Harmonization of Indian Accounting Practices with IFRS - Analysis in terms of Cash flow Predictability and Persistence

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Abstract
India is in its nascent stage of implementing IFRS and few companies in India had already started to adopt IFRS. The presentation of financial statement by firms in India is governed by Accounting Standard 5 and Schedule VI of the Companies Act 1956. In the process of harmonization with IFRS, India had revised the schedule VI in the light of IAS 1 and other International Accounting Standards effective from 1st April 2011. This paper is an attempt to compare the accounting quality measured in terms of cash flow predictability and cash flow persistence of Indian firms before and after the implementation of the revised schedule VI in preparing their financial statement.

Key words: IFRS, Indian Accounting Standards, Revised Schedule VI

Introduction
Accountants all around the world decided to speak the same accounting language and present the same accounting format which has resulted in uniform accounting standard across the world – International Financial Reporting Standard. Over 100 countries across the globe had already implemented IFRS instead of their National Standard. India has not yet mandated the adoption of IFRS in toto, but is in the process of harmonizing its Indian accounting standard with IFRS. In an attempt, schedule VI has been revised aligning with International Accounting standard 1 and other International Accounting standards. All the Indian companies are mandated to follow the revised schedule VI from 1st April 2011 which is a step towards harmonizing with IFRS. One of significant changes in the revised schedule VI is reclassification of current and non-current assets and liabilities which gives clear understanding on short term assets/liabilities and long term assets / liabilities position to the investors and other stakeholders at large. Taking such cue, this study makes an attempt to study whether the change in presentation of financial position improvises accounting quality. Penman (2002) considers that accounting quality should be discussed in terms of shareholders’ interests and the fair valuation of those interests. In spite of absence of clear definition on accounting quality, many measures are considered as proximity to accounting quality viz earnings management, value relevance, timely loss recognition, persistence and predictability (Barth et al., 2005). Previous studies on the quality of accounting standards provide mixed evidence. Barth et al. (2005) and Bartov et al. (2004) find that the adoption of IASB standards increases accounting quality. In this paper, an attempt is made to compare the accounting quality measured in terms of cash flow predictability and cash flow persistence of Indian firms before and after the implementation of the revised schedule VI.

Review of Literature
Pownall and Schipper (1999) discuss the body of research using Form 20-F reconciliation data, observing that prior research documents differences between US GAAP and both non-US GAAPs and IAS, and offers some evidence that the differences are value-relevant. For example, Amir, Harris, and Venuti (1993) investigate the value relevance of reconciling items between domestic and US GAAP earnings and shareholders’ equity using a sample of 101 cross-listed companies in the period 1981-1991. Their results suggest that the reconciliations are value relevant, both in aggregate and for some specific components (property revaluations and capitalized goodwill). Harris and Muller (1997), examining only reconciliations between US GAAP and IAS for 31 companies from 1992 to 1996, provide inconclusive evidence of the usefulness of the reconciliations. They find US GAAP earnings reconciliation is value relevant and US GAAP is associated more highly with market measures after controlling for IAS amounts in certain models (market value and returns) but not all models (per-share).

Taking a different approach, studies that are more recent investigate the properties of accounting measures for US cross-listed companies. Land and Lang (2002) compare US cross-listed to non-cross-listed companies using a sample from 1990 through 2001, and find that cross-listed companies exhibit less earnings smoothing, more timely
loss recognition, and more value-relevance than non-cross-listed companies. Complementing this study, Lang, Raedy and Wilson (2006) compare US cross-listed companies to US companies. They find that US GAAP accounting measures of cross-listed firms differ from those of US firms in terms of the time-series properties of earnings and accruals, and the degree of association between accounting data and share prices.

Research focusing on the properties of accounting information under IAS generally suggests that IAS reporting produces accounting measures of higher quality when compared to domestic GAAP, but not US GAAP. Using a sample of 319 IAS reporting companies from 1990 to 2003, Barth, Landsman, and Lang (2006) show that companies using IAS exhibit less earnings smoothing, more timely loss recognition, and more value-relevance than those applying domestic (non-US) GAAP. Ashbaugh and Pincus (2001) find that the analysts forecast error of companies using IAS are smaller than those using domestic GAAP. However, comparing IAS to US GAAP companies using a sample 428 IAS reporters from 1990 through 2004, Barth, Landsman, Lang, and Williams (2006) find that IAS firms exhibit more earnings smoothing, more timely loss recognition, and a lower association between accounting amounts and share price. For the sub sample of firms that are cross-listed, they observe similar reporting quality for IAS and US GAAP measures.

