

## *Chapter 1*

# **Introduction**

### **1.1. Nature of the Problem**

It has long been debated by the users of financial statements that the consolidated statements of an entire group of companies are not sufficient to convey all the relevant information required by the users – what they need, in addition, is the disclosure of segmental information. Many large companies either operate in a number of countries or in a number of different industries, or both. Many companies are so diversified that domestic operations account for only a small amount of total sales and no one industrial sector predominates. In these situations, information about each of these separate segments would give more insight to the users of accounts in assessing and evaluating the position and performance of the company. For example, employees' security of employment and often their pay depend on the performance of the part of the segment they work for. Similarly, the host government would primarily be interested in the performance of that group which is located in their country. The shareholders, the most important user group, are likely to take interest in segment data which help them to compare the performance of each individual segment with similar segment of other companies and thus to get a picture of relative success or failure of the company. Segmental information also allows shareholders to predict segment-wise cash flows for future periods and risks or uncertainties associated with these cash flows. Segmental information gives shareholders the opportunity to combine the company specific information with industry or country specific information, which allows for a more accurate assessment of both risk and growth potential. Other users, who are likely to benefit from the segmental information, include creditors, suppliers and lenders.

The benefit of segment disclosure may be interpreted from the viewpoint of the over-all economy as well as from the viewpoint of the society at large. Disclosure of segment information enables identification of loss-making segment, which allows for transfer of resources from loss-making segment to profit-making segment. Thus, it helps in optimal allocation of resources. Disclosure of segment information in the long run brings about competition among firms, which, in turn, promotes efficiency and thus helps in maximising economic and social welfare.

## **1.2. Issues Involved and Objectives of the Study**

Indian business sector has been experiencing a series of significant economic changes since 1991 when the Government of India opted for liberalisation of the economy. With liberalisation leading to globalisation, the Indian companies are expanding their international dimensions, increasing export sales and diversifying operation at a rapid pace. These developments have changed the information needs of the users of accounts. The users of financial statements find it difficult to analyse the financial performance of different types of business activities spread over different countries from the consolidated statements alone without any significant and relevant information about the segments that constitute the business of the company.

It is, however, expected that financial reporting should meet the information need of the users. Concept 1 published by the Financial Accounting Statement Board (FASB) specifies that the objectives of financial reports are to provide information that is useful in business and economic decisions. In other words, the objectives of financial reporting are to provide information which are relevant for investment and credit decisions. This points out the fact that segment reporting should be a part of financial reporting.

Realising the need and importance of segment reporting, the Institute of Chartered Accountants of India (ICAI) issued accounting

standard, AS 17, on Segment Reporting which comes into effect in respect of accounting periods commencing on or after 1.4.2001 and is mandatory in nature, from that date, in respect of the following :

- (i) Enterprises whose equity or debt securities are listed on a recognised stock exchange in India, and enterprises that are in the process of issuing equity or debt securities that will be listed on a recognised stock exchange in India as evidenced by the board of directors' resolution in this regard.
- (ii) All other commercial, industrial and business reporting enterprises, whose turnover for the accounting period exceeds Rs. 500 millions.

In the international arena, the international standard on segment reporting, namely, IAS 14, has been revised and the revised version came into effect from June 1, 1998, which provided for more detailed disclosure in respect of a segment and also changed the procedure of identifying a segment. In the United States, Financial Accounting Standard Board (FASB) published Statement of Financial Accounting Standard (SFAS) No.131 replacing SFAS No.14 and has made this new standard applicable from December, 1997.

The changes and developments mentioned above have been initiated to ensure a proper matching of information provided in the financial statements with information needed by the users of financial statements. In this backdrop, our study examines many important issues such as :

- What are the statutory requirements of financial disclosures in the corporate annual reports in India in general and those for segment reporting in particular?
- Are the companies listed on stock exchanges required to furnish additional information to satisfy the needs of the investors?

- What are the challenges of financial reporting in the “new economy”?
- What are the recent international developments in the field of segment reporting?
- Is there any diversity in segment reporting requirement among the developed countries?
- How does the Indian standard on segment reporting stand in relation to other standards of major international accounting bodies? What are its strengths and weaknesses?
- Do research findings justify disclosure of segment information?
- What are the stock market reactions to disclosures of segment information?
- Does disclosure of segment information lead to competitive disadvantage?
- What are the segment reporting practices in India? Has application of AS 17 resulted in the reporting of the greater number of reportable segments?
- Has any improvement been brought about with the implementation of accounting standard on segment reporting (AS 17)?
- What are the perceptions of users of accounts regarding identification of segments, items to be disclosed for each reportable segments, relative importance of the items disclosed for each of the segments, etc.?

