CHAPTER III
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INTRODUCTION

The various theories of accounting have been evolving still and such theories are expanding rapidly. At present accountants draw on different images of the accounting process to elaborate different theories of accounting [Davis et. al.; 1982]. Summarizing these images, Belkaoui [1981, 4-5] observes: “These images are accounting as a language, accounting as a historical record, accounting as an information system, accounting as a commodity and, finally, accounting as an ideology.” At present, all these images of accounting are widely recognized, but accounting as a current economic reality and as an ideology are still advocated at the conceptual level only. Further, much of the research in accounting has focused on the usefulness of accounting information for decision making by the users. Hence the review of literature focuses on usefulness of financial reporting.

SCOPE OF THE REVIEW

Normally, financial reporting is researched on a multi-disciplinary basis resulting in the availability of vast literature. Hence Basu [1991:121] observes: “The history of evolution of academic accounting research is so vast an area of investigation that it cannot be treated comprehensively…” Basically, the review of literature has been analyzed from the viewpoint of studies carried out in foreign countries and in India on the effectiveness of financial reporting.

FOREIGN STUDIES

It is evidenced that significant amount of empirical research on the effectiveness of financial reporting from the viewpoint of the set objectives of the present study, it is highly relevant to the present the evidence. However, the review of literature focuses on the following strands: (i) Annual Report as a Source of Information; (ii) Relative Importance of Components of Annual Reports; (iii) Properties of Reported Accounting Numbers; (iv) Disclosure; (vi) Use of Accounting Information in Capital Markets; (vi) Predictive Value of
Accounting Information; and (vii) Earnings Forecast; (viii) Effectiveness of Management Forecasts; and (ix) Role of Managers and Auditors;

(i) ANNUAL REPORT AS A SOURCE OF INFORMATION:


In addition to annual reports, the studies by Lee and Tweedie [1975a; 1975b]; Chang and Most [1977]; Winfield [1978]; Anderson and Epstein [1995]; Bartlett and Chancellor [1997] evidenced stockbrokers' advice as another important source of information.

The study by Bence and Hapeshi [1995] highlights that company visits and holding interviews with a company's officials are also the sources of corporate information used by individual investors.

(ii) RELATIVE IMPORTANCE OF COMPONENTS OF ANNUAL REPORT:

Typically, an annual report consists of both quantitative information and qualitative information. According to Neimerk [1992], the preparers of annual reports make every effort to ensure a correct selection of information so that the intended message is communicated to the end users. Such information in the report can be divided into two main parts. The first relates to the financial statements, which include balance sheet, income statement, cash flow statement, auditors report, notes to the financial statements and schedules for each accounting figure whenever necessary. The second part relates to the chairman and directors' report with a recent addition of corporate governance report. Normally, this part includes a review of the year's operation, important
projects, news of recent developments, and the progress of the economy within the prevailing economic, social and political environments [Lee: 1982].

The studies by Epstein and Anderson [1994], Berry and Waring [1995] highlight that the balance sheet and income statements have generally received most attention and they are also the most commonly used sources of information by investors in the investment decision-making process. Epstein and Pava [1994] evidence an increasing importance of cash flow statement with relatively higher emphasis being placed on income statement. However, the studies by Anderson [1981], Anderson and Epstein [1995]; Abu-Nasser [1996]; Bertlett and Chanceler [1997] and Naser and Nuseibeh [2003] highlight that non-quantitative information in annual reports have lower importance or usefulness in decision making.

The literature also indicates that the profit and loss account and balance sheet are the most important parts of the annual report for users in making decisions about the company [Epstein: 1975; Briggs: 1975; Lee and Tweedie: 1975a, b]; Wilton and Tabb [1978]; Winfield [1978]; Anderson [1981]; Epstein and Pava [1993]; Streuly [1994]; Anderson and Epstein [1995]; Bartlett and Chandler [1997]. The Chairman's statement is also found to be an important part in a number of studies by Lee and Tweedie [1975a, b]; Wilton and Tabb [1978]; Winfield [1978]; Anderson and Epstein [1995]; Bartlett and Chandler [1997].

A number of studies have investigated the importance that various users attach to specific information items disclosed in the annual report and these studies include Benjamin and Stanga [1997]; Firth [1978]; McNally et al., [1982]; Stanga and Tiller [1983]; Wallac [1988]; Ibrahim and Kim [1994]; Naser et. al., [2003]. In this respect, Benjamin and Stanga [1977] compared the views of financial analysts with those of bank loan officers regarding possible sets of information that appeared in the annual report. They found significant difference between the two groups in the importance they attached to 51 of the 70 disclosure items presented to them. Similarly, Stanga and Tiller [1983] investigated whether the information required by bank loan officers was the same for small and large firms. The bank loan officers were asked to rank the importance of 40 information items that might appear in the annual report. About one-half of the samples were loan officers from small-
sized banks. These were asked to rank the importance they attached to the disclosure items as they made a term loan decision relating to a small privately owned company. The other half of the sample comprised of loan officers from large-sized banks, who were asked to rank the importance of the disclosure items as they made a term loan to a large publicly owned company. The researchers found a high degree of similarity between the two groups of loan officers in their rating of the information disclosure items. Accordingly, the researchers concluded that company or lending bank size did not affect the rating of information disclosure items.

Firth [1978] widened the range of the user groups to include auditors, financial analysts, bank loan officers and finance directors to measure the consensus of the perceived importance of a set of information items that appeared in the annual report. The respondents were asked to rank 75 disclosure items in terms of their importance. The researcher found similarities in the opinion of financial analysts and bank loan officers on the one hand, and similarities between auditors and finance directors on the other. He also noticed that financial analysts and bank loan officers attached a high degree of importance to most disclosure items presented to them. Thus, in western economies, it may be assumed that there are similarities between user groups.

Wallace [1988] attempted to measure the consensus of the various users of corporate annual reports regarding the importance of a set of disclosure items that might appear in annual reports in Nigeria. He targeted accountants, civil servants, financial analysts, investors, managers and other professionals. The respondents were asked to rank the importance of 102 disclosure items that might appear in the annual report. He found a significant difference between the perception of the accountants on one hand, and other professionals such as managers and investors, on the other.

In a related line of research in Egypt, Ibrahim and Kim [1994] conducted a similar study to measure the perception of various user groups about the importance of a set of information items disclosed in the annual report. They targeted accountants, financial analysts, managers and shareholders. The respondents were asked to rank 42 disclosure items in terms of their importance. They found significant differences in the perception
of the targeted groups in many of the disclosure items presented to them. The differences ranged between 14 items between accountants and managers, and 31 items between financial analysts and investors. The researchers concluded that consensus among user groups was not significant, contrary to the findings reported in studies conducted in developed economies.

A number of studies have investigated the importance that various user groups attach to items voluntarily disclosed in the annual reports and these studies include McNally et al., [1982]; Epstein and Freedam [1994]; Naser and Abu-Baker [1999].

McNally and Hasseldine studied the importance of a set of such items to stock exchange members and financial editors in New Zealand. The participants were presented with 41 disclosure items. They evidenced that information about dividend policy and future dividends were the information items used most by the targeted groups to forecast future profit on one hand and voluntary disclosure items such as social responsibility, personnel development and advertising were among the least important items ranked by the respondents on the other. They found that stockholders attached higher importance to more disclosure items than the financial editors did.

On the whole, the empirical evidences highlight that balance sheet items are more important than other items from different sources. However, the studies are ambiguous about the perceptions of different user groups and therefore the results are inconclusive.

(iii) PROPERTIES OF REPORTED ACCOUNTING NUMBERS:

The prime objective of investors to assess the prospective periodic return on equities and judgment of the users hinges mainly on the reported accounting numbers, which are the result of applying the methods based on Generally Accepted Accounting Principles (GAAP) or accounting standards. At present, the methods to produce accounting figures are mainly based on the criteria of relevance, reliability and consistency. The result is the subjective nature of producing these accounting figures. In this regard, Brown and Griffin [1987: 54] observe: “It has long been acknowledged that reported accounting numbers are imperfect representations of the economic
phenomenon they purport to represent and that, consequently, firms experiencing similar economic events are unlikely to report equivalent measures of performance or financial position. A primary reason for this is that managers and others select different measurement options within the same method... Accounting numbers, therefore, contain an element of noise, sometimes called measurement uncertainty. Chance factors due to external events also underlie accounting measurements."

Efforts to recognize chance or random factors have been made moderately. To cite accountants have typically attempted to split earnings into 'regular' and 'irregular' components. Officially, the FASB [1984] indicates that users need information about the results of an entity's major or central operations, incidental or peripheral operations, and the effects of events beyond the control of management. Similarly, AICPA's study group report [1973] suggests disclosing confidence intervals and ranges to describe the overall effects of earnings uncertainly. Consistent with this suggestion, Lieber et. al., [1983] posit that the forecasts of future earnings by management and analysts are often presented as a range of values rather than as a single point of estimate.

Systematic study of the behavior of reported earnings dates back to the work of English economist Little [1962]. Rayner and Little [1966] extended that work, which concluded that successive changes in corporate incomes in the United Kingdom were independent. Their result suggested that earnings changes (growth rates) were largely a matter of chance. Hence, as a general rule, earnings changes are not predictable by simple extrapolation of past trends or growth rates. Linter and Glauber [1969] and Brealy [1968, 1969] examined and confirmed that conclusion in the U.S. context.

At present, there are three descriptions of generating annual earnings by managers and others. These are random walk process, constant mean or growth trend and auto-regressive process. Earnings that appear as if the flip of a fair coin has generated them have the random walk properly. Earnings are also viewed as the output of a process with a constant mean or growth trend under auto-regressive processes. There is a tendency to revert to some mean level over long periods coupled having an inter-plan of the proceeds
and trend growth. Further, the auto-regressive process may partake the character of smoothing models or moving average models.

All three general descriptions of annual earnings have received research attention. Descriptive studies include those by Beaver [1970]; Watts [1970]; Ball and Watts [1972]; Lookabill [1976]; Watts and Leftwich [1977]; Beaver et al., [1980]; Freeman et. al., [1982]; and Lieber et. al., [1983]. The study by Watts provided early evidence that the series “earnings available for common” behaved as a random-walk. The random-walk model could not be rejected for 22 of 32 firms in three industries during the 1927-1964 periods. In one-year-ahead predictive tests, moreover, the Box-Jenkins models only slightly outperformed the random-walk model. Watts and Leftwich reported results of more extensive tests of Watts. The Watts-Leftwich study obtained even more favorable conclusions regarding the random walk.

Beaver [1970], Ball and Watts [1972]; Beaver et. al., [1980]; Freeman et. al., [1982]; Beaver et. al., [1987]; and Collins et, al., [1987], however, provided only partial corroboration of the random-walk result. While Ball and Watts essentially confirmed the fact that earnings changes were independent, their analysis using statistical “smoothing” models suggested that a representative model of the average firms’ earnings contained a small moving-average component. Hence the optimal next-period forecast was not simply earnings for this period (as the random-walk model would predict). Instead, the optimal forecast was this period’s earnings adjusted by a small fraction of last period’s forecast error (since a fraction of the forecast error is considered transitory). Ball and Watts also noted that the moving-average effect was more pronounced for a deflated earnings measure (earnings to common equity) than for un-deflated earnings or earnings per share.

Other studies provided additional evidence that reported annual earnings behaviour is not a strict random walk. Beaver [1970] studied the time-series behavior of earnings to price, earnings to common equity, and earnings available for common for 57 firms during the 1949-1968 period. Observing that the deflated earnings numbers (e.g., earnings to common equity) drifted slowly toward the average return of later periods when stratified into high and low categories, Beaver concluded that measures of accounting return exhibited a tendency to converge to a long-run value. Such
convergence was, in Beaver's words, "consistent with these measurements coming from a moving average model." Beaver's results regarding undeflated earnings (earnings available for common), however, were reasonably consistent with the random-walk process as evidenced in Jensen [1970].

Beaver et. al., [1980] and Beaver et. al., [1987] derived a relationship between price changes and earnings changes by expanding the information upon which earnings expectations were conditioned to include information about the firm's price-earnings ratio in addition to previous earnings realizations. Both studies provided evidence that the stock market perceived earnings to be different from a simple random-walk process. Information implicit in a firm's price-earnings ratio was able to predict earnings with greater accuracy than a random-walk-with-drift model.

Freeman et. al., [1982] argued that annual earnings followed a random walk only in a limited sense. More specifically, they maintained that a modest enlargement of the predictive information set should result in rejecting the null hypothesis that earnings followed a random-walk process. The authors hypothesized that book rate-of-return (ROR) helped predict earnings changes and provided evidence that ROR had predictive content with respect to earnings changes, at least when rates of return deviated significantly from their past average.

Lieber et. al., [1983] applied the Kalman filtering technique to estimate persistent and transitory noise components of accounting earnings. Consistent with the random-walk pattern, the researchers found that a substantial number of firms exhibited a significant transitory noise component of earnings. However, for those firms whose earnings exhibited significant departures from the random-walk process, it was shown that Kalman filtering could be used to improve predictive ability.

Dopuch and Watts [1972] tested the hypothesis of whether a re-specification of the accounting system would alter the model describing earnings. They examined various accounting series of 11 firms that voluntarily switched from straight-line to accelerate depreciation in the 1947-1956 periods. The statistical tests indicated that the earnings behavior of 8 of the 11 firms changed during the period. The cause-and-effect linkage between change in earnings behavior and change in accounting method was
not well specified. Accounting changes could be related to other events that were either reinforcing or offsetting in their impact on earnings behavior, and separating the various explanatory factors was difficult.

The time-series properties of the price-earnings ratio or its reciprocal should be of interest to investors and creditors. In an early study, Beaver [1970] hypothesized that the ratio of accounting earnings to price should converge to a long-run value (e.g., an economy average), citing two factors that generally should account for the convergence of the earnings-price ratio: (1) the existence of transitory components in earnings (that are independent over time) and (2) competition. The average of the portfolio containing high earnings-to-price firms was roughly equal to the average of the low earnings-to-price firms within three to four years after the initial stratification was made. In other words, high earnings yields and low earnings yields were reasonably short-term phenomena. Beaver and Morse [1978] reported similar results, though the convergence was not fully complete until about 13 to 14 years after the initial stratification. The studies by Basu [1977, 1978] revealed that the differences in growth, risk, and use of accounting method were given as reasons for the longer term persistence, though growth and risk turned out to be negligible in other tests. Thus for a high price-earnings multiple stock, the chances of a decline were greater than 50-50. Similarly, a firm's low price-earnings ratio was likely to increase in the future.

