

IMPACT OF DISCLOSURES OF RISK FACTORS ON THE SHORT TERM UNDER PRICING OF SHARES

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Abstract

IPO Prospectus is a window through which investors get details about company before investing their money into the company. Prospectus is an exhaustive document listing all the important information. Risk Factors Portion of the prospectus is an important part of the prospectus and most of the companies divide the risk factors in two parts: Internal and External. The purpose of this paper is to investigate the impact of various risk disclosures on short term underpricing for IPOs during 2011-2016. An attempt was made to study the impact of risk disclosures at two different time intervals, i.e.; the first day of trading (listing day) and exactly one month after the first day of trading. The regression results revealed that risk disclosures have no impact on % of share price change on the date of listing and even one month after the date of listing but the BSE Sensex clearly impacts the share price change as in both the cases it was found to be significant. Though, management risk factors were found to have significant impact on underpricing. The study provided an additional finding that the number of lead managers'; issue type; delays in listing; age of the firms impacts the extent of risk disclosures in the IPO prospectuses.

Keywords: Initial Public Offer, Prospectus, External Risks, Internal risks, Risk Disclosure, Underpricing, IPO

Introduction

Research in IPO has gathered attention of many researchers. IPOs are the way to collect money from the market from all kinds of investors. As the companies are coming out with the public issue for the first time, therefore there is lot of uncertainty surrounding the success of IPOs. Investors are also wary to invest as they do not have much information or history about the company. Even then many investors invest in IPOs for better returns as they feel that offer price of securities is considerably much less than the price on the first day of trading. This phenomenon is known as Underpricing in the IPO market.

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The higher the underpricing, the greater is the benefit to those investors who got allocations in the IPO as they benefit from the difference in price after listing. These phenomena are also referred to as '*money left on the table*' by the firms. Many studies have been conducted on the various factors affecting underpricing in India and abroad. But still there are various unexplored questions such as whether disclosures of risk factors in the prospectus assume a role in the underpricing of securities. Do the risk factors that are disclosed in the prospectus affect the valuation of securities? There are several reasons that have been suggested by the previous literature regarding the underpricing of IPOs.

Prospectus is an important document for potential investors and financial analysts as well as various financial monitoring agencies in the country. Various guidelines are issued from time to time regarding disclosure practices in Prospectus. Therefore, many investors like to thoroughly read prospectus as prospectus is the window through which they can know about the company, its history, promoters, operating performance, future plans, etc. Realizing the importance of prospectus, the Companies Act in India has made it mandatory to make prospectus an exhaustive document listing all the important information and Section 26 of the Companies Act, 2013 lists out important contents to be included in the prospectus. Risk Factors Portion of the prospectus is an important part of the prospectus as it has been observed that various firms disclosure varying amount of information regarding risk factors faced by them. Most of the companies divide the risk factors in two parts: Internal and External. Though after reading various prospectuses', we found that the risk disclosure section in the prospectus is not a standard one and some of the companies give detailed account of risks faced by the companies and others just give a brief account of risk factors. The depth and magnitude of risk related information disclosed by companies is the choice of the companies. Various theories in finance have established the relation between the risk and return. Higher the risk, higher is the return. It applies to various investment decisions including IPOs. Thus, the information contained in risk disclosure section in the prospectus may affect the amount of discount to offer price in case of IPOs and thus affect the valuation of IPOs. It seems that there is a significant difference in the prices at which securities are issued to investors at the time of IPOs and the price at which they trade on the day of the listing and subsequently thereafter. So if the investors get shares allotted in an IPO at a lower price and if they are able to sell them subsequently on the first day of listing or thereafter at higher prices, they can make huge gains. This phenomenon is known as 'underpricing.'

Many researchers studied about factors affecting underpricing in case of IPOs. We intend to investigate that whether the extent of disclosure of risk factors affect the short term underpricing. We further tend to investigate that are all risk factors significantly contributed to the short term underpricing? We have divided risk factors in two parts: Internal and External. Internal Risk factors includes risks related to operations, technological risks, financial and government/regulatory risks. External risks included market related risks and general economic conditions and risks related to government and legal scenario over which company has no control.

