Impact of Ind-AS on IPO Underpricing in India

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Abstract

The present study analyses the collaborative endeavours associated with the evolving modifications in the procedures and regulations governing initial public offering (IPO) processes in India. Partly spurred by the mandated adoption of the Ind-AS (Indian Accounting Standards), which are aligned with International Financial Reporting Standards (IFRS), the study employs a student's t-test along with multivariate regression on 126 firms listed in India between April 2013 to March 2020 on both BSE and NSE to examine the impact of changes in accounting standards on IPO under-pricing in India. The study finds substantial evidence that transitioning from AS (erstwhile accounting standards based on Generally Accepted Accounting Principles-GAAP) to Ind-AS improved market efficiency and reduced under-pricing. The adoption of Ind-AS also demonstrates a significant impact on the investing community's investing perception. Further, the study finds that the mean under-pricing was not affected for firms supported by venture capital and group affiliation. The study concludes that regulatory bodies should prioritise enhancing transparency in offer documents to mitigate information asymmetry. This study is a pioneering effort in examining the Indian stock market, serving as foundational research that may be used in future investigations.

1. Introduction

Underpricing of Initial Public Offerings (IPO), a widely discussed topic in literature, is the excess initial return over market return that a stock provides from issue closing day to issue listing day[1,2]. Securities and Exchange Board of India (SEBI) has mandated[a], that the financial statement information in the offer document must be as per the Ind-AS(Indian Accounting Standards) for all the IPOs with effect from April 1, 2017. The Ind-AS, the new principle-based standards which harmonise International Financial Reporting Standards (IFRS) are different from the earlier rule-based standards. These standards were introduced in India, a bit late in a phased manner[b] to bring about more transparency, comparability, and enhanced information quality with a focus on consolWWidation of financial statements globally.

The present study investigates the effect of the change in accounting standards on the short-term performance of IPOs. The study is partly motivated by the mandated adoption of Ind-AS (IFRS-based standards) by IPO firms, and also by the expectation that the adoption of Ind-AS will reduce asymmetry of information among the investors owing to additional disclosures entailed by the

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new standards[3,4]. Also, IPO valuation is contemplated to be realistic with the application of Ind-AS[5,6] leading to a decrease in listing day gains and their better long-run performance.

Advocates of IFRS contend that "IFRS will improve cross border comparability and reporting transparency, allowing stakeholders around the world to understand a company's financial performance"[7]. The adoption of IFRS would dent information asymmetry, leading to well-informed valuations and lowering the risk of negative selection for uninformed or lesser informed investors. Thus, much of the empirical research in recent years has centred on the process of switching from indigenous accounting standards to IFRS, as well as the impact of switching to IFRS, on the consistency and fairness of the financial statements[8-10].

For decades, empirical and comprehensive analytical work established information asymmetry among the IPO participants as a major factor of underpricing[11]. Extant evidence supports this claim about the decline in information asymmetry leading to a decline in underpricing with the adoption of IFRS-based standards[5,12,13]. However, there are some caveats when it comes to interpreting the findings of such studies. To begin with, the majority of these studies have been limited to companies that were already traded. With the risk of extreme earnings manipulation and lack of historical data in case of private companies going for the IPO route, the impact of mandatory adoption of IFRS-based accounting standards, on the IPO market may be different. Secondly, previous research has focused mainly on economically advanced nations such as European Union nations and the United States, likely because major emerging economies such as India were late in implementing or converging with the IFRS.

This article explores the impact of the mandated adoption of Ind-AS (based on IFRS) on newly listed firms in India. This is a pioneer study in the Indian context as no prior studies have been conducted so far on the issue. Although various reports and papers have highlighted the impact of Ind-AS in India, this is the first research to examine the influence of Ind-AS on raw returns and surplus returns (adjusted with market returns) on the first day of listing of Indian IPO firms. The IPO is a significant milestone in the life of any company as it requires investment from the general public to finance potential and prospective expansion plans. Breaking the private circle, the organisation goes public and seeks to show itself to investors in the best possible light. The intricacies of IPOs by which public pockets are accessed and also the special settings marked by information asymmetry make IPO pricing the most contentious concern which has stimulated researchers' interest. This study presents and empirically tests the influence of the adoption of Ind-AS on the short-run performance of IPOs. There has been no study that empirically determines the effect of a mandated switch to Ind-AS on the extensive underpricing phenomenon prevalent in the Indian equity market[14,15]. The subsequent sections of the paper are organised as follows: Section 2 provides a comprehensive overview of the existing literature and formulates the hypotheses; Section 3 elucidates the data, sample, and methodology employed in this study. Section 4 presents the analytical findings, while Section 5 concludes the study with final observations.

2. Literature Review

Numerous researchers throughout the world have studied IPO underpricing and numerous ideas and theories have been put forth to explain the reasons.