There have been several studies on the use of past annual earnings to predict future earnings. The major initial contributions in this area are by Ball and Watts [1972]; Albrecht, Lookabill, and McKeown [1977]; and Watts and Leftwich [1977]. The studies restricted themselves to a comparison of statistical modes. As we stated earlier, the major result was that, relative to sophisticated autoregressive (moving-average) processes developed using Box-Jenkins procedures, the random-walk model did not appear to be dominated in terms of an ability to predict next year's earnings. Statistically sophisticated extrapolation models, in other words, did not appear to forecast significantly better.

Brooks and Buckmaster [1976] and Salamon and Smith [1977] question the random-walk hypothesis. Salamon and Smith suggested that a bias was present in the prior analysis [because only firms with long histories
were studies) and this favored the random-walk hypothesis in that earnings were unlikely to decrease as often as increase. They also warned against generalizing to all firms when the analysis was based on a representative "average" firm. However, the results of Watts and Leftwich [1977] that supported the random-walk model were based on an analysis of individual firms. Moreover, Ball and Watts [1977] in their reply to Salamon and Smith, suggested that the survivorship issue was of little practical importance. Brooks and Buckmaster also questioned the overall applicability of the random-walk result. Stratifying their firms on the basis of several measures of income variability, they demonstrated that the random-walk model was not descriptive of a large number of the firms examined. But this is not surprising; the random-walk result uses only a limited set of information—past annual earnings. If additional information is properly used there is no obvious reason that the random walk should remain the "best" statistical model.

Indeed, there is evidence that annual earnings forecasts can be improved by adding other publicly available (non-earnings) data. Beaver, et. al., [1980] showed that the addition of price-earnings data improved earnings forecasts; Hopwood and Mckeown [1981] and Freeman et. al., [1982] obtained similar results for macro-economic factors and firm-specific financial data (i.e., book rate of return), respectively. Furthermore, Lev [1983] found that earnings autocorrelations were systematically affected by product type, barriers to entry (competition), and capital intensity (operating leverage), while earnings variability was impacted by firm size and type of product. Lev's evidence implies that those factors may be useful for generating more accurate forecasts of firms' annual earnings numbers.

(iv) DISCLOSURE:

The research on disclosure has been done substantially on the relationship between disclosure level and company characteristics on one hand and the trends in voluntary disclosure on the other. The empirical studies on these two aspects have been presented under (a) Disclosure Level and Company Characteristics; (b) Voluntary Disclosure; and (c) Private Disclosure.
(a) Disclosure Level and Company Characteristics:

Financial reporting and disclosure are held to be associated with the company characteristics and the following major studies have been cited below.

Cerf [1961] conducted a most comprehensive study involving corporate reporting. The objective of the research was to examine disclosure practices of corporations in USA revealed through annual reports. He made a review of relevant literature, state and federal disclosure laws, informational requirements of the stock exchange, 527 corporate annual reports and interviews with financial analysts in his research design.

Cerf selected thirty-one items for his index of disclosure. Financial analysts were asked to rate each item in the index as essential, desirable, or of little consequence. Each item in the index was assigned weight ranging from 1 to 4. Then, he used the index to compute disclosure score for the annual report of each company in his sample. The selection and weighting process was based on the analysts' rating and a consideration of other pertinent literature.

The companies were randomly selected from 'Index to Stock and Bond Reports' published by Standard and Poor's Corporation. Certain types of companies, such as railroads, banks and public utilities were not included in the sample in order to lessen the problem of differing informational needs for different industries. The annual reports used covered fiscal years ending between July 1956 and June 30, 1957.

The specific characteristics considered for analysis were (i) asset size as measured by total assets; (ii) extent of ownership as measured by number of stockholders; (iii) profitability as measured by the rate of return; and (iv) method of trading shares i.e., whether the shares were traded on the New York Stock Exchange, or in the OTC Market.

Cerf concluded that a positive association existed between the disclosure scores and asset size; number of stockholders; rate of return; and also method of share trading.

The study conducted by Copeland and Frederick [1968] attempted to measure the extent of disclosure for increase in the firm's outstanding
common stock. The measure was then related to the materiality of the increase.

Copeland and Frederick constructed a measure of disclosure. Certain items of information were specified for each reason (Category), which should appear in an annual report. These items were assumed to be those, which an educated investor would want to know about the new listings of subsequent stock issues. An aggregate disclosure score was calculated for each category by examining the sample annual reports and recording the presence of items of information on a check-sheet.

The authors attempted to determine if the more material purposes for listing stock were relatively better disclosed. To test this relationship, Spearman's rank correlation was used. It was tested whether ranking by materiality was significantly different from the ranking by disclosure. That is, whether more material items are disclosed more fully. The test results indicated that there was positive relation between materiality and disclosure. However, the relation was not significant at the 0.05 level of confidence.

Singhvi and Desai [1971: 129] attempted to identify some of the characteristics of corporations in the United States, which are associated with, and the probable implications of the quality of corporate disclosure. The study covered the annual reports of 100 listed and 55 unlisted corporations for fiscal years ending between April 1, 1965 and March 31, 1966. To measure the extent of annual report disclosure of corporations in their sample, an index of disclosure was constructed. The index consisted of 34 items of information, which were thought to be relevant for financial analysts for taking investment decision. Twenty-eight of the items, along with their accompanying weights were drawn directly from Cerf's index of disclosure. Authors on the basis of a review of the relevant literature and interview applied the other six items and their weights with four financial analysts.

The results of individual testing of each independent variable were as follows: (i) Asset Size: The chi-square test at the 0.01 level shows a significant positive relationship between asset size and disclosure; (ii) Number of stockholders: The Chi-square test at 0.01 level shows a positive relationship between the number of stockholders and disclosure; (iii) Listing status: The Z test at the 0.01 level shows that the quality of disclosure is
better for the listed companies than for the unlisted companies; (iv) CPA firm: The Z test at the 0.01 level shows that the quality of disclosure for companies audited by a big eight CPA firm is better than that of companies audited by smaller firms; (iv) Rate of return: The Chi-square test at 0.02 level shows that there is a positive relationship between the quality of disclosure and rate of return; and (v) Earnings margin (a ratio of net profit to net sales): The chi-square test at 0.05 level shows that there is a significant positive relationship between earnings margin and disclosure.

Singhvi and Desai [1971] also conducted a multivariable analysis using a linear regression model to examine the combined effects of the six independent variables in explaining disclosure. They found that 43.4 per cent of the variation in quality of disclosure could be explained by the six independent variables. The multiple correlation co-efficient was 0.66 and it was significant at the 0.01 level. The regression coefficient for listing status was 8.10, which was significant at the 0.01 level. The regression coefficient for earnings margin (0.25) was significant at the 0.05 and 0.10 level. The regression coefficient for the remaining variables was not statistically significant. It was further found that listing status, taken alone, produced an $R^2$ of 38.12, which was significant at the 0.01 level. Thus the conclusion of the authors was that the quality of disclosure in annual reports was associated with their six selected company characteristics.

Chandra [1974: 733] attempted to examine the consensus about the value of information (included in published corporate annual reports) between those who attested to the corporate reports (accountants) and those who used such reports. In this study, the extent of consensus between preparer and user group was based on a comparison of the values consigned to information items by the two groups in the equity investment decisions.

A questionnaire containing 58 information items was mailed to security analysts and public accountants. Items were developed after reviewing literature on corporate financial statements and security analysis and annual reports of many leading corporations. The questionnaire contained only a representative list of items selected on the basis of their general significance, frequency of use, availability and recommendations from the users.
The three hypotheses developed by Chandra [1974: 735] were tested individually for each information item. A simple t-test at 5 per cent was used to detect the significant differences. The test results were as follows: (i) The principal hypothesis was that there was no significant difference between the value of information to security analysts as perceived by accounts and the value of information to security analysts for equity investment decision; (ii) The second hypothesis was that there was no difference between the accountants and security analysts on the value of information for equity investment decisions; and (iii) The third hypothesis was that there was no difference between the value of information to security analysts as perceived by accountants and the value of information to accountants for equity investment decisions. This hypothesis was rejected for only 2 information items.

Test results showed a lack of consensus between the accounts and security analysts of 26 items included in the questionnaire. In addition to examining consensus, the direction of differences between accountants and security analysts was also examined. Chandra [1974: 741] concludes: “...[L]ack of consensus between the accountants and security analysts on information was accompanied by unidirectional difference in their value rating, i.e., security analysts considering the information items more valuable than the accountants.”

The study conducted by Chandra [1974: 742] also found that accountants generally did not value information for equity investment decisions as much as security analysts did, although they did tend to have equivalent value preference in their dual roles as preparers and users of information.

Buzby [1974] attempted to measure the extent to which selected items of information were presented in corporate annual reports and also the relationship between a sub-component of adequate disclosure and two company characteristics: (i) asset size; and (ii) listing status. A measure of disclosure of 39 selected types of information, which should appear in the annual report, was constructed. Weights were assigned to each of the 39 items based on the responses received from financial analysts. Buzby found
that a relatively large number of items of information were not presented in the annual reports covered by his study.

Stanga [1974] attempted to examine the current state of reporting in the published annual reports of large industrial companies and also the influence of two variables: (i) corporate size as measured by net sales; and (ii) the industry to which a company belongs, in explaining annual report disclosure difference between large industrial companies.

To recognize relative importance of items in the measure, numerical weights were used. The measure of disclosure was developed based on the questionnaire responses of 275 Chartered Financial Analysts. It consisted of 79 information items (with all sub-items) that large industrial firms should disclose in their annual reports. A sample of 80 companies representing 8 industries was selected from the 1973 Fortune 1,000 companies using the sampling technique.

To determine whether the selected variables of size (measured by net sales) and industry were related to disclosure score, covariance technique was applied. The coefficient of determination ($R^2$) was 0.2883. Thus 28.83 per cent of the variation in disclosure was explained by the net sales and industry variable. It was also found that the industry variable accounted for most of the explained variation in disclosure scores. The t-test for the significance of regression coefficient (for net sales variable) yielded t-value of 2.47086, which was significant at a level of 0.0159. It proved that there was a positive relationship between net sales and disclosure score. The study also indicated that there was a positive relationship between industry and disclosure score.

Firth [1979] studied the relationship between disclosure in corporate annual reports and three firm-specific characteristics that may, or may not, have some influence over the level of disclosure. The three characteristics selected were the size of the company, whether it is listed on the stock exchange, and the firm of accounting engaged in the audit.

The research design involved the construction of an index of disclosure consisting of 48 items. The index excluded those items that had to appear in annual accounts because of statutory regulations such as Companies Acts.
The disclosure index, made up of the 48 items and their weightings was then applied to the actual accounts of three samples of companies. These samples consisted of 40 companies with no stock exchange listing, 40 stock exchange listed companies, which were paired with the unlisted companies on the basis of size and industry, and 100 stock exchange listed companies. A disclosure index for each of the sample companies was computed. If an item was disclosed, then the company received the weighted score; if the item was not disclosed, then the company received a zero score.

The Wilcoxon Matched-pairs Signed-rank test confirmed this result. Thus companies with a stock market listing made greater disclosure than those that did not have a listing.

Falk et. al., [1976] used forty-four items including thirty-nine of Buzby and studied the importance of disclosure of closely held companies. Their study compared the importance of disclosure in audited and un-audited statement and found little difference in information preference whether or not the statements were audited.

The most important research on financial reporting in developing countries has been the study conducted by Parry and Khan [1984] with reference to Bangladesh. The study revealed that most entities in Bangladesh failed to provide a clear statement of their accounting policies. Some entities did not even identify fixed assets; many failed to provide a detailed schedule of fixed assets. Only a few provided details of valuation and depreciation basis, and even less, the rates of depreciation.

(b) Voluntary Disclosure:

The debate about disclosure revolves around the question of whether market forces will drive organizations to produce information needed by the market in a cost-effective manner, or whether organizations are inherently so secretive that they will disclose only those which are mandatory requirements.

Voluntary disclosure is motivated primarily by its effects on the perceptions of the firm value in the capital market [Einhorn: 2005]. Following Akerlof’s [1970] adverse selection argument, Grossman and Hart [1980], Grossman [1981] and Milgrom [1981] show that firms are induced by the market place to fully disclose their private information. However, subsequent
studies by Jovanovic[1982], Verrechia [1983; 1990], Dye [1985], Nagar [1999] provide a variety of different settings that support parties disclosure strategies.

Mak [1991] observed that the amount of disclosures could be expected to vary across firms because it depends upon interaction of demand for and supply of information, which will vary between firms.

While analyzing the impact of company size on disclosure, Singhvi and Desai [1971] evidenced that cost of collection, perceived benefits in terms of marketability of securities and less concern about competitive position positively influenced larger organizations to disclose more. Gray and Robert [1989] found that that voluntary disclosure was positively associated with the company size.

Although Mace [1977] argues that preparers of accounts seek merely to comply with legislation and are not willing to disclose sensitive information, Hussey [1991] posits that number of voluntary disclosures has been increasing due to more complex and internationalizing business environment. In this regard Cooke [1989] evidenced that multiple listing on various stock exchanges increased disclosure. Further, Mak [1991] evidenced that voluntary disclosures were positively related to the availability of alternative information and the level of uncertainty associated with the company.

The content and form of annual reports are subject to certain minimum levels specified by the Companies Acts, the Accounting standards Board of a country and by the stock exchange of a country. According to Firth [1978b], “Beyond these minimum levels companies can disclose a whole host of useful information, although in practice they stick very closely to the minimum levels.” The focus of empirical study by Firth [1979] was to analyze (i) Voluntary disclosure in relation to the size of companies, listing and auditors based on the examination of 40 Jordanian manufacturing companies; and (ii) its magnitude and components as perceived by 46 financial analysts working for stock brokers and investment institutions with the response rate of (46/120) 38.33 per cent with reference to 48 items of voluntary disclosure identified for the study to be rated on five-point Likert’s scale. From the viewpoint of voluntary disclosure and its relationship with size, listing and auditor, the following were the conclusions: (i) the larger size of the company,
the greater its level of voluntary disclosure (ii) positive association between share market listing and higher level of voluntary disclosure; and (iii) no relationship the firm auditing the company and voluntary disclosure.

With regard to the magnitude and components of voluntary, Figure 3.1 presents an overview of the study by Firth.