OBJECTIVES OF THE STUDY

- (1) To study the total number of internal and external risk disclosures in IPO prospectus of Indian firms that went public for the first time between 2011 and 2016.
- (2) To study whether the total number of risk factors disclosed have an impact on underpricing of shares.
- (3) To study the impact of various categories of risk disclosures on short term underpricing shares.
- (4) To study whether internal risk disclosures in IPO prospectus have more impact on short term underpricing of shares as compared to external risk disclosures or not.

- (5) To study the effects of risk factors disclosed on the share price on the first day of trading and one month after the first day of trading.

LITERATURE REVIEW

The results of studies conducted by various researchers using different factors on Underpricing are as under:

Studies on Underpricing in general

Kim et al. (2008) discussed the role of leverage in the underpricing of IPOs. They also found that high tech firms are more likely to face underpricing as compared to low tech firms.

Bansal&Khanna (2012) found that if the issue is overpriced at the time of IPOs, then uninformed investors would not participate in such issue. Thus, to attract uninformed investors, the firm has to underprice its issue at the time of IPOs.

Rock (1986) explained that there are two types of investors, informed and the uninformed. Informed investors withdraw from issues which are overpriced leaving the uninformed investors with the "winner's curse problem." As a result, uninformed investors do not participate in such issues, thus to attract such investors, the firm has to underprice its issue.

Clarke, et al. (2015) studied traditional measure of underpricing in two parts. The first part being 'voluntary underpricing by underwriters and other measure is related to post-IPO market driven initial return component'. The study found that non-institutional investors involve vigorously in buying activity after IPOs to meet their unmet demand and that is the main reason of IPO initial returns whereas qualified institutional buyers seem content with their allocation and do not participate heavily in buying after IPOs.

Derrien (2005) and Ljungqvist et al. (2006) explained that the 'sentiment traders' are the main actors in underpricing and these traders overpay because their price exceed the intrinsic value of shares offered in IPOs. The extent of underpricing increases with the intensity of sentiment of traders.

Baron (1982) explained that advisors (like investment bankers) intentionally set the prices low at the time of IPOs to get better response and reduce their marketing & selling efforts.

Studies on Underpricing and the Information in the Prospectus

Important Information is disclosed by the companies in the prospectus at the time of IPOs. As the company has never approached the public for funds in the past, therefore information disclosed in the prospectus is quite inquisitive for investors. There is separate section on the 'Risk Disclosures' faced by the company in the prospectus. There is general belief that higher the risk, higher the return. Hence, we intend to investigate whether risk factors disclosed by the company have an effect on the short term underpricing of shares. In this context this, the following studies were found relevant.

Ritter and Welch (2002):the underpricing is explained by different factors namely

- Underpricing due to asymmetric information; and
- Underpricing due to symmetric information

There is information asymmetry between informed and uninformed investors. Thus, if risk factors and other important information are not disclosed than insiders may take advantage over other investors who do not have idea about the information.

Welch, 1989 & Chemmanur, 1993, the signaling theory also proposes that investors rely on signals from the entrepreneurs in the form of information disclosed in the prospectus to take investment decisions.

Lowry&Shu (2002) explained the role of litigation risk disclosed by firms on underpricing of shares.

Li (2006) examined that firms with disclosures of increase in risk sentiment in annual reports have more 'negative effect on future earnings and stock market returns in the next year of annual report filing date relative to the firms which have shown little increase in risk sentiment'.

Welbourne, Neck and Meyer (2012) considered 'disclosure of risk factors as a proxy for firms' problems' and used it to understand the impact on firm performance.

Abdou&Dicle (2007) conducted a study to understand the role of risk disclosures in IPO prospectus. They also discovered that all risk factors are not equally important in IPO valuation. The results also revealed that presence of venture capitalists and investment bankers affect the number of risk factors reported in the prospectus. They classified risk factors into six broad categories namely, Management Issues; International Trade issues; Technological Issues; Operational Issues; Financial Issues; and Market, economic and regulatory issues. These categories were further subdivided into 32 subcategories. The authors studied the relation between risk factors and price discount for a specified holding period that is on difference between offer price and closing price on the first day of trading; after 1 week; after 2nd week; after 3rd week; and after 4 week from the offer trading date.

Arthurs and Busenitz (2006) also used this kind of classification. They found there is direct effect of management related risk factors on stock performance.

Certo, Covin, Daily, & Dalton, 2001; Welbourne & Andrews, 1996; and Carpenter, Pollock, & Leary, 2003 in their studies have used total number of risk factors reported as a variable to measure the firm's risk.