Only a few important questions as above have been raised here. Many more important issues have been addressed in appropriate places in different chapters. These issues are kept in mind in formulating the objectives of the study.

The *general objective* of the study is to evaluate the segment reporting practices of the listed Indian public limited companies and examine how far the segment information provided in the financial statements fulfil the needs of the investors and the creditors. The study also attempts to review the Indian accounting standard on segment reporting in the light of the accounting standards on Segment Reporting prescribed by the major international bodies such as IASB, FASB, ASB, etc. The *specific objectives* are to :

- (i) examine the existing statutory requirements regarding segment disclosures by the listed public limited companies in India (Chapter 2) ;
- (ii) review the current developments in the international arena regarding segment reporting (Chapter 3) ;
- (iii) find out the areas of similarities and dissimilarities between the Indian standard and the major international standards and the reasons therefor (Chapters 3 & 4) ;
- (iv) analyse the benefits of segment disclosures in the financial statements and its effect on the stock market (Chapter 4) ;
- (v) review the current practices of segment reporting among the public limited companies in India whose shares are listed on the major stock exchanges (Chapter 5) ;
- (vi) examine how far segment disclosures made by the Indian companies are in tune with the disclosure requirements prescribed by the Institute of Chartered Accountants of India (ICAI), the Companies Act and the Securities and Exchange Board of India (SEBI) (Chapter 5) ; and
- (vii) ascertain, on the basis of the case study, what sort of segment information would satisfy the information needs of the users of financial statements (Chapter 6).

### 1.3. Methodology

The present study is both explorative and empirical in nature. The *explorative* part examines the background of and statutory requirements for financial reporting in India in general and segment disclosures in particular. This part also highlights the recent developments in the field of financial reporting in the international arena with special reference to segment reporting. The study also deals with the issues like the effect of segment reporting on the stock market, segment disclosures and competitive disadvantage, a comparative analysis between the Indian accounting standard on segment reporting and standards on segment reporting formulated by the major international bodies. These parts of the study have been predominantly based on available literature on the subject.

For *analytical* purpose, i.e. for reviewing the current segment reporting practices of Indian companies, we have relied on the published annual reports of the sample companies. For this purpose, we have selected all the 30 companies that are considered for computing the Bombay Stock Exchange (BSE) Sensex. The main reason for selection of these companies is that their scrips dominate and influence the stock market movement of the country. Further, these companies represent different major industries. The period of study covers the financial years 1999-2000, 2000-2001 and 2001-2002. The reasons for selection of this period are :

- The accounting standard on segment reporting, AS 17, became effective from the period commencing on or after April 1, 2001. Therefore, the impact of this standard on segment disclosure could only be analysed in the annual report of the companies for the year 2001-2002.
- The analysis of the annual report for the year 1999-2000 and 2000-2001 would enable us to compare segment reporting practices between the periods prior to the period of application of AS 17 on segment reporting and after the application of AS 17 on segment reporting.

Although the sample size was small, the total number of annual reports analysed for this purpose was  $(30 \times 3) = 90$ . So having regard to the time and resource constraints, a study of 90 annual reports may appear to be reasonable in the context of general attitude of industries towards helping empirical research in India.<sup>1</sup> Many important issues have been dealt within our empirical analysis as detailed in Chapter 5.

In the case study portion, an attempt has also been made to analyse the effectiveness of segment reporting from the perception of users of accounts. For this purpose, a questionnaire containing 16 questions was framed and sent to the academics as well as the professionals. In order to make the study broad-based and all-India character, the questionnaires were sent to the selected users throughout the country. The selection of the sample, reasons therefor and the main issues concerning the segment reporting as perceived by the academicians and professionals constituting the sample have been discussed in detail in Chapter 6, A Case Study of the Users of Accounts.

