Segment Reporting Practices in Indian IT Companies

Raju L Hyderabad and P B Kalyanshetti***

A firm reporting by segments leaves more information in the hands of stakeholders and helps to improve the quality of decisions undertaken by them. AS-17 in India mandates listed and other companies to report information by segments. The present paper analyzes such segmental reporting practices of IT companies in view of their changing customer profile and geographical existence. The study finds the Indian IT companies to identify a few segments and business segment is the primary segment. Multiple-listed companies identify more segments than single stock exchange listed companies and revenue is the basic criteria used for identifying reportable segments. The sample firms score poorly in disclosing both mandatory and voluntary information. Profitability, listing status, external shareholding and proportion of independent directors positively affect the reporting practices of IT companies in India, while size of the firms affects negatively.

Introduction

The corporate disclosure practices influence decision making not only at firm level, but also at individual, industry and economy levels. Comprehensive corporate disclosures improve the forecasting abilities, reduce risks involved, reduce cost of capital, and improve quality of operating and financial decisions undertaken by managers. At the individual level, the transparent disclosure practices would enable the investors to undertake risk-return analysis in an effective manner and hold optimum portfolios. This would also help in allocating resources at industry level for both individual and institutional investors. Botosan (1997) demonstrates that firms with higher disclosure quality benefit from lower cost of capital. Handa and Linn (1993) show that in their arbitrage pricing theory model, a Bayesian investor attributes more systematic risk to an asset with low information (e.g., poor disclosure) than to an asset with high information leading to lower demands and prices than under complete information.

Segment reporting is a larger part of overall corporate disclosure practices. Reporting by segments is an attempt to provide disaggregated rather than the consolidated or aggregated information. Such an attempt improves the transparency level and leaves more information in the hands of all stakeholders of firms. Brown (1997) finds that segment reporting is ranked as one of the three most useful corporate financial data items right along with the statement of

* Professor, PG Department of Studies in Commerce, Karnatak University, Dharwad 580003, India. E-mail: drrajulh@yahoo.com

** Assistant Professor, Government First Grade College, Hubli, India. E-mail: prabhav63@yahoo.com

income and the statement of cash flows. Investors can only make conscious investment/ disinvestment decisions if they are adequately informed about returns and risks of the segments.

Lack of analytical and complete information is considered by the capital market to be a source of risk in itself. Entities that do not practice segment reporting, therefore, have to allow investors relatively higher returns than others, all risks being equal, in order to attract them and keep them tied to the entity (Nicolo, 2006). In the same way, if financiers do not have the necessary information for correctly measuring the creditworthiness of client entities and estimating the risk to which they are exposed, they are induced to overestimate. Thus, in a situation of lack of information, banks grant loans on less favorable conditions, as a form of insurance against the higher risk they face (Nicolo, 2006).

Lack of information and the consequent difference in the level of information available to management compared to that offered to stakeholders negatively influences not only the level of factor and resource costs, but also the level of sales revenue. Suppliers and customer entities with a long-standing business relationship also tend to overestimate the degree of risk of an entity with which they deal if they do not have the necessary information to be able to formulate correct assumptions about the sustainability of the entity's profitability. In other words, risk is systematically 'perceived' as being higher than it really is (Doupnik and Rolfe, 1990). This additional component of risk, however, does not derive from factors linked to the entity's performance, but originates simply from a lack of information (Nicolo, 2006). In these circumstances, creditor confidence in the capacity of an enterprise to pay its debts is reduced (Pacter, 1993).

Financial reporting by segment, therefore, should be undertaken by all entities and multi-business enterprises, even if they are not obliged to apply the Accounting Standards (AS), not only because it satisfies the legitimate information requirements of stakeholders, but also because it produces positive effects on the level of costs and revenue, and thus, of net results of the business.

Segmental reporting is a transition from quantitative to qualitative disclosures. Revenues, expenses, profits, assets, liabilities, cash flows, etc., classified by segments would help investors and creditors to identify the major sources of strengths of the firm and risk factors. The increased reliability of the data reduces the risk-perception levels and consequent risk premium expectations. The presentation of segment cash flow disclosures is also encouraged. This statement must indicate, distinctly for each reportable industry and geographical segment, cash flows from operating, investing and financial activities. The presentation of segment cash flow statements allows stakeholders to see the cash flow generated and/or absorbed by the segments and, in this way, to have the necessary information for measuring the contribution of each segment to the overall financial position of the entity. This information is necessary, moreover, in order to formulate assumptions about the possible future evolution of the overall financial position of the entity (Nicolo, 2006).