Amongst the varied explanations of underpricing, the *information asymmetry* theory given by [11] is widely popular and attributes IPO underpricing to the difference in information content between the informed and the ill-informed investors with the ill-informed investors left marginalised at a disadvantageous position[16]. Investors, underwriters and companies are unaware of the firm's economic worth and therefore underpricing, encourages the informed investors to incur costs and be informed[17].

The *signalling theory* contends that the company with the best economic prospects have a low offer price to signal its quality for potential issues. Firms with the best prospects signal their quality by underpricing their initial stock offers, so investors realise that only the best firms would be able to bear the expense of the signal with subsequent placements[18]. Investors in an informational cascade determine or judge the interests of the other investors and bid for a share only if they foresee other bidders[19]. Pricing perceived as too high will result in low subscriptions, which in turn will be followed by even lower subscriptions. As a result of such cascades, public issues may completely collapse. To avoid such situations, issuers underprice to maintain interest in the issue and prevent negative sentiment cascading.

Advocates of mandatory IFRS adoption, in line with the Financial Accounting Standards Board, (FASB) and

International Accounting Standards Board (IASB) argue that it improves the comparability of financial statements across nations when credibly implemented. The quality of financial reporting varies by country, and managers use some discretion when it comes to enforcing the new standards. While the majority of literature endorses an upsurge in financial statement comparability after the introduction of IFRS[3,4,20], variations in accounting quality amongst countries persist owing to companies' broader organisational atmosphere which includes the judicial and political landscape of the nation where the firm resides[21]. Daske[22] noticed an increase in transparency and better disclosures since the adoption of IFRS whereas Pelucio-Grecco et al.,[23] reported a constraining influence of IFRS convergence on earnings management in Brazil. While the present literature on the subject associates IFRS adoption with better accounting quality, the results are mixed which can be attributed to the lax enforcement leading to low compliance with standards[7] and flexibility in these principle-based standards used by managers for manipulating earnings[8].

With the implementation of Ind-AS (IFRS-based accounting standards) on the disclosure of financial information in the prospectus, there should have been an impact on the underpricing and long-run performance of these IPO firms. The impact of the switch to IFRS and adoption of PD (prospectus directive) regulations on underpricing in Europe was investigated by Byard et al.[4] and it reported no link between IFRS adoption to underpricing for firms listed on EU-regulated markets. However, since the PD required improved and harmonised disclosures in the prospectus, there was a substantial reduction in underpricing in countries where accounting compliance and enforcement had also increased. Jamaani and Alidarous[24] reported that mandating the adoption of IFRS impacts the information asymmetry of IPO firms and thus reduces the levels of underpricing. Tsai and Huang[13] suggested that the adoption of convergent-IFRS in China had mitigated the phenomenon of underpricing which was not moderated by the proportion of ownership by State Owned Enterprises (SOE). Underpricing, the dependent variable in the study was found to be significantly associated with IFRS with a negative coefficient and SOE ownership with a positive sign. Similarly, the study of Otero and Enriques[25] reported a significant reduction in underpricing levels due to IFRS implementation in Spain. The study maintained that the introduction of IFRS-based standards induced major

shifts in the valuation of companies represented by improvement in the market-to-book value ratio of equity shares exchanged initially post-IFRS adoption. Dorsman[26] also suggested lower levels of listing day gains and marginally better long-run performance of Dutch IPOs post-IFRS implementation with underwriters' reputation and market sentiment as the significant factors. Hong et al.,[5] also suggested a reduced level of underpricing and increased inflow of foreign capital post-IFRS adoption by comparing underpricing of public issues and IPO proceeds of 2003-04 (before the adoption of IFRS) with 2006-07 (after the adoption of IFRS) and documented reduced underpricing levels for both national as well as worldwide IPOs.

On the contrary, Lee et al.,[6] suggested the worsening of the underpricing of IPOs in Korea with the mandated implementation of K-IFRS. They contended that the new standards were ineffective in reducing information asymmetry in the equity issuance process contrary to the expectation of less information asymmetry on account of additional disclosure requirements of the principle-based standards. Maglio et al.,[27] also concluded that implementation of IFRS did not result in lower levels of underpricing in Italy and the only element that contributed to this occurrence was the trajectory of the financial market.

With these studies, it is evident that the adoption of IFRS might have an impact on the short-term performance of IPOs, and it depends on the enforcement and the economic environment of the countries implementing these standards.

3. Research Gap

It is evident from the review of existing studies that there is a dearth of studies in the Indian IPO market focusing on the effect of underpricing of IPOs from mandated adoption of Ind-AS in the disclosure of financial information in the prospectus. Moreover, there has been no study in India which links various preadoption information asymmetry variables to underpricing along with the adoption of Ind-AS. The current study aims to bridge this gap.

