Earnings, the “bottom line” or “net income,” are the single-most important item in financial statements. They indicate the extent of company’s value-added activities. They help in resource mobilization in capital markets. On account of the said importance of earnings, the management of the company is always interested in their reporting. This is where management exercises choices for reporting of earnings. The recent Satyam saga or Enron in the past are prime examples of misuse of flexibility in choosing the accounting methods and treatments by the management. Earnings management occurs when management uses discretion in financial reporting and in structuring transactions with the objective of securing private gains. Earnings management issues related to financial disclosure and reporting are increasingly relevant to the multitude of firm stakeholders. In the wake of these manipulative corporate practices, investors and managers are trying to understand whether there is widespread Enron-like manipulation of financial results among corporations or whether these scandals are just an aberration. A related issue for financial analysts, investors, and corporate executives is how to distinguish between earnings manipulation that ultimately proves to be fraudulent and the day-to-day struggles of managers to meet pre-determined targets by using various accounting flexibilities. An understanding of the financial statement effects of financial engineering transactions will thus help managers try to avoid future Satyams and Enrons and help to improve the climate for a common investor.

A very important dimension of earnings management is that earnings manipulation is usually not the result of an intentional fraud, but the culmination of a series of aggressive interpretations of the accounting rules and application of aggressive operating activities. The end result is misstatement of the financial results by the people involved and realization by them when it gets too late.

The typical case of earnings manipulation begins with a track record of success. The company or division has posted significant sales and earnings growth over recent years. Their stock price trades at high price earnings multiple but unfortunately, it is becoming more difficult for the company to maintain the sales and earnings growth as per the analysts’ expectations. The management goes for creative accounting practices to manage their earnings.

This study analyses the earnings management practices in corporate enterprises in India by examining the magnitude of discretionary accruals. DeAngelo Model has been used for calculating discretionary accruals in regard to potential earnings management for the study. It also explores earnings management issues with respect to industry classification in these enterprises. The sample was drawn from the top 25 listed profit-making companies for the year 2007. The period chosen for the study was 2002-03 to 2007-08. An examination of the units shows a definite presence of accrual management in the sample companies. Most of the units have been found to be exercising income-increasing discretionary accruals. The earnings creativity is further strengthened by industry parameters among the units.
The changing global environment raises a host of questions regarding earnings management that are of common interest to academia, regulators, and practitioners. In the present study, we focus our attention on earnings management practices in Indian corporate enterprises. It not only attempts to make sense of the earnings management phenomenon for Indian regulators but also inspires shareholders not to be lured by financial numbers alone.

Understanding earnings management may also reveal that not all earnings management is bad; so, taking action to uproot the undesirable variety runs the risk of “throwing the baby out with the bath water.” As it was observed by Arya, Glove and Sunder (2003), accounting research shows that income manipulation is not an unmitigated evil; within limits, it promotes efficient decisions.

Table 1 summarizes the different definitions of earnings management, classifying them as white, gray or black. Beneficial (white) earnings management enhances the transparency of financials; the undesirable (black) involves outright misrepresentation and fraud; the gray is manipulation of reports within the compliance framework, which could be either opportunistic or efficiency enhancing.

Our goal of reviewing the earnings management issue for the present discussion shapes the following definition of earnings management.

“Earnings management occurs when managers use judgment in financial reporting and in structuring transactions to alter financial reports to either mislead some stakeholders about the underlying economic performance of the company or to influence contractual outcomes that depend on reported accounting numbers.” (Healy and Wahlen, 1999).

This definition captures both the costly-contracting approach (earnings management is used to influence contractual outcomes) and the informational approach (earnings management is used to mislead stakeholders). It also captures the connotation of opportunistic manipulation of earnings.

