

Comparative Analysis of as 10, Ind as 16 and Ias 16 A Study of Selected Indian Companies Listed in Nyse

Dr. GADDAM NARESH REDDY

Assistant professor, Dep of commerce
Osmania University

MR.M.THIRMAL RAO

Assistant professor, Dep of commerce
Research Scholar,
Osmania University
thirmalrao@gmail.com

MR.T.NAVEEN KUMAR

Student(B.com.IIIrd Year Honours
Bhavans Vivekananda College

Abstract

Globalization has laid down a path for all the countries to adopt a single set of accounting standards. In the recent year's continuous adoption of IFRS worldwide has become very popular due which financial reporting has seen many changes. Around the world more than hundred nations have either converged or adopted to IFRS. IFRS are single set of high quality, understandable and enforceable global accounting standards that need high quality, transparent and comparable data in financial statements and other financial reporting to help the stakeholders around the globe to make economic decisions. India has decided to converge to IFRS as it is an upcoming economy in the world and is insisting on cross border trade. Ind AS are issued under the supervision of Accounting Standards Board (ASB). ASB declared that all the Indian companies should follow Ind-AS either voluntarily or mandatorily. Companies main concern is to understand the extent to which accounting differences between National GAAP and Ind-AS/ (Converged IFRS) could affect their financial statements as converging to IFRS is not just considered to be a change in accounting rules. The purpose of this paper is to provide evidence of the nature and quantum of the differences between Indian GAAP and IFRS as well as Ind-AS and IFRS in respect to AS 10, IAS 16 and Ind-AS 16. The findings have indicated a more relevant impact of such a transition on the carrying amounts and depreciation. The componentization and depreciation have shown a discrepancy between the standards in the accounting treatment of Property, Plant and Equipment and its impact on the Net Income. This paper produces some differences in accounting rules among the Indian GAAP, Ind-AS and IFRS in respect to Property, Plant and Equipment by making a case study of Dr. Reddy's Laboratories, Wipro and, Tata Motors and which are Indian multinational companies.

Keywords: Property, Plant, Equipment, Componentization, Depreciation

Introduction

Globalization has laid down a path for all the countries to adopt a single set of accounting standards. In the recent year's continuous adoption of IFRS worldwide has become very popular due which financial reporting has seen many changes. Around the world more than hundred nations have either converged or adopted to IFRS. IFRS are single set of high

quality, understandable and enforceable global accounting standards that need high quality, transparent and comparable data in financial statements and other financial reporting to help the stakeholders around the globe to make economic decisions. India has decided to converge to IFRS as it is an upcoming economy in the world and is insisting on cross border trade.

SCOPE OF THE STUDY

- 1) This study is purely limited to understand the impact of differences in the standards AS 10, AS 6, Ind-AS 16 and IAS 16 on financial statements.
- 2) This paper is not at all intended to study the performance of the selected companies, it restricts only to study the impact of differences in accounting standard.

SOURCE OF DATA

The data is collected from secondary sources like books, journals and the company websites of Dr. Reddy's Laboratories, Wipro and Tata Motors

OBJECTIVES OF THE STUDY

- 1) examine the key differences between, AS 10, Ind AS-16 and IAS 16
- 2) To make a study of the gross and net carrying amounts and depreciation of Property, Plant and Equipment of three Indian companies listed in the NYSE
- 3) To analyze the impact of AS 10, Ind-AS 16 and IAS 16 on the gross and net carrying amounts and depreciation

NEED FOR STUDY

The relevance of assets, specially fixed assets is massive in reporting an organization's true and fair worth. Hence, the need for studying standards like IAS 16, Ind AS 16, AS 10 and AS 6 has become inevitable to know their impact on financial statements.

Review of Literature

Sarah E.Monday (2009) in an article on "IAS 16 and the Revaluation Approach: Reporting Property, Plant and Equipment at Fair Value" observed that though the cost model was historically considered as a more accurate approach for fixed assets valuation, the revaluation model, based upon fair value, appears to be more accurately reflecting the current value of a company's assets than the historical cost. Finally after examining the financial statements of a company that applies the revaluation approach depicted how the approach is applied in practice.