#### **1.4. Review of the literature**

The literature on segment reporting mainly *covers three distinct issues on the subject*, namely:

- (i) *Basic concept of segment reporting* : It deals with the definition of segments, an overview of the usefulness of the segment reporting, cost of segment reporting, major standards on segment reporting and the like.
- (ii) *The research studies on segment reporting* : They explain the research results regarding superiority or otherwise of segment information over the aggregated information from the view point

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<sup>1</sup> G. D. Roy, "Indian Accounting and Its comparative strides after Research Developments" In B.Banerjee(ed.) Contemporary Issues In Accounting Research, IAA Research Foundation 1991; M.N. Kaura & S.Mallikharjuna Rao, *Budgeting for corporate success: Indian Practices*, IAA Research Foundation, 1999.

of different users group in general, and the investors in particular.

- (iii) *The review of segment reporting practices* : This is concerned about the segment reporting practices actually followed by the companies. It also examines the problems faced and encountered by the companies in reporting about the segment, accounting treatment of certain items in segment reporting, the gaps that exist between the segment information provided by the companies in their annual reports about different segments of the company and the segment information desired by the users of financial statements for taking decisions.

Again, literature on segment reporting may relate to the works of international scholars and authors and/or their Indian counterparts. As segment reporting is of very recent origin in India, so the Indian literature available on this subject is scanty compared to the works done in the developed countries of the West. Therefore, we first concentrate on the review of literature available on the subject at the international level. This is followed by a brief reference to the Indian works in this context.

#### **A. Review of literature on segment reporting available in the international arena**

(i) *Basic Concept of segment reporting* :

The need for segment reporting began to figure in the writings of the scholars from the late 1960s. Since then many authors have dealt segment reporting in their books and articles. The early writings of segment reporting basically justified the need of segment reporting from normative point of view.

Davidson (1968) emphasised the need of disaggregated information. He further pointed out that at the time of disclosure of segment income, allocation of joint costs should be avoided due to

arbitrariness of allocation process. An alternative, he suggested, is to report only the "defined profit" or contribution of each segment.

Mautz (1968) opined in the context of information needs of the diversified companies, that different segments of a diversified company may experience different rate of profitability, degree of risks and growth opportunities due to operation in a number of geographic region and in a number of product line and therefore, the users of financial statements require separate information of each of these segments along with the consolidated information.

Backer and Mcfarland (1968) asked financial analysts to identify the major reasons for using segmental data, and then came up with three reasons: (1) segment reports are wanted to provide knowledge of what business a company is in and the relative size of the several components, (2) segment sales and contributions are wanted for forecasting consolidated profits, (3) segment result facilitates appraisal of the success which management of a company has had in making acquisitions.

Sommer (1974) explained the need of segment disclosure from the point of view of the shareholders and emphasised that there must be some mandatory provision for disclosure of segment information. He argued that principle of fairness demands that all the companies should follow some consistent line in regards to segment disclosures. He also justified the need of segment reporting from the angle of equal accessibility of information on the part of all the stakeholders of the company.

Chasteen et al (1984) stated that to the users of financial statements consolidated data becomes more useful when it is supplemented by disaggregated information to help them analyse the amounts, timing and uncertainties of expected cash flows and risks associated with an investment or loan to a company that operates in different industries or geographic area.

(ii) *Research studies on superiority or otherwise of disaggregated information over the consolidated information :*

The research performed on segment reporting has concentrated on examining what benefit, if any, segment reporting is to investors. Other than benefit of equal access, which are difficult to evaluate, proponents of segment reporting argued that disclosure of segment information would lead to improvements in allocative efficiency due to the ability of investors to assess more accurately the earnings potential and risk of diversified firms (Horwitz and Kolodny, 1980). The classification of empirical Research on the relevance of segment reporting according to methodological approach has been shown in the following table :

**Table 1.1**  
**Empirical Research on the Relevance of**  
**Segment Information to Investor Decisions**

| Indirect studies based on ability to predict Income                       |   |  | Direct studies based on security price adjustments           |   |
|---|---|--|--|---|
| Accuracy of forecast models   | Accuracy of analysts' forecasts   | Efficiency of market with respect to segment information | Impounding of future earnings information in security prices | Impact of release of information on security risk and return                  |
| Segment-based vs. consolidated-based<br><br>e.g.<br>Kinney<br><br>Collins | Prior vs. post disclosure<br><br>e.g.<br>Barefield & Comiskey<br><br>Barefield, Comiskey & Snyr | Prior to disclosure<br><br>e.g.<br>Collins               | <br><br>e.g.<br>Kochanek<br><br>Griffin & Nichols            | <br><br>e.g.<br>Collins & Simmonds<br><br>Dhallwal<br><br>Horwitz and Kolodny |

