expended on human resources (e.g., hiring, training, etc.), if material, f.t.p.	VI	I	N	U	VU
22. Amount of past pension fund liability, if material, e.o.p.	VI	I	N	U	VU
23. Accounting method followed for research and development, and exploration costs.	VI	I	N	U	VU
24. Amount expended on research and development and exploration, f.t.p.	VI	I	N	U	VU
25. Accounting method followed for advertising and publicity costs.	VI	I	N	U	VU
26. Amount expended on advertising and publicity, f.t.p.	VI	I	N	U	VU
27. Accounting method (purchase vs. pooling) followed for each acquisition and merger completed during the period.	VI	I	N	U	VU
28. Amount of goodwill recognized in each acquisition completed during the period.	VI	I	N	U	VU
29. Amount of goodwill and other intangibles amortized, if material, f.t.p.	VI	I	N	U	VU
30. Amount of income tax expense, f.t.p.	VI	I	N	U	VU
31. Amount of deferred income tax liability or prepaid income tax, e.o.p.	VI	I	N	U	VU
32. Amount of each subsidiary's earnings and parent co's. share of its earnings, f.t.p.	VI	I	N	U	VU
33. Investment in each subsidiary co., e.o.p.	VI	I	N	U	VU
34. Minority interest reported in each consolidated subsidiary, e.o.p.	VI	I	N	U	VU
35. Breakdown of sales, income after tax and investment by continent or hemisphere (where international operations contribute over 15% of co's. revenues, f.t.p.).	VI	I	N	U	VU

VI = Very Important ; I = Important ;
 N = Neither Important Nor Unimportant ;
 U = Unimportant ; VU = Very Unimportant

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36. Breakdown of sales, net operating income and investment of diversified cos. by operating division, product, line of business, or customer group (segmented on the basis of 15% or more contribution to gross revenue or operating income, f.t.p.	VI I N U VU
37. Reported capital expenditures (additions to physical facilities), f.t.p.	VI I N U VU
38. Planned capital expenditure for next twelve months.	VI I N U VU
39. Planned expenditure on research and development and exploration for next twelve months.	VI I N U VU
40. Planned expenditure on advertising and publicity for next twelve months.	VI I N U VU
41. Method followed for reporting long term leases, f.t.p.	VI I N U VU
42. Rent payments or receipts on long term leases, f.t.p.	VI I N U VU
43. Terms, annual rentals and breakdown of long term leases by the type of property leased (e.g., real estate, equipment, etc.), e.o.p.	VI I N U VU
44. Backlog and projection of orders, e.o.p.	VI I N U VU
45. Productive capacity and actual output (e.g., steel mills, oil cos., etc.), f.t.p.	VI I N U VU
46. Extent of dependence on a few customers (e.g., defense contracts, foreign markets, etc.).	VI I N U VU
47. Share of market in major product areas, f.t.p.	VI I N U VU
48. Total common shareholders' equity and number of common shares outstanding, e.o.p.	VI I N U VU
49. Number of stock warrants and convertible securities outstanding, e.o.p.	VI I N U VU
50. Number and type of common shareholders (e.g., individuals, institutions, etc.), e.o.p.	VI I N U VU

VI = Very Important ; I = Important ;
 N = Neither Important Nor Unimportant ;
 U = Unimportant ; VU = Very Unimportant

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51. Number of shares in the company owned by its officers, e.o.p.	VI	I	N	U	VU
52. Terms of stock option plan and shares involved, e.o.p.	VI	I	N	U	VU
53. Amount and breakdown of preferred stock and long-term debt by type, dividend and interest rate and maturity, e.o.p.	VI	I	N	U	VU
54. Contractual restrictions on common dividend, if any, e.o.p.	VI	I	N	U	VU
55. Source and application of funds statements, f.t.p.	VI	I	N	U	VU
56. Cash flow projections for next two to five years.	VI	I	N	U	VU
57. Price level adjusted annual corporate reports as supplementary statements.	VI	I	N	U	VU
58. Names of top executives, lines of authority and their remuneration.	VI	I	N	U	VU
59.	VI	I	N	U	VU
60.	VI	I	N	U	VU
61.	VI	I	N	U	VU

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