Shoubhik Pal (2015) in a study "Differences Between Ind AS and IFRS: Can Full Convergence Ever Occur between Two?" concluded that the overhaul of Indian GAAP into Ind AS promises to bring about positive changes for the Indian business environment. The present draft relating to the convergence to Ind AS will start taking practical shape. When assessing all the differences between Ind AS and IFRS, it must be noted that repeated delays in the convergence process have led to lesser potentially irreconcilable differences between the two. Most of the differences between the two currently are either avoidable or textual

RSM (2017) in a study on “IND AS: APPLICATION AND SECTOR-WISE ANALYSIS” have observed that the biggest Ind AS impact area was PPE. Mainly the adjustments that affected profits and equity of companies was with regards to the first-time adoption exemption – the use of fair value deemed cost option that Ind AS 101 provides. Other extensiveeffected areas of difference also include accounting for spares and major overhauls.

1) Overview of the key differences between AS 6, AS 10, Ind AS-16 and IAS 16

Topic	Indian GAAP	IFRS	Ind-AS
PPE- Primary literature	AS 6 – Depreciation Accounting. AS 10 – Accounting for fixed assets.	IAS 16- PPE	Ind-AS 16 – PPE
PPE- scope	There is no exemption for Property under development for future use as investment property.	Property under construction or development for future use like investment property is excluded from the scope of IAS 16 and is within the scope of IAS 40, Investment Property.	Same as IFRS.
Property, Plant and Equipment- Initial recognition	Cost includes all the expenditure attributable in bringing the asset to the present location and working conditions for its intended use. PPE purchased on deferred settlement terms are not dealt with in AS 10. Cost of fixed assets include purchase price for deferred payment term except if, the interest element is specifically identified.	Similar to Indian GAAP. Difference between the purchase price under normal credit terms and the amount paid is recognized as interest expense over the period of the financing.	Same as Indian GAAP.
Property, Plant and Equipment-	Property, Plant and Equipment is carried	Property, Plant and Equipment is accounted	Same as IFRS.

Subsequent measurement	at cost less accumulated depreciation and impairment. Revaluation is permitted. No specific requirement on frequency of Revaluation. If assets are revalued an entire class of those assets or selection of assets made on a systematic basis are revalued.	using either the cost model or the revaluation model. It is mandatory for a company to take a policy choice. Property, Plant and Equipment is carried at cost less accumulated depreciation and impairment. If revaluation model is adopted, an entire class of asset is revalued.	
PPE- major spare parts	Machinery spares are usually charged to the statement of P&L for that period. However, if such parts are related to fixed assets and their use is irregular, it may be appropriate to allocate the total cost on a systematic basis over a period not exceeding the life of the asset.	Spare parts are recognized in accordance with IAS 16 when they meet the definition of PPE. Otherwise, such items are classified as inventory.	Same as IFRS.
PPE- estimated costs of dismantling, removing or restoring items of PPE	No such specific requirement.	The initial estimate of the costs of dismantling, removing and restoring of the item on the site, where it is located is required to be included in the cost of the respective item of PPE.	Same as IFRS.
PPE- replacement costs	Replacement cost of an item of PPE is capitalized only if, the expenditure that incurred increases the future benefits from the existing asset	If replacement meets the recognition criteria then the replacement cost of an item of PPE is capitalized. The carrying number of items which are replaced are	Same as IFRS.

	beyond it's previously assessed standard otherwise it is expensed.	derecognized.	
PPE- revaluation	No such specific requirement on the frequency of revaluation.	Revaluations are required to be made with enough regularity to ensure that the carrying amount does not differ materially from that which would be determined using fair value at the end of the reporting period, in case an entity adopts the revaluation model,	Same as IFRS.
PPE- depreciation	This standard does not require assets to be componentized and depreciated separately, but it states that such an approach may improve the accounting of a fixed asset.	PPE are componentized and depreciated separately. Concept of minimum statutory depreciation does not exist in IFRS.	Same as IFRS
PPE- compensation for impairment	No specific requirement. Compensation is set off against the replaced items of PPE.	Compensation from third parties for impairment or loss of items of PPE are included in P&L only, when the compensation becomes receivable.	Same as IFRS.

2) Carrying amount, accumulated depreciation and depreciation charge of Property, Plant and Equipment of few selected Indian companies listed in the NYSE

Note: Carrying amounts are excluding Capital work in progress.