Earnings management does not always have to mean upward manipulation. There can be many instances when managers intentionally misreport earnings downwards. This is especially likely to happen when firms are either way above or way below their targets. In Michael Jensen’s words (Jensen, 2004):

‘Regulators and the financial media have been expressing concern that the quality of reported earnings is deteriorating as managers use the discretion embedded in Generally Accepted Accounting Principles (GAAP) to opportunistically distort their firms’ financial reports.’

**Nondiscretionary Accruals vs Discretionary Accruals**

Nondiscretionary accruals are the accruals which are required by business activities while discretionary accruals consist of accruals which are not required by activities and are indexed as companies’ total assets or sales. Yearly trends in these indices are considered as the indicators of various practices of manipulation.

Non-discretionary accruals are closely related to the economic circumstances of the firm.

- Non-discretionary accruals are a function of revenues. Revenue growth usually increases accounts receivables or inventory.
- Similarly, non-discretionary accruals are function of investment in gross property, plant and equipment, because these investments usually increase depreciation.
Discretionary accruals are not closely related to these economic circumstances of the firm. Broadly, the discretionary line of items is classified into three types, which are often used and have a high impact on the reported earnings:

- Accounting changes
- Extraordinary items
- Restructuring provisions

Discretionary accruals cannot be observed directly from financial statements; they have to be estimated using some kind of a model. In the present discussion, they have been computed using DeAngelo Model.

OBJECTIVES OF THE STUDY

The main aim of the study is to review and analyse the earnings management practices of corporate enterprises in India. It specifically aims to:

- examine the magnitude of discretionary accruals in regard to potential earnings management
- explore earnings management practices further among the units on the basis of industry classification
- highlight the major areas of concern in earnings management in these undertakings for their future viability.

RESEARCH DESIGN

Sample

The present study covers the listed companies in India. Keeping in view the differences in the objectives and functions of these companies, it would concentrate on the companies in the private sector.

The enterprises were chosen on the basis of their performance in terms of profit generation (PaT performance) for the year 2007-08 as per ET October (2007) survey. The top twenty-five corporate enterprises were considered for the sample. Two criteria were used for the selection of the companies in the final sample. First, the enterprises were in the private sector. Second, their accounting and market data, both were available for the study. Of these companies, twelve met the sampling requirements. A list of these companies appears in Appendix I.

Data

Keeping in view the nature of the present study, the main data used is secondary in nature. The study employs both accounting and market data. The period covered is five years, ranging from 2003-04 to 2007-08 as it was considered a reasonably good period to analyse the expected impact of the market conditions on increasing firms’ incentive to manage earnings.

Tools/Techniques Used

Various earnings management models, developed specifically for detecting earnings management, have been extensively used in the present study. They include the total accrual model (for calculating total accruals), and the DeAngelo model (for calculating discretionary accruals).

The Total Accrual Model

Discretionary accruals models involve first the computation of total accruals. The cash-flow approach has been used for the computation of accrual as suggested by Collins and Hribar (1999). This approach calculates accruals directly from the cash flow statement as follows:

\[ TA_{cf} = NI - CFO_{cf} \]

where,

- \( TA_{cf} \) is the total accrual adjustments provided on the cash flow statement under the indirect method;
- \( NI \) is the net earnings of the business; and
- \( CFO_{cf} \) is the operating cash flows (from continuing operations) taken directly from the cash flow statement.

The DeAngelo Model

Since discretionary accruals cannot be observed directly from financial statements, they have to be estimated using some kind of a model. The DeAngelo Model is considered here for computing discretionary accruals. It is also referred to as discretionary accrual model.

The discretionary portion of accruals in the DeAngelo Model is the difference between total accruals in the event year \( t \) scaled by total assets \( (A_{t-1}) \) and nondiscretionary accruals (NDAt). The measure of nondiscretionary accruals (NDAt) rests on the total accruals (TAAt-1) of the last period. In other words,
\[ DACit = \frac{(TAit - TAit-1)}{Ait-1} \]

where,

\( DACit \) is discretionary accruals for firm \( i \) in period \( t \);
\( TAit \) and \( Ait \) are total accruals and total assets for period \( t \) and \( t-1 \) for firm \( i \).