**FIGURE 3.1**
**DISCLOSURE INDEX**

<table>
<thead>
<tr>
<th>Item Number</th>
<th>Items</th>
<th>Mean Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Breakdown of sales revenue by major product lines, customer classes and geographical location</td>
<td>4.82</td>
</tr>
<tr>
<td>2</td>
<td>Breakdown of earnings by major product lines, customer classes and geographical location</td>
<td>4.82</td>
</tr>
<tr>
<td>3</td>
<td>Cost of goods sold.</td>
<td>4.71</td>
</tr>
<tr>
<td>4</td>
<td>Amount and detailed breakdown of expenses (beyond that required by the Companies Acts.)</td>
<td>4.69</td>
</tr>
<tr>
<td>5</td>
<td>Breakdown of expenses for past year into fixed and variable components.</td>
<td>4.63</td>
</tr>
<tr>
<td>6</td>
<td>Statements of source and application of funds</td>
<td>4.58</td>
</tr>
<tr>
<td>7</td>
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(c) Private Disclosure:

Private disclosure refers to communication of useful information to users through other than financial reporting, which is a formal communication channel as well as a minimum disclosure benchmark for users. The unique
feature of private disclosures is that (i) they contain qualitative information from management with the objective of improving institutions capabilities to interpret financial reports effectively, and (ii) the main users are analysts and financial institutions.

The significance of private disclosure channels to analysts and financial institutions has been identified by academics and recognized by UK policy makers. The Myners Reports was commissioned by UK government in 1995 [February 1995] department of trade and industry (DTI) and advocated the private company and institutional meetings be improved in the interest of national competitiveness. Other studies have revealed the importance of corporate sources of information for financial institutions. Early studies by Moizer and Arnold [1984], Arnold and Moizer [1984], in the UK and Chugh and Meador [1984] in the US, identified corporate contacts as important sources of information for analysts and for fund managers. Day [1986], in her study of UK investment analysts, confirmed that company management was an important source of analyst's information, with the annual report acting as a source of reference. Bence et. al., [1995] looking at one company in the UK chemical and pharmaceutical industry, identified the four highest rated sources of information for a sample of 12 UK institutional investors as company visits personal interviews, company annual reports and company presentation.

Hellman [1996] developed an in-depth case study of large Swedish institutional investors and found that there was no direct link between the release of financial reports and investor action, as suggested in market based accounting research. The factors that seemed to initiate institutional investor decisions were macro economic information, private information, and different investor conditions. There were also considerable time lags between information receipt and trading actions. Joseph et. al., [1996] investigated management accountants perceptions of the needs of investors and boards. The participants in their study rated both earnings per share and price earnings ratio as more important than cash flow for investors. In contrast, the perceived cash flow information as more important for the board when the board was reviewing performance and when deciding strategy.
These perceptual differences are important because management could adopt the (external) voluntary disclosure processes, both public and private, to reflect these perceptions. This research also emphasized the need for further research on corporate disclosure processes. Holland [1995: 65], explored how large UK financial institutions played an active behind the scenes' corporate governance role in their invested companies. Holland and Doran [1998], revealed how fund managers used direct contact with companies to acquire information for fund management purposes. This contact focused on management quality succession, coherence of strategy and many other qualitative sources of private information.

In recent years, there has also been a growing recognition of the limitations of financial reports and of public disclosure mechanisms. As a result there have been many attempts to improve public mandatory and voluntary disclosure by changes in financial reporting. For example in 1998, Institute of Chartered Accountants of Scotland (ICAS) analyzed many of the problems of the contemporary financial reporting in making Corporate Reports valuable (ICAS, 1988). More recently, the Jenkins Report (AICPA. 1994) in the US as embraced a similar adaptive, incremental list approach to financial reporting and corporate disclosure. In 1995, the Royal Society of Arts (RSA) inquiry on “Tomorrow’s Company” was critical of conventional financial reporting practice as being too narrow and not reflecting the needs of a wide range of corporate stakeholders. It recommended a partnership approach to disclosure with all stakeholders and encouraged a more open dialogue.

Baker’s [1998] survey results are similar to this case research in that he finds that formal and direct contacts with senior company management are the most important sources of information for fund managers, and that the report and accounts, (especially the annual, though also the interim) are the second major source of information. Meetings with company executives were particularly important to allow fund managers to understand the strategy of the company and to assess management’s capacity to achieve the strategy. In addition, financial reporting was more important as a source of information for fund managers than analysts. The fund managers in the survey placed less emphasis on the timeliness of accounts (through announcements) than analysts and finance directors. However, they did value the annual report as
a long-term source of information for assessing the stewardship role and performance of companies. Trends in the annual reports were interpreted over several years of company fund managers meetings, with the annual report acting as an important point of reference for previous promises.

The empirical study by Holland [1998], with reference to UK revealed how private and public voluntary disclosure activity interacted. The main conclusions of the study were (i) the private disclosure activity was recognized as a significant part of a large corporate decision concerning public versus private voluntary disclosure; and (ii) this was partially encouraged by the perceived limitations of the financial reports was recognized as a central component of a larger corporate disclosure system.

The recent study by Einhorn [2005] highlights that the likelihood of voluntary disclosures being provided by firms is independent of the content of their mandatory disclosure, non monotonically related to the informational quality of their mandatory disclosures, negatively related to the level of discretion in mandatory reporting, and positively related to the scope of disclosure requirements.

The studies by Diamond [1985:1094] Indjejikian [1991], Kim and Veerecchia. [1991] indicated that disclosure theories typically view financial reporting as the unbiased realization of some underlying economic variable and rarely allow for the endogenous creation or dissemination of other information.

(v) USE OF ACCOUNTING INFORMATION IN CAPITAL MARKETS:

The most frequently debated issue in accounting research has been whether accounting information is used in capital market transactions and whether accounting information influences stock prices. In this regard, Gonedes and Dopuch [1974] have cogently argued that knowledge of certain links between security prices and accounting information is necessary on one hand and the impact of alternate accounting policies on accounting information. Hence the issues related to use of accounting information in capital markets has been analyzed under (a) Market Sensitivity and Accounting Information; (b) Users of Accounting Information; (c) New Earnings Information; (d) Earnings Measurement Methods; (e) Timeliness of
Disclosures; (f) Disaggregated Accounting Information and Earnings; (g) Supplementary Information (h) Discretional Accounting Policy Changes; (i) Estimating and Predicting Relative Risk; and (j) Failure of Efficient Markets Hypothesis.

(a) Market Sensitivity and Accounting Information:

The pioneering research on whether the stock prices are influenced by accounting information content has been evidenced in the studies of Benston [1967] and Ball and Brown [1968] using regression analysis. Benston found a relationship between unexpected security returns and unexpected earnings and sales data. Using regression analysis, he found that both earnings and sales were statistically significant explanatory factors for security prices. Ball and Brown found that good news firms (those with positive expected earnings) increased in price by 7.30 per cent over the 12 months before an annual earnings announcement. The firms anticipating bad news (negative unexpected earnings) had an average of 9.50 per cent price decline. Most of those price changes preceded the earnings announcement by many months. Ball and Brown concluded that no more than about 10-15 per cent of the value of information contained in reported income had not been anticipated.

The remarkably similar findings strengthen the broad conclusion that (1) investors anticipated correctly the annual earnings numbers released by companies and (2) prices adjusted very quickly to any new information not anticipated, usually on the day of the information’s release. The other international evidences include studies by Brown [1970], who examined the Australian stock market; Deakin et al., [1974], who investigated the Tokyo exchange; Firth [1976], who studied the United Kingdom; Emanuel [1984], who covered the New Zealand exchange; and Hawawini [1984], who summarized the results of several studies involving the markets in Belgium, Finland, France, Sweden, the United Kingdom, and West Germany. Hawawini noted that the only possible exception to the Ball-Brown result appear to be the case of West Germany. Further, he observed that the German stocks continued to adjust up to 10 weeks after an earnings announcement. However, he questioned whether the research designs of the
studies appropriately adjusted for risk in the calculation of unexpected return (the dependent variable) were not resolved.

Foster and Vickrey [1978] applied the same methodology to firms' annual 10-K filings with the SEC. They found only a marginally significant effect due to the filing. Davis et al., [1978] focused on the New York bond market. They analyzed bond price changes that had been adjusted for market-wide effects. For convertible issues only, they observed larger price changes at the time of annual earnings announcement. The authors concluded that annual earnings data were informative to bondholders. Other studies include Grant [1980], who finds that OTC firms respond more at earnings announcement dates than HYSE firms, and Maingot [1984], who reports that the returns of U.K. companies with simultaneous earnings and divided announcements respond strongly at the earnings announcement date. The studies by Shores [1987a, 1987b] indicate that OTC markets anticipated and responded without bias to accounting earnings information in much the same way as other U.S. securities markets.

Having established the information content of annual reports, researchers have also tested the association between price changes and quarterly earnings changes. Brown and Kennelly [1972] and Foster [1977] presented findings based on NYSE firms. Brown and Kennelly found a correlation between monthly returns and unexpected quarterly earnings, even in the month that quarterly results were announced. Foster extended the analysis using daily-unexpected return data and refined models of quarterly earnings expectations. He observed that firms with positive unexpected changes in quarterly earnings experienced positive abnormal returns, and vice versa. Market reaction was observed in all four quarters to about the same degree. Importantly, the strongest price response was found on the day before and the day of the Wall Street Journal's announcement of interim results. Earnings expectations based on past quarterly data, hence, appeared to be relevant for the assessment of security return at the time of an interim earnings announcement.

Studies using residual return variance as the dependent variable also indicated that quarterly earnings reports had informational content. May [1971] examined the quarterly earnings announcement of AMEX firms using
weekly data, Hagerman [1973] measured the effects of annual and quarterly announcements for OTC bank stocks using weekly data, and Jordan [1973], using NYSE daily price data, measured responses to quarterly announcements of growth stocks. All these studies reported significant announcement effects and, generally, showed that the strongest price reaction occurred on the day before and the day of the announcement in the Wall Street Journal.

Patell and Wolfson [1981] tested the relationship between accounting information through quarterly announcements and the stock prices. The results showed that option price anticipated forthcoming earnings releases that were confirmed by the stock market at announcement date.

Available evidence also indicated that interim reports preempt, to some extent, the information content of annual announcements, McNichols and Manegold [1983] analyzed the return variability for sample of AMEX firms. They found a significantly higher variability for annual reports that had not been preceded by interim reports, as compared with those following interim reports. Those findings support Beaver's [1981] observation that unexpected earnings based on annual reports alone only provide a crude test of informational content.

Another dimension of use of information in capital markets is the magnitude and speed responsiveness. The analyses in these studies seek to establish whether larger changes in unexpected earnings are positively associated with larger abnormal price changes. Beaver, Clarke, and Wright [1979] concluded that such a relationship existed. The ranking of 25 portfolios (comprising NYSE listed firms) on the basis of percentage change in unexpected earnings per share approximated the ranking based on unexpected price changes. While the two rankings were not identical correlation coefficient of 0.740, they still provided strong indication that the size of unexpected earnings was positively related to the amount of unexpected price change associated with their release. A study by Hagerman et. al., [1984] also found such a positive correlation in the case of quarterly earnings reports.

A positive association in sign and magnitude, however, does not necessarily mean that a change in one variable implies change of an equal
amount in the other. At the individual security level, Beaver et al., [1980] reported an average coefficient of response of percentage price changes to percentage earnings changes (calculated over 1 year for NYSE firms) of 12 percent. Also, Collins et al., [1987] reported an average coefficient of 26 percent for NYSE and AMEX firms. Thus, researchers initially concluded that stock prices could be expected to change in the same direction as unexpected reported earnings, but the response was much less than 100 percent.

The result has various interpretations. The first is that investors perceive a portion of any unexpected reported earnings change to be short-lived, affecting only the current period’s reported earnings, whereas investors perceive the remaining portion as permanent and hence potentially affecting future earnings and dividend-paying ability. Consequently, the magnitude of the security price change depends on the change in permanent earnings, which reported earnings numbers measure with error. Some earnings changes may be due to the selection of accounting techniques, most of which have few implications for the assessment of return. Also, security prices may be responding to information more detailed than aggregate earnings [e.g., line-of-business data, non-accounting information, or both].

Several recent studies have addressed the “measurement error” issue. Collins et al., [1987] and Beaver et al., [1987] use a reverse regression approach applied to percentage change in annual earnings, and Brown et al., [1987b] use an instrumental variables techniques applied to unexpected quarterly earnings deflated by price. These studies concluded that measurement error was a nontrivial aspect of the price change versus earnings change relationship that biased downward the responsiveness coefficient. Importantly, they revealed that earnings changes that were relatively free of error were magnified in price changes by a factor of greater than one but much less than the average price-earnings ratio.

The earnings change versus price change relationship also depends on other sources of information available to the market. Atiase [1985], for example, examined stock price changes associated with second-quarter earnings reports by small and large NYSE and AMEX firms. He found a significantly larger price change for the small firms. As noted earlier, Brown et
al. [1987b] also reported stronger effects for smaller firms. Their results were consistent with fewer competing sources of information being available for smaller firms, thus enhancing the amount of new information revealed in their earnings releases.

(b) Users of Accounting Information:

The empirical study by Lee and Tweedie [1975] focused on understandability of accounting information by private shareholders. The hypotheses for the study were: (i) A majority of private (as distinct from institutional) shareholders are ignorant of the nature, meaning and implications of financial reporting practices; and (ii) If such ignorance exists, education and/or experience in accounting matters in understanding financial reporting.

For the purpose of conducting the survey, a small public company was identified with the help of its auditors. The company had 1974 shareholders and only private shareholders numbering 1594 were considered for the survey. The total response was 374 with the response rate of 23.46 percent. The composition of respondents consisted mainly of three groups; (a) Respondents with significant accounting and financial knowledge with their percentage of 25.70; (b) respondents with a small amount of accounting and financial knowledge with their percentage and experience at 21.1 per cent and (c) respondents with no accounting and financial knowledge or experience with their percentage at 50.30 along with 2.90 per cent of respondents having not disclosed any background information.