Dr. Reddy's Laboratories

Table showing Comparative Gross, Net carrying amount and accumulated depreciation as per Indian GAAP and IFRS (Rs. in Millions)

Pre-Implementation

2014-15					2015-16			
	Indian GAAP	IFRS	Difference	% Difference compared to Indian GAAP	Indian GAAP	IFRS	Difference	% Difference compared to Indian GAAP
Gross Carrying amount	71,623	72,011	388	0.54	82,232	82,590	358	0.44
Accumulated Depreciation	29,786	30,040	254	0.85	35,936	36,179	243	0.68
Net carrying amount	41,837	41,971	134	0.32	46,296	46,411	115	0.25

Post Implementation

2017-18					2018-19			
	Ind AS	IFRS	Difference	% Difference compared to Indian GAAP	Ind AS	IFRS	Difference	% Difference compared to Indian GAAP
Gross Carrying amount	99,286	1,00,186	900	0.91	1,04,208	1,04,730	450	0.43
Accumulated Depreciation	49,553	50,245	692	1.40	55,081	55,560	479	0.87
Net carrying amount	49,733	49,941	208	0.42	49,127	49,170	43	0.09

Table showing the Depreciation charge, Net profit before & after charging Depreciation as per, Indian GAAP and IFRS for the years ended 2014-15 and 2015-16 (Rs. in Millions)

Pre-Implementation

2014-15					2015-16			
	Indian GAAP	IFRS	Difference	% Difference compared to Indian GAAP	Indian GAAP	IFRS	Difference	% Difference compared to Indian GAAP
Depreciation charged in the Income	5,685	5,720	35	0.62	6,770	6,780	10	0.15

statement								
Net Profit before charging Depreciation	29,049	27,899	1,150		28,284	26,793	1,491	
Net Profit after Depreciation	23,364	22,179	1,185		21,514	20,013	1,501	

Post Implementation

	2017-18				2018-19			
	Ind-As	IFRS	Difference	% Difference compared to Indian GAAP	Ind-As	IFRS	Difference	% Difference compared to Indian GAAP
Depreciation charged in the Income statement	8,250	8,285	35	0.42	8,312	8,362	50	0.60
Net Profit before charging Depreciation	17,718	18,091	373		27,812	27,157	655	
Net Profit after Depreciation	9,468	9,806	338		19,500	18,795	705	

Source: <https://www.drreddys.com/investors/reports-and-filings/annual-reports/>

Wipro Limited

Table showing Comparative Gross, Net carrying amount and accumulated depreciation as per Indian GAAP and IFRS as on 2014-15 & 2015-16(Rs. in Millions)**Pre-Implementation**

	2014-15				2015-16			
	Indian GAAP	IFRS	Difference	% Difference compared to Indian GAAP	Indian GAAP	IFRS	Difference	% Difference compared to Indian GAAP
Gross Carrying amount	1,23,669	1,21,322	2,347	1.90	1,44,411	1,44,068	343	0.24
Accumulated Depreciation	73,976	72,587	1,389	1.88	86,339	85,327	1,012	1.17
Net carrying amount	49,693	48,735	958	1.93	58,072	58,741	669	1.15

Post Implementation

	2017-18				2018-19			
	Ind AS	IFRS	Difference	% Difference compared to Indian GAAP	Ind AS	IFRS	Difference	% Difference compared to Indian GAAP
Gross Carrying amount	1,32,542	1,32,915	373	0.28	1,40,633	1,41,006	373	0.27
Accumulated Depreciation	83,434	83,638	204	0.24	92,968	93,178	210	0.23
Net carrying amount	49,108	48,763	345	0.70	47,665	47,828	163	0.34

Table showing the Depreciation charge, Net profit before & after charging Depreciation as per Indian GAAP and IFRS for the years ended 2014-15 and 2015-16 (Rs. in Millions)

Pre - Implementation

	2014-15				2015-16			
	Indian GAAP	IFRS	Difference	% Difference compared to Indian GAAP	Indian GAAP	IFRS	Difference	% Difference compared to Indian GAAP
Depreciation charged in the Income statement	11,491	11,417	74	0.64	13,375	13,355	20	0.15
Net Profit before charging Depreciation	98,100	98,476	376		1,02,972	1,02,769	203	
Net Profit after Depreciation	86,609	87,059	450		89,597	89,414	183	

Post Implementation

	2017-18				2018-19			
	Ind-As	IFRS	Difference	% Difference compared to Indian	Ind-AS	IFRS	Difference	% Difference compared to Indian

				GAAP				GAAP
Depreciation charged in the Income statement	16,862	16,869	7	0.04	14,993	14,999	6	0.04
Net Profit before charging Depreciation	96,893	96,953	60		1,05,172	1,05,172	--	
Net Profit after Depreciation	80,031	80,084	53		90,179	90,173	6	

