IGAAP AND IFRS: TESTING THE DIFFRENCE IN KEY FINANCIAL RATIOS

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Abstract

Harmonization of accounting standards has become a highly demanded issue of discussion and debate among accounting professionals around the globe. Accounting framework has been shaped by International Financial Reporting Standards (IFRS) to provide for recognition, measurement, presentation and disclosure requirements relating to transactions and events that are reflected in the financial statements. The statements on accounting standards are issued by the Institute of Chartered Accountants of India (ICAI) to establish standards that have to be complied with, to ensure that financial statements are prepared in accordance with generally accepted accounting principles in India (Indian GAAP). The key analysis of the study is to compare the key financial ratios that are widely used under IGAAP as well as under IFRS and to examine the impact of IFRS on IGAAP in order to understand the difference in their financial performance. It is concluded from the study, that the differences of the individual firms were both in positive and negative directions upon the adoption of IFRS.

Keywords: Harmonization, Accounting Standards, IFRS, IGAAP and Simple Linear Regression.
JEL Classification Codes: **M40 and M41**

1. Introduction

India is widely regarded as a new growth engine and an indispensable participant in the world economy. The key to economic development is a sound financial reporting system sustained by good governance, clearly defined quality standards and established regulatory framework. The parties using accounting information have encountered with new problems as a result of globalization and the most accepted and appreciated solution among them is the “International Accounting Harmonization” approach. In India too, the accounting has been going through lot of changes, ever since the Institute of Chartered Accountants of India (ICAI) decided to adopt IFRS w.e.f April 1, 2011. Because, there is an urge to converge accounting information into global common reporting standards due to the presence of multinational companies, international auditing firms, growing international business, ongoing global mergers and acquisitions trend and the resulting need for timely and reliable financial information which require global set of high quality financial reporting standards. Presently, there are two sets of accounting standards that are accepted by the Indian Corporate namely Indian Generally Accepted Accounting Principles (IGAAP) issued by the ICAI and the International Financial Reporting Standards (IFRS) issued by the London-based International Accounting Standards Board (IASB). IGAAP are diverse in nature but are based on a few basic principles as advocated by all Generally Accepted Accounting Principles (GAAP) rules such as consistency, relevance, reliability and comparability. GAAP ensures that all companies are on a level playing field and that the information they presented is consistent, relevant, reliable and comparable. However, adopting IFRS by Indian Corporate seems to be very challenging and at the same time it would also be rewarding. Thus, these moves by India will harmonize its accounting standards with the internationally accepted accounting standards, which will lead to a globally accepted accounting system for the companies in India.

2. Literature Review

IFRS has been recently developed due to expansion of boundaries of business and few researchers conducted study on this issue. There are so many studies that are conducted only outside India but because of non-adoption of IFRS by majority of Indian organizations till date and also due to continuous extension of convergence. **Capkun et al.(2008)[1],** analyzed the impact of mandatory change in financial reporting standards in European Union and found that the transition from local GAAP to IFRS had a small but statistically significant impact on total assets, equity, total liabilities and among assets, the most pronounced impact was on intangible assets and property plant and equipment. **Messod Beneish and Teri Lombardi Yohn (2008)[2],** suggested that the geographic proximity of domestic companies causes investors to perceive a —home court advantage compared to foreign companies—one that would not be reduced even when IFRS adoption standardized financial reporting. **Neil Weinberg(2008)[3],** explained in the first panel discussion at the Lubin Forum on Contemporary Accounting Issues focused on how companies can make the transition from US Generally Accepted Accounting Principles (GAAP) to International Financial Reporting Standards (IFRS). The panel began with a discussion of the differences between GAAP and IFRS. **Dangwal and Singh (2005)[4],** found that certain valuable observations concerning quality of financial reporting which enables the banks to capitalize their underlying strengths, disclosure practices and social viability after undertaking a study of certain interesting issues with regard to the financial reporting of banking companies in India.

3. Objectives of the Study

The following objectives have been framed

- **a.** To compare the key financial ratios as per IGAAP and IFRS.
- **b.** To examine the impact of IFRS on IGAAP ratios

4. Hypotheses of the Study

Based on the above objectives, the following hypotheses have been framed.