The data analysis has been well supported by various accounting and statistical techniques, including trend analysis, bar charts, pie charts, graphs (time series), and descriptive statistics like arithmetic mean, median standard deviation, and coefficient of variation.

RESULT AND DISCUSSION

Accrual Management

This section discusses accrual practices of the units under study.

As discretionary accruals are a proxy to earnings management, their trend indicates income-accrual management exercised by a company. If the trend in accruals is negative (positive), it indicates that managers are making income-decreasing (increasing) accrual decisions, for example, more (less) depreciation or decrease (increase) in inventory. The implied hypothesis is that earnings management is present in a given case and it is based on accruals.

Total accruals have been calculated here using cash flow approach and discretionary accruals have been computed using the DeAngelo Model. The means, standard deviation, and coefficients of variation of these indicators are presented in Table 1.

An examination of Table 1 shows a definite presence of accrual management in all the sample companies, excluding Tata Steel. TCS has the highest average of discretionary accruals of -0.20 among all the units, whereas Tata Steel has shown an almost zero average of discretionary accruals during the period. Most of the units have been found to be exercising income-increasing discretionary accruals, as verified by their positive average.

In RIL, the discretionary accruals average is negative at -0.01, indicating that managers are making income-decreasing accrual decisions (Figure 1). The trend of total accruals has also been negative with an average of

![Figure 1: Discretionary Accruals (DACC's) for the Sample Companies (2003-04 to 2007-08)](image)

Note: DACC connote discretionary accruals.

<table>
<thead>
<tr>
<th>Company</th>
<th>TACCi</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>Std. Dev.</td>
</tr>
<tr>
<td>RIL</td>
<td>-4,092.43</td>
<td>4,593.22</td>
</tr>
<tr>
<td>Sterlite</td>
<td>379.11</td>
<td>727.32</td>
</tr>
<tr>
<td>TCS</td>
<td>217.83</td>
<td>326.71</td>
</tr>
<tr>
<td>Tata Steel</td>
<td>-819.80</td>
<td>590.79</td>
</tr>
<tr>
<td>Bharti Airtel</td>
<td>-2,522.54</td>
<td>1,747.05</td>
</tr>
<tr>
<td>Infosys</td>
<td>303.84</td>
<td>426.29</td>
</tr>
<tr>
<td>Wipro</td>
<td>490.50</td>
<td>1,046.01</td>
</tr>
<tr>
<td>ITC</td>
<td>260.27</td>
<td>328.13</td>
</tr>
<tr>
<td>Hindalco</td>
<td>37.65</td>
<td>752.44</td>
</tr>
<tr>
<td>L&amp;T</td>
<td>43.65</td>
<td>612.57</td>
</tr>
<tr>
<td>Tata Motors</td>
<td>-922.48</td>
<td>2,220.29</td>
</tr>
<tr>
<td>Grasim</td>
<td>-205.81</td>
<td>224.62</td>
</tr>
</tbody>
</table>

Note: DACC connote discretionary accruals.
non-discretionary accruals exercised by the management have also been on the negative side. In Sterlite Industries, the result is opposite to the former unit. Here, the trend in both discretionary and total accruals is found to be positive, as verified by their positive average of 0.01 and 379.11. It indicates that managers are making income-increasing accrual decisions. Also, non-discretionary accruals are on the positive side. In TCS, discretionary accruals’ trend is negative, with an average of -0.0. It indicates that managers are making income-decreasing accrual decisions. But, non-discretionary accruals are on the positive side, as verified by total accruals’ average of 217.83. Tata Steel comes out reasonably clean with almost zero average discretionary accruals during the period. The average of total accruals is negative at -819.80, indicating that non-discretionary accruals exercised have been on the negative side.