Source: <http://www.annualreports.com/Company/wipro-limited>

Tata motors Limited

Table showing Comparative Gross, Net carrying amount and accumulated depreciation as per Indian GAAP and IFRS as on 2014-15 & 2015-16(Rs. in Millions)**Pre-Implementation**

	2014-15				2015-16			
	Indian GAAP	IFRS	Difference	% Difference compared to Indian GAAP	Indian GAAP	IFRS	Difference	% Difference compared to Indian GAAP
Gross Carrying amount	10,82,937.2	8,01,084.6	2,81,852.6	26.03	12,66,810.8	9,80,682.8	2,86,128	22.59
Accumulated Depreciation	5,59,675.1	3,04,871.9	2,54,803.2	45.53	6,35,737.4	3,80,740.3	2,54,997.1	40.11
Net carrying amount	5,23,262.1	4,96,212.7	27,049.4	5.17	6,31,073.4	5,99,942.5	31,130.9	4.93

Post Implementation

	2017-18				2018-19			
	Ind AS	IFRS	Difference	% Difference compared to Indian GAAP	Ind AS	IFRS	Difference	% Difference compared to Indian GAAP
Gross Carrying amount	12,84,764.6	12,31,438.2	53,326.4	4.15	14,46,710.3	13,92,449.9	54,260.4	3.75
Accumulated Depreciation	5,46,086.2	5,44,885.8	1200.4	0.22	7,20,511.7	7,18,142.9	2368.8	0.33

Net carrying amount	7,38,678.4	6,86,552.4	52,126	7.06	7,26,198.6	6,74,307	51,891.6	7.15
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Table showing the Depreciation charge, Net profit before & after charging Depreciation as per Indian GAAP and IFRS for the years ended 2014-15 and 2015-16 (Rs. in Millions)

Pre-Implementation

	2014-15				2015-16			
	Indian GAAP	IFRS	Difference	% Difference compared to Indian GAAP	Indian GAAP	IFRS	Difference	% Difference compared to Indian GAAP
Depreciation charged in the Income statement	64,981.3	65,398.1	416.8	0.64	82,205.1	79,642.5	2562.6	3.12
Net Profit before charging Depreciation	2,04,844.2	1,94,480.5	10,363.7		1,92,442.6	1,76,514.7	15,927.9	
Net Profit after Depreciation	1,39,862.9	1,29,082.4	10,780.5		1,10,237.5	96,872.2	13,365.3	

Post Implementation

	2017-18				2018-19			
	Ind-As	IFRS	Difference	% Difference compared to Indian GAAP	Ind-AS	IFRS	Difference	% Difference compared to Indian GAAP
Depreciation charged in the Income statement	1,08,743.4	1,07,620.9	1,122.5	1.03	1,22,004.2	1,20,827.5	1,176.7	0.96
Net Profit before charging Depreciation	1,99,657	1,73,682.8	25,974.2		(1,65,237.8)	(1,71,300.6)	6,062.8	

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Net Profit after Depreciation	90,913.6	66,061.9	24,851.7		(2,87,242)	(2,92,128.1)	4886.1	

<https://www.tatamotors.com/investors/annual-reports/>

3. Analysis of the impact of AS 10, Ind-AS 16 and IAS 16 on the carrying amounts and depreciation

In the present study we have selected 3 Indian companies listed in NYSE, Dr. Reddy's Laboratories, Wipro Limited and Tata motors for the years 2014-15, 15-16, 17-18 and 19-20, who are supposed to present their Financial statements both as per Indian Gaap and IFRS. After observing the Property, plant and equipment and depreciation data, we have noticed that there were differences in the financial figures for the same years because of the differences in the standard.

FINDINGS:

Dr. Reddy's Laboratories

- Before Implementation of Ind AS for the years 2014-15 and 2015-16 the difference in Gross carrying amount was Rs. 388 and Rs. 358 Million, which looks to be reasonably significant, though the percentage difference of 0.54 and 0.44 looks to be nominal because the calculated base amount being huge. However, post implementation the differences in Gross carrying amount has shown a significant difference of Rs. 900 million in the year 17-18, there is a reasonable difference of Rs. 450 million in the year 18-19.
- Accumulated Depreciation has shown a difference Rs. 254 and Rs. 243 million pre implementation, however the difference has increased to Rs. 692 and Rs. 479 million post implementation.
- The Depreciation charge for the pre and post implementation periods has not shown much difference except for a difference of Rs. 50 million in the year 18-19.