Penman and Zhang (2002), and Beneish and Vargus (2002) state that current earnings should be a good indicator of future earnings, and define earnings quality as the likelihood that a firm can have current earnings persist in the future. Bricker et al. (1995) and Mikhail et al. (2003) define a good earnings quality as high predictive ability of future earnings. Revsine et al. (1999) and Bodie et al. (2002) consider more persistent earnings to be of higher quality, and show the interrelationship between persistence, accruals, and quality by stating that low levels of accruals result in higher persistence of earnings, thereby resulting in higher quality. Revsine et al. (1999) and Bodie et al. (2002) state that low levels of accruals result in the higher persistence and predictability of earning.

Lipe (1990) and Francis et al. (2004) define earnings predictability as the ability to predict earnings based on its past value. Therefore, this study measures earnings predictability as the standard deviation of residuals (j, tυ) from Equation (2). Small values of the residuals (j, tυ) imply more predictable and higher quality earnings.

In the context of the current policy debate, the evidence these studies offer is somewhat limited. First, most companies in these studies adopted IAS voluntarily, producing a self-selection bias. Prior research shows that profitable, growing companies are more likely to adopt IFRS.4. This study is different from the earlier studies as scarcely any study so far reviewed had conducted the test to verify the accounting quality in terms of cash flow predictability and cash flow persistence in India before and after implementation of the revised schedule VI.

Objective
The main objective is to find out whether the accounting quality after adopting the revised schedule VI had improved for selected Indian firms listed in Bombay stock exchange for the period covering 2010-2011 and 2011-2012. Accounting quality is measured in terms of cash flow predictability and persistence.

Scope
This study is focusing on cash flow predictability and cash flow persistence to measure accounting quality. The study is confined to Indian companies listed in BSE SENSEX of Bombay Stock Exchange) for the period covering 2010-2011 and 2011-2012. BSE SENSEX is considered for the study as BSE SENSEX covers large, liquid and representative companies. BSE SENSEX is widely accepted by Indian investors and is regarded as pulse of Indian stock market. The study mainly focuses on the impact of introduction of revised schedule VI on accounting quality measured in terms of cash flow persistence and cash flow predictability, so the financial year ended 2012 being the year of introduction of revised schedule VI and financial year ended 2011 being the year prior to the introduction of revised schedule VI are considered for the study.

Research Methodology
Hypotheses
H1 Firms after presenting revised schedule VI exhibit high cash flow from operation predictability than before reporting under revised schedule VI
H2 Firms after presenting revised schedule VI exhibit high cash flow from operation persistence than before reporting under revised schedule VI

Data Source and Sampling technique
The main source to carry out the study is taken from the annual report presented by the company from the company’s web site. Other documents like journal papers, working papers are also considered for the study.

The convenience sampling technique is used for selection of sample. Fourteen Indian companies included in BSE SENSEX are considered for the study.

Tools and Technique
The statistical tools used in the study are Correlation, regression, Standard Deviation. The accounting quality is tested in terms of cash flow predictability and cash flow persistence. Good accounting quality as high cash flow
predictive ability. More cash flow persistence show high quality of accounting.
Similar to the study carried out by Elizabeth G (2010), the following regression equation is considered:
Cash flow operation (current year, firm j) = α+β cash flow operation (previous year, firm j) + Accruals (previous year, firm j) + ∞
Accruals is measured as difference between Net Income and Cash flow from operations
The regression assesses the ability of accruals (before and after adopting revised schedule VI) to aid in the prediction of current cash flows, controlling for past cash flows. Similar to the earnings-based measures, the estimated coefficient, b measures cash flow persistence and the standard deviation of the residuals from the equation is interpreted as cash flow predictability. Small value of residuals indicates more predictability and high accounting quality. Coefficient value close to 1 indicates more persistence and high accounting quality and value close to 0 indicate highly transitory cash flow from operations.