3.1 Hypothesis Development

Prior studies related to the implications of IFRS suggested that business financial statements would be more transparent and comparable. When compared to

previous accounting standards, the adoption of IFRS with its extensive use of footnote disclosures and enhanced breadth of fair value measurement is likely to reflect near real value[8]. The extant research consistent with the information asymmetry theory reported lower IPO underpricing with the adoption of IFRS. Taking forward this argument, the adoption of Ind-AS would result in a reduction of information asymmetry resulting in a reduction in underpricing[5,26]. With this, the following is the hypothesis of the present study:

Hypothesis 1 - Compared to the level of IPO underpricing with old Accounting Standards in the Indian Equity Market, there will be reduced underpricing of IPO with Ind-AS.

Armstrong *et al.,*[28] found that firms with high levels of preadoption information asymmetry show a stronger reaction to the event associated with IFRS adoption in Europe. These results were also supported in the study on data from newly listed firms in Korea by Lee[6]. Based on these findings, we expect, the effects of Ind-As adoption will vary by firm due to preadoption information asymmetry. The second hypothesis of the study flows from that:

Hypothesis 2 - Mandatory Ind-AS adoption would have a greater impact on companies with higher preadoption information asymmetry.

With the monitoring that the Venture Capitalists (VC) provide to the boards of the companies in which they invest, these companies exhibit lower levels of underpricing[6]. We presume that companies with VC investors have reduced information asymmetry and therefore mandatory Ind-AS adoption would have a greater effect on non-VC-backed firms.

4. Data and Research Methodology

4.1 Data

131 non-financial firms were newly listed on the NSE and BSE of the Indian stock market between 1st April 2013 and 31st March 2020. This excludes companies that used any other mode of raising funds other than equity. After removing the outliers, the sample comprises of 126 firms. The prime database was used to gather data regarding offer price, opening and closing dates of issues, issue expenses, promoter holding, offer size, underwriters with their market shares, listing date, overall subscription and subscription rate for institutional investors, financial data of IPO firms, stock returns, venture capital backing, and the date of incorporation of IPO firms. The data on adoption of Ind-AS was collected through the prospectus of the respective firms which were extracted from the website of SEBI. The group affiliation data was collected from the Prowess database.

4.2 Methodology

The study aims to investigate the impact of mandated Ind-AS adoption on levels of underpricing of IPO in India. Initial Raw Return (IR) and Market Adjusted Excess Return (MAER), were used as gauges for the degree of underpricing[29].

$$IR = (Pl_i - Po_i)/ Po_i \qquad (1)$$

where, Pl_i = closing price of stock of firm i on the first day of listing

Po_i = IPO offer price of firm i

The study calculated 1-day, 7th-day and 30th-day market adjusted excess return (MAER) as alternate indicators for the degree of underpricing:

$$MAER_{iT} = \sum_{t=1}^{T} AR_{it} \qquad (2)$$

where, AR_{it} is the excess of stock return over market return (return on Nifty) during that contemporaneous period. Nifty 50 index values were sourced from the NSE website. MAER for 1-day, 7-days and 30-days have been used to measure the performance of IPO stocks in the short term.

4.3 Univariate Analyses

To validate our hypotheses, we segregated the final sample in two, based on whether the financial information in the prospectus was compliant with Ind-AS or otherwise. The study then used the Student t test for means and Levene's test for equal variances to determine if IRs and MAERs changed significantly after mandated Ind-AS adoption.

4.4 Multivariate Analyses

Multivariate regression was undertaken to determine the impact of the adoption of Ind-AS (independent variable) on IPO underpricing (dependent variable) along with the various control variables:

UNDERPRICING$_i$ = β_0 + β_1Issue price$_i$ + β_2Type of Sale$_i$ + β_3Ind-AS$_i$ + β_4 VC backing$_i$ + β_5 Size of Issue$_i$ + β_6 Institutional Subscription$_i$ + β_7 Overall Subscription$_i$ + β_8

Promoter Holding$_i$ + β$_9$ Issue Expenses$_i$ + β$_{10}$ RNOW + β$_{11}$ Log Age + β$_{12}$ Group Affiliation$_i$ + β$_{13}$ Delay in Listing$_i$ + β$_{14}$ Market$_i$ + β$_{15}$Hot$_i$ + β$_{16}$ Lead Manager's Reputation + β$_{17}$ Log Total Assets + ε$_i$ (3)

The study's focus variable is Ind-AS, a dummy variable which acquires a value of 1, if the issuing firm's prospectus is Ind-AS compliant and 0 in all other cases. In addition, control variables connected to the levels of underpricing were also included in the model. Issue price, size and expenses, market sentiment (Hot or Cold), sale kind, VC backing, overall subscription level as well as institutional subscription level, promoter holding, issue expenses, return on shareholders fund, market (Nifty return before listing days), group company or stand-alone, Log Age, Log Total Assets, Listing delay, and Lead manager's reputation are the control variables employed in the study. Table 1 outlines the variables.