*Source: Journal of Accounting, Auditing and Finance (Fall 1980).*

As outlined above various studies have been made to examine whether and how, the users might use segment information. One of the few studies that examined the actual decisions taken by users was by Baldwin (1984) who looked at financial analysts' forecasts of earning per share (EPS) reported by Value Line in 1969 to 1973. He examined the

forecasts of three types of US companies: the companies that voluntarily reported business segment data prior to SEC requirements of 1971; those companies that disclosed segment data only when they are required to do so in order to comply with the statutory provisions and a control group of single segment companies. He observed that the accuracy improved and variability decreased over the period of all three groups, a result he was unable to explain, but the greatest improvement was found in respect of the multi-segment companies that earlier did provide very little segment information, but now provide a wide range of segment information.

Emmanuel, Garrod and Frost (1989) in the UK did a study which support the findings of Baldwin. They looked at the forecasts made by the analysts when presented with case data in a range of scenario from no segment data through to a matrix presentation of business and geographic segment data. They found that the majority of analysts changed their forecasts, both in terms of point and range estimates, when they were presented with more information relating to different segments. While they were unable to identify specifically which segment information had the greatest impact upon analysts' forecasts, nevertheless they concluded that availability of segment information did bring about an improvement in analysts' forecasts.

Douppnik and Rolfe (1990) conducted an experiment, which involved giving analysts various types of geographic segment data. They were presented not only with varying number of segments but also with different scenarios, in terms of whether or not the segments disclosed were similar to each other. They observed that disaggregation was only of benefit when the segments reported were perceived to have different risk profiles.

Kinney (1971) attempted to use business segment data for forecasting purposes. His sample size contains data of 24 companies for the period 1968 and 1969. He used the following four models :

- (i) Consolidated earnings adjusted for the forecasted change in domestic GNP.
- (ii) Linear trend of consolidated earnings using double exponential smoothing and a smoothing constant of 0.4.
- (iii) Expected segment sales  $\times$  3-year average consolidated profit ratio: expected segment sales = current sales  $\times$  expected increase in industry sales.
- (iv) Expected segment sales  $\times$  3-year average segment profit ratio: expected segment sales = current sales  $\times$  expected increase in industry sales.

Kinney found that Model 4 was significantly more accurate than earlier Models 1 and 2 and more accurate (but not so significantly) than model 3. However, this study was exploratory, with a very small sample of companies that had voluntarily disclosed Line of Business (LoB) data. Self-selection bias in the study could not be ruled out. However, the later studies on this matter established the fact that predictive ability of the users of financial statement increases when they are provided with the segment data.

Collins (1976) used random sampling technique to select 96 companies that disclosed business segment data after disclosure of certain segment information was made mandatory in the USA. Thus, the model of Collins was free from self-selection bias. He in his model made a forecast of sales, profit and change of sales and profit for period 1968 to 1970, both under consolidated models and segment models. Consolidated models used were :

- (i) Linear regression
- (ii) Strict martingale or random walk
- (iii) Submartingale or random walk with drift
- (iv) Pure mean reversion

- (v) Moving average of pure mean reversion
- (vi) Kinney's double exponential smoothing model
- (vii) Kinney's GNP model

In his segment models, sales were based upon the expected industry sales of each LoB segment and earnings were based upon:

- (i) Expected segment sales  $\times$  prior year consolidated profit margin,
- (ii) Expected segment sales  $\times$  prior year segment profit margin.

For actual sales it was found that that the segment models significantly outperformed all the consolidated models with the exception of the GNP model. For first differences, or changes in sales, the segment model outperformed all consolidated models except the regression model. For both the level and first differences of earnings the segment model was significantly better than all the consolidated models.

A similar study was carried out in the UK, where, Emmanuel and Pick (1980) selected 39 UK companies in order to forecast sales and earnings for the period 1973 to 1977. They again reached the similar conclusion in the sense that they found that segment-based sales and earnings forecast were more accurate than the random walk model.

Silhan (1983) examined the effects of quarterly segment information. He merged 60 single industry companies and applied company specific (known as Box-Jenkins model) models to: consolidated earnings; consolidated sales and consolidated profit margins; segment sales and consolidated profit margins; segment sales and segment profit margins; and segment earnings. The basic advantage of this type of models is that it is capable of considering a very wide range of company specific models. Therefore, it is possible to use the most appropriate model for each company. Using more sophisticated approach, Silhan observed that the conclusions drawn by Kinney and Collins regarding

superiority of segment models over consolidated models in respect of annual forecasts also hold good in respect of quarterly forecasts.