Overview of Revised Schedule VI
The Ministry of Company Affairs of India Vide notification S.O. 447 (E) dated 28.02.2011 read with amendment notification S.O. 653 (E) dated 30.3.2011, the revised schedule VI would be applicable for the Balance Sheet and Profit and Loss Account to be prepared for the financial year commencing on or after 1-4-2011.
1. The privilege of having a balance sheet under horizontal or vertical format has been done away with. Option of only one format i.e vertical format is now available for preparation of the Balance Sheet.
2. Introduction of a new format for publishing profit & loss account.
3. Part III and part IV of the existing schedule VI has been done away with.
4. The disaggregation of information given in the Balance sheet and Profit Loss account now shall be disclosed in the notes to accounts instead of the schedule format as per existing schedule VI.
5. Various new disclosures have been added and few existing requirements have been removed. The additional disclosure requirements are more pertinent in case of balance sheet. The disclosure requirements in respect to Profit & Loss have been significantly reduced.
6. Under the new framework revised schedule VI will act as an additional requirement of disclosures along with the disclosure required by the Companies Act and the Accounting Standards. In other words the disclosure requirements of Notified Accounting Standards will prevail on the revised Schedule VI disclosures where-ever there are conflicts.
7. Revised schedule VI gives the liberty of application of judgment in maintaining a balance between excessive details that may not assist the users of the financial statements and not providing too much important information as a result of too much aggregation.

Analysis and Findings
For the purpose of study Cash flow from operation (current year) is the dependent variable. The independent variables are cash flow from operations (previous year) and accruals (previous year)
Cash flow operation (current year, firm j) = α+β cash flow operation (previous year, firm j) + Accruals (previous year, firm j) + ∞
The estimated coefficient β measures cash flow persistence and standard deviation of the residuals from the equation is interpreted as cash flow predictability. Small values of residuals indicate more predictability and hence high accounting quality. Coefficient value close to 1 indicates more persistence and high accounting quality and value close to 0 indicate highly transitory cash flow from operations.

Regression and Correlation analysis for the financial year ended 2010-2011
In this part, cash flow predictability and cash flow persistence are studied for the year prior to the introduction of revised schedule VI (2010-2011). Cash flow from operation (2011) is the dependent variable and cash flow from operation (2010) and accruals (2010) are considered as independent variables. From the following Table 1 it is inferred that the regression equation is significant as the significance is .001. The cash flow from operation for the year 2011 is the dependent variable and the independent variables are cash flow from operation for the year 2010 and accruals of the year 2010. The R square is 0.695 and adjusted R square is 0.640. The table indicates that cash flow from operation for the year 2011 has a significant dependence on cash flow from operation for the year 2010 and accruals of the year 2010.

| Table 1 Regression Test for the financial year ended 2011 |
From the Table 2 it can be inferred that the cash flow from operation (2011) the dependent variable is function of the independent variable, accruals for the year ended 2010 as the significance is .000

Table 3: Pearson’s correlation for the financial year ended 2011

<table>
<thead>
<tr>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash flow operation (2011)</td>
<td>Pearson’s Correlation</td>
<td>1</td>
<td>.08</td>
</tr>
<tr>
<td></td>
<td>Sig (2 tailed)</td>
<td>.785</td>
<td>.000</td>
</tr>
<tr>
<td>Cash flow operation (2010)</td>
<td>Pearson’s Correlation</td>
<td>0.080</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Sig (2 tailed)</td>
<td>.785</td>
<td>.594</td>
</tr>
<tr>
<td>Accruals</td>
<td>Pearson’s Correlation</td>
<td>.832</td>
<td>.156</td>
</tr>
<tr>
<td></td>
<td>Sig (2 tailed)</td>
<td>.000</td>
<td>.594</td>
</tr>
</tbody>
</table>

Further on referring the Pearson’s correlation (Table 3) above it can be clearly seen that the cash flow from operation of 2011 is significantly positively correlated with accruals at the .01 level (2 tailed).

On looking at the Table 4 Spearman correlation proves that cash flow from operation for the year ended 2011 of the sample Indian companies taken up for the study has significant association with cash flow from operation for the year ended 2010 at .05 level (2 tailed) and with accruals at .01 level(2 tailed test).

Regression and Correlation analysis for the financial year ended 2011-2012
In this part cash flow predictability and cash flow persistence are studied for the year during the first time introduction of revised schedule VI (2011-2012). Cash flow from operation (2012) is the dependent variable and cash flow from operation (2011) and accruals (2011) are considered as independent variables.

Table 5 Regression Test for the financial year ended 2012

<table>
<thead>
<tr>
<th>Variables</th>
<th>Definitions/Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dependent variable</td>
<td>Cash flow from operation (2012)</td>
</tr>
<tr>
<td>Independent Variable</td>
<td>Cash flow from operation (2011), Accruals (2011)</td>
</tr>
<tr>
<td>R square</td>
<td>0.853</td>
</tr>
<tr>
<td>Adjusted R square</td>
<td>0.826</td>
</tr>
<tr>
<td>F value</td>
<td>31.875</td>
</tr>
<tr>
<td>Sig</td>
<td>.000</td>
</tr>
</tbody>
</table>

From the table 5 the regression equation that cash flow

from operation for the year ended 2012 is dependent on cash flow from operation for the year ended 2011 and accruals for the year ended 2011 is significant as the significance level is .000. The R square .853 and adjusted R square is .826.