Hanley and Hoberg (2010) found that greater informative disclosures in the prospectus improved price accuracy especially informative content in the management's discussion section is quite relevant for predicting better offer price.

Wu, C. (2012) found that country risk measures such as more economic freedom and less corruption exhibit higher IPOs valuations.

Murugesu and Santhapparaj (2010) indicated that risk disclosures in the prospectus reflects offer price and initial market returns of IPOs.

Deumes, 2008 also studied narrative risk disclosures in prospectuses of IPO.

Mousa et al. (2014) attempted to study disclosures of external and internal risks in IPO prospectus on investor optimism, initial public offering valuation and post-initial public offering that is long-term firm survival. The study found that external risk factors had a more negative effect on investor optimism and initial public offering valuation whereas internal risk factors had a more negative effect on post-initial public offering long-term firm survival.

RESEARCH METHODOLOGY

Hypotheses

This study attempts to study the following three hypotheses:

- H₀₁: Total number of risk factors disclosed in the prospectus is not important in IPO valuation and hence has no effect on underpricing.
- H₀₂: Internal risk factors and External risk factors disclosure have no impact on underpricing.
- H₀₃: All categories of risk factors disclosed in the prospectus have no impact on the underpricing of shares.

All the above hypotheses were tested by comparing difference at two different time intervals, i.e.; the first day of trading (listing day) and exactly one month after the first day of trading.

Methodology

For the classification of risk factors, this study relied primarily on the outcomes of studies by Abdou and Dickle(2007); Arthurs and Busenitz (2006); and Mousa, et al. (2014). This study divided risk factors in two broad categories: *Internal Risk Factors and External Risk Factors*. Companies also follow this classification in their IPO prospectuses. Internal risk factors are specific to firms, thus not known to outsider's investors and investors rely on signals from entrepreneurs in the form of disclosure in prospectus such as management related problems, delay in regulatory compliances, etc. External Risk factors are generic in nature, and known to outsider's investors such as change in legislation, change in tastes of consumers, etc., thus affects all the businesses. As there were slight discrepancies in the interpretation and classification of risk factors in the prospectuses of IPOs, this study considered them the way the companies have classified.

- Risks due to Market and General Economic Conditions included risks related to competition, general economic conditions, etc.
- Risks due to Regulatory/ Political/ Government included risks related to changes in legislation or regulatory hurdles, etc.
- Risks due to International Trade Issues and Foreign Exchange Fluctuations included foreign import/ export transactions and foreign exchange fluctuations, etc.
- Management Related Risks was a count of number the organization acknowledged that management lacked experience, dependence on key personnel, control by directors, employee's strikes, and outstanding litigation on directors, etc.
- Operations Related Risks included risks such as managing growth, quarterly fluctuations in sales, regional limitations, changes in customer preferences/tastes, etc.
- Technological Related Risks included risks related to changes in technology, obsolescence of technology, problems in computers or company's network, etc.
- Financial Risks was a count of number the organization acknowledged that there are risks due to high level of debt, Restrictive covenants, working capital deficit, lack of funds, restrictive covenants, and discretion of management over use of funds, no dividend payments in the past, and losses in the past, etc.
- Legal compliances and Outstanding Litigation related risk was a count of number the organization acknowledged that there are outstanding employment/ customer related litigations, delay in getting regulatory approvals/ clearances, and failure to submit returns on time.

Mousa, et al. (2014) and Deumes (2008) also used this kind of classification. Total Number of risk factors were counted in each designated category as is done in case of Abdou and Dickle (2007); Mousa, et al. (2014); Deumes (2008); and Arthurs and Busenitz(2006). Thus, risk factors will be studied, identified and classified in each category through content analysis of IPO prospectus during 2011 to 2016 for a time span of 6 years.

Measures

The first set of regressions aimed at finding out the relation between total risk factors reported and short term underpricing to check the first and third hypotheses. Thus, two dependent variables studied were:

- Percent change from stock offer price to price on the first day of trading (closing price).

- Percent change from stock offer price to price one month after the first day of trading (closing price).