The study used various characteristics of the firm regarding IPO underpricing. Smaller-size IPOs confront greater information asymmetry than larger-sized IPOs and typically have higher initial returns[30]. Therefore, issue size is predicted to be adversely associated with underpricing. Lee et al.,[31] suggested a significant p ositive relation between oversubscription and the first-day return on IPO in Singapore's market and this study also used the Total Subscription Ratio to capture the possible effect of oversubscription on underpricing and projects a positive sign. The age of the IPO firm is often utilised as an indicator for *ex-ante* valuation uncertainty[33] as older IPO companies exhibit lower underpricing since more information is accessible for assessment requiring lesser remuneration for investors. Listing delay serves as a gauge measuring the degree of informed demand[34]. Total assets (firm size) are supposed to have a positive association with the underpricing levels[17,30]. Several variables have been log transformed to lower variability and prepare the sample suitable for further analysis. Return on net worth is expected to be negatively associated with underpricing[6].

Ownership concentration impairs disclosures resulting in higher levels of underpricing[35]. Good indicators for market sentiment are HOT[6] and institutional

Table 1. Outline of Variables

Variables	Outline
Predicted Variable Underpricing	Initial return: (Difference of first-day closing price and offer price)/offer price MAER: excess initial return over market returns (determined by Nifty 50) during the contemporaneous period.
Predictor Variable Ind-AS	1 if the financial information in the prospectus is as per Ind-AS else 0
Control Variable (pertaining to Issue) Overall (total) Subscription	The number of times of the subscription: sign of over/under subscription
Size of Issue	Funds received from the issuance of new shares
Delay in Listing	Days from issue closure and its listing
Type of Sale	1 for fresh cum offer for sale and 0 for only fresh capital
Issue price	Price of shares issued in IPO
IPO age	Number of years from incorporation to IPO (log transformed)
Return on Net Worth (RNOW)	Return on shareholders fund of the company (for fiscal year that preceded the IPO)
Total Assets	Recorded value of all assets as on the last day of the fiscal year preceding the issue (log transformed)
Promoter Ownership	Shares held by promoter group at the time of IPO issuance (as percent)
VC backed	1 if the issue is backed by VC, 0 otherwise
Group Affiliation	If the IPO company is part of a group,1; if not 0
Market Sentiment HOT	1 if there are positive first listing day returns of IPOs, in 30 calendar days immediately preceding the issue listing date otherwise COLD (0)
Institutional Subscription	Subscription in institutional category (in times)
Market	Market return (Nifty 50) occurring between 150 to 30 calendar days before the listing day

Source: Author's compilation

subscription and are expected to have positive sign[36]. The study includes MARKET which is supposed to have a negative relation with underpricing.

Underwriter reputation is negatively associated with underpricing as low-risk firms select underwriters with high reputations to indicate their lower-risk characteristic to the market. Underwriter reputation is the percentage of the amount underwritten to the total amount underwritten during the sample period- April 2013 to March 2020. Sehgal, Sinha[37] and Carter, Manaster[38] put forth the argument that most of the reputed underwriters are associated with safer bids and are projected to yield lower initial returns.

5. Results and Analyses

5.1 Descriptive Statistics

Table 2, Panel A represents the IPOs, year-wise and the adopted accounting standards. It shows an increase in new listings over the sample period, particularly in 2017-18, which is the first year of mandated Ind-AS adoption. The number of IPOs by accounting standards for various subsamples (i.e., venture capital selling, and group affiliation) is presented in Panel B.

Table 3 provides the descriptive statistics of the sample.

As previously stated Panel B provides the descriptive statistics by accounting standards for various subsamples.

The capital market enthusiastically embraced the implementation of Ind-AS, as seen by the increase in

average funds raised by Indian firms- Rs.16768 million during the Ind-AS period and Rs.7802 million during the AS (old Indian GAAP) period. The average age of firms coming with IPO was 20 years during AS era and 26 years during the Ind-AS period suggesting that Ind-AS attracted more firms with a lengthy history of operations. The average listing day raw return was 12.69 percent during the old AS era and 10.25 percent during the Ind-AS period. This early first indication that underpricing is declining with the application of new standards also supports the study's primary hypothesis.

Table 3 shows high variability in the listing day raw returns with a minimum being -21.58 percent and a maximum of 67.55 percent. The market-adjusted excess return also depicts similar variability. The average issue size of a firm was Rs. 12710 million with a range of Rs.112570 million to Rs. 230 million. The lowest issue price during the sample period was Rs. 19 and the highest was Rs. 1766. Subscription ratio likewise varies significantly ranging from a low of 0.32 to a high of 248.