Silhan (1982, 1984) further tried to find out whether the size of the company and the number of segments reported had any influence over the accuracy of forecasted results based on segment information. In 1982 study, he observed that the forecasts were more accurate for those companies which reported more segments in number. Later, in 1984, he found that improvements in forecasts using segment data is comparatively more pronounced in case of relatively small-sized companies. The reason for this result cited by him is that smaller companies are less likely to experience the growth rate as that of overall economy.

Garrod and Emmanuel (1987) measured the degree of accuracy of segment-based forecasts between the companies belonging to different industry groups. They observed that superiority of segment information-based forecasts become more pronounced and visible when the industry in which the company operates is less likely to mirror the growth rate of the economy as a whole. On the basis of this finding they concluded that relative success of LoB based forecasts did appear to depend upon the diversification pattern of the companies.

The available literature on segment reporting mostly concentrate on the predictive ability of business segment information and leave aside the utility of geographic segment data. However a few works can be cited which deals with the geographic segment information. In the U.K., Roberts (1989) used a sample of multinational companies that disclosed both segment sales and segment earnings and using the information, he forecasted earnings for the period 1981-1983. Two basic segment models were used: expected segment earnings; and expected segment sales multiplied by the consolidated profit margin. Expected segment earnings and sales were based upon the prior period's segment earnings or sales adjusted for the expected growth in the GNP of each of the relevant geographic segments. Four forms of each of the two basic segment

models were then generated, each based upon a different assumption about expected inflation rates. These segment models were then compared to two consolidated models: the random walk model and the percentage change model (with the change being based for a maximum period of five years). The conclusion was very similar to that of earlier studies that used business segment data. Specifically, the segment-based models significantly outperformed the consolidated models.

Balakrishnan *et al.* (1990) conducted a similar study regarding the accuracy of earnings forecasts generated from the geographical segment data of 89 U.S. companies. The models used were somewhat different from the models used by Roberts. In particular, they employed a consolidated random walk model and a consolidated growth model based upon the expected change in the GNP of the USA. These two models were then compared to their equivalent segment models (expected change in exchange rates were also built into the models). While the methodology of the models used was somewhat different from that of Roberts, but the conclusion reached was similar, namely, geographic segment data appears to be useful for forecasting earnings.

The literature on segment reporting also contains works of scholars and researchers regarding stock market effects of segment disclosures. The earliest of the studies on this issue was that of Kochanek (1974) and of Griffin and Nichols (1976). They found that the securities of firms that voluntarily disclosed more segment data in their annual reports in the late 1960s generally were subject to less abnormal returns around reporting time, and the earning information seemed to be impounded in the security prices of these firms earlier than for firms that provided little or no segment data. This implies that segment information disclosed was utilised by the shareholders in forming their expectations.

Horwitz and Kolodny (1977) however, failed to find any evidence of market reaction to the release of segment data in accordance with the 10-K requirements of segment disclosures. The reason of such a result was

their failure to distinguish between those companies, which were voluntarily disclosing segment data, and those, which were reporting segment data for the first time.

Simmonds and Collins (1978) rectified this omission and used analysis of variance (ANOVA) in place of F-test to examine the change in beta, the results were different and they found that disclosure of LoB data had effected lowering of betas.

Collins and Simmonds (1979) conducted more sophisticated moving beta test and got similar results.

Some works have been done on examining the relationship between beta and specific segment disclosures. Such an approach was followed by Kinney (1972) who tried to use segment disclosures for studying the market assessment of company diversification. He argued that accounting risk is the co-variability of segment returns, which can be proxied by the co-variability of segment earnings. He found that beta and accounting risk were significantly correlated for geographic segment disclosures but not for other types of segment disclosures.

Mohr (1983,1985) used an improved methodology to examine a similar issue. She employed the LoB data to examine the relative investment in companies in each activity and used these weights to compare a weighted beta for 56 companies. She observed high significant positive linear relationship between two measures, especially when industry involvement was judged and measured by using asset data.