H₀₁-*There is no significant difference between IFRS and IGAAP on key financial ratios.*
H₀₂-*There is no significant impact of IFRS on IGAAP ratios.*

5. Data and Methodology

Data:

The study is mainly based on secondary data. The secondary data are collected from company's website and its respective annual reports and also from CMIE Prowess Database. All ten companies which have implemented IFRS since 2011 are considered. They are Bharti Airtel, Dabur India, Infosys, Noida Toll Bridge Limited, Dr. Reddy's Laboratory, Rolta India, SBI FM, Sesa Sterlite, Siemens India, Wipro which belong to different sectors like Communication, FMCG, IT, Transport, Pharmaceuticals, Manufacturing, Finance. The key financial ratios analysed in comparing IGAAP and IFRS were grouped under six heads namely, profitability ratios, liquidity ratios, ratios for corporate valuations, income statement ratios, balance sheet ratios and activity ratios. This study covers the period of four years from 2009-10 to 2012-13 under the old roadmap for convergence of

IFRS in India. From the revised roadmap issued by IFRS from 2014 onwards the new is being adopted and hence the result of the study may differ,

6. Results and Discussion

Comparison of Key Financial Ratios under IGAAP and IFRS

The IFRS - the accounting standard used in more than 110 countries - has some key differences from the IGAAP. At the conceptual level, IFRS is considered more of a "principles based" accounting standard in contrast to IGAAP which is considered more "rules based." By being more "principles based", IFRS, arguably, represents and captures the economics of a transaction better than IGAAP.

In order to test the hypothesis, there is no significant difference on key financial ratios between IGAAP and IFRS, **Gray's Comparability/ Conservatism Index** is used which helps in identifying which standard is conservative than the other. **Independent Sample t- test** is used to test, how two separate sets of independent and identically distributed samples are obtained, one from each of the two populations being compared with the other and **Levene's F-test** helps in finding out, how the two population variances are not assumed to be equal (Table 1).

Table 1 Comparison of Key Financial Ratios under IGAAP and IFRS

Ratios	Gray's Comparability Index	Independent Sample t- Test	p value	Levene's Test	p value
PROFITABILITY RATIOS					
GP	1.121	1.260	0.043	110.51	0.000
NP	0.934	1.296	0.049	3.287	0.107
ROCE	1.198	0.499	0.031	9.564	0.009
ROE	1.107	-1.074	0.311	49.451	0.041
LIQUIDITY RATIOS					
CR	1.474	2.386	0.044	11.02	0.054
NCFO	1.000	-1.45	0.041	15.83	0.029
RATIOS FOR CORPORATE VALUATION					
EPS	0.864	-1.239	0.025	13.70	0.006
P/E	1.042	1.312	0.026	16.98	0.026
MBV	0.937	1.084	0.310	0.024	0.881
INCOME STATEMENT RATIOS					
EBITDA	1.642	1.463	0.039	7.14	0.028
CoS	1.468	2.018	0.001	69.265	0.006
BALANCE SHEET RATIOS					
RTC	2.412	2.018	0.001	8.65	0.046
ISC	0.866	2.291	0.001	31.24	0.000
ACTIVITY RATIOS					
OE	0.727	2.554	0.034	12.057	0.000
FA	0.660	2.980	0.026	0.885	0.005
TA	0.788	1.254	0.001	1.978	0.043

Source: Computed Data

Note: *GPR - Gross Profit Ratio, NPR - Net Profit Ratio, ROCE - Return on Capital Employed, ROE - Return on Equity, CR - Current Ratio, NCFO - Net Cash Flow from Operating Activities, EPS - Earnings*

Per Share, P/E - Price Earnings Ratio, MBV - Market to Book Value, EBITDA- Earnings Before Interest, Tax, Depreciation and Amortisation, CoS - Cost of Sales to Total Operating Expenses, RTC - Reserves to Total Capital, ISC - Inventories to Share Capital, OE - Operating Expenses, TA - Total Assets and FA - Fixed Assets.

H_{01}: There is no significant difference between IFRS and IGAAP on key financial ratios.

In line with the conservatism index, when the values are below +1.0 indicates that IFRS is more conservative than the IGAAP while an index value above +1.0 depicts the opposite, whereas NP, NCFO, EPS, MBV, ISC, OE, FA and TA are conservative as per the norms and the others are not. The independent sample t-test used for the statistical significance of the difference of means, reveal that the calculated t values are less than the critical p-values of 0.05, rejecting the null hypothesis except in ROE and MBV. In other words, the mean values of profitability ratios except ROE and MBV do differ significantly after IFRS adoption. However the results of Levene's F test reveal that of the calculated p is less than the critical p value at 0.05 significance level, rejecting the null hypothesis except NP, CR and MBV. Therefore there is significant difference between IFRS and IGAAP on key financial ratios except NP, CR and MBV.

Impact of IFRS on IGAAP

To study the extent to which IFRS ratios can be explained by the corresponding IGAAP ratios and to examine the degree of correlation between the two sets of ratios using Simple Linear Regression was used by adopting Ordinary Least Square (OLS) method. Financial ratios should be identical if there is no difference between IFRS and IGAAP.