AS-17 on Segment Reporting in India

Segment reporting was made mandatory in India in 2001 with the issue of AS-17 by the Institute of Chartered Accountants of India (ICAI). The standard was a milestone in corporate disclosure practices in India, as it broke the conservative tendency of firms to provide limited information. The standard classifies segments into business segments and geographical segments, and defines business segments as a distinguishable component of an entity that is engaged in providing an individual product or service, or a group of related products or services which are subject to risks and returns that are different from those of other business segments. A geographical segment, on the other hand, is distinguishable component of an entity that is engaged in providing an individual product or service, or a group of related products or services within a particular economic environment and which are subject to risks and returns that are different from those components operating in other economic environments.

The reportable segments are further classified into primary and secondary segments based on the predominance of risks. If the major sources of risk and returns are products, the business segments are regarded as primary segments and geographical segments as secondary segments and vice versa. The standard recommends revenue, results and asset tests to identify reportable segments and a firm can add more segments until 75% of enterprise revenue test is fulfilled. For each segment, segment asset, liabilities, revenue, expenses and profits/losses are to be reported along with the segment-wise policies.

Segment Reporting in IT Sector

Is segment reporting important in IT sector? This question needs to be answered in the evolving IT business environment. IT firms provide a wide assortment of services to different clients spread across different geographical areas. Both the clients and geographical areas differ in terms of product-market characteristics. As for example, at Infosys Technologies the primary segments include five industry segments comprising financial services, manufacturing companies, companies in the telecommunications, the retail industries and others, such as utilities, transportation and logistics companies. The geographical segments include North America, Europe, India and rest of the world. Wipro Limited classifies its primary segments into IT Services, IT Products, Consumer Care and Lighting and Others, while the geographic segments are India, US, Europe and rest of the world. Such a product-wise and geography-wise spread necessitates a disclosure along the segments to identify the major sources of strengths and threats. Moreover, the IT sector has grown by leaps and bounds in recent years. The sector contributes richly to India's GDP in terms of exports, employment generation, outsourcing services, contribution to exchequer, etc. The annual survey of NASSCOM for the year 2008-09 highlights that the industry recorded a revenue of $58.8 bn; export revenues of $46.3 bn as against domestic revenue of $12.5 bn. It recorded a growth of 16.3% in exports compared to domestic market growth of 21%. All this has necessitated an appraisal of segment reporting practices of the IT companies.

Review of Literature

In India, segment reporting has occupied less academic space. Some of the significant studies done on the topic come from West. Garrod (2000) studies disadvantages arising from segment reporting taking a sample of 135 large-size listed firms drawn from six major European countries, namely, the UK, Germany, France, Switzerland, Sweden and Netherlands and concludes that the disadvantage suffered is very limited and is confined only to geographical segment disclosures than business segment disclosures. Low and Zain (2001) examine the determinants of segmental reporting for Malaysian firms and find size of the firm having significant influence on the level of segmental disclosures than other variables like financial leverage and listing status. Leuz (2004) finds that firms with lower ownership concentration and higher foreign sales are more likely to disclose voluntarily, and the German firms cross-listed at London Stock Exchange or in the US OTC market voluntarily provide both cash flow statements and segment reports. For German firms, Moerman and De Beelde (2007) find that size has an impact on reporting and that firms reporting under IFRS disclose more than firms reporting under US GAAP. Hessling and Jakkola (2008) find 78% of Swedish firms employing line of business as primary segment, while 17% employing geography as primary segment. Bradbury (1992) investigated voluntary segment disclosure by New Zealand companies and in relation to firm characteristics. The study finds a significant positive relationship between firm size and the level of segment disclosure, which is consistent with the result of other studies.

Mahajan and Chander (2007) analyze corporate disclosure practices of Indian software firms. The study finds a big variation in disclosure practices among the firms in the software industry and also a significant association between disclosure level and size, profitability and audit firm. Karmajeet (2010) examines segment reporting practices of three countries, namely, India, the US and Japan and finds no big difference in the practices. The study finds deficient reporting by Indian firms on inter-segment transfers.

The review of earlier literature shows absence of any systematic work on segment reporting in general and on IT sector in particular. The present study bridges this gap by analyzing the segment reporting practices of IT firms in India.

Objectives of the Study

The study has the following objectives:

- To analyze the extent of segments identified and type of segments identified by the sample IT firms;
- To identify mandatory and voluntary segmental disclosure practices; and
- To find determinants of segmental disclosure practices of sample IT firms.