Bharti Airtel has a negative discretionary accruals average of -0.09 which indicates that managers are making income-decreasing accrual decisions. After TCS, they have the next highest discretionary accruals average. Total accruals trend has also been negative with an average of -2,522.54 which indicates that apart from discretionary accruals, non-discretionary accruals exercised by the management have also been on the negative side. In Infosys, again the result is opposite to Bharti Airtel. Here, the trend in both discretionary and total accruals is found to be positive, as verified by their positive average of 0.01 and 303.84. It indicates that managers are making income-increasing accrual decisions. Also, non-discretionary accruals are on the positive side. Wipro also indicates income-increasing accruals with a discretionary accruals’ average of 0.03. It is equally true for non-discretionary accruals and it can be verified by total accruals’ average of 490.50. ITC takes the trend of income-increasing accruals further with a discretionary accruals average of 0.02. Also, non-discretionary accruals are on the positive side, as verified by total accruals’ average of 260.27.

In Hindalco, the trend in discretionary accruals has been like the ITC. They have a positive discretionary accruals’ average of 0.01, indicating that managers are making income-increasing accrual decisions. Total accruals trend has also been positive with an average of 37.67 which indicates that apart from discretionary accruals, non-discretionary accruals exercised by the management

have also been on the positive side. In L&T, the result is similar to the former unit. Here, the trend in discretionary and total accruals is again found to be positive, as verified by their positive averages of 0.01 and 43.65. It indicates that managers are making income-increasing accrual decisions. In Tata Motors, discretionary accruals’ trend is negative, with an average of -0.03. It indicates that managers are making income-decreasing accrual decisions. Non-discretionary accruals are also on the negative side, as verified by total accruals’ average of -922.48. Grasim Industries comes out with positive average discretionary accruals of 0.02, indicating income-increasing accruals exercised by the management. But, total accruals’ average is negative at -205.81, indicating that non-discretionary accruals exercised have been on the negative side.

Next, the distributions of the coefficients of variation of discretionary accruals indicate that though TCS has the highest average of discretionary accruals, it has quite low variability factor, as indicated by coefficient of variation of -222.03. It implies that TCS more or less follows the policy of conservatism. Also, though Tata Steel has a zero average discretionary accruals, their variability is the highest among all the units with a coefficient of 19,133.50. This implies that they have quite a fluctuating trend in income-accrual management. Sterlite, RIL, and Infosys also have quite a high variability factor in discretionary accruals. Bharti Airtel has the lowest coefficient of -143.29. The units coming next to Bharti with a low coefficient are ITC, Grasim, TCS, and Wipro. Hindalco, Tata Motors, and L&T show a moderate variation.

**Industry Earnings Management Pattern**

In the preceding discussion, we have examined the discretionary accruals trend in the sample units on individual basis. We will now attempt to explore this further in the units, on related aspects of industry classification. Accordingly, this section attempts to discover whether the behaviour of managers in the service sector differs from managers in non-service sectors regarding goal-directed determination of the cues and signals conveyed to users of financial statements through income numbers.

Theories of industry classification suggest that these sectoral differences have important implications for the opportunity structures and environments faced by individual firms. Generally, service sector firms face higher
degrees of environmental uncertainty and a restricted opportunity structure and therefore are more predisposed to manage earnings than non-service sector firms. The environmental uncertainty is more evident with regard to the market for labour. The non-service sector uses its market power and high amount of funds to achieve high degree of profitability.

Firms in service sector generally tend to engage in income-decreasing earnings management. Their nature of business operations are such that they tend to follow a conservative approach while non-service industries are associated with income increasing earnings manipulation. But, reverse can be true depending upon the market conditions and individual strategies.

Service sector in the present study includes infotech and telecom services. Industries in the non-service sector include oil & gas, metals, FMCG, capital goods, automobiles, steel, and cement production. This classification into a service and a non-service group resulted in four firms in the service sector and eight firms in the non-service sector.

Table 2 provides results of earnings management evidence with respect to industry classification. The Table and Figures 2(a) and 2(b) show the discretionary accruals in service sector group, on one hand, and non-service sector group, on the other hand.