The major findings of the study were: (i) 67.90 per cent of respondents understood the reported information, out of which 39.80 percent found it relevant to their investment decisions as against 29.10 percent of respondents finding it irrelevant to their decisions and 24.60 per cent of the respondents stating that they did not understand the reported information: (ii) The valuation principles could be understood by 76.90 per cent of the respondents as against 7.70 per cent of not having understood them: (iii) The legal responsibility for the annual reports was rightly identified as board of directors by 41.20 percent of the respondents only and 12.20 percent of the respondents could not identity any one responsible: (iv) Nearly, 41.20 per cent
of the respondents perceived that accounting information provided an accurate reflection of companies financial progress and position as against the perception of an approximation reflection by 40.20 percent and the perception of an inaccurate reflection by 6.50 per cent: (v) The main objective of financial reporting was perceived to be to make company directors accountable to shareholders by 59.30 percent of respondents and this was followed by the objectives of giving shareholders an indication of the value of the company (49.70 percent), justifying the dividend payments proposed by the company (29.95 per cent), giving shareholders data of use for investment decisions (19.70 per cent), providing information to Inland Revenue (14.70 per cent), giving an indication of the market value of their share (13.30 per cent), and having no knowledge of the objective (2.10 per cent): (vi) Those respondents with some experience of accounting revealed a greater knowledge of reporting practice than did those with no such experience: and (vii) Those respondents at present being employees in accounting, investment or financial management revealed a greater knowledge of the reporting process than those in other occupation or in retirement.

To conclude, the first hypothesis that majority of private shareholders are ignorant of nature, meaning and implications of financial reporting practices was not accepted and the second hypothesis that education and experience did matter in understanding financial reporting was positively proved.

Lee and Tweedie [1977] conducted the most comprehensive survey on understandability of and preferences for items in financial statements.

The survey focused on the perceptions of private shareholders of unnamed company in England on the Annual report. The researcher selected 2002 private shareholders from 39,428 shareholders using random number tables and the number of shareholders who responded stood at 339, but the researcher limited the sample respondents to 300 on the basis of prudence, Major findings of the study were: (i) Only 14.00 per cent of the respondents had significant experience of accounting and related matters and 59.00 per cent had no such experience at all: (ii) Investment decisions were taken on own initiation by 69.00 per cent of respondents and 23.00 per cent of the respondents made investment decisions through expert opinion dominated by
stockbrokers; (iii) The respondents with accounting knowledge correlated non-financial management made their own investment decisions; (iv) Nearly 86% respondents react at least one financial press source with 47.00 per cent reacting two or more. However in every respondents (14.00 per cent) did not react any source; (v) From the viewpoint of general nature of financial statements legal responsibility was reasonably understood by 46.00 per cent of respondents and accuracy of reported data by 49.00 per cent of respondents. However the objectives of financial statements were reasonably understood by only by 27.00 per cent of respondents; (vi) Nearly 47.00 per cent of the respondents stated that the reported accounting data accurately reflected financial progress and position; (vii) There was a reasonable understanding of Chairman’s report, auditors report, balance sheet, income statement and director’s report by 74.00 per cent, 41.00 per cent, 37.00 per cent, 26.00 per cent, and 14% respectively of the respondents; (viii) Regarding terminology of financial reporting, the understanding level was found to be very weak only 34% of the respondents had reasonable understanding of profit and it was followed by 34% and 33% of the respondents having reasonable understanding of accrued charges and reserves respectively. Only 18% of respondents had the reasonable understanding of accrued charges, reserves and equity capital was evidenced by 59%, 46%, and 45% of the respondents respectively; (ix) The understanding level of valuation bases was higher with reference to plant and machinery in case of 70% of the respondents and it was lower with reference to quoted investments, and stock and work in progress in case of 74% and 61% of the respondents; (x) The understandability level of financial ratio’s was found to be very low with reference to price earning ratio, dividend yield and dividend cover in case of 15%, 14% and 36% of respondents respectively and virtual non-understanding of the above ratio was evidenced in case of 70%, 43% and 55% of the respondents; (xi) The mean values of understanding level stood at 5.41, 5.14, 2.74, 2.65 and 1.97 for nature of financial statements accounting terminology general nature of reporting accounting valuation bases and financial ratios respectively; (xii) The most important component of annual reports was evidence to be income statements, which was followed by descending order of importance of chairman’s report, balance sheet, director
report, sources and applications of funds statements notes to accounts, auditors report and statistical data: (xiii) Only 24% of the respondent had an understandability score above average and 26% were below average: (xiv) The most useful information was found to be profit earning ratio with 52% of respondents and this was followed in the decreasing importance turnover ratio, capital base, share price, profit trend, assets, cash/liquidity and general trend information with the percentage of respondents standing of 36%, 18%, 12%, 12%, 9%, 9%, 7% and 6%: (xv) From the view point reading the parts of annual reports the most thoroughly read part was chairman’s report by 52% of the respondents and brief riding by 41% of the respondents as against 48% of respondents having not read auditors report at all and thoroughly reading of it by 16% of the respondents. The profit and loss account was thoroughly read by 39% of the respondents and brief reading by 46% of the respondents: (xvi) The most important of parts of moderate influence on investment decisions was evidenced to chairman’s report with the mean value 2.94 and it was followed by profit and loss account with the mean value 2.90. The parts having no influence were found to be statistical data, notes to accounts and auditors report with their respective mean values standing at 4.10, 4.11, and 4.20: (xvii) The thorough readers of annual reports had most reasonable understanding of reporting practices: (xviii) There was no association between size of share holding and level of understanding of annual reports: (xix) The respondents with large portfolios appeared to have a better understanding of annual reports than those with smaller portfolios: (xx) The respondents in accountancy and related occupations or experience had best understanding of reporting practices: (xxi) The respondents who made their own investments decisions had a better understanding and more thorough readers of financial data than those who relied in some way or other on an expert: (xxii) The respondents who were through readers and had a reasonable understand tended to read the financial press more extensively than those who had less knowledge and were less interested readers: and (xxiii) Almost 53% of the respondents suggested that annual reports should be less technical, in layman’s language or summarized form.
(c) New Earnings Information:

Studies of the impact of quarterly earnings announcements suggest that prices respond on the day before (often the date of press release) and the day of announcement in the Wall Street Journal. However, the availability of price changes measured hourly (or per trade) enables researchers to conduct a more precise test. Patell and Wolfson [1984] examined the intra-day speed of stock price adjustments to Broad Tape news releases of earnings and dividend announcement for mostly NYSE firms. They based their trading strategies on unexpected earnings, defined as the difference between announcement earnings and the most recent Value Line forecast. Those trading rules ceased to earn statistically significant returns within 10 to 15 minutes of the news release. Also, while the earnings announcements were associated with significantly elevated returns, the extreme price changes persisted for no more than approximately two hours. Additionally, in the case of quarterly earnings announcements, Jennings and Starks [1985; 1986] reported that security prices of NYSE firms impounded new information very quickly, especially those firms with traded options, whose prices adjusted to normal also within about 15 minutes.

On the other hand, the studies e.g., Joy et al., [1977]; Brown [1978]; Watts [1978]; Rendelman et al., [1982] observed a significant correlation between the sign and magnitude of security returns and the sign and magnitude of unexpected earnings for up to three months following quarterly earnings announcements.

Foster et al., [1984] tested alternate explanations for the price-drift phenomenon. They observed price drifts only for a subset of their earnings expectations models. In those cases, about 85 percent of the post-announcement drift could be explained by differences in firm size and magnitude of earnings.

(d) Earnings Measurement Methods:

The research generally assumes that the market has more information than accounting reports alone and analyzes rationally all available information. Given those assumptions and assuming the absence of signaling differences of differences in accounting-based contracting across firms,
returns should be independent of the accounting measurement methods selected. However, if accounting measurement choices are signals about more basic economic or political aspects of the firm or indicate differences in the firm’s contractual arrangements with managers and external parties, then the independence assumption may be invalid. In nutshell, the discussion on earnings measure methods focuses on price-earnings ratios.

Beaver and Dukes [1973] and Good and Meyer [1973] studied whether differences in firms’ price-earnings ratios were a direct function of the accounting method used. Beaver and Dukes examined NYSE firms that used accelerated depreciation for tax purposes but used either accelerated or straight-line depreciation for financial reporting. When the ratios for straight-line firms were restated using accelerated depreciation, the price-earnings differences disappeared (the two sets of firms did not differ significantly in relative risk and earnings growth). This finding suggested that the market properly adjusted for accounting method difference between the price-earnings ratios of stocks with higher verses average relative-price earnings ratios diminishes when those ratios are adjusted for differences in accounting for depreciation and special items. Thus, accounting methods accounted partly for the disparity between high and average price-earnings stocks.

Hong et al., [1978] examined whether a sample of business combinations accounted for as “pooling” exhibits different return behavior than a sample of combinations treated as “purchases.” All combinations studied involved the issuance of stock by NYSE acquiring firms. While the pooling firms generally disclosed higher accounting rates of return, the study reported no statistical difference between the two sets of firms in unexpected price response, either in the months surrounding the first earnings announcement (annual or quarterly) or in the months following the combinations. Further, they observed that those combined firms that used the more conservative purchase method had been doing well one year earlier.

A related research approach involves re-computing firms’ reported earnings on a pro forma basis under the alternative, non-adopted method and then examining, which measure of earnings-reported or pro forma-more highly correlates with security returns. That approach assumes that the market can readily compute earnings under the non-adopted alternative. The studies by
Beaver and Dukes [1972], who examined deferred versus flow-through tax expense recognition, and Foster [1975], who tested statutory versus GAAP-based earnings of OTC-listed insurance companies revealed a generally consistent accounting information with a market valuation process that relied on more information than just the "bottom-line" numbers.

To conclude, investors appear to adjust appropriately for certain accounting measurement differences. Such differences have no significant effects on firms' returns. Also, the variation in firms' price-earnings ratios can be mostly accounted for by differences in how those firms calculate the earnings figure, which is the ratio's denominator.

(e) Timeliness of Disclosure:

Available evidence indicates that the timeliness of a company disclosure is not independent of the contents of such disclosure. Two studies conclude that the market generally views delay of accounting reports as bad news. Givoly and Palmon [1982] studied the lag in annual reporting (defined as the number of days past fiscal year-end) of 210 companies for 1960-1974. They classified reported earnings as good or bad based on the difference between this and last year's reported earnings. They found that bad news tends to be delayed. Chambers and Penman [1984] examined the timing of the interim and annual earnings announcement of 100 NYSE firms for 1970-76. They also found evidences that delayed reports were more likely to contain bad news, whereas early reports conveyed favorable information. Kross and Schroeder [1984], who tested the relationship between firm size and the magnitude of unexpected earnings, obtained similar results based on quarterly earnings reports. Finally, using intra-day data, Patell and Wolfson [1982] found that firms more frequently released good news when security markets were opened and bad news after closing.

In a recent study, Penman [1987] studied the link between the timing of earnings announcements and seasonality in stock returns. Interestingly, the research showed that good news was conveyed more often in the first two weeks of each quarter (especially quarters 2-4) and that firms' returns were consistently higher in those weeks.
The content and timing of one firm’s report can also affect others’ returns. Foster [1981] reported that an earnings release by a firm can significantly affect the prices of other firms in the same industry. While that result may not be key in large-sample studies, it can be critical in small sample or single-firm analyze (such as assessments of damages due to a violation of securities laws) in which one must identify and measure only the effects of company-related disclosures.

Dyer and McHugh [1985] studied an unrestricted sample of 120 companies on timeliness of the Australian annual report in terms of audit report submission lag, preliminary lag, auditor signature lag, printing lag and total lag during the period of 1956 to 1971. They concluded that the cumulative relative frequencies for the total lag, auditor's signature’s lag and the preliminary lag were shown to be stable, and three corporate attributes, viz., corporate size, financial year end and relative profitability were investigated with reporting delay phenomenon and showed negative association between reporting lag and corporate and financial year and no association with relative profitability.

Givoly and Palmon [1981] examined the question of timeliness in the US context. They arrived at two main conclusions viz., the reporting lag of individual companies appeared to be more related to intra-industry patterns and conditions than to company attributes; and the price reaction to the disclosure of early announcement was significantly more pronounced than the reaction to late announcements.

Zeghal [1984] attempted to determine the effect of timeliness on the informational content of interim and annual reports and observed that accounting report with shorter delay had a higher informational content than those with larger delay and interim reports seemed easier to substitute information for anticipatory decision than to substitute audited information in annual report for conformational decisions.

The study by Naser and Nuseibeh [2003: 147] evidenced that majority of 426 sample respondents comprising of institutional investors, individual investors, financial analyst, bank loan officers and government officials of Saudi Arabia rated timeliness of less than 30 days with the mean value of
4.58 and the standard deviation of 0.74 and timeliness ranging between 30 day and 60 days with the mean value of 3.03.

(f) Disaggregated Information and Earnings Components:

Several studies have examined whether earnings components convey information to investors. Collins [1975] hypothesized that if earnings forecasts could be improved by using line-of-business information rather than consolidated data alone, investment strategies that incorporated such information should yield greater return, provided the extra information was not publicly available. Studying NYSE firms, Collins reports that in two [1968 and 1969] of the three years examined, investors could have used non-public segment data (principally segment sales) to increase abnormal returns. Collins' results imply that segmental disclosure has additional informational value over combined sales or earnings.

Kochanek [1974] examined differences in the market's anticipation of reported annual earnings. He found that the security prices of NYSE firms with extensive segmental disclosure adjusted more quickly to future earnings announcements than those firms with minimal segmental data. Consistent with the forecast error findings, publicly available information about the former group of firms seemingly permitted better forecasting of future earnings by users.

Among other studies of disaggregated accounting information, Gonedes [1974] attempted to explain returns using a variety of financial ratios in addition to earnings per share (EPS). He concluded that EPS captured most of the informational content of the accounting data analyzed. Foster [1975] concluded that investors recognized the components of earnings of OTC-listed insurance companies (underwriting earnings) investment earnings, capital gains and losses). For NYSE firms, Gonedes [1975, 1978] and Eskew and Wright [1976] examined the association between security returns and income before and after unusual (e.g., extraordinary) items. Their results provided limited support for the proposition that investors distinguished between operating and non-operating income in assessing security returns.

Finally, Manegold [1981] analyzed operating income before depreciation and interest expense, as well as depreciation and interest
expense. The unexpected earnings, derived from the disaggregated data, were slightly more positively correlated with unexpected security return than were unexpected earnings derived by extrapolating aggregate earnings. Lipe [1986] also demonstrated the limited but incremental value of the components of earnings. He showed that each of six individual earnings components—gross profit, general and administrative expense, depreciation, interest, taxes - explained variation in company returns beyond that explained by aggregate earnings or the other five components.