Selection of Sample Units and Research Methodology

The study uses both primary and secondary sources of data. Primary data were collected through questionnaires sent to sample IT firms. The questionnaire has two parts A and B. Part A consists of seven questions regarding profile of sample units and Part B consists of 22 closed-ended questions related to segmental reporting practices and disclosures. Initially, a sample of 150 Indian IT companies listed on BSE/NSE was selected. The list of these names is collected from the website, http://www.myiris.com. Table 1 shows the details relating to questionnaires sent and responses received.

Table 1: Number of Attempts Made and Responses Received from Sample IT Firms			
No. of Attempts	No. of Questionnaires Sent	No. of Questionnaires Received	Response Rate (%)
I	150 – 24* = 126	09	7.14
II	110	11	10.00
III	60	05	8.33
IV	45	20	44.44
Total No. of Sample Firms	**126**	**45**	**35.71**
Note: * Questionnaires returned for want of correct address.			

A study by Baldauf *et al.* (1999) on mail survey responses reveals that surveys of organization typically receive substantially lower response rates than the survey of individuals, with 15% response rate sometimes reaching a level of acceptability for organization surveys. Greer *et al.* (2000) have pointed out that return surveys are at lesser rate because organizational surveys are usually delivered to workplaces. Factors such as preoccupation with work, confidentiality of information, or workplace rules and policies prohibit them in improving response rates. From these studies it is evident that 15% response rate is satisfactory for the organizational studies. A response rate of 36% obtained in the present study can be considered to be satisfactory based on these reasonings. Appendix 1 presents the list of sample firms considered in the study, and Appendix 2 contains the questionnaire.

The required secondary data were collected from the annual reports of the sample units selected and the CMIE Prowess database. The collected data have been tabulated, analyzed and interpreted with various analytical tools. The study runs multivariate regression model to test the relationship between the segmental reporting score and various determinants of segmental reporting practices of sample IT firms.

Results and Discussion

Number of Segments Identified

Table 2 shows the number of segments identified by sample IT firms in India. The number of segments identified indicates the diversified activities of an organization. The more the segments,

Table 2: Number of Segments Identified		
No. of Segments Identified	No. of Responding Firms	Percentage
2	17	37.78
3	8	17.78
4	7	15.56
5 and Above	13	28.89
Total	**45**	**100.00**

the more diversified is the entity. Thirteen sample IT firms have identified five and above reportable segments. The majority of sample firms (82%) use AS-17 on 'segment reporting' for identifying the segments and 'revenue criteria' is the basic criteria for identifying reportable segments by all the sample firms (100%) (not reported here).

Listing Status and Number of Segments Identified

Table 3 gives details relating to segments identified based on listing status of sample firms. The sample includes 37 firms listed only in India and 8 are listed both in India as well as outside India, which includes listing at NYSE, NASDAQ, London Stock Exchange and Luxembourg Stock Exchange. 37.5% of multiple-bourses listed companies identify five and above segments compared to 27% in single-bourse listed firms.

Table 3: Listing Status and Number of Segments

No. of Segments	Listed Only in India		Listed Both in India and Outside India	
	No. of Sample Firms	Percentage	No. of Sample Firms	Percentage
2	15	40.54	2	25.00
3	7	18.92	1	12.50
4	5	13.51	2	25.00
5 and Above	10	27.03	3	37.50
Total	**37**	**100.00**	**8**	**100.00**

Type of Segments Identified

Table 4 provides information relating to classification of segments into business and geographical and primary and secondary segments.

Table 4: Type and Nature of Segments Identified

Type of Segments Identified	No. of Responding Firms	Percentage	Type of Primary Segment	No. of Responding Firms	Percentage
Business	13	28.89	Business	37	82.22
Geographical	2	4.44	Geographical	8	17.78
Both	30	66.67			
Total	**45**	**100.00**	**Total**	**45**	**100.00**

A firm may identify its segments into business or geographical based upon the nature of products produced or services rendered, nature of production processes employed, class of customers served, regulatory environment, distribution methods employed, etc. Majority of IT firms in India (67%) recognize both the segments, and 82% recognize business segment as primary segment for financial reporting. In a similar study conducted by Hessling and

Jakkola (2008) on Swedish Listed Companies, found 78% of listed companies recognizing business as primary segment and only 17% recognizing geography as primary segment.

Segmental Information

AS-17 mandates companies to provide some minimum segmental information. This includes information relating to segmental assets, liabilities, income, expenses, profits or losses and accounting policies. Table 5 shows mandatory segmental information disclosures by sample firms.

It can be discerned from Table 5 that sample IT firms adopt AS-17 more in contempt than out of respect. Only 11% of sample firms provide total mandatory information and a majority provide information relating to one or more variables only.