The average raw returns and MAER in Table 3A demonstrate a substantially high level of underpricing in the Indian equity IPO market with average an IR of 11.35 percent, and an average MAER[1] of 11.67 percent. Panel B exhibits average listing day returns of 10.25 percent for firms adopting Ind-AS which is lower than the average listing day returns for firms reporting in old AS (i.e., 12.69 percent). The results for $MAER_1$ also show similar qualitative differences with 10.53 percent for firms adopting Ind-AS and 13.05 percent for firms

Table 2. Sample Statistic

Panel A: Year-wise Summary of IPOs in India with Adopted Accounting Standards								
	Year of Listing							
Adopted Accounting standard	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	Total
AS (erstwhile Indian GAAP)	2	8	24	25	-	-	-	59
Ind-AS		0	0	0	45	13	14	72
Total	2	8	24	25	45	13	14	131

Panel B: Number of IPOs with Adopted Accounting Standards and Substitutes for Information Asymmetry					
	Group Affiliation		Backed with Venture Capital		Total
Accounting standard	Yes	No	Yes	No	-
AS (erstwhile Indian GAAP)	15	44	29	30	59
Ind-AS	28	44	23	49	72
Total	43	88	52	79	131

Source: Author's calculation

Table 3. Descriptive Statistics

Panel A – Total Firms

Variables	N	Minimum	Maximum	Mean	Std. Deviation
Listing Day Raw Returns (IR)	126	-21.5800	67.5500	11.3517	20.7361
$MAER_1$	126	-23.30	65.65	11.67	20.19
$MAER_7$	126	-99.72	35.92	00.60	12.55
$MAER_{30}$	126	-100.79	61.02	-1.22	17.14
Issue Price	126	19.0000	1766.0000	451.8571	340.7807
Type of Sale	126	0.0000	2.0000	1.1746	0.9128
Ind-AS Compliant	126	0.0000	1.0000	0.5476	0.4997
VC Backed	126	0.0000	1.0000	0.4127	0.4943
Issue Size (Rs. in lacs)	126	2300.4500	1125683.1000	127118.5279	199253.5877
Institutional Subscription Rate	126	0.5000	192.9600	28.3645	39.5155
Overall Subscription Rate	126	0.3200	248.5100	28.3629	43.4135
Promoter Holding	126	0.0000	100.0000	76.8410	23.7838
Issue Expenses	126	0.4800	14.5800	5.3663	2.0811
RNOW	126	-178.6500	868.8500	23.3789	81.5570
Log Age	126	0.6931	4.9558	2.8702	0.7425
Group affiliation	126	0.0000	1.0000	0.3254	0.4704
Listing delay	126	7.0000	20.0000	10.7857	2.7118
MARKET	126	-13.3744	19.9095	4.0702	6.3592
HOT/COLD	126	0.0000	1.0000	0.5952	0.4928
Lead Manger's Reputation	126	0.0100	62.6100	18.0723	11.9359
Log Total Assets	126	4.5388	11.5595	7.3141	1.5895
Log PAT	126	0.0000	11.5595	7.2534	1.6849

Panel B

Descriptive Statistics- Sub Samples Related to VC Backing								
	AS				Ind-AS			
Variables	VC Backed (N=28)		Non-VC Backed (N=29)		VC Backed (N=24)		Non-VC Backed (N=45)	
	Mean	S.D	Mean	S.D	Mean	S.D	Mean	S.D
Listing Day Raw Returns	10.92	20.66	14.39	20.88	12.89	21.10	8.84	20.87
$MAER_1$	0.11	0.21	0.15	0.20	0.13	0.20	0.09	0.21
$MAER_7$	0.01	0.08	0.01	0.08	0.00	0.07	-0.03	0.18
$MAER_{30}$	0.02	0.14	-0.01	0.11	-0.03	0.10	-0.03	0.24
Issue Price	359.61	244.11	374.66	262.95	716.00	385.16	418.13	351.06
Type of Sale	1.50	0.88	0.93	0.75	1.42	0.93	1.00	0.95
Issue Size	61129.34	44580.08	94320.46	122186.10	161740.64	225906.17	170849.87	263255.01
Institutional Subscription	21.79	26.05	21.11	21.85	40.28	48.15	30.78	48.56
Overall Subscription	24.18	29.92	23.80	31.29	30.08	37.93	32.99	58.15
Promoter Holding	59.26	26.76	83.89	16.72	68.82	21.06	87.51	19.42
Issue Expenses	6.12	1.50	5.89	1.99	5.09	1.58	4.71	2.47

Variables	AS				Ind-AS			
	VC Backed (N=28)		Non-VC Backed (N=29)		VC Backed (N=24)		Non-VC Backed (N=45)	
	Mean	S.D	Mean	S.D	Mean	S.D	Mean	S.D
RNOW	6.76	37.68	26.41	42.30	51.13	174.44	16.96	18.35
Log Age	2.88	0.71	2.61	0.62	2.90	0.58	3.02	0.88
Listing Delay	12.07	3.05	12.07	3.46	9.63	1.66	9.78	1.48
MARKET	1.15	7.90	4.44	7.92	6.02	3.24	4.61	4.82
HOT/COLD	0.64	0.49	0.48	0.51	0.71	0.46	0.58	0.50
Lead Managers Reputation	17.91	11.04	17.48	9.50	21.00	10.19	16.99	14.56
Log Total Assets	6.75	1.16	7.15	1.50	7.32	1.44	7.77	1.84
Log PAT	6.75	1.16	7.15	1.50	7.32	1.44	7.60	2.10