Some works in this area deal with comparing of returns contingent upon an investment strategy based solely upon consolidated data and those based upon segment data. Collins (1975) had done the first of these studies. His sample consisted of 92 companies following the 10-K requirements, which implied that they had to disclose prior period LoB data. Of these companies, 35 had disclosed no information prior to this, and the rest had disclosed LoB based turnover. The strategy consisted of

buying shares if segment-based forecasted earnings exceeded those from the consolidated models and selling of shares if the opposite happened. He observed that segment based strategy failed to yield abnormal returns taking the period 1968-1970 as a whole. But, if 1970 was removed then the strategy yielded significant gains of between 1.44% and 1.51% per month for those companies that had disclosed no significant segment information. In contrast, only insignificant gains were made for those companies that had voluntarily disclosed LoB turnover data.

Foster (1975) made a similar study. Instead of taking diversified companies, he took a sample of insurance companies, which reported underwriting results, investment results and losses for marketable securities for the period 1965-1972. He also concluded that the strategy based on segment data did yield better rate of returns.

Ajinkya (1980) examined the average monthly risk-equalised returns of portfolios of four groups of companies, namely (a) those that disclosed no segment information prior to 10-K requirements; (b) disclosed LoB revenues only; (c) disclosed LoB revenues and earnings and (d) single segment companies. He found greater correlation between the mean returns of portfolios for the post disclosure period.

Prodhan (1986) examined the market impact of geographical segment data. He examined 15 U.K. companies that have disclosed geographic segment information from at least 1973 and 21 companies that made geographic disclosure for the first time in 1977. Using interrupted time-series analysis, he found that changes in beta were significantly related to segmental disclosures. Specifically, the betas of those companies which disclosed segment data only from 1977 was significantly higher than those disclosing it since 1973, but in the post disclosure period, i.e. after 1977 the betas of both the group of companies tended to be more or less the same.

Similar results were also found by Prodhan and Harris (1992) when they examined a larger group of U.S. companies that had started

disclosing geographic segment data for the first time as per the requirements of SFAS 14.

Senteny and Bazaz (1992) had reached the same conclusion. They examined the association between the unexpected share price changes and changes in annual consolidated earnings and found that the association was weaker after companies began to release geographic segment data. They explained this had happened due to the fact that earnings prediction was more accurate when the users of financial statement could use the geographic segment data for prediction purpose.

Thomas (1995) indicated that unexpected geographic segment earnings are differentially related to unexpected security returns. For a leading-period returns model, marginally significant evidence was found for the market's differential valuation of geographic segment earnings coefficients for one-, two- and three-years time intervals, which suggest geographic segment earnings do not provide much value-relevant information beyond total earnings. However, when the return interval was extended to four-years or more, Thomas found significant evidence that the market values geographic segment earnings differentially, thereby suggesting these disclosures reflect information used by market participants in setting security prices.

Conover and Wallace (1995) also provided empirical evidence that there are equity market benefits to releasing geographic segment information. The authors used an empirical capital market analysis to evaluate the disclosure practices of U.S. based multinational firms and found a positive relationship between the extent of geographic segment information released and the firm's equity market performance.

*(iii) Segment reporting practices :*

Beresford and Buckner (1978) concluded that segment data were presented in varied forms and, even among homogeneous industries, the presentations were not uniform in identifying geographic segments.

Steedle (1983) discovered general enthusiasm for disclosures of segment information but found that financial analysts desired fuller and more consistent geographic disclosures.

Gray and Radebaugh (1987) argued that U.S. multinationals' usually show a tendency toward a high level of aggregation which are unlikely to be informative given the different economic and political environments and risk factors involved. They also noted that voluntary disclosures were limited with only modest regard to international guidelines, such as those developed by the OECD for multinationals. The authors also noted that U.S. multinationals tended to disclose significantly fewer geographic segments than U.K. firms.

Tyson and Jacobs (1987) also reported in a study of the banking industry that one company grouped as one segment all of its operations in Asia, the Middle East, and North Africa combined. Another company displayed two segments, Asia / Pacific and Europe / Middle East / Africa. They also noted that groupings by region overlapped between firms (i.e. Firm A provided disclosures for Asia / Middle East / North Africa combined, while others reported separately for Asia and the Middle East). The authors argued that the different choices made by preparers in the banking industry did not enhance comparability. They concluded that despite the fact that SFAS 14 may have been applied correctly by each of the sample companies, the results were not comparable between homogeneous firms in the same industry.