For this purpose, the following null hypothesis was formulated **"There is no significant impact of IFRS on IGAAP ratios"** and tested using the following model (Table 2).

$$IFRS_{it} = \alpha + \beta IGAAP_{it} + \varepsilon \qquad ....(1)$$

Where:

$IFRS_{it}$ = IFRS ratio for company i at time t, $IGAAP_{it}$= IGAAP ratio for company i at time t, α = intercept, β = coefficient of the variable IGAAP, i = refers to 10 companies sampled, t = year end date and ε = error term.

Table 2 Regression of IFRS Ratios with IGAAP Ratios of Select Companies

RATIOS	R^2	β co-efficient	F	SIG	T	SIG
PROFITABILITY RATIOS						
GPR	0.277	0.619	3.067	0.118	1.751	0.118
NPR	0.552	0.470	9.842	0.014	3.127	0.014
ROCE	0.414	0.586	5.659	0.045	2.379	0.045
ROE	0.799	0.928	31.805	0.000	5.642	0.000
LIQUIDITY RATIOS						
CR	0.571	0.719	10.631	0.012	3.261	0.012
NCFO	0.487	0.830	7.594	0.025	2.756	0.025
RATIOS FOR CORPORATE VALUATION						
EPS	0.789	0.556	29.861	0.001	5.464	0.001
P/E	0.695	0.905	18.209	0.003	4.267	0.003
MBV	0.766	0.298	26.223	0.001	5.121	0.001
INCOME STATEMENT RATIOS						
EBITDA	0.634	0.821	13.647	0.006	3.694	0.006
CoS	0.104	0.868	0.932	0.363	0.965	0.363
BALANCE SHEET RATIOS						
RTC	0.145	0.889	0.034	0.953	0.061	0.953
ISC	0.579	0.976	11.513	0.009	3.393	0.009
ACTIVITY RATIOS						
OE	0.553	0.234	9.904	0.014	3.147	0.014
FA	0.519	-0.066	8.636	0.019	2.939	0.019
TA	0.657	-0.059	15.342	0.004	3.917	0.004

Source: Computed Data

Note: *GPR - Gross Profit Ratio, NPR - Net Profit Ratio, ROCE - Return on Capital Employed, ROE - Return on Equity, CR - Current Ratio, NCFO - Net Cash Flow from Operating Activities, EPS - Earnings Per Share, P/E - Price Earnings Ratio, MBV - Market to Book Value, EBITDA- Earnings Before Interest, Tax, Depreciation and Amortisation, CoS - Cost of Sales to Total Operating Expenses, RTC - Reserves to Total Capital, ISC - Inventories to Share Capital, OE - Operating Expenses, TA - Total Assets and FA - Fixed Assets.*

The results of the regression analysis of IGAAP and IFRS ratios for select companies indicate that except GPR (R^2 = 0.277), CoS (R^2 = 0.104) and RTC (R^2 = 0.145), all the other ratios have a strong relationship with IFRS for the above three ratios. The remaining ratios namely: FA and TA had a weak but significant correlation with R^2 ranging from -0.59% to -0.66%. These results reveal that the financial ratios under IFRS and IGAAP are strongly correlated confirming the increased volatility of financial ratios under IFRS.

7. Conclusion

Accounting Standards (AS) need to be at par with IFRS, so that the Indian corporate and the accounting professionals reap the benefits of global accounting standard, irrespective of various challenges. Adoption of converged IFRS in India will significantly change the contents of corporate financial statements as a result of more refined measurements of performance and state of affairs, and the enhanced disclosures may lead to greater transparency and comparability. The transition to the IFRS system impacts on the values of key financial ratios which influence the assessment of the financial situations of firms, albeit it could not be proved that these differences are statistically significant. The differences in the individual firms were both in positive and negative directions and in very different extent. Investors normally look into Return on Equity, Return on Capital Employed, Earnings per share, Price-Earnings ratio and Market to Book Value Ratios and these ratios have positive significant difference upon adoption of IFRS. Hence, it is a good sign from investor's perspective. Therefore, the corporate have to educate their stakeholders upon the positive and healthy financial performance revealed upon the adoption of IFRS through annual reports, newsletters, and websites of the company. In connection with these findings, the question arises whether a similar deterioration of assessment of the financial situation would be reflected in the level of default models or in other systems of indicators. because these changes will affect not only the decisions of investors, but also internal managerial decisions in every-day practices. Special attention needs to be devoted to the changes of profitability ratios, which provide comprehensive information on company performance and which are the most commonly used indicators for many purposes including assessment of internal firms' performance.

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