Descriptive Statistics- Sub Samples Related to Group Affiliation

Variables	AS				Ind-AS			
	Stand Alone (N= 42)		Group Co. (N=15)		Stand Alone (N=43)		Group Co. (N=26)	
	Mean	S.D	Mean	S.D	Mean	S.D	Mean	S.D
Listing Day Raw Returns	13.86	21.94	9.41	16.79	11.85	21.96	7.59	19.09
$MAER_1$	0.14	0.22	9.04	0.15	0.12	0.21	0.09	0.18
$MAER_7$	0.01	0.09	0.00	0.06	0.00	0.10	-0.05	0.21
$MAER_{30}$	0.03	0.13	-0.05	0.09	-0.01	0.15	-0.06	0.26
Issue Price	341.95	241.47	438.13	274.56	520.72	388.22	523.42	394.63
Type of Sale	1.31	0.81	0.93	0.96	1.40	0.88	0.73	0.96
Issue Size	58450.83	50124.30	132798.68	151956.91	84842.70	77494.27	304683.98	357160.92
Institutional Subscription	19.78	22.80	26.09	26.64	30.33	41.41	40.29	58.26
Overall Subscription	24.66	32.67	22.09	23.55	31.28	53.62	33.13	49.48
Promoter Holding	72.81	21.94	68.96	33.70	75.05	23.37	90.87	14.50
Issue Expenses	6.30	1.56	5.16	2.06	5.66	1.83	3.50	2.11
RNOW	15.04	45.95	21.58	22.20	31.95	131.47	23.72	15.37
Log Age	2.75	0.51	2.73	1.02	2.92	0.73	3.07	0.88
Listing Delay	12.21	2.88	11.67	4.19	9.77	1.59	9.65	1.47
MARKET	2.23	8.27	4.47	7.27	5.09	4.72	5.13	3.80
HOT/COLD	0.60	0.50	0.47	0.52	0.63	0.49	0.62	0.50
Lead Managers Reputation	16.07	8.63	22.24	12.95	15.91	11.24	22.47	15.45
Log Total Assets	6.70	1.03	7.66	1.85	7.04	1.39	8.56	1.80
Log PAT	6.70	1.03	7.66	1.85	6.91	1.74	8.48	1.74

Source: Author's calculation

which followed old AS. About $MAER_7$ and $MAER_{30}$, the mean is -1.86 percent and -2.7 percent respectively for firms adopting Ind-AS and 0.93 percent and 0.61 percent respectively for firms sticking to old AS. The results suggest that newly listed firms perform worse than the market after Ind-AS Adoption in a 30-day period.

5.2 Impact of Ind-AS adoption on IPO Underpricing

5.2.1 Results of Univariate Analysis

The results of the univariate analysis t-test, comparing the means of all measures of underpricing between the

Table 4a. Results of t-tests for Difference in Mean IPO Underpricing

Variables	AS (N=57)	Ind-AS (N=69)	t statistics (p value)
Listing Day Raw Returns (IR)	12.6881	10.2477	0.657 (0.513)
$MAER_1$	13.0546	10.5303	0.698 (.487)
$MAER_7$	0.9261	-1.8647	1.314 (.192)
$MAER_{30}$	0.6054	-2.7358	1.137 (.258)

Table 4b. Results of t-test for Sub Sample Based on VC Backing

Variables	AS			Ind- AS		
	VC Backing (N=28)	Non-VC Backing (N= 29)	t stat (p value)	VC Backing (N=24)	Non-VC Backing (N=45)	t stat (p value)
Listing Day Raw Returns	10.9221	14.3931	0.631 (.531)	12.8921	8.8373	-0.763 (.449)
$MAER_1$	11.4108	14.6417	0.601 (.551)	13.326	9.0392	-0.85 (.399)
$MAER_7$	0.7253	1.1199	0.183 (.855)	0.3961	-3.0703	-1.132 (.262)
$MAER_{30}$	2.096	-0.8343	-0.873 (0.387)	-2.889	-2.654	0.057 (.955)

Table 4c. Results of t-test for Sub Sample Based on Group Affiliation

Variables	AS			Ind-AS		
	Stand Alone (N=42)	Group Firms (N=15)	t stat (p value)	Stand Alone (N=43)	Group Firms (N=26)	t stat (p value)
Listing Day Raw Returns (IR)	13.8605	9.4053	0.81 (.424)	11.8542	7.5908	0.849 (.399)
$MAER_1$	14.4886	9.0393	1.054 (.299)	11.658	8.6652	0.615 (.541)
$MAER_7$	1.3323	-0.2114	0.78 (.440)	-0.0962	-4.7892	1.055 (.300)
$MAER_{30}$	2.628	-5.0579	2.454** (.019)	-0.6948	-6.111	0.961 (.343)

Source: Self computed
Notes: *, **, and *** denote significant differences (p values) at 1 percent, 5 percent, and 10 percent levels respectively.

two subsamples- IPOs with Ind-AS and IPOs with AS are presented in Tables 4a, 4b and 4c.