The measures were

- (Share close price at first day of trading- offer price)/ offer price
- (Share close price after 1 month from first day of trading- offer price)/ offer price

The Control Variables were

- Movement in BSE Sensex from the day of offer and the on the day of listing and one month thereafter. (Only those IPOs which were listed on BSE have been considered). The measures were:
 - First regression (BSE Sensex(close) on the first day of trading- BSE Sensex(close) on the day of offer)/ BSE Sensex on the day of offer
 - Second regression (BSE Sensex(close) after 1 month from first day of trading- BSE Sensex(close) on the day of offer)/ BSE Sensex on the day of offer
- Log of Issue Size: The issue size was measured as the total number of shares offered multiplied by the offer price. The natural logarithm of this value was used as a standard practice and to remove heteroscedasticity.
- Firm Age and Log of Firm Age: Firm age was measured in years as the difference between the year of IPO and the year of incorporation of the firm.
- Listing Delay: It was measured as the difference in days between the close of offer date of the IPO and the listing date of an IPO.
- Type of Issue: Whether it was Book Building Offer or Fixed Price Offer
- No. of Underwriters/ Lead managers

Control factors were chosen on the basis of study of Abdou and Dickle (2007); Mousa, et al. (2014); Bansal(2013). Multiple Regression Technique was used for the analysis.

Share Percentage Change_t = f(BSE sensex change, total risk factors, Log (Issue Size), Firm Age, Log (Firm Age), listing delay, type of issue, no. of underwriters)

For checking the **second hypothesis**, regression was run using 8 classifications of risks as discussed above. For checking the **second hypothesis**, regression was run using 2 classifications of risks as discussed above, that is Internal Risk Factors and External Risk Factors

Thus, two dependent variables were studied using 2 classifications of risks and control variables were the same as used in the first set of regressions.

Share Percentage Change_t = f(BSE sensex change, Total of Internal Risks, Total of External Risks, Log (Issue Size), Firm Age, Log (Firm Age), listing delay, type of issue, no. of underwriters)

The third set of regressions was to find out the relation between eight categories of risk factors and percent change of stock price during a specified holding period. Thus, two dependent variables were studied using 8 classifications of risks and control variables were the same as used in the first set of regressions.

Share Percentage Change_t = f(BSE sensex change, Mgt Risk, Operations Risk, Finance Risk, Technology Related Risk, Legal Risk, Market Risk, Regulatory Risk, International Risk, Log (Issue Size), Firm Age, Log (Firm Age), listing delay, type of issue, no. of underwriters)

ANALYSIS***Descriptive Statistics***

The Table-1 shows that 249 observations were studied. Some of the IPOs had to be dropped because of missing values. Observations in Table-1 about mean values suggested that average difference in price on the first day of trading from its offer price was 9% and after one month it was 15%, while average difference in Sensex was not even 1%. Reporting of various categories of risks suggest that firms on an average reported 6 management risks, 13 operations related risks, 1 technological related risks, 7 legal compliances related risks, 13 finance related risks, 5 regulatory related risks, 7 related to market and general economic conditions and 1 international issues related risks. Average Internal risks reported were 40 and external risks were 12. It took about 13 years on an average for firms to start operations and get incorporated. Listing delay was found to be approximately 13 days from the last day of the offer and the date of listing. Further, analysis revealed that 61% of firms in the sample opted for fixed price issue and the rest 39% of the firms opted for book built offer. There was significant variation in the extent of underpricing as percentage values range from -69 to 496.

Table-1: Descriptive Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
%BSE Sensex change from the day of offer and the date of listing	249	.0866166	3.479454	-11.47933	10.09457
%BSE Sensex change from the day of offer and one month after the date of listing	249	.6580383	4.886362	-17.12728	14.25033
%Share price change from the day of offer and the date of listing	249	9.178192	30.58788	-69.83333	241.25
%Share price change from the day of offer and one month after the date of listing	249	15.20848	57.32245	-100	496.25
Management Related Risks	249	6.044177	2.249116	1	13
Operations Related Risks	249	13	6.415707	1	45
Technological Related Risks	247	1.109312	1.093307	0	6
Legal Compliances and Outstanding Litigations Related Risks	249	6.502008	3.10972	1	18
Financial Related Risks	249	13.12851	4.042061	3	27
Total Internal Risks	249	39.7751	12.86208	17	101
Regulatory Related Risks	249	4.827309	2.699742	0	21
Market and General Economic Conditions Related Risks	249	6.831325	2.167312	0	15
International Issues Related Risks	235	.7914894	.9445819	0	5
Total External Risks	249	12.40562	4.571137	0	37
Total Risks	249	52.18072	15.56424	24	119
Issue Type	249	1.393574	.4895263	1	2
Firm Age Difference	249	13.1747	9.549669	0	73
Log of Age	248	1.008094	.3446291	-.30103	1.863323
Log of Issue Size	249	1.357095	.8768765	-.49485	3.618655
No. of Lead Managers	242	1.595041	1.292034	1	9
Listing Delay	249	12.96386	3.385616	2	28

REGRESSION RESULTS

H₀: Total number of risk factors disclosed in the prospectus is not important in IPO valuation and hence has no effect on underpricing.