Instead of returns, other researchers have used stock price as the dependent variable attempting to discover whether firms’ prices are better explained by one accounting alternative or another. The studies use a valuation models, attributed to Litzenberger and Rao [1971] and derived from the capital-asset-pricing models, that specifies price as a function of permanent earnings, earnings growth, and firm risk. Bowen [1981] studied electric utility firms separating earnings into operating earnings versus credits from allowance for funds used during construction. The author showed that the securities market placed lower price-earnings multiple on the earnings component representing allowance for funds used during construction than on operating earnings. Daley [1984] applied a similar approach to pension cost disclosures. He found that of the three financial statement numbers tested (reported pension expense, unfounded vested benefits, unfounded past service cost), reported pension expense appeared most consistent with the assumed valuation model.

In brief, the market seems to distinguish among earnings components, and in some instances attributes to one component (e.g., operating earnings) and more informational value than to another.

(g) Supplementary Information:

Many disclosures in financial reports are supplemented to the primary historical financial statements. These mainly include changing prices and social and economic issues.

Numerous investigations suggest that supplemental disclosures about assets’ replacement costs and replacement or current cost earnings have had no significant impact on security returns. This is despite the obvious and
sometimes dramatic dip in reported accounting rates of return that occur when historical cost earnings are converted to a current or replacement cost basis. Studies in support of this general conclusion include Arbel and Jaggi [1978]; Beaver, Christie, and Griffin [1980]; Cheyara and Boatsman [1980]; Ro [1980]; and Beaver et. al., [1982] – on SEC replacement cost disclosures; and Beaver and Landsman [1983]; Matolcsy [1984]; McDonald and Morris [1984b]; Schaefer [1984]; and Olsen [1985] on statement 33 disclosures.

The findings of no additional informational content to current cost disclosures have not been left unquestioned. First, Noreen and Sepe [1981a] arrived at the opposite conclusion using an approach based on price reversals. They examined monthly-unexpected returns of firms subject to Statement 33 in (1) January 1974, when a general price level adjustment was proposed; (2) November 1975, when the 1974 proposal was withdrawn; and (3) January 1979, when an “either-or” approach to current cost disclosure was presented in an FASB proposal. Based on a key assumption—that the security price effects, if any, of the 1975 announcement were the reverse of the 1974 and 1979 announcements for all firms, Noreen and Sepe presented results consistent with the contention that all three FASB policy announcements had effects on unexpected returns. Basu [1981], who was critical of their choice of events and research procedures, reanalyzed their results. Basu also found significant results but was unable to satisfactorily explain them. Second, Bublitz et. al., [1985] found significant incremental explanatory power in addition to historical cost earnings for Statement 33 data-based on a large sample (up to 354 companies) studied from 1980-1983. The study also replicated Beaver and Landsman [1983] for the 1980-1983, study period with results contradictory to the earlier study. The researchers, however, were unable to pinpoint which of the current cost or constant dollar disclosures eight variables were analyzed was the primary cause of the results.

Besides financial accounting information, some firms also release data about social responsibility and environmental impact. Studies of Fortune 500 firms by Ingram [1978] and Anderson and Frankle [1980] considered whether investors perceived such information to be useful. Ingram classified certain disclosures about social responsibility according to (1) whether they were stated monetarily and (2) the type of expenditure (e.g., pollution control, fair
business practice, employee health and safety). He made no distinction between required and voluntary disclosures. In the first set of tests, Ingram observed no differences in the unexpected returns of portfolio formed on the basis of the above classifications. However, in a second test that controlled for earnings expectations, limited price effects were evident, but only for certain segments of the market in specific years. Anderson and Frankle also reported evidence of a market reaction for firms that voluntarily reported on social activities in 1972 and 1973, relative to those that did not. But their analysis focused on only one calendar month [March 1973] and, consequently, was likely to be confounded by omitted variables (e.g., impact of annual earnings announcements).

(h) Discretionary Accounting Policy Changes:

Discretionary accounting changes can occur for a variety of reasons. Factors motivating such changes include tax savings, political or regulatory cost reductions, improved contracting with creditors and employees, reduced costs of preparing information, reduced costs of outside capital, income smoothing, and ability to signal to outsiders. Non-discretionary or mandated changes are imposed by outside agencies such as the SEC or the FASB that affect the financial accounting and reporting process. Unlike the factors motivating voluntary changes, impetus for change at an agency such as the FASB stems primarily from the mission of the standard setter. In the FASB's case, this dwells mostly on the needs of investors and creditors for relevant and reliable information for decision-making.

In an early study, Ball [1972] evaluated the stock price effects of more than 20 types of accounting changes made by 197 firms between 1946 and 1958. He concluded that changes in accounting techniques were not associated with systematic market adjustments in any one direction. Harrison [1977] examined the security price response to accounting changes classified as discretionary or non-discretionary. He further classified the changes as income increasing or income decreasing. The results showed that NYSE firms that voluntarily chose income-increasing alternatives fared worse than the others. But Ball and Harrison dealt only with the aggregate effects of a number of accounting changes. Thus, their results were open to mutually
offsetting effects from different types of changes (e.g., those that are cosmetic and those with direct cash flow effects).

Rather than focusing on a broad set of accounting changes, Archibald [1972], Kaplan and Roll [1972], and Cassidy [1976] studied specific discretionary accounting changes that were largely cosmetic in terms of their effects on cash flows. An efficient market should understand more than the “bottom-line” earnings number and thus not respond to changes in reported earnings induced solely by changes in bookkeeping.

Archibald reports on the impact of NYSE firms that voluntarily switched from accelerated to straight-line depreciation for external reporting purposes without changing tax accounting treatments. Unexpected returns were no different from normal in the month of earnings announcement even though reported earnings increased about 9 per cent. Kaplan and Roll studied NYSE and AMEX firms that switched from accelerated to straight-line accounting for depreciation and from deferral to flow-through accounting for the investment tax credit. While neither change impacted taxes, both increased reported earnings. Kaplan and Roll found that depreciation-switchback firms performed poorly in the 30 weeks following the earnings announcement but did not react to the accounting change per se. At the time of announcement of the switch, the market did not react in the direction of the earnings change. For firms that switched to the investment tax credit, a temporary jump in price apparently occurred at the date of announcement. However, those firms that did not switch (i.e., retained the productive life method of accounting for investment tax credit) tended to be better performers on the average in the 30 weeks after announcement. Thus, according to Kaplan and Roll, the better (worse) performers chose the more (less) conservative accounting technique. However, Cassidy’s replication of the result indicates little post-announcement abnormal return activity for either the switch or non-switch groups.

Whereas the preceding studies only test for the existence of security price effects, Holthausen [1981] explores why such effects may arise. Holthausen posits that switching to straight-line depreciation increases reported earnings and decreases the book value of leverage. Consequently, the restrictiveness of any bond covenants based on leverage or earnings is relaxed, hence increasing the firm’s ability to issue new debt, pay dividends,
and invest in risky projects. Further, management compensation may be increased if tied to reported earnings. Since investors should recognize those potential effects, Holthausen predicts security price changes to be a function of firms' management compensation contracts, leverage, and tightness of dividends constraints. However, only leverage was significantly (and negatively) related to the size of abnormal returns. While this result suggests that accounting-based contracts are of only minor importance in explaining the effects of accounting changes, it is also likely that Holthausen's insignificant results are due to the simple way in which his variables are measured (e.g., accounting-based management compensation contracts coded as present or not present).

(i) Estimating and Predicting Relative Risk:

Individuals wishing to obtain benefits from portfolio diversification need to assess prospective security return, the volatility of security returns, and how those returns were interrelated. Correlational and covariance return measures are frequently used to assess those interrelationships.

The early studies by Ball and Brown [1969]; Beaver et. al., [1970]; Bildersee [1975]; and Griffin [1976b] and Thompson [1976] are correlational. They found that various accounting-based measures (e.g., earnings variability, earnings beta, leverage, payout, size) were associated with estimates of beta derived from stock prices. In other words, accounting data are implicit in the market's assessment of relative risk.

(j) Failure of Efficient Markets Hypothesis:

The efficient market hypothesis suggests that the small shareholders will free ride on the sophisticated judgments of larger professional investors in evaluating publicly available information. [Whittington: 1993]. However, there is ample evidence on apparent departure from it as evidenced by Basu [1997], Shiller [1981], De Bondt and Thaler [1985] and Dimson [1988]. In this regard, Whittington [1993] observes: “The Efficient Markets Hypothesis refers only to informational deficiency, not to fundamental efficiency i.e., the market's ability to assess the future cash flows and other fundamental features of a firm's economic performance, whereas good corporate performance, from the
perspective of the whole economy, should preferably refer to the fundamentality of the firm.” The Whittington observations are essentially based on the observations early by Keynes [1936] and more recently by Whittington [1978] and Summers [1986].

(vi) PREDICTIVE VALUE OF ACCOUNTING INFORMATION:

In the background of accounting as a process of information provisioning for decision-making, it is natural that the accounting information should focus on future. Hence accounting information needs to have a thrust on predictive value. In this direction, the accounting researchers have conducted many empirical studies.

Beaver et. al., [1968] pioneered the idea that accounting information could be evaluated in firms of its ability to predict events of interest to decision makers, but later criticized by Greenball [1971]. In recent times, the conceptual foundations of predictive value of financial reporting have been firmly established without operationalizing the concept. Recognizing the relevance of predictive value, the FASB [1980] links it to the hierarchy of accounting qualitative characteristics stating that it is a criterion by which users choose among sources of information in these words: “... accounting information must be capable of making a difference in a decision by helping users to form predictions about the outcomes of past, present, and future events or to confirm or correct expectations.” Subsequently, the FASB [1980] emphasizes that “users can be expected to favor those sources of information and analytical methods that have the greatest predictive value in achieving their objectives.” As a result of FASB’s emphasis, the predictive value of accounting numbers has become an integral part of accounting research as well as a major function of financial analysts in recent times.

The research on predictive value of accounting information has focused on (a) Financial Distress and Bankruptcy; (b) Trade Credits; (c) Lending and Credit Evaluations; (d) Cash Flow; and (e) Qualified Audit Opinions and the analysis is presented below.
(a) Financial Distress and Bankruptcy:

The accounting information should signal whether a firm would land in financial stress in the future. The empirical literature on the prediction of financial distress falls into three main schools. The first school compares the financial characteristics called out in terms of ratios from financial reports of a sample of failed firms with those of a sample of non-failed firms. The second school focuses information content of security prices about financial distress. The third school relies upon the analysis both company generated data and share price movements generated by the market. The major empirical studies of all these schools are present below.

Beaver [1966] compared the financial ratios of 79 failed firms with the ratios of 79 matched firms up to 5 years before the 79 firms actually failed. “Cash flow to total debt” had the highest discriminatory power of the ratios examined. Five years before failure, an optimal prediction criterion (i.e., cutoff value) based on the single accounting ratio misclassified only 22 per cent of the validation; 1 year prior to failure the criterion misclassified only 13 per cent of the validation sample. This is impressive given that a random classification would produce a 50 per cent error in the sample. However, Beavers used a frequency rate for the firm sample that was substantially higher than one would observe in reality. Beaver [1968a] examined those results further and reported that non-liquid-assets measures (e.g., cash flow to total debt, net income to total assets, and total debt to total assets) seemed to perform better than liquid-asset measures, apparently because they represent more “permanent aspects” of the firm.

Security prices also convey information about financial distress. Beaver [1986b] reported that, on average, common stock return data had a lead-time of about two and one-half years in discerning failure versus non-failure status. That lead-time ran slightly ahead of the lead times of the accounting ratios in the assessment of financial distress as part of an overall evaluation of prospective security returns. More recently, Aharony et. al., [1980] evaluated a rule that estimated bankruptcy probabilities using quarterly security return data. Consistent with Beaver’s, their results indicated: “That a
solvency deterioration signal using capital market data is available some two years before the bankruptcy event.

Most of the recent studies have adopted a multiple-variable approach to the prediction of financial distress by combining accounting and non-accounting data in a variety of statistical formulas. Altman's [1968] model is perhaps the best known of the early studies. Altman developed an equation that optimally combined five ratios reflecting accounting and market data, namely liquidity, profitability, financial leverage, solvency, and sales activity (i.e., sales to total assets). The discriminate-function criterion (commonly known as a Z score) predicted 24 of 25 failed firms not used in developing the model (the validation sample), 1 year ahead of the event. For a second sample of 66 non-failed firms with temporary earnings difficulties, the Altman Z-score criterion was in error in only 14 of 66 cases.

Early studies using multiple variable statistical techniques subsequent to Altman include Deakin [1972] and Blum [1974]. Subsequent research also includes investigations of the characteristics of failing firms in special sectors: Altman [1973] on the railroad industry; Edmister and Schlarbaum [1974], Sinkey [1975, 1977]; Martin [1977]; Santomero and Vinso [1977]. And Pettway and Sinkey [1980] on the banking industry, Altman [1977a] on savings and loan institutions, Altman and Loris [1976] on the over-the-counter broker-dealer industry; Edmister [1972] on small-business failures, Schipper [1977] and Shriever and Stevens [1979] on the educational entities; and Pinches and Trieschmann [1974] on the insurance industry. Whether the predictive value of accounting information was based on samples of industrials or on non-industrials, the misclassification rates were low. Hence the explanatory variables had significant predictive power. Ratios based on accounting earnings, reported cash flow, and book debt figured prominently in the various statistical formulas, especially those that applied to the industrial sector.

Another study of interest is Altman et. al., [1977]. This research apparently forms the underpinnings of the credit risk reports by Zeta Services, Inc. The variables identified in the Zeta model were retained earnings to total assets, leverage (based on market values), earnings variability, return on total assets, fixed charge coverage, current ratio, and asset size. Adjustments to
those variables were made on the basis of footnote disclosures (e.g., information about unconsolidated subsidiaries and leases). The model improved upon the Altman Z score model classifying 91 per cent of a validation sample 1 year before the filing; and 5 years earlier, 77 per cent of the validation sample was classified correctly. Having greatest weight in the equation were variables “retained earnings to assets” (explain 25 per cent of the difference between failed and non-failed firms) and “stability of earnings” (explains 20 percent of the difference).