Segment reporting got a facelift in the second half of the nineties when both International Accounting Standard and the FASB standard on segment reporting were thoroughly revised. The new International Accounting Standard on segment reporting, the revised version of IAS 14 came into effect from July, 1998 and the new FASB Standard 131 which replaced FASB Standard 14 came into effect from December, 1997. Both these standards brought about a wide range of changes in the field of segment reporting. The changes brought about more detailed disclosures

about segments. The basis of identification of segment had also been changed. The changes in these two standards have the global impact in that many other countries either for the first time published segment reporting standard or amended the existing standard in the lines of the above two standards. During this period, writings on segment reporting mainly dealt with the issues like how the companies actually were reporting about their segments to comply with the requirements of the new standards, whether the new standards brought about an improvement in the field of segment reporting and the problems faced by the companies to cope up with requirements with the new standard. Nichols and Street (1999) reviewed how the public companies that had adopted the new standard FASB 131 at an early date have been reporting about their segments. They pointed out that Statement no. 131 changed the framework for reporting segment information to a system based on company's management approach. They found that the majority of early adopters of the new segment reporting standard maintained a consistency between their MD&As and reportable operating segment. Evidence of early adopters also indicated that companies under the new standard had provided additional or more specific geographic information than earlier.

Gray, Street and Nichols (1999) examined the segment reporting pattern of some selected European companies which had adopted the revised segment reporting standard IAS 14 (revised). They found that some companies, although claimed to have complied with the revised IAS 14 requirements, had not in fact, totally followed it. They also compared the differences of the results between of early adopters of the FASB 131 in respect of US companies and those of European companies adopting the IAS 14 revised standard. They supported the observation of SEC that the IASC approach has substantial merit, and the US and IASC should track the relating quality of segmentation and related disclosures after the standard had been in use for about five years.

Bunce (1999) reviewed the new FASB standard (Statement No. 131) and observed that implementation of FASB Statement No. 131 will not

have an effect on the consolidated net income as the statement does not require any accounting changes. The new standard would however result in reporting more operating segments by the companies than they were showing before and also disclosing more information about each of its operating segment.

Herrmann and Thomas (2000) compared the segment reporting disclosures under SFAS No. 131 with those reported the previous year under SFAS No. 14. Their main findings were that under SFAS No. 131 firms are required to report segments consistent with the way in which the management organises the business internally. In addition, the accounting items disclosed for each segment are consistent with internal segment information used by the management to assess the segment performance. This change has effected a significant change in the disclosure of segment information. Over two-thirds of the sample firms have redefined their primary operating segments upon adopting SFAS No. 131 and companies are disclosing more information for each of their operating segments. For enterprise-wide disclosures, the proportion of country-level geographic segment disclosures has also increased.

Street, Nichols and Gray (2000) examined the segment disclosures of U.S. Global 1000 companies for both 1997 and 1998 to ascertain the impact and effectiveness of SFAS No. 131 in practice. The research results were: (a) a greater number of line-of-business (LoB) segments for some companies, particularly those who claimed to operate under one LoB under the earlier SFAS 14; (b) enterprises reporting more items of information about each segment and (c) improved consistency of segment information with other parts of the annual report specially with the information given in MD&A.

Street and Gray (2000) assessed the impact and effectiveness of the new standard with reference to geographic segment disclosures. Compared to its predecessor, SFAS 14, the key question is whether there has been an improvement in the geographic information reported by

companies given the criticisms relating to segment identification and the consistency of internal and external reporting. An empirical study of the annual reports of US *Global 1000* companies in 1997 and 1998 reveals mixed results. While there is more country specific data disclosed and an increase in the consistency of disclosures with other parts of the annual report, the problem of reporting highly aggregated geographic areas remains in the case of a significant group of companies.

### **Indian literature on segment reporting**

As segment reporting practice in India is only at its embryonic stage, not much literature is found on this subject. A few writings came up after the Institute of Chartered Accountants of India published the exposure draft on segment reporting in the year 2000. However, passing references regarding segment reporting could be traced in the works of the scholars like Das Gupta (1977), Lal (1985) and Porwal (1990).

Banerjee (1999) analysed the opinion of academics as well as professionals accountants about the need and threshold of segment reporting in Indian context. He found that 95% academics and 93% professionals, i.e., almost all the respondents were in favour of segment reporting. Of them, a large number (74% in case of academics and 79% in case of professionals) were of the opinion that 20% of the turnover of the firm should be taken as a threshold for segment reporting considering relatively small size of the Indian firms as compared to the firm size of the developed countries of the West.