Table 5: Type of Segmental Information Provided

Type of Information Provided	No. of Responding Firms	Percentage
Segmental Assets only	3	6.67
Segmental Assets and Liabilities	13	28.89
Segmental Revenue Only	33	73.33
Segmental Revenues and Expenditure	8	17.78
Segmental Profits Only	9	20.00
All Segmental Information	5	11.11

Disclosure of Voluntary Segmental Information

Do sample IT firms provide voluntarily more segmental information? The voluntary segmental information could include information relating to segmental cash flow analysis, customer profile, strengths and weaknesses of each segments, suppliers' profile, competitive structure of the segments in which the firm operates, governmental policies affecting each segments, etc. Table 6 presents the voluntary segmental disclosure practices of sample IT firms.

It can be observed from Table 6 that sample IT firms score poorly on voluntary disclosure practices. Since firms fail to comply with the mandatory disclosure norms, it is difficult to expect them to provide voluntary information. A firm's individual characteristics in the form

Table 6: Voluntary Segmental Disclosure Practices

Type of Voluntary Information Provided	Companies Providing	Percentage	Companies not Providing	Percentage
Segmental Ratio Analysis	8	17.78	34	75.56
Segmental Cash Flow Analysis	3	6.67	39	86.67
Segment-wise Product Profile	11	24.44	31	68.89
Segment-wise Customer Profile	7	15.56	37	68.89
Segment-wise SWOT	7	15.56	36	80.00
Segment-wise Capital Expenditure Plans	6	13.33	39	86.67
Age of Segments	3	6.67	40	88.89

Table 6 (Cont.)

Type of Voluntary Information Provided	Companies Providing	Percentage	Companies not Providing	Percentage
Relative Contribution of Each Segment to Total Performance	17	37.78	25	55.56
Pie Charts, Bar Diagrams and Other Statistical Information Segment-wise	15	33.33	28	62.22
Note: Companies not responding were not included in the table.				

of age, size, leverage, board composition, listing status, etc., would decide on the quality of segmental disclosures.

Determinants of Segmental Reporting in IT Firms

Financial reporting depends on several factors. It varies across firms. Similar firms within an industry follow different reporting practices. We consider the following as determinants of segmental reporting practices in IT firms:

- Size
- Profitability
- Share capital
- Listing status
- Shareholding pattern
- Proportion of independent directors

A brief explanation of the factors is given below:

Size

Size, as measured by investment in total assets, has a major influence on the reporting practices of firms. Foster (1986) observes that size is the most consistently reported variable that explains the differences in voluntary disclosure. Large firms disclose more than small firms, other things being equal. Some of the reasons cited for this hypothesis are that large firms are followed more by market, financial analysts and investors. Cooke (1989) believes that larger firms have more complex business functions that require efficient management information systems to fulfil the needs of both the managerial control and financier. Further, accounting standards are strictly enforced on larger firms than on the smaller firms. The marginal cost of generating additional unit of information incurred by a larger unit is lower than that of a smaller unit, and hence, there is greater motivation to disclose among larger firms. Buzby (1975) attributes the relationship to the costly process of information gathering and processing and large firms would be in a position to bear such high cost. Besides, large firms are motivated to disclose more to avoid higher taxation rates, which might result from political action

(Hossain and Adams, 1995). Salamon and Dhaliwal (1980) examine the relationship of company size and financial disclosure requirements with the evidence from segmental reporting issue and conclude that firm size is positively related to the extent of voluntary segment disclosures.

Profitability

It is generally hypothesized that profitable firm has all the motivation to disclose or share its success with the stakeholders. It is only loss-making unit where managers hide important information to protect their interest. Foster (1986) expects that profitable and well-run firms disclose more to distinguish themselves from others in the capital market to raise capital on better terms. Singhvi and Desai (1971) and Wallace *et al.* (1994), have found a positive association between profitability and the extent of disclosure. It is argued that disclosure is used by the managers of profitable firms to assure investors of the firm's profitability, and to help support management's continuation and compensation (Singhvi and Desai, 1971). However, there are some studies which point out that firms providing segmental information, in terms of segment profits and profit margin, suffer from competitive disadvantage and argue that as one of the strong reasons why firms are up against segmental reporting (Garrod, 2000; and Talla *et al.*, 2008).

Equity Capital

Equity capital can also influence the level of disclosure. It is expected that firms with larger amount of equity capital disclose better than firms with smaller equity. Equity is more difficult to raise than debt and requires extra efforts on the part of managers. Equity holders are residual recipients of corporate earnings and would invest in the security only when convinced on the risk-return profile of the stock. Moreover, IT firms, for lack of tangible assets, depend on internal equity than on debt. This calls for more transparent disclosures.