Several financial distress prediction studies attempt to compare empirically the forecast accuracy of models already in the literature: Moyer [1977]; Collins [1980]; Hamer [1983]; and Zmijewski [1983]. Zmijewski made a comprehensive analysis of 13 financial distress models. Eleven of those were exact replications of the models appearing in the previous research. However, the statistical formulas of those models were such that they were also similar to many other financial distress models that are not specifically examined in the study. For example, the variables contained in the 13 models encompassed the variables examined in Beaver [1966], Altman [1968]; Wilcox [1971, 1973], Deakin [1972, 1977]; Blum [1974]; Libby [1975a]; Altman et. al., [1977]; Vinso [1979]; Aharony et. al., [1980]; Dambolena and Khoury [1980]; Ohlson [1980]; Emery and Cogger [1982]; Zavgren [1982]; and Zmijewski [1983]. The 13 models were tested on a sample of firms that have been traded on either the AMEX or NYSE. The sample consists of 72 bankrupt and 3,573 non-bankrupt firms. An analysis of the variables, one at a time, indicated that accounting rate of return measures were most useful in classifying bankruptcy; they were followed by the financial leverage and fixed payment coverage measures. The single-variable analysis indicated that, on average, bankrupt firms had lower rates of return, lower liquid-asset composition, lower liquidity position, and lower fixed payment coverage than do non-bankrupt firms. However, the degree of financial leverage was greater for bankrupt firms. Finally, the dispersion of those characteristics tended to be higher for the bankrupt firms than for non-bankrupt firms, in part due to the fact that as firms moved closer to bankruptcy they take on more unusual characteristics. This could be due in part to the choice of accounting techniques.
Schwartz [1982] reported that potentially failing firms made many more income increasing accounting changes than did firms in general. The more recent research has made use of probit analysis and adopted realistic chronological updating procedures (i.e., re-estimating the model on chronological yearly sub-samples). The analyses indicated that the models based on financial statement data, stock return data, and liquidity statistics, all predicted well and that models using primarily financial statement data did appear to have some predictive advantage. Some of the models outperformed the naïve model (i.e., predicting all non-bankrupt) when the cost of incorrectly predicting that a firm would go bankrupt was significantly greater than the cost of incorrectly predicting a non-bankrupt firm. Additionally, the correlations among the alternative probability specifications (e.g., probit) were quite high. Thus it appears that most of the extant financial distress prediction models produce reasonably similar probabilities of bankruptcy.

Several studies focus on models to predict bank financial distress. Such models are used primarily as early warning systems for federal and state bank regulators. The objective is to develop classification rules based on comparisons of banks with "criticized" loans and banks with un-criticized loans, "problem" banks and non-problem banks, and failed banks and non-failed banks. Consistent with the general research on financial distress, the studies use accounting data to predict the group (population) to which a given bank is likely to belong.

Sinkey [1979] developed a model based on these variables: operating expenses to operating income and investments to assets. The model predicted 15 to 16 bank failures in the validation sample 1 year before failure, and 14 of 16 failures 2 years before failure. The model also works well in classifying non-problem banks as such. Noteworthy was Sinkey's finding that the 2-variable (accounting) model appeared to signal a "red flag" (on average) approximately 66 weeks ahead of the data of the examiner's on-site review that led to the bank's being placed in the FDIC problem bank list. Pettway and Sinkey [1980] follow up that research with an analysis of market and accounting-based screening models, on the assumption that market prices might detect aspects of financial distress earlier than accounting-based
information. Clark and Weinstein [1983] observed a sharp drop in price one day before and on the day of announcement, despite a general deterioration up to four year earlier.

The dual (market and accounting) screen produces only slightly better results. That the capital market does not fully anticipate the event of failure is further reflected in studies of the stock market's reaction to bankruptcy declaration announcements.

(b) Lending and Credit Evaluations:

The bank lending process is a very challenging task in the sense that the financial viability of a loan sought by the borrower is to be evaluated by the lenders.

Early studies in the first area include Clarkson [1962] and Cohen et. al., [1966]. Clarson developed a computer model that simulated a trust investment officer's decisions in a medium-sized national bank. Specifically, he investigated the investment of customers’ funds in common stock portfolios. The trust officer was modeled as a sequential decision maker using a relatively small number of heuristics (rules of thumb). Such heuristics were able to specify a greater proportion of correct securities than are the alternative models. Clarson’s main contribution, however, was that he described the interactions among a bank officer’s information, expectations, and decisions, thus, showing that it was possible to remove the aura of mystery and to identify assumptions that were implicit in the traditional approach to investment analysis and portfolio selection. Financial information plays a prominent part in the simulation analysis, though always in a comparative sense (i.e., relative to bankers’ expectations). However Dutton and Starbuck [1971] provided a criticism of the Clarkson study.

A more recent investigation of the commercial loan classification decision is by Dietrich and Kaplan [1982]. Using a total of 327 loan classifications made in 1975-1976 at a large money center bank, they developed a statistical (logit) model to explain and predict four classes of loans from those that are “current/in good standing” to those that are “doubtful.” The statistical prediction formula gave the greatest weights to (1) debt to total assets and (2) Funds flow to fixed commitments. A sales-trend
variable was also significant. One version of the model that was developed from 1975 classifications and 1974 accounting data predicted 117 of 140 classifications that were made for 1976. However, the predictive accuracy (117 of 140) should be assessed relative to a benchmark. A naïve model that predicted all loans were current would have a predictive accuracy of 109 of 140. Thus Dietrich and Kaplan's model improved predictive accuracy. The model was also superior to previous bankruptcy models in predicting the four classes of loans. Marais et. al., [1984] investigate a sample of loan classifications for a major commercial bank. The interesting aspects of that study were the introduction of asymmetric loss functions across categories of loan classifications and a statistical technique that was not affected by the distributional characteristics of the data. The results of Marais et. al., were consistent with the results of the Dietrich and Kaplan report.

Oliver [1972] reported that bankers did not alter hypothetical loan decisions when given financial statements containing confidence interval data; Abdel-Khalik [1973] presented results that suggested that the high degree of aggregation in accounting data was a negative factor in the loan evaluation process only when the firm being evaluated was close to default; Casey [1978] found that loan officers who were overloaded with accounting data in bankruptcy prediction experienced an overall poorer forecasting performance relative to those who were given lesser amounts of accounting data; and Dietrick and Stamps [1981] reported that the effort made by loan officers to adjust net income when an applicant's accounting procedures differed from standard practice varied across accounting issued and was greatest in the areas of oil and gas exploration costs, leases, and foreign currency translation and least in the area of price-level adjustments.

(c) Trade Credit:

The use of accounting and other financial information to evaluate trade credit has received little attention by empirical researchers. The research issue, as with bond ratings, is to replicate or predict the credit evaluation.

Ewert [1980] evaluated the extent to which financial ratios could be used to distinguish good from bad accounts, bad accounts being those either placed for collection or written off as un-collectible. Slightly more than 80
percent of the validation sample of firms was correctly classified. Backer and Gosman [1978] studied differences in financial ratios between a group of firms that experienced a downgraded rating from 1976-1979 by Dun & Bradstreet and a matched sample of firms and having not experienced a change in credit rating.

To sum up, the findings on the use of accounting and other information in lending and credit decisions are encouraging. While the evidence indicates that models based on accounting data capture key aspects of lending behavior and that loan officers pay attention to accounting differences, attempts to capture broader aspects of the lending process have not attracted researchers’ attention. However, for regulators of accounting information, the research offers few surprises. Still, it is reassuring to known that published accounting data, adjusted or otherwise, are primary inputs into numerous decision aids, screening devices, and other evaluative devices that bankers and other lenders apparently use.

(d) Cash Flow:

While the debate over cash flow versus accrual concepts is long-standing in accounting, little research has studied that issue empirically. One possible reason is that enterprise cash flows are generated in diverse ways over many periods, and hence they are not easily measured. Cash flows derive from the complex interactions of production, marketing, investment, and financial decisions made during the life of an enterprise. In a similar way, studies of the predictability of cash flow from earnings are of only limited relevance. Cash flow from earnings (e.g., net earnings plus depreciation) is biased toward the accounting procedures presently in use, which of course, are accrual based. Historical cash flow, therefore, is not a good criterion for the evaluation of accounting alternatives based on future cash flow.

Several studies have attempted to evaluate the incremental information content of changing price data, a principal motivation for which was the added ability of such data to predict cash flows. Beaver et. al., [1982] studied the ability of various measures of earnings growth to explain differences in security returns among 313 firms that filed replacement-cost data with the SEC. However, the correlations between security returns and percentage
changes in historical cost earnings were greater than those between security returns and percentage changes in cash flow from earnings. Beaver and Landsman [1983] reported similar results with respect to Statement 33 current cost and constant dollar data.

Recent attempts at examining the information contained in accrual earnings vis-à-vis historical cash flow include Wilson [1986, 1987] and Bowen et al., [1986]. Wilson [1987] focused on the stock market's reaction at the time the annual report arrives at the SEC. Wilson calculated measures of the unexpected cash flow and unexpected accrual components of earnings and reported that during 1981-1982 investors attributed importance to both. Further, Wilson [1986] suggested that there was informational content in the accruals components of earnings beyond the cash flow components.

Overall, then, while the evidence from the earlier studies is negative with respect to the predictive value of current cost or cash flow data, the recent evidence is more encouraging and consistent with the view that investors attach significance to the cash components of earnings (known at the annual report filing date) over the above reported earnings (known at the announcement date).

(e) Qualified Audit Opinions:

An independent auditor must issue a qualified audit opinion if there is potential for the financial report not to provide a fair presentation of the firm's operating results and financial position. Reasons for qualifying an audit opinion include pending litigation, uncertainty of asset realization, and uncertainty of the ability to secure future financing (which includes financial default).

A recent study of that issue has been conducted by Dodd et al., [1984]; other studies include Shank et al., [1981]; Chow and Rice [1982]; Davis [1982]; and Elliott [1982]. Dodd et al., determined the first date the market becomes aware of the qualified opinion. Their sample selection criteria resulted in the population of firms that were traded on either the AMEX and NYSE for which Form 10-K receipt dates, annual report receipt dates, and annual earnings announcements were available; and the annual earnings number was announced at least five days prior to the earlier Form 10-K or
annual report. The event date was the earlier of the Form 10-K and annual report receipt dates. Dodd et al., examined the population of all qualified audit opinions meeting those constraints. Their results indicated that the issuance of qualified audit opinions did not cause a price reaction, though the authors provided weak evidence (based on five firms) that disclaimers had informational content (i.e., a negative price effect). These results were consistent with Elliott; however, they are inconsistent with the results of Shank et. al.; Chow and Rice; and Davis. Dodd et al., attribute the difference in their results to the sample collection procedures of those studies.

(vii) EARNINGS FORECAST:

Another dimension of empirical research on properties of accounting numbers is the earnings forecast normally done by management and financial analysts.

Abdel-Khalik and Espejo [1978] provided evidence that analysts pay attention to quarterly earnings in revising published forecasts. They used a regression model to explain the accuracy of 1976 annual earnings forecasts of the Value Line Investment Survey in terms of error in the prediction of quarterly earnings. Their findings were consistent with the proposition that Value Line revised its forecasts of the predicted portion of annual earnings in the same direction as the quarterly forecast error in all three quarters. Brown et. al. [1980] confirmed the result using quarterly forecast data for 50 firms during 1972-1976.

Analysts also appear to pay attention to changes in accounting methods. Brown [1983] examined the accuracy of analysts' predictions of earnings from 1974-1979 when firms changed their accounting methods. Investigating five types of accounting changes, Brown concluded that unless firms provided pro forma adjustments, earnings forecast accuracy was impeded by an accounting change (though not in all cases examined). Baldwin [1984] examined the accuracy of analysts' predictions of earnings before and after implementation of the SEC's line-of-business disclosure requirements in 1971 and concluded that analysts' forecast accuracy was enhanced when firms reported segmented earnings.
Cragg and Malkiel [1968] reported only limited success by participating investment firms in predicting the 5-year earnings growth of 185 companies relative to a regression model based on past growth rates. And results by Elton and Gruber [1972] indicated that analysts’ forecasts do not significantly outperform those based on statistical techniques (specifically, an exponential smoothing model), although the exponential smoothing model was marginally superior.

More recent studies comparing analysts with mechanical forecasts include Crichfield et. al., [1978], Brown and Rozeff [1978], Collins and Hopwood [1980], Foster et. al., [1984], and Brown et al., [1987a]. Crichfield et. al., examined 46 firms that appeared in Standard & Poor’s Earnings forecaster in 1967-1976. Relative to models based on past annual earnings, the analysts’ predictions became relatively more accurate as the end of the year for which the forecast was made was approached, presumably, as more recent information was incorporated into their forecasts. Brown and Rozeff also reported results that favored the superiority of analysts’ forecasts vis-à-vis benchmark models. Using 50 firms and forecasts from one to five quarters ahead in the 1972-1975 period, they reported that (1) Value Line estimates were significantly more accurate than mechanical models based on box-Jenkins techniques and (2) such Box-Jenkins models outperformed other naïve models employing past quarterly earnings. But their results might have been overstated, given their strong emphasis on the significant 1972 results and not on other years as observed by Abdel-Khalik and Thompson [1977].

Collins and Hopwood examined 50 firms covered by Value Line in 1971-1974. They compared annual predictions by Value Line analysis with those of four quarterly Box-Jenkins models- the compact models offered by Foster, Griffin and Watts, and Brown and Rozeff, and individually identified Box-Jenkins models. The comparisons favored the security analysts. An investigation of outliers revealed that the advantage of security analysts was due, in part, to their ability to respond in a timely fashion to economic disturbances such as strikes or sudden earnings swings.

Brown et. al., examined 233 firms covered by Value Line in 1975-1980. They compared quarterly predictions by Value Line analysts with those of the compact Box-Jenkins models presented by Foster et. al., and Brown and
Rozeff. Consistent with the above, the comparisons favored the analysts. Further, the results were shown not to be an artifact of particular years, quarterly reporting periods, or forecast horizons of up to three quarters. The authors also examined two potential reasons for the security analyst's advantage: (1) better utilization of information existing on the date that time-series models generated their forecasts and (2) acquisition of additional information between the time that earnings were reported and the date that security analysts' forecasts were published. The evidence suggests that analysts' superiority is due to both factors.

Without testing, Albrecht, et al., [1977] suggested a variety of factors including year, forecast horizon, industry, firm size, number of lines of business, and variance of firm errors, that potentially explain forecast errors. Brown et. al., [1987] developed and tested a Bayesian model that related analyst superiority to three attributes of the informational environment; (1) dimensionality (size); (2) variance of information observations; and (3) the correlation among information observations. Their test results, using two sources of analysts' forecasts (value line and I/B/E/S), were broadly consistent with their posited informational environment.

Also, Brown and Rozeff [1979b] showed that analysts acted as if they had adaptive expectations, i.e., they revised upwards (downwards) their forecasts of future quarterly earnings numbers when they underestimated or overestimated reported earnings, but that they did not revise their forecasts when they correctly predicted the quarterly earnings number. Givoly [1985] obtained similar results using annual data and shows that the adaptive factor was unequal across companies. Easton and Zimijewski [1986], using quarterly data, also showed that the adaptive factor varied across firms.