These results indicate that mean IPO underpricing has declined since Ind-AS adoption, however this decline is not statistically significant. Tables 4b and 4c show results for subsamples related to preadoption information asymmetry which point out decline in underpricing variables with mandatory adoption of Ind-AS except for VC backed firms where the day 1 listing gains (both IR and MAER) have increased. However, as the p value is greater than 0.05, the magnitude of the decline is not significant in all cases except in AS era with subsample of group affiliation; $MAER^{30}$ with the p value of 0.019 is significantly different at a 5 percent significance level.

5.2.2 Multivariate Analysis

Table 5 presents the findings of multivariate regression of the underpricing variables with previously described predictor and control variables. The model was checked to ensure that it did not suffer from multicollinearity, heteroscedasticity and autocorrelation problems amongst the residuals.

The regression results indicate that the day 1 returns are negatively and significantly related to Ind-AS implying decrease in underpricing with adoption of Ind-AS in the Indian Equity Market. These results align with the work of a few researchers[5,24,26]. However, for the 7th day and 30th day MAER the relationship is negative but not significant.

Table 5. Results of Multivariate Regression (Ind-AS to Underpricing Variables)

Variables	Expected Signs	Raw Returns (N=126)	$MAER_1$ (N=126)	$MAER_7$ (N=126)	$MAER_{30}$ (N=126)
(Constant)		10.955	6.674	2.723	27.694
		(0.685)	(0.437)	(0.187)	(1.407)
Issue Price	-	-.003	-0.002	0.001	-0.008
		(-0.667)	(-0.483)	(0.290)	(-1.543)
Type of Sale	-	-4.645*	-4.454*	1.097	0.815
		(-3.193)	(-3.208)	(0.829)	(0.455)
Ind-AS Compliant	-	-5.759**	-6.185**	-1.272	1.091
		(-2.107)	(-2.372)	(-0.512)	(0.325)
VC Backing	-	1.207	2.026	1.32	-0.083
		(0.416)	(0.731)	(0.5)	(-0.23)
Issue Size	-	1.061E-05	1.574E-05***	4.626E-07	-1.498E-06
		(1.129)	(1.756)	(.054)	(-.130)
Institutional Subscription	+	0.282*	0.268*	-0.112**	-0.113
		(4.543)	(4.526)	(-1.980)	(-1.485)
Overall Subscription	+	0.154*	0.161*	.051	.010
		(2.825)	(3.100)	(1.035)	(.146)
Promoters' Holding	+	-.059	-.041	-0.106***	-0.152**
		(-0.998)	(-0.737)	(-1.976)	(-2.090)
Issue Expenses	+	-.396	-0.204	0.274	-0.133
		(-0.456)	(-0.246)	(0.347)	(-0.124)
RNOW	+	.007	0.007	-0.002	0.002
		(0.460)	(0.499)	(0.183)	(0.131)
Log Age	-	-.470	-0.358	-2.712***	-2.071
		(-0.278)	(-0.222)	(-1.768)	(-.997)
Group Affiliation	-	-10.445*	-10.604*	-0.756	-0.579
		(-3.563)	(-3.792)	(-.284)	(-.161)
Listing Delay	+	.685	0.719	-0.015	-0.081
		(1.353)	(1.488)	(-.032)	(-.130)
MARKET	-	.317	0.355***	.021	-.043
		(1.590)	(1.863)	(.116)	(-.175)
HOT/COLD	-	-2.508	-3.612	1.19	3.799
		(-0.956)	(-1.444)	(-0.499)	(1.178)
Lead Managers Reputation	-	-0.230***	-0.256***	-0.448*	-.404**
		(-1.672)	(-1.954)	(-3.593)	(-2.394)
Log TA	+	.591	0.779	2.583**	0.133
		(0.47)	(0.649)	(2.260)	(.086)
R^2		.672	0.685	0.26	0.273
Adj. R^2		.620	0.635	0.144	0.158
Number of Observations		126	126	126	126
F Statistic		12.993	13.794	2.235	2.381

Source: Self computed

Notes: The statistics have been shown in parenthesis. *, **, *** show significant P values at 1 percent, 5 percent and 10 percent respectively.

Issue size has a significant adverse relationship with MAER on the day of listing which is in line[30] indicating mitigation in information asymmetry for large issue size leading to reduced level of underpricing. A lower underpricing in the case of an offer for sale combined with fresh capital is implied by the significant negative coefficient for the type of sale. Similarly, the group affiliation coefficient is also negative, significantly impacting day-one returns. The firms which are affiliated with a group have lesser information asymmetry and hence exhibit lower listing day gains. Promoter holding, a proxy for concentrated ownership is found to have negative coefficient, which is significant in the case of MAER[30]. The negative sign implies that firms with concentrated ownership structures have lower underpricing levels.