Listing Status

A listed firm discloses more information than unlisted firm for obvious reasons. One of them is legal compulsion. A listed firm has to comply with the listing agreement norms. Market regulators exercise stricter control over listed firms in the form of, say, enforcement of accounting standards. In order to raise capital through the markets, it is possible that listed companies will disclose more additional information. It is also felt that firms with multi-listing tend to disclose more than the ones listed in single stock exchange. Cooke (1989) argues that agency costs increase as shareholders become more remote from management. As unlisted companies tend to have a smaller number of shareholders, agency costs are expected to be lower than those for listed companies. Conversely, due to the greater separation between owners and managers, listed companies are likely to incur more agency costs, such as 'monitoring costs'. These costs can be reduced through the voluntary disclosure of additional corporate information.

Shareholding Pattern

The shareholding pattern in terms of proportion of shares owned by insiders and outsiders can influence reporting practices. Firms with higher external shareholdings, especially institutional shareholding, discloses more than internally controlled or family controlled entities. An externally owned company discloses more than internally owned firm. The demand for information increases when ownership is dispersed (Wallace *et al*., 1994). There is more regulation and pressure to disclose on firms which are publicly owned than the privately owned ones. Further, place of origin of shareholders also influences the reporting practices. A company with foreign-based shareholders discloses more than a company whose shareholders are domestic-based. However, Fama and Jensen (1983) theorized differently and argue that managers with greater stake in the company disclose more information to alleviate the potential higher agency costs.

Proportion of Independent Directors

The corporate governance norms, the world over require the induction of independent directors in corporate boards for their independence of judgement and thinking. Patton and Baker (1987) assert that insider directors are not effective at monitoring management since majority of them have benefitted from top management. Whereas, outsider directors are more aggressive in monitoring as they are more positive in dismissing chief executive officers when the corporate performance is not satisfactory and they are also positive in monitoring management in maintaining their reputations. The pressure tactics of independent director would work to the advantage of investors by compelling firms to report more. Further, an individual would not like to become independent director of a firm with a poor disclosure practice and damage his image. Therefore, it has been hypothesized that a firm with independent directors discloses better than the firm without independent directors. Thus, it is felt that non-executive directors will enhance the level of voluntary disclosures.

Descriptive Statistics

We define size as equivalent to total assets employed and profitability as percentage of EBIT to total assets employed. Listing status is assumed to be equivalent to '0' if listed in India and '1' if listed both in India and outside India. We compute shareholding pattern by comparing the promoters' stake to shareholding in the company. The proportion of independent directors is computed by dividing the number of independent directors by total number of directors. Table 7 shows the descriptive statistics of the variables used.

Table 7: Descriptive Statistics

Variables	Mean	Std. Dev.	*N*
Score	1.73	2.07	45
Profitability (%)	109.93	89.22	45
Equity Capital (in ₹mn)	1,672.96	8,098.28	45
Assets (in ₹mn)	36,223.80	1.42	45
Listing Status	0.18	0.39	45
Shareholding Pattern (%)	45.97	21.35	45
Independent Directors (%)	54.54	13.63	45

The study considers voluntary disclosures made by sample firms for multivariate analysis. The average score of the sample firms is 1.73 as against the maximum score of 9. In other words, the IT firms have poor voluntary segmental reporting practices or a big variation in reporting practices across firms. The average profitability of the sample firms is 109.93% with a standard deviation of 89%. The mean value of assets employed is ₹36,223.80 mn and equity capital is ₹1,673 mn. This clearly shows firms use more retained earnings in financing their activities. The average shareholding by promoters is 46%, while the proportion of independent directors is 55%.

Multivariate Model

The study uses the following regression model. The model tests the relationship between the financial reporting score (dependent variable) and its determinants. The study uses assets, profitability, equity capital, listing status, shareholding pattern and proportion of independent directors as independent variables.

$$Score = \beta_1 + \beta_2 \times Profitability + \beta_3 \times Assets + \beta_4 \times Equity\ Capital + \beta_5 \times Listing$$
$$+ \beta_6 \times Shareholding\ Pattern + \beta_7 \times Independent\ Directors + \varepsilon_{it}$$

where β_1 is constant, $\beta_2, \beta_3, \ldots, \beta_7$, are beta coefficients of independent variables, and ε_{it} is a statistical error term. The results of the model are presented in Table 8.