To sum up, the evidence on analysts' forecasts suggests that (1) analysts pay attention to quarterly earnings is revising their forecasts, (2) forecast accuracy may be impeded initially when firms change their accounting methods, (3) analysts' forecasts are more accurate than forecasts by the compact Box-Jenkins quarterly models using optimal amounts of past quarterly earnings data, (4) analysts' superiority is due to utilization of information in addition to (published financial) earnings information, (5) analysts use additional data such as sudden swings in earnings to out-predict
time-series models, and (6) analysts' forecast performance depends on the informational environment in which they operate.

(viii) EFFECTIVENESS OF MANAGEMENT FORECAST:

Numerous studies have evaluated managements' forecasts against statistical benchmarks. Copeland and Marioni [1972] compared 50 management earnings-per-share forecasts (published in 1968 only) with six naïve models. They found that the executives were better forecasters. An extension of the Copeland and Marioni test is reported by Lorek et. al., [1976], who explored the superiority of management forecasts using sophisticated Box-Jenkins modeling techniques. Lorek et. al., concluded that, for the 40 forecasts examined, there was no significant difference in the magnitude of prediction error between firm-specific Box-Jenkins forecasts and those voluntarily disclosed by a firms' management. Nonetheless, when managements' prediction error was greater than 10 percent, the mechanical models were superior 18 times out of 20. Similar results were also reported in Hagerman and Ruland [1979], who examined management forecasts made during 1968-1973 for 8 months through 14-month forecast horizon.

Managements' forecasts of earnings have also been compared with those produced by financial analysts. Basi et. al., [1976] and Ruland [1978] reported generally consistent results: Managements' forecasts and analysts' forecasts were roughly equivalent in their ability to predict future earnings. Imhoff [1978], Imhoff and Pare [1982] and Schreuder and Klaasen [1984] also found no significant difference in managers' versus analysts' forecasting performance. Jaggi [1980], however, supported the proposition that managements' forecasts were better predictors of earnings; he reported that Value Line's estimates of earnings were significantly less accurate relative to managements' estimates, especially when managements' forecasts were published after analysts' forecasts. Similar results were reported in Hassell and Jennings [1986] and Waymire [1986]. Based on consensus forecasts reported by Zacks Investment Research, Inc., Hassell and Jennings showed that the forecast with the shortest horizon exhibited more accuracy, i.e., the managements' [analyst's) forecast was more accurate when it was reported after the analyst's [management's) forecast. Based on data from Standard
and Poor's Earnings Forecaster, Waymire reported similar results (except that management’s and analyst’s forecasts after the release of the company forecast were not significantly different from each other).

The voluntary nature of management forecasts, however, may invalidate comparing the accuracy of the two groups. For example, management may have incentives to issue forecasts (1) whose accuracy is high [Waymire 1985]; (2) during the periods of above-normal performance [Patell 1976, Penman 1980]; and (3) in an effort to move prevailing market expectations towards management’s beliefs about future earnings [Ajinkya and Gift: 1984]. Further, firms making forecasts appear to have lower earnings variability [Imhoff 1978] and are significantly larger than non-disclosing firms [Cox 1985].

Penman [1980] examined daily security returns surrounding managements’ annual earnings forecast announcements. He classified announcements as being positive or negative in relation to the most recent reported annual earnings plus a drift factor. His results were consistent with the securities market attributing informational content to managements’ earnings forecasts. Studies by Patell [1976]; Morse [1982]; and Ajinkya and Gift [1984] arrived at the same conclusion. Patell’s results, however, suggested that managements made forecasts more often when firm performance is favorable.

Studies of analysts’ earnings forecasts also indicate that security prices incorporate these information. McEnally [1971] examined earnings forecasts from Standard & Poor’s Earnings Forecaster during 1968-1969. He computed unexpected earnings using the arithmetic mean of the analysts’ forecasts and found that, for analysts’ forecasts made subsequent to announcement of the prior year’s earnings, unexpected earnings were more highly correlated with security price changes than unexpected earnings derived from a variety of extrapolative modes. Thus result indicates that analysts’ forecasts better reflect the markets’ expectation of earnings.

Fried and Givoly [1982] performed similar tests using an extended time period [1969-1979] and additional extrapolative modes. They reached the same basis conclusion. While McEnally and Fried and Givoly considered only one-year-head forecasts, Elton et. al., [1981] and Brown et. al., [1985]
extended the focus to forecasts beyond a year, Elton et. al., concluded that two-year-ahead forecasts had informational content. Brown et al., conducted extensive tests of the association between analyst multi-year earnings forecasts and security returns. They found a significant association for both one- and two-year-ahead forecasts. The two-year association was significant even controlling for its correlation with the one-year-ahead forecast.

Extending the preceding research, Brown et al., [1987b] focused on optimal combinations of analysts’ forecasts (the Value Line Investment Survey) and time-series model forecasts. Based on NYSE and AMEX firms from 1975-1980. Their results suggested that analysts’ forecasts in conjunction with time-series forecasts produced the proxy with the least measurement error, namely, the best proxy for the market’s expectation of earnings. They also showed that the small firms’ results were strongest when returns were measured over short (two-day) holding periods. In contrast, the larger firms tended to respond over longer (up to 40 days) holding periods, suggesting the small-firm information was more likely to be received by the market at discrete reporting intervals whereas large-firm information was more continuously available.

Rather than analyzing the difference between forecasted and actual earnings, Givoly and Lakonishok [1979]; Abdel-khalik and Ajinkya [1982]; and Imhoff and Lobo [1984] studied security price reactions to announced revisions of analysts’ forecasts. They found a significant reaction, which further supported the role of such forecasts in the security pricing process. Also, Waymire [1984] studied the revision of security prices conditional on the deviation of a management forecasts from an average analyst forecast. His findings were consistent with the notion that, in making earnings projections, management conveyed information to investors beyond the information known to analysis.

(ix) ROLE OF MANAGERS AND AUDITORS:

An extensive literature exists on discretionary accounting choices made by managers [Dontoh, 1989; Watts and Zimmerman, 1986, 1990]. There are many contexts where managers have incentives to choose non-conservative or income-increasing accounting methods. Examples include
executive compensation and bonuses where managers may which to increase reported profits [Gaver et al., 1995]; debt covenants where managers may want to increase reported profits and decrease reported liabilities [DeFond and Jiambalvo, 1994]; and raising new equity or debt finance where managers wish to portray strong profitability [Friedlan, 1994]. Managers therefore have incentives in some circumstances to recognize potential gains early and to defer recognition of losses to later periods. Whether managers finally adopt the non-conservative accounting methods they prefer depends on acquiescence by the company’s auditors.

Auditors play a significant role in the selection of accounting practices used in compiling annual accounts. In some cases, the client company may solicit advice from the auditor prior to finalizing the accounts while in other cases auditors require changes to be made before a clean opinion is given.

The studies by Basu [1997], DeFond and Subramanyam [1998] Francis and Reynolds [1999] evidenced that auditors tended to prefer conservative accounting methods, and their ‘auditor conservatism’ was an important factor that drove conservatism in financial reporting.

Empirical evidence in support of auditor conservatism showed that in auditor-client disagreements [reported in Form 8-Ks] the auditor’s recommended course of action invariably led to lower earnings than the management’s treatment [DeFond and Jiambalvo, 1993]. Kinney and Martin [1994] provided more evidence and concluded that audit corrections generally resulted in lower earnings and considerable emphasis was given to conservatism during the training of auditors, and extensive continuing education programmes further instilled the need for conservatism.

Kothari et al., [1989] and Lys and Watts [1994] observed that litigation against auditors had increased in recent years and one common basis for a lawsuit was that earnings were alleged to be overstated. St. Pierre and Anderson [1984], in reviewing lawsuits against auditors, found no instances where lawsuits hinged on allegations of earnings being understated; in contrast, allegations of overstatement of earnings were rife. Thus ‘too much’ conservatism has not been the basis of lawsuits against auditors. Basu et al., [1999] stated that auditors were exposed to higher legal liability than were
company managers, and this implied auditors would be more concerned about overstating earnings.

Empirical studies typically treat the Big Six auditors as a proxy for large firms and non-Big six auditors as a proxy for large firms and non-Big six auditors as a proxy for small firms. A few studies suggest that there was a link between auditor size and audit quality for example. De Angelo [1981] and Becker et al., [1998] argued that there was a positive relationship between auditors size and audit quality. Teoh and Wong [1993] concluded that Big Six audit firms were high quality auditors. Big Six auditors had stronger incentives than non-big auditors to maintain professional standards as observed by DeAngelo [1981]. Francis and Krishnan [1999] stated that Big Six auditors were better able to detect manager's inappropriate applications of GAAP and, once detected, they were more likely to issue qualified audit opinions if they could not persuade management to make changes.

Previous research has examined the role of auditors in constraining managers' use of discretionary accounting accruals. Becker et al., [1998] and Francis et al., [1999] reported that the level of discretionary accruals was significantly lower for clients of Big-Six auditors vis-à-vis non-Big Six auditors. Chung et al., [2002b] found that when managers had preferences for income-increasing accounting choices, Big Six auditors were more effective than non-Big Six auditors in monitoring and deterring opportunistic accounting choices. They also reported that Big Six auditors were no more effective than non-Big Six firms in deterring opportunistic accounting choices when managers were faced with incentives to reduce reported income.
Unlike extensive studies being conducted in foreign countries, the empirical research on financial reporting in India has been very sporadic in nature in the sense that the research on different financial reporting issues has been very much limited and such research has been highly general in nature. Hence the following empirical evidences on financial reporting in India has been presented here.

The pioneering research on financial reporting in India was done by Sankar [1972: 25], who compared the annual reports of 50 Indian companies and 25 foreign companies. He observed that the disclosure of foreign companies was better than Indian companies in respect to company objectives and policies, corporate concept, corporate-government relations, composition and board of directors etc.,

However, the study by Gupta [1977] was the first comprehensive empirical study on financial reporting in India. Amidst a number of limitations of absence of objectives of the study, hypotheses for the study, research methodology and basis for selecting sample companies, absence of the information on the number of sample companies included in the study, the empirical analysis was carried out by explaining financial reporting of some companies from the view point of format of presentation, size of annual reports, contents, and presentation of different accounting items. With several limitations of the study, it is still an honest effort in highlighting the status of financial reporting in India prevalent at that time. The following were the suggestions: (i) The present financial statements should be adequately expanded so as to include the details; (ii) The columnar method of presentation of both balance sheet, and profit loss account should be adopted; (iii) Material items should not be lumped together under 'etc'; (iv) Percentages of various components to their respective group, and each group percentage to total should be given for the previous and the current years; (v) All reserves should be divided into (a) capital reserves and (b) revenue reserves; (vi) All liabilities should be classified under (a) current liabilities (b) medium term liabilities; and (c) long-term liabilities and these items being subdivided into secured and unsecured liabilities; (vii) Provisions and reserves
should be shown separately and not to be clubbed under reserves; (viii) The value of land and buildings should be split up between freeholds and leaseholds and the surplus resulting on revaluation of fixed assets should be directly credited to revaluation reserve; (ix) Asset-wise details of depreciation provided and withdrawn during the year should be given; (x) Regarding investments, distinction should be made between those which are held as current assets and those which are held as fixed assets; (xi) The profit and loss account should be prepared in three sections, viz., profit or loss for the year with income from other sources separately, non-recurring and exceptional items relating to previous year and appropriations; (xii) Realized losses should be required to be made good before distributing revenue profits; (xiii) All companies should publish a list of their subsidiaries and associated companies along with the percentage shareholding in them; (xiv) the annual report should include highlights, summary financial statements, fund statement, statistical compilation ranging from 5 to 10 years, comparative statement, and cost analysis; and (xv) Important information should be on the face of the balance sheet and profit and loss account, leaving the details to schedules. Having the retrospective analysis at this stage when all these suggestions have become a reality, we can imagine the status and plight of financial reporting that existed before 1977.

Singh and Gupta [1977] carried out a study on the quality of disclosure of information of the annual reports of Indian companies, by changing the items of Singhvi and Desai’s index of disclosure in the Indian context. They studied 32 disclosure items of 28 Indian companies for the year 1970, which consisted of 22 companies in private sector including 8 companies of foreign origin, and 6 companies in public sector. They observed that the quality of disclosure varied from company to company. In both public and private sector companies, age of company and ownership pattern did influence the quality of disclosure in sense widespread ownership pattern and older companies were found to have higher disclosure level with higher quality of financial reporting. Level of disclosure was positively related with the size of the company. The rate of return, earnings margin and auditing firm did not show relationship with the quality of disclosure.
Singh and Goswami [1981] revealed through their study by examining the extent of disclosure of external environment information in the annual reports of the public and private sector companies by correlating organizational variables, viz., size, profitability, ownership pattern and nature of industry. They observed that there was no uniformity regarding the extent of the disclosure of environmental information among the Indian companies. With regard to political and economic environment, the Indian companies followed a similar pattern of disclosure whereas opposite trend was noticeable in socio-cultural and technological environment. As regards organizational variables, age, rate of return, nature of industry did not influence the environmental information, whereas size of the company (total asset and net sales) and earnings margin had significant impact on disclosure of external environment information.

Narain [1984] conducted a survey of annual reports of 57 public sector companies in India and concluded that no specific attempt was made by the government to see that the annual reports of public enterprises contained the necessary and basic information for the preparation and presentation of financial statements. He revealed that the disclosure of information by public sector companies was better than that of private sector companies.

The basic objective of the study by Lal [1985] was to examine whether the diversified manufacturing companies should provide segment information in their published annual reports, and if so, what and how segments information should be given in them. The study also covered objectives of financial statements, investors' use of accounting data and objectives of investment decision-making. The scope of the study included (i) surveying the opinions on how the financial reporting was done by the diversified companies did financial reporting and (ii) how investors perceived the importance of segment reporting and usefulness of financial reporting. For the first component of the study, sample respondents included were: the manufacturing diversified companies from private sector and public sector, whose numbers stood at 683 and 197 respectively. The sample respondent companies from private sector included only those companies, which had a paid up capital of Rs.5.00 million in 1980. The number of responses to the questionnaire cause from only 230 from private sector and only 25 from public
sector and the response rate stood at 33.67 percent and 12.69 percent respectively. In aggregate, 255 responses were included in the study.