The regression coefficients for both overall and institutional subscription rates are significantly positive and as per expected lines and in agreement with previous findings[31,39] indicating higher subscription levels lead to higher first-day returns. The institutional subscription rate is also positive and significantly determines MAER[7]. For Ln Age, the coefficient has a negative sign but insignificant p value for both the measures of underpricing (IR and MAER) implying that IPO companies with shorter operational histories exhibit a greater degree of underpricing. Regression results show that firms with group affiliation show lower levels of underpricing on listing day signalling valuation of IPO is generally real to offer price with decreased information asymmetry. Movement of the stock price on the day of the debut, in conjunction with the market is established by the positive sign of the Market (Nifty 50) variable and has a significant coefficient for MAER[1].

Lead manager's reputation with its significant negative coefficient indicate that reputed lead managers compensate the IPO firms with better and adequate valuation without leaving any money on the table. This is consistent with the previous studies[26,38]. Variables measuring valuation uncertainty (Ln Total Assets and RNOW) are positive indicating higher valuation uncertainty for large-sized firms and therefore more underpriced. Regression coefficients for Issue price and Issue expenses show an insignificant negative relationship with underpricing variables denoting low underpricing of offers with high issue price and high issue expenses.

While market sentiment proxy (HOT) has an insignificant negative coefficient with day 1 returns, the coefficient is positive for day 7 and 30 returns which is contrary[6]. It may be conjectured that when the market is already booming before the IPO listing days, the valuation incorporates that and there is less underpricing. VC backing of IPO firms shows a positive coefficient for day 1 and day 7 excess returns which testify that venture capitalists do not reduce information asymmetry.

While analysing adjusted R^2 – the model's explanatory power, the study discovers that the contribution of Ind-AS dummy to the overall model (the change in R^2 in the two models after including the Ind-AS dummy) is 1.2 percent for raw returns and 1.5 percent for MAER[1] demonstrating the impact of Ind-AS adoption on the investor community's buying perception. The absence of adequate enforcement and investor awareness may be the cause of the limited explanatory power of Ind-AS. More research is needed to capture these collaborative efforts, and this work serves as a starting point.

6. Conclusion

This study is one of the first in the Indian context to investigate the influence of accounting standard changes on IPO market anomalies in India, namely the underpricing. The study reveals strong evidence that moving from AS (old GAAP) to Ind-AS boosts market efficiency, leading to the decline of underpricing levels through results of t-test on a sample of 126 IPOs listed in India during the financial year 2013-14 till 2019-20. The study also reports lower underpricing levels for the subsamples related to preadoption information asymmetry; however, the difference is not statistically significant. In sum, our findings suggest that obligatory adoption of Ind-AS in India is effective in addressing the information asymmetry that exists among IPO participants. Adoption of Ind-AS has proven to be an effective instrument in the hands of issuers which promotes financial statement transparency and reduces information asymmetry.

The analyses also show that despite the huge transformation in accounting standards, underpricing still exists in the Indian capital market albeit to a lesser extent. The lack of proper implementation and comprehension by investors could explain why Ind-AS compliance has low explanatory capacity. One potential explanation is that investors in the Indian financial market are encountering difficulty adapting to new accounting rules with IPO firms being especially affected. Many issues relating to the interpretation, measurement of fair

values and declaration of income from operations have been reported post-implementation of Ind-AS.

The study's conclusion is in line with some international studies[5,13,25,26] where IFRS adoption had led to an increase in market efficiency reducing underpricing. However, these are in contradiction with some available international evidences which suggests adoption of IFRS is ineffective in reducing IPO underpricing[6,27]. It may be argued that variations in the implications of IFRS switching might be related to the institutional factors relating to the functioning of IPO markets. The diverse ethnic, cultural and economic-institutional settings found in different countries around the world are important determinants of the influence of IFRS implementation on information asymmetry at different dimensions. Implementing superior accounting and reporting rules and regulations is a critical but not a sufficient prerequisite to enhance information environments. Overall, our findings support[5] and indicate that the level of economic development, organisational and administrative inequalities and implementation credibility may be significant enough to warrant policy considerations.

The study, a pioneer of its kind in the Indian IPO market provides a foundation for future research to capture the corroborative efforts associated with the progressive changes in the procedures and legislations controlling the equity IPO markets and Ind-AS implementation. As IPO pricing has long-run ramifications for legislators, market participants and investors, future research along these lines may employ a different sample, like following public offers in the equity market to acquire additional evidence on Ind-AS acceptance in India. The current study contributes to the corpus of knowledge in the primary capital markets, particularly for developing economies struggling to converge with IFRS.

7. References

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