From Table 6 it can be seen that the independent variable cash flow from operation of 2012 has significance relation with the dependent variable cash flow from operation 2011 as the significance is .000

<table>
<thead>
<tr>
<th>Variables</th>
<th>Cash flow from operation 2012</th>
<th>t value</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash flow operation (2011)</td>
<td>6.840</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>Accruals (2011)</td>
<td>-.577</td>
<td>.576</td>
<td></td>
</tr>
</tbody>
</table>

Further the Pearson’s correlation proves that from Table 7 that there is a significant positive correlation between the dependent variable cash flow from operation 2012 and independent variable cash flow from operation 2011 as the value is .921 which is significant at .01 levels (2 tailed).

Table 6: Coefficients for the financial year ended 2011

Table 7: Pearson’s correlation for the financial year ended 2012

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash flow operation (2012) Pearson’s Correlation Sig (2 tailed)</td>
<td>1</td>
<td>.921</td>
<td>-.476</td>
</tr>
<tr>
<td>Cash flow operation (2011) Pearson’s Correlation Sig (2 tailed)</td>
<td>.921</td>
<td>1</td>
<td>-.453</td>
</tr>
<tr>
<td>Accruals (2011) Pearson’s Correlation Sig (2 tailed)</td>
<td>-.476</td>
<td>-.453</td>
<td>1</td>
</tr>
</tbody>
</table>

Table 8: Spearman correlation for the financial year ended 2011

Cash predictability

Similar to the study by Elizabeth A. Gordon (2010), in this study also it is considered that small values of residuals from the regression equation: Cash flow operation (current year, firm j) = α + β cash flow operation (previous year, firm j) + Accruals(previous year, firm j) + ∞ indicates more cash predictability and so high quality of accounting.

Table 9: Standard deviation of residuals for the financial year ended 2010-2011

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residual</td>
<td>1</td>
<td>-.11087</td>
<td>.06193</td>
<td>0E-7</td>
<td>.04783453</td>
</tr>
<tr>
<td>Valid N (list wise)</td>
<td>1</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 10: Standard deviation of residuals for the financial year ended 2011-2012

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residual</td>
<td>1</td>
<td>-.04487</td>
<td>.07442</td>
<td>0E-7</td>
<td>.03665598</td>
</tr>
<tr>
<td>Valid N (list wise)</td>
<td>1</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

On verifying from table 9 it can be observed that the standard deviation of the residuals of the regression
Cash Persistence
In this study on cash persistence similar study carried out by Soora Yoon (2006) indicating that the coefficient of the independent variable cash flow from operation closer to 1 indicates more persistence and closer to 0 indicates less persistence. For the independent variable cash flow from operation (2010) the coefficient of the dependent variable cash flow from operation (2011) as mentioned in table 2 is -.051. For the independent variable cash flow from operation (2011) the coefficient of its dependent variable cash flow from operation (2012) as mentioned in table 6 is .887. In that way, the coefficient .887 for the independent variable cash flow from operation 2011 shows more persistence compared with the coefficient -.051 for the independent variable cash flow from operation for 2010 which is closer to 0. It can be hence proved that for the sample firms taken up for the study for the financial year ended 2011 and financial year ended 2012 the accounting data presented after revised schedule VI which is a step to harmonize Indian accounting practices with IFRS shows more cash persistence and hence more accounting quality when compared with presentation of financial statement before applying the revised schedule VI.

Conclusions
The main purpose of this study is to find out whether the step towards harmonization of Indian accounting practices with International financial reporting standards (IFRS) by implementing the revised schedule VI which is said to be align with IAS 1 (Presentation of Financial statement) improves the accounting quality. Accounting quality in this study is measured in term of cash flow persistence and cash flow predictability. Higher (lower) cash flow predictability and more (less) cash flow persistence is assumed to be related with higher (lower) accounting quality.
reporting standards in India. Further studies can be carried out on other accounting attributes covering more samples.

Limitations of the study

The study is confined to fewer samples and is considering only cash predictability and cash persistence as a measure to test accounting quality. Other measures covering more samples can be studied for further research.

References


22) Kim, M., and Kross, W., 2005. The ability of earnings to predict future cash flows has been increasing- not
decreasing. Journal of Accounting Research 43 (December), 753-780.