The size of the firm is positively related to the score, but there is no significant statistical relationship. In other words, bigger firms disclose more financial information relating to segments than smaller firms. Profitability too has a positive coefficient. An increase in profitability increases the extent of segment disclosures. Similarly, firms listed on multiple stock exchanges report better than firms listed on single stock exchange. An increase in insider control increases

Table 8: Multivariate Analysis

Variables	Coefficient	*t*-Test
Constant	–0.370	–0.273
Profitability	0.006	1.855***
Equity Capital	0	–0.439
Assets	5.530	0.423
Listing Status	2.075	2.568*
Shareholding Pattern	0.021	1.512
Independent Directors	0.002	0.078
R^2	0.275	–
Adjusted R^2	0.161	–
F-Value	2.408	–

Note: * and *** indicate significance at 1% and 10% levels, respectively.

the motivation for the better disclosure. Independent directors have significant effect on disclosure practices of sample firms.

Pearson Correlation

Table 9 shows the Karl Pearson's correlation coefficient. We find a positive relation between score and profitability, assets, listing status, shareholding pattern, and proportion of independent directors. Equity capital only has negative correlation. Profitability has negative correlation with asset size, listing status, shareholding pattern and independent directors. This indicates an increase in assets size decreases profitability. In other words, large IT firms are less profitable than small IT firms. Similarly, listed firms are less profitable than unlisted firms.

Table 9: Karl Pearson's Correlation Coefficient (*r*)

Variables	Score	Profitability	Equity Capital	Assets	Listing Status	Shareholding Pattern	Ind. Directors
Score	1.000	–	–	–	–	–	–
Profitability	0.292	1.000	–	–	–	–	–
Equity Capital	–0.031	–0.029	1.000	–	–	–	–
Assets	0.004	–0.006	0.986	1.000	–	–	–
Listing Status	0.401	–0.084	–0.031	0.023	1.000	–	–
Shareholding Pattern	0.139	–0.044	0.032	0.019	–0.148	1.000	–
Ind. Directors	0.105	–0.026	–0.918	0.083	0.209	0.074	1.000

Equity capital is the amount of equity contributed by owners. This includes both internal equity and external equity. Since IT firms have more of intangible assets than tangibles, the debt capital is relatively less used. In other words, IT firms use more internally generated funds than external funds. It can be said that liabilities side of the balance sheet of IT firms includes more of equities than debt capital. The total equity employed almost always equals the asset size. Therefore, we find equity variable in the model as a redundant variable. There is greater multicollinearity between asset-size and equity capital variables. Therefore, we run the regression model excluding the equity variable. Table 10 presents the results of the model without equity capital variable.

With the exclusion of equity variable, the assets assume negative correlation. In other words, the large firms report less than smaller firms. All other variables have positive correlation with the degree of segmental reporting. Garrod (2000), analyzing competitive disadvantage on account of segmental disclosures, finds negative relationship between size of the firm and segment disclosures, a finding similar to that of the present study. However, Ronnie (2002) finds a positive relation to four variables: the size of the firm's total assets, its debt-equity ratio, the number of industries engaged and the mean forecast error of the firm's earnings. The models had a R^2 score ranging from 20.6% to 11.5%, lower than the R^2 value of the

Table 10: Multivariate Analysis		
Variables	**Coefficient**	***t*-Test**
Constant	–0.366	–0.273
Profitability	0.006	1.943***
Assets	–1.375	–0.068
Listing Status	2.183	2.864*
Shareholding Pattern	0.021	1.515
Independent Directors	0.002	0.082
R^2	0.272	–
Adjusted R^2	0.178	–
F-Value	2.911	–

Note: * and *** indicate significance at 1% and 10% levels, respectively.

present study. A similar relation between segmental information and size and financial leverage is found for Malaysian firms by Kevin and Zain (2001).

The results of our study are compared with that of other disclosure-relating studies. In a study on voluntary disclosure practices of Japanese corporations listed on Mothers and Jasdaq stock exchanges, Ye and Naoyuki (2005) find positive and significant association between firm size and levels of voluntary disclosures. However the study finds no significant relationship between degree of financial leverage and listing status. Mahajan and Chander (2007) find size of the firm and size of the audit firm as major determinants of reporting practices for software firms in India. The firms with large assets size and being audited by one among the top six audit firms have more extent of disclosure. Padmini (2006) too finds strong association between disclosure score and size of firms and no statistical significance for audit firm size, government ownership and multinational affiliation. In a significant study on reporting practices of Indian companies Sehgal *et al.* (2006), find no significant relationship between disclosure score and age and sales of companies. Only profitability has significant influence.