Wipro Limited

- Pre implementation of Ind AS 16, there was a significant difference of Rs. 2,347 million in the Gross carrying amount for the year 14-15. However, post implementation the difference of the same has fallen down to Rs. 373 million for the year's 17-18 and 18-19. The percentage difference has fallen down from 1.90 in the year 14-15 to 0.27 in the year 18-19.
- Pre-Implementation the Accumulated Depreciation was showing a difference of Rs. 1,389 and Rs. 1,012 million in the year 14-15 and 15-16 respectively, the percentage difference being 1.88 and 1.17. Post implementation the same has reduced to Rs. 204 and Rs. 210 million, the percentage being 0.24 and 0.23 respectively.

➤ The difference in depreciation charge for the year's 14-15 and 15-16 was Rs. 74 and Rs. 20 million respectively. However, post implementation the same has reduced significantly to Rs. 7 and Rs. 6 million.

Tata Motors Limited

➤ Pre implementation the Gross carrying amount for the years 14-15 and 15-16 has shown a huge difference of Rs. 2,81,852.6 and 2,86,128 respectively, the percentage difference being 26.03 and 22.59. Post implementation the difference of the same has reduced drastically to Rs. 53,264.4 and Rs. 54,260.4 million, the percentage difference reducing to 4.15 and 3.75 respectively.

➤ Accumulated depreciation showed a very significant difference of Rs. 2,54,803.2 and 2,54,997.1 million in the year's 14-15 and 15-16. The percentage difference being 45.53 and 40.11 respectively, however post implementation there was a huge decrease to Rs. 1200.4 and Rs. 2,368.8 and the percentage difference narrowing down to 0.22 and 0.33 respectively.

➤ The difference in depreciation charge for the year 14-15 was Rs. 416.8 and in the year 15-16 it increased to Rs. 2,562.6 and in post implementation it has reduced to Rs. 1,122.5 and 1,176.7 million.

HYPOTHESIS TEST

A paired T- test was applied for the difference of Gross carrying amounts and the difference of Depreciation charged for the above said year's Pre and Post implementation

H₀: There is no significant difference between Gross carrying amount for the pre and post implementation period.

H₁: There is significant difference between Gross carrying amount for the pre and post implementation period.

H₀: There is no significant difference between Depreciation charge for the pre and post implementation period.

H₁: There is significant difference between Depreciation charge for the pre and post implementation period.

Company	Difference in Gross carrying amount
Dr. Reddy's Laboratories	P- Value = 0.39
Wipro Limited	P- Value = 0.50
Tata Motors Limited	P- Value = 0.004

Company	Difference in Depreciation charge
Dr. Reddy's Laboratories	P- Value = 0.50
Wipro Limited	P- Value = 0.39
Tata Motors Limited	P- Value = 0.799

Since P- Value is > 0.05, we accept the null hypothesis in all the above cases, which means there is no significant difference except for Gross carrying amount of Tata Motors Ltd. which shows a P- Value of 0.004, which is < 0.05, therefore we reject null hypothesis. Therefore there is a significant difference in Gross carrying amount of Tata motors Limited. However,

there is difference in absolute figures of Gross carrying amount and Accumulated depreciation and depreciation of all the companies though not significant.

CONCLUSION

It is clearly evident from the above study that IFRS follows Cost or revaluation model for subsequent recognition of PPE whereas Indian Gaap follows Fixed asset at cost less accumulated depreciation, however it permits revaluation. IFRS gives the fair value deemed cost option. IFRS insists on componentization of parts having a significant value of PPE, Indian Gaap does not require Fixed assets to be componentized. Other major areas of impact include differences in major overhauls, spares and impairment. The study highlights that except Dr. Reddy's Laboratories, the other two companies' difference in Gross carrying amount, Accumulated Depreciation and Depreciation charge has narrowed down post implementation. This is mainly because of the differences existing in AS 10 and IAS 16 pre implementation and the difference between Ind AS 16 and IAS 16 post implementation have reduced, which is clearly evident by observing the decrease of amounts in the post implementation period. Post implementation of Ind AS16 the financial position and profitability of the said companies would have changed from the above said perspective, therefore this paper disseminates to all the stakeholders that the above said change is only because of the differences in accounting standard having reduced post implementation of Ind AS 16.

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