Sen (2001) addresses, some issues pertaining to segment reporting. He explores the rationale of segment disclosures and explains the way in which accounting standard-setters have attempted to resolve segment reporting controversies. It also offered a brief discussion of empirical research conducted in the international arena in order to judge the effectiveness of segment information. He argued that segment reporting has advanced a lot but there still exists scope for further improvement.

Chander (1986) examined the issues involved and problems associated with segment reporting. He argued that segment reporting could give more insight to the shareholders about the performance of the company with multiple product line and operation in diverse geographic region.

Reddy and Satish (2001) made a comparative study between the Indian accounting standard on segment reporting and the major international standard on segment reporting. They also analysed the segment reporting practices of some selected Indian companies prior to application of AS 17 on segment reporting. They observed that most of the companies disclosed about segment production and sales by way of footnotes. They felt that the new standard on segment reporting is expected to give more detailed and relevant information to the stakeholders of the company.

Krishnamurthy (2002) opined that, as a result of application of AS 17 from 2001-2002, in case of listed companies in India which call for mandatory disclosures of segment information, retail investors will now be in a position to glean information from segment data previously not available to them. In addition, the SEBI-mandated changes to the listing agreement with the stock exchanges now require such information to be published along with the quarterly financial results. That itself is a cause for cheer. He further emphasised the usefulness of segment data in the context of merger and amalgamation to the stakeholders of the companies.

Swain, Kumar, Arora and Gupta (2002) evaluated the usefulness of segment data from the viewpoint of merger and amalgamation activity and observed that segment information could also give shareholders more information at the time of merger or amalgamation about their investment decisions. They illustrated their views by citing a few examples from the annual accounts of a few companies, namely, Larsen & Toubro, Dr. Reddy's Laboratory, ITC, Bharat Earth Movers, SSI and Telco. They

concluded that application and implementation of AS 17 is a step in the right direction. It is expected to make significant impact in the manner in which companies disclose segment information.

Sinha (2002) analysed the effect of SEBI requirements of disclosing segment information from the quarter October – December 2001 onwards (Clause 41 of the Listing Agreement). On the basis of quarterly results of some selected companies of different industry group, for the October-December 2001 quarter, he observed that a large number of companies have abided by the SEBI stipulation for segment reporting. However, the published results also suggest that on the final count the number of companies which have failed to follow the SEBI fiat may not be that small.

Thiagarajan (2003) analysed the annual reports of some selected companies belonging to Engineering, Aluminium and Pharmaceuticals industry and observed that during the one and half years since segment reporting has been made mandatory in India, not all the companies are reporting about their segments properly. According to him, not all the Corporate India has come clean – in both consistency and quality. Several companies in the sample bypassed the spirit of the segment reporting regulation, claiming that they operated in a single reportable segment. Based on the differing risk profile, end-customers and product categories, reporting under different heads may offer greater clarity on financial performance. But companies have avoided making any such move. At the same time, it would be unfair to take credit away from the good many high-profile companies, which have adhered to the letter and spirit of the rule, enhancing the utility of segment reporting.

The survey of literature clearly reveals that until now no serious research studies have been done in India on some critical aspects of segment reporting including segment reporting practices. The issue of ascertaining how far the present segment reporting practices followed by listed companies in India satisfy the needs of the users of accounts and whether there exists any gap between the segment information needed

and segment information provided in the published annual report are also yet to undergo a serious scrutiny.

Therefore, this research work attempts to bridge this gap in Indian literature on the subject. Accordingly its tremendous economic and social significance cannot be ruled out.

### **1.5. Plan of work**

For attainment of the objectives of the study, as specified in section 1.2, the study has been divided into seven chapters as detailed below :

Chapter 1 : Introduction

Chapter 2 : Financial reporting — the disclosure requirements in India

Chapter 3 : Financial Reporting — some major international developments including Segment Reporting

Chapter 4 : Segment Reporting as a part of Financial Reporting — A critical analysis

Chapter 5 : Segment Reporting practices among the selected public limited companies in India

Chapter 6 : A case study of the users of accounts

Chapter 7 : Suggestions and conclusions.

There may not be unanimity in designing the above-mentioned plan of work. Nevertheless, a logical sequence has been attempted.