Do firms suffer competitive disadvantage from segmental disclosures? Beaver (1998) argues that competitive disadvantage can act as a deterrent to firms from disclosing segmental information. The negative coefficient for asset size of IT firms could mean large firms fear for this competitive disadvantage. However, a further research is necessary to account for this aspect.

Robustness Check

We check the robustness of the model (excluding equity capital variable) with the help of collinearity statistics. The statistics include Tolerance and Variance Inflation Factor (VIF) values. There is no multicollinearity among the variables when tolerance level is greater than 0.20 and VIF value is lower than 5 for all the variables. Table 11 shows the collinearity statistics.

The tolerance value of greater than 0.2 and a VIF value of less than 5 are found for all variables of the model. This clearly indicates that there is no multicollinearity among the independent variables.

Table 11: Collinearity Statistics

Variables	Tolerance	VIF
Profitability	0.990	1.010
Assets	0.993	1.007
Listing Status	0.992	1.084
Shareholding Pattern	0.966	1.035
Independent Directors	0.938	1.067

Conclusion

Reporting by segments is a useful exercise from stakeholders' point of view. They would have access to disaggregated data of high value which helps them in resolving many intricate issues in appraising corporate performance. The segment information would reveal the profitable and non-profitable areas of business activities, the relative contribution of each segment to overall growth and development, firm's strength and weaknesses, etc. The sample IT companies in the present case fare poorly in providing segmental information. Only 11% of the sample firms comply with the mandatory disclosure norms, which include capital market icons like Infosys and Wipro. Others are yet to view segment reporting seriously. For fear of competitive disadvantage or so, the firms fare poorly even on voluntary disclosures. Even bigger firms are hesitant to disclose extra details relating to the segments. Since there is a positive relation between listing status and segment disclosures, it can be inferred that firms disclose details relating to segments only to meet the listing norms than to help investors. The poor disclosure of mandatory information needs to be plugged by stricter enforcement of AS-17. AS-17 needs to be amended to enforce disclosures relating to segment-wise cash flow details, customers' and suppliers' profile, competitive environment, etc. We hope the introduction of IFRS from April, 2011 would see a remarkable change both in the quantum and quality of segmental disclosures by Corporate India. ■

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Appendix 1

List of Firms Included in the Sample			
S. No.	**Company**	**S. No.**	**Company**
1.	Accel Frontline Ltd.	24.	NIIT Technologies Ltd.
2.	ASM Technologies Ltd.	25.	PCS Technologies Ltd.
3.	Aztecsoft Ltd.	26.	Polaris Ltd.
4.	California Software Company Ltd.	27.	PSI Data Systems Ltd.
5.	Cambridge Solutions Ltd.	28.	Rolta India Ltd.
6.	CG-Vak Software & Exports Ltd.	29.	Saksoft Ltd.
7.	Compucom Software Ltd.	30.	Sasken Ltd.
8.	Cranes Software International Ltd.	31.	Satyam Ltd.
9.	Datamatics Technologies Ltd.	32.	Siemens Ltd.
10.	Geometric Ltd.	33.	SES Technologies Ltd.
11.	Goldstone Ltd.	34.	Sonata Ltd.
12.	HCL Infosystems Ltd.	35.	SP Software Ltd.
13.	Hexaware Technologies Ltd.	36.	Spanco Ltd.
14.	iGATE Global Solutions Ltd.	37.	SQL Star Ltd.
15.	i-flex Solutions Ltd.	38.	Subex Ltd.
16.	Infosys Technologies Ltd.	39.	Tata Elxsi Ltd.
17.	Kale Consultants Ltd.	40.	TCS Ltd.
18.	KPIT Cummins Ltd.	41.	Tulip IT Ltd.
19.	L&T Infotech Ltd.	42.	Visesh Infotechnics Ltd.
20.	Megasoft Solutions Ltd.	43.	Wipro Ltd.
21.	MindTech Ltd.	44.	Xerox India Ltd.
22.	MindTree Ltd.	45.	Zensar Ltd.
23.	Mphasis Ltd.		

Appendix 2

Questionnaire Used in the Study

Part A

Profile of the Company: (Please click on the box to select the options)

1. Year of establishment: [ ]
2. Indicate Stock Exchanges in India where shares are listed

   a. BSE ☐ b. NSE ☐ c. Both ☐
3. If listed outside India indicate name of the Stock Exchange

   a. NYSE ☐ b. NASDAQ ☐ c. LSE ☐
4. Indicate the year of listing in India: [ ]
5. Indicate profile of your customers:

   a. Institutional customers [ ]

   b. Government Institutions [ ]

   c. Business Establishments [ ]
6. What is the domicile status of your customers?

   a. Indian % b. Foreign %
7. Indicate country status of your international customers. Please specify:

S. No.	Country	%
1.	US	
2.	UK	
3.	Canada	
4.	Germany	
5.	Japan	
6.	France	
7.	Malaysia	
8.	Australia	
9.	Others	

Appendix 2 (Cont.)