For the second component of the study, 20 manufacturing companies in the private sector were selected on a random basis and then requested to supply a list of 200 shareholders. Ten companies responded for the request and the list of five hundred respondents was available for the researchers. The responses were received from 121 shareholders, out of which 16 responses were found incomplete. Further, 170 chartered accountants-cum-shareholders, investors responded to the request. Thus, a total of 275 investor questionnaire responses were used in the study. The following were the major conclusions of the study: (i) Majority of the investors numbering 215 and representing 78.18% made their investments decisions on their own and without any difficulty (ii) The major source of information for investment decisions was published financial information in annual reports and 226 respondents representing 82.18% perceived to be the most important source, (iii) Profit and loss account was rated the most part of annual reports by all the 275 respondents and it was flowed by the importance attached balance sheet, chairman’s report, report of directors, funds flow statements, auditors report, notes to accounts and statically data, (iv) The most important objectives of financial statements was providing data in the annual reports for investment decisions, and this was followed by the importance in the descending order, given to provisioning of information on the value of the company of accountability of directors, market value of shares, taxes paid, and justification of the dividend payments proposed by the company and (v) The most important objective was the maximum return in the short run from a combination of dividend and capital of appreciation and objective was followed by satisfactory and stable dividends yield, maximum return in the long run from a combination of dividends and capital appreciation maximum capital appreciation in the short run and maximum capital appreciation in the long run.

The study by Lal [1985] focused on disclosure practices by measuring the extent of disclosure in terms of index of disclosure in published corporate annual reports in relation to asset size, earnings margin, nature of industry and association with large industrial houses. The index of disclosure
consisted of 50 items, which included sub-items numbering 104. Each item in the index of disclosure was assigned a score ranging between 0 and 1. If an item was disclosed in the annual report, then the item was assigned score 1. In case of non-disclosure, score 0 was given. The score for each annual report was then summed up. Dividing the actual score by maximum applicable score arrived at the index of disclosure and their quotient was multiplied by 100 resulting in a disclosure percentage.

To measure the index of disclosure, the companies were selected from Broad Sheet Information, which contained a list of 775 companies having paid up capital of Rs. 50.00 lakh and above. The study focused on extent of disclosure of manufacturing companies and 103 companies that were engaged services were excluded from the purview of study. Out of 673 companies, 180 companies were selected on the basis of stratified random sampling to accommodate different industry groups and asset sizes. The sample of 180 companies represented 26.75 per cent of all manufacturing companies listed in the Broad Sheet Information. The extent of disclosure for these 180 companies was constructed by examining the related annual reports of 1965 and 1975. The information on disclosure was presented six major groups: (i) Liquidity; (ii) Earning Power; (iii) Net worth; (iv) Managerial efficiency; (v) Management and labor relations; and (vi) Other items of information and statements relevant for users.

The major conclusions of the study were: (i) A large number of items of information contained in the index of disclosure have not been disclosed in the annual reports covered by this study; (ii) The extent of disclosure in annual reports of sample companies had increased over a period of time i.e., from 1965 to 1975; (iii) The association between size of the company (measured by total assets) and disclosure score was positive and statistically significant for the years 1965 and 1975; (iv) The association between earnings margin and disclosure score had been found positive and significant statistically in 1965. In 1975, the extent of disclosure was positive, but not significantly associated with earnings margin; (v) There were significant differences in the mean disclosure scores of different industries in the years 1965 and 1975 i.e., the nature of industry influences the extent of disclosure in annual reports; (iv) The extent of disclosure was significantly influenced by
the fact that a company belongs or did not belong to a ‘Large Industrial House.’ The hypothesis that there was difference in mean disclosure scores of companies belonging and not belonging to such ‘Industrial House’ had been proved; (vii) Size of the company (measured by total assets) possesses a better association with the extent of disclosure than earnings margin, nature of industry and association with a ‘Large Industrial House’. That is, the size (measured by total assets) has greater influence on the disclosure in annual reports than the remaining three independent variables in question; (viii) The variable ‘nature of industry’ relatively possesses lesser influence on the disclosure as compared to other variables but it does influence the extent of disclosure in corporate annual reports; (ix) All independent variables by and large possess a similar degree of significance when they were regressed individually and jointly with dependent variable; (x) The influence of all independent variables on the disclosure had been greater in 1965 than in 1975. In 1965, the aggregate effect of these variables on disclosure had been 40.96 per cent as compared to 36.15 per cent for the year 1975. This might probably be due to the fact that in 1975, all companies (belonging to different industries, asset groups) had tried to follow similar disclosure policy. However, these independent variables still seem to possess significant influence on the disclosure, as decrease in $R^2$ not a very significant; and (ixi) Disclosure in annual reports did not increased with increase in assets of companies over a period of time. Our data showed that improvement in disclosure, on the average was lesser than increase in assets.

Marston [1986] studied the disclosure practices of 30 companies of India with the disclosure index earlier developed by Barrett and concluded that the mean score of Indian financial reports were similar to that of United Kingdom accounted in the late 1960’s. He argued that the development of U.K’s reporting pattern was due to development of professional accounting standards because certain companies were voluntarily disclosing some important information in their annual report.

Ghosh [1990] carried out a survey of disclosure in 10 manufacturing companies (asset value exceeding Rs. 50 crore) in the private sector for the year 1987. The study revealed that the disclosure requirements were complied with only to the extent they were also at par with the statutory
provisions, but not otherwise. If some companies had adhered to the requirements fully, they were also in a minority. It also stated that accounting standards, which were not supported by legal enactments, had very little chance of being complied with.

Rao [1990] conducted an empirical study to analyze the extent of disclosures made by corporate enterprises in respect of eight accounting standards issued by the Institute of Chartered Accountants of India. The study was conducted by taking a sample of 100 corporate enterprises, 50 each from public and private sectors, selected on a random basis. For this purpose, a three-point scale, using “full”, “Partial” and “no” variables, was used to indicate the extent of disclosure made in the published annual reports. The study revealed that about 49.00 per cent of the companies did not comply with the disclosure requirements of the accounting standards under study. About 22.00 per cent and 29.00 percent of the companies made full and partial disclosure as per the standards respectively. The study concluded that the disclosure practices of Indian corporate sector deviated significantly from the requirements as per the statements issued on accounting standards by the ICAI and Section 211 of the Indian Companies Act. In case of 40.00 per cent of the companies, there was ‘no’ disclosure at all on accounting standards. Also, the disclosure practices differed widely among public sector and private sector units. There was ‘no’ disclosure about accounting standards in 53.00 per cent of the private sector units as against 46.00 per cent in the public sector.

Gupta [1995] studied the level of compliance of accounting standards based on the annual reports of 20 manufacturing companies, ten each from the public and the private sector for the period between 1985-86 and 1989-90. The study revealed that the public sector companies exhibited a better environment than those in the private sector in respect of compliance of accounting standards. It also stated that in case of private sector companies generally, standards were complied with to the extent they were at par with statutory requirements under the Companies Act, 1956.

The study by Bhattar [1998] related to usefulness of corporate published accounting information to individual investors. The investors were selected on the basis of stratified random sampling from metropolitan cities,
and cities and towns of India including metropolitan cities. The structured questionnaire was sent to 450 individual investors and the researcher could collect only 205 questionnaires mailed and distributed. After having rejected 10 incomplete questionnaires, the researcher settled down to 182 sample respondents, who constituted 40.44 percent (182/450). The investors were basically classified into undergraduate investors, graduate investors and professionally qualified investors and these groups were further classified into pre-matured and matured novice investors. The following were major conclusions of the study: (i) The purpose of investment was dominated by the appreciation in funds invested and this was followed by income and safety of funds and the flow of funds for all the groups; (ii) Majority of the investors numbering 122 preferred capital appreciation as the motivating factor of investment with weighted score of 64.51 and this was followed by high dividend rate with a weighted score of 24.7 and then bright prospects with a weighted score of 19.7. (iii) The major source for equity investment constituted the study of newspapers followed by the study of periodicals and local brokers; (iv) High equity investor group found the components of annual reports more useful than the lower and moderate equity groups; (v) The most useful components of annual reports were profit and loss account, balance sheet, directors' report, auditor's report, schedules and notes, funds flow statement, company highlights, cash flow statement in descending order with least usefulness evidenced in human resources accounting and social reporting; (vi) The most essential items in the summery highlights were found to be gross profit, profit after tax, profit before tax, dividend per share amount of dividend earnings per share, book value per share, production in quantity, sales in quantity, sales value, and retained earning with weighted scores of 79.3, 77.8, 75.8, 75.3, 74.6 73.2, 70.2, 69.5, 68.8 and 68.0 respectively; (vii) The importance of other items were future plans for expansions, percentage of capacity utilization market for products, progress of projects undertaken, projection of profitability, investments at market value, segment rates of return, shares and foreign exchange earnings with the weighted scores and foreign exchange earnings with the weighted scores of 71.5, 68.7,65.6, 65.5, 58.3, 58.2, 57.8, 57.5 and 55.8 respectively; and (viii) The respondents used annual reports as a source of information (a) to obtain data for investment
decisions; (b) to know the book value of shares; (c) to understand accounting policies; (d) to know the proposed dividend rate and to judge accountability of directors and the weighted scores of these stood at 54.83, 31.33, 26.66, 26.5 and 13.16 respectively.

The study also attempted to measure the disclosure trends based on survey of annual reports of 100 selected companies for the period between 1982-83 and 1988-89. The major findings of the study included the following: (i) More information disclosure of financial results and state of affairs of company's operations and less information disclosure on company policies, market structure industrial relations, segment operations, human resources management, revaluations, environmental safety and societal development; (ii) More information disclosure of economic environment, industry environment, financial performance of the unit and less on operational performance in chairman's speech; (iii) Low disclosure level through diagrams and charts; (iv) More focus on financial statements, operational highlights and less focus on accounting ratios and stock market performance of the unit in summary highlights; (v) A moderate level of 14.76 information items in directors' report with a range of four items and 32 items; and (vi) A moderate level of 10.59 items in Chairman's speech with a range of 4 items and 24 items of information.

Focusing on financial reporting in Indian textile industry, Gupta [2001] highlighted the following findings: (i) There was so much centralization of accounting function (more in the private-sector) mixed with finance function, where production units had little role in the policy decisions; (ii) Unstable and poor policy for accounting personnel, its development, innovative atmosphere and mutual interaction, and directors possessing conventional attitude and not encouraging to incorporate recent trends in financial reporting; (iii) Executives were filled with an indifference for theory as well as theorists which was a hindrance in the development of accounting in India; (iv) Accounting policies were more likely dictated by the top-most general management, directors or the holding company; (v) Accounting objectives and principal policies governing other practices were not defined in any unit and there was no specific document for the guidance of the staff as regards criteria, value
judgment, trade-off among qualities etc. (vi) About 70.00 per cent of executives confirmed the predominance of tax laws and expedience (inherent convenience of an alternative method or narrow subjective considerations like subservience of the management’s interest) in the policy decisions; (vii) Varied interests were ignored, since executives held the view that it was a difficult task to accommodate them and the interests of the management were favored first; (viii) principles of feasibility or convenience were preferred to relevance and objectivity; (ix) Policies were generally liberal for better financial reporting; (x) Social form of accounting was absent, as no opinions of users were sought; (xi) Historical monetary values were recognized and internal level of accounting was more cared for; (xii) Profitability and survival were dearer to the management and no efforts were made to integrate the national goals, but few executives could point out some ideas as to how accounting could contribute in this regard; (xiii) Accounting profession respondents to the legal environment only and that too under pressure or for selfish ends as if giving an impression that companies might not keep detailed accounts were they not insisted by law; (xiv) Accounting was confined to narrow, conventional stewardship role rather than reporting economic realities when companies were hardly making efforts to develop it as an effective tool for internal and external users; (xv) There was no accounting measurement of objectives of the enterprise, social audit or any efforts other than statutory audit to bring extra credibility; (xvi) Management’s attitude for accounting activity, manner of decisions, ignorance of standards coupled with confused or vague replies to queries in the survey and considerations taken into account by the executives as revealed in the survey caused a doubt if the corporate executives would be honestly applying the intelligible knowledge of the art, also therefore, the accounting information generated by the corporations in general could not be hoped to be of desired quality; (xvii) Both the professional bodies and the legal system were not successful in bringing due influence on accounting activities in India; and (xviii) There was no significant difference as regards the above mentioned tendencies between the public and private sector.

While examining the compliance level of accounting standards in India based on the perceptions of 62 respondents, Porwal [2003] studied the user's
views on financial statements. The main conclusions were that (i) eighty per cent of the users identified main purpose of financial statements with the information provisioning on performance and financial position; (ii) sixty-eight per cent felt that the financial statements should provide information that was useful in decision making; and (iii) users preferred specific purpose financial statements along with the general purpose financial statements.

The study by Meena and Rao [2004] investigated the timeliness of corporate reporting in India based on a sample of 30 public limited companies by examining their annual reports for period between 2000-2002. The time lags covering auditor’s time lag, reporting time lag and total time lag were worked out on the basis of data of signatures in annual reports, the date of last day accounting year and the date of annual general meeting. The major findings of the study were: (i) The average audit time lag was 81 days and average reporting time was 76 days; (ii) As compared to the audit time lag, the reporting time lag was very high; (iii) Audit time lag varied between 29 days and 61 days; (v) The time lag of 80.00 per cent of the companies varied between 29 days and 90 days; (vi) The reporting time taken by the majority companies was less than 90 days with reporting time lag of 76 days. (vii) The majority of the companies took up to 180 days to hold the AGM after the completion of audit review. They also concluded that the value of information diminished with the increase of time lag in publication of annual reports.

**CONCLUSION**

Financial reporting has become the most important medium of information dissemination for the benefit of users. It is important to note that the absence of financial reporting is more dangerous than the presence of illogically prepared financial statements. As a result, financial reporting has emerged as the mainstay in the corporate world. The main emphasis in financial reporting has been the disclosure concept, which has enlarged the quantum of information along with the inclusion of non-qualitative information having decision usefulness. As a result, voluntary disclosures and private disclosures are on the rise. Even though the controversy on the relevance of accounting information in capital market continues unabated, it is evidenced that the accounting information placed a very dominant role in capital markets,
especially through new earnings announcements. Equally the predictive value of financial reporting has been substantiated empirically. Much empirical evidence has flowed down on the relevance of financial reporting covering the various dimensions with affirmative assertions in different countries, the evidences on Indian financial reporting are almost scanty and unsystematic in nature, especially from the viewpoint of usefulness of financial reporting in India. Hence the present study makes an in-depth analysis investor usefulness of financial reporting in India.