<table>
<thead>
<tr>
<th>Description</th>
<th>Service Sector</th>
<th>Non-Service Sector</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>Mean</td>
<td>-0.06</td>
<td>0.004</td>
</tr>
<tr>
<td>Median</td>
<td>-0.04</td>
<td>0.01</td>
</tr>
</tbody>
</table>

The earnings management trend predicts a negative discretionary accrual performance in service sector, on an average basis. The average and median discretionary accruals of the group are -0.06 and -0.04, respectively. Two firms (TCS and Bharti) are exercising conservative smoothing, while the other two firms (Infosys and Wipro) are exercising income-increasing management. Though the group presents mixed results, the trend is towards conservatism. This leads to the fact that service sector has to be conservative for future uncertainties.

In the non-service sector, the units are mostly engaged in income-increasing management. The average and median discretionary accruals of the group are 0.004 and 0.01 respectively. So, unlike the service sector, this group tends to be engaged in income-smoothing on a higher side. RIL and Tata Motors are the only firms in the group which have a negative discretionary performance of -0.01 and -0.03 respectively.

An overall summary of the results shows the significant differences in the extent to which firms in the service sector and the non-service sector may be managing earnings due to differences in opportunity structures, experiences, and environmental uncertainty.

CONCLUSION

Discretionary accruals act as a proxy to earnings manipulation. In the present analysis, accrual management in the sample companies is observed, excluding Tata
Steel. Most of the units are found to be exercising income-increasing discretionary accruals, as verified by their positive average. Regarding industry trend, there are evidences to suggest that service sector firms are engaged in income-decreasing management on an average basis. Non-service sector tends to be engaged in income-increasing management. So, there is evidence to suggest that the earnings manipulation activity is related with industry characteristics.

The lack of transparency inherent in financial reporting system implies that the potential to misuse it as a powerful tool of earnings management by the management is high, especially where an organizational choice of discretionary accruals to earnings management exists. It is thus imperative for corporations now, more than ever, to recommit to developing and enforcing corporate governance systems that create a corporate climate of transparency and full disclosure to investors. Any structural weakness in corporate controls and governance could easily lead to large-scale management of earnings through accrual management, and ultimately to shareholder value destruction, irrespective of the sectors.

Appendix I: Index of Companies included in the Study

<table>
<thead>
<tr>
<th>No.</th>
<th>Company</th>
<th>Pat (2007) Rs Crore</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Reliance Industries Ltd.</td>
<td>12,075</td>
</tr>
<tr>
<td>2.</td>
<td>Sterlite Industries Ltd.</td>
<td>4,386</td>
</tr>
<tr>
<td>3.</td>
<td>Tata Consultancy Services Ltd.</td>
<td>4,213</td>
</tr>
<tr>
<td>4.</td>
<td>Tata Steel Ltd.</td>
<td>4,177</td>
</tr>
<tr>
<td>5.</td>
<td>Bharti Airtel Ltd.</td>
<td>4,062</td>
</tr>
<tr>
<td>6.</td>
<td>Infosys Technologies Ltd.</td>
<td>3,856</td>
</tr>
<tr>
<td>7.</td>
<td>Wipro Ltd.</td>
<td>2,942</td>
</tr>
<tr>
<td>8.</td>
<td>ITC Ltd.</td>
<td>2,755</td>
</tr>
<tr>
<td>9.</td>
<td>Hindalco Ltd.</td>
<td>2,687</td>
</tr>
<tr>
<td>10.</td>
<td>Larsen &amp; Toubro Ltd.</td>
<td>2,251</td>
</tr>
<tr>
<td>11.</td>
<td>Tata Motors Ltd.</td>
<td>2,170</td>
</tr>
<tr>
<td>12.</td>
<td>Grasim Industries Ltd.</td>
<td>1,968</td>
</tr>
</tbody>
</table>


REFERENCES


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