Part B

1. In which year did you adopt Segmental Reporting?
2. How many segments have you identified?

   a. 2 ☐ b. 3 ☐ c. 4 ☐ d. 5 and above ☐
3. Indicate the Accounting Standard adopted in Segmental Reporting:

   a. India ☐ b. US ☐ c. Both ☐
4. Which of the following have you identified as Segments?

   a. Business ☐ b. Geographical ☐ c. Both ☐
5. Indicate your Primary Segments:

   a. Business ☐ b. Geographical ☐
6. Which criteria of identifying Reportable Segment have you used?

   a. Revenue ☐ b. Profits ☐ c. Assets ☐
7. Have you changed your criteria of identifying Reportable Segments?

   a. Yes ☐ b. No ☐
8. If yes, how many times you have changed?

   a. 1 ☐ b. 2 ☐ c. 3 ☐ d. 4 and above ☐
9. Indicate reasons for change in criteria:

   a. Change in business composition ☐

   b. Change in management control ☐

   c. Recent mergers and acquisitions ☐

   d. Change desired by accounting standard ☐

   e. Change in competitors reporting methods ☐
10. What type of segmental information do you provide?

    a. Segmental assets only ☐

    b. Segment assets and liabilities only ☐

    c. Segmental revenue only ☐

    d. Segmental revenue and expenditures only ☐

    e. Segmental profits only ☐

    f. All Segmental information ☐

Appendix 2 (Cont.)

11. Do you provide period-wise comparative segmental information?

Yes ☐ No ☐

12. If yes, how many years of comparative information do you provide?

a. 2 years ☐

b. 3 years ☐

c. 4 years ☐

d. Above 4 years ☐

13. If no, indicate reasons:

a. Not mandatory ☐

b. Not provided by competitors ☐

c. Exists no management policy ☐

14. Do you provide segmental performance at a glance?

Yes ☐ No ☐

15. If yes, indicate

a. Provided every year ☐

b. Once in 2 years ☐

c. Once in 3 years ☐

d. Once in 4 years ☐

16. How important do you consider Segmental Reporting is?

S. No.		Very Imp. 4	Imp. 3	Least Imp. 2	Cannot Say 1
1.	In maintaining better investors' relationship?	☐	☐	☐	☐
2.	In adopting transparent disclosure policies?	☐	☐	☐	☐
3.	In having closer ties with the banker?	☐	☐	☐	☐
4.	In having better supplier relationship?	☐	☐	☐	☐
5.	In improving Corporate Governance Standards?	☐	☐	☐	☐
6.	In compliance of AS?	☐	☐	☐	☐
7.	In improving market valuation?	☐	☐	☐	☐
8.	In improving segmental performance?	☐	☐	☐	☐

Appendix 2 (Cont.)

17. Have you experienced any difficulty in providing segmental information?

    a. Some difficulties initially and presently no difficulties ☐

    b. No difficulties any time ☐

    c. Difficulties since beginning ☐

18. Is segmental reporting a necessity or unwanted?

    a. Necessity ☐ b. Unwanted ☐

19. How has segment reporting impacted your segmental performance?

    a. Improved ☐ b. No change ☐

    c. Deteriorated ☐ d. Cannot say ☐

20. Identify the benefits of segmental reporting on financing functions of your Company:

    a. Has reduced the cost of public issues ☐

    b. Has increased the company's public image ☐

    c. Has improved the marketability of securities ☐

    d. Has enabled the larger issue of capital ☐

    e. Has facilitated issue of tracking stock ☐

    f. Has improved market valuation ☐

    g. Has reduced the perceived risk of investors ☐

    h. All of the above ☐

21. Should Segmental reporting be made mandatory under Companies Act, 1956?

    a. Yes ☐ b. No ☐

22. Do you provide the following as segmental information?

	Information	Yes	No
a.	Segmental ratio analysis	☐	☐
b.	Segmental cash flow analysis	☐	☐
c.	Segment-wise product profile	☐	☐
d.	Segment-wise customer profile	☐	☐
e.	Segment-wise opportunities, threats and risks	☐	☐
f.	Segment-wise capital expenditure plans	☐	☐
g.	Pie charts, bar diagrams and other statistical information segment-wise	☐	☐
h.	Age of the segment	☐	☐
i.	Relative contribution of each segment to total performance	☐	☐

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