Table-2 shows the impact of total number of risks reported on %share price change from the offer price to the price on the date of listing. R square was found to be 0.0364; adjusted R square was found to be 0.0032 and Root MSE was computed as 30.915. Table-3 shows the impact of total number of risks reported on %share price change from the offer price to the price one month after the date of listing. R square was found to be 0.0499; adjusted R square was found to be 0.0172 and Root MSE was computed as 57.526.

The results as obtained in Table-2 and 3 clearly shows that total number of risk factors reported has no impact on %share price change on the date of listing and even one month after the date of listing but the BSE Sensex clearly influences the share price change as in both the cases it was found to be significant. Impact of BSE Sensex on share price change on the date of listing was found to be significant at 10% level of significance ($P > |t|$ value 0.061) and its impact on share price change one month after the date of listing was significant at 5% level ($P > |t|$ value 0.03). In Table-3, Issue Type is another variable that is significant at 10% level of significance ($P > |t|$ value 0.09). Thus, in our study, the first null hypotheses is found to be accepted as total number of risk factors disclosed in the prospectus has no effect on underpricing of shares.

Table-2: Impact of total number of risk disclosures and other factors affecting the %share price change from the offer price to the price on the date of listing

%share price change from the offer price to the price on the date of listing.	Coef.	Std. Err.	T	P> t	[95% Conf. Interval]	
Listing Delay	-.5282093	.6179442	-0.85	0.394	-1.745709	.6892902
BSE Sensex Impact	1.114713	.5918156	1.88	0.061	-.051307	2.280733
Total Risks	-.055758	.1598012	-0.35	0.727	-.3706052	.2590891
Issue Type	-2.224246	7.609852	-0.29	0.770	-17.2175	12.769
Log of Age	-18.42965	11.75786	-1.57	0.118	-41.59549	4.73618
Firm Age Difference	.5582914	.4142915	1.35	0.179	-.2579632	1.374546
Log of Issue Size	6.156095	4.805685	1.28	0.201	-3.312267	15.62446
No. of Lead managers	-2.420316	2.191416	-1.10	0.271	-6.737936	1.897304
Cons	28.92028	14.01611	2.06	0.040	1.305151	56.53541

Table-3: Impact of total number of risk disclosures and other factors affecting the %share price change from the offer price to the price exactly one month after the date of listing.

%share price change from the offer price to the price one month after the date of listing.	Coef.	Std. Err.	T	P> t	[95% Conf. Interval]	
Listing Delay	-.0606114	1.165171	-0.05	0.959	-2.35628	2.235058
BSE Sensex Impact (1 month)	1.652264	.7894383	2.09	0.037	.0968798	3.207649
Total Risks	.0180104	.2997672	0.06	0.952	-.5726034	.6086242
Issue Type	-23.63157	14.16325	-1.67	0.097	-51.5366	4.273451
Log of Age	-28.14344	21.63092	-1.30	0.195	-70.76158	14.4747
Firm Age Difference	.5404285	.7618552	0.71	0.479	-.9606105	2.041467
Log of Issue Size	9.869714	8.90468	1.11	0.269	-7.674661	27.41409

No. of Lead managers	-1.251398	4.093981	-0.31	0.760	-9.317531	6.814734
Cons	57.74454	26.61557	2.17	0.031	5.305428	110.1837

H0₂ Internal risk factors will have more negative impact on the level of underpricing than external risk factors.

The results as obtained in Table-4 and 5 clearly shows that external and internal risks reported has no impact on %share price change on the date of listing and even one month after the date of listing. In Table-4, R square was found to be 0.0405; adjusted R square was found to be 0.0032 and Root MSE was computed as 30.916. Table-5 shows the impact of total internal and external risks reported on %share price change from the offer price to the price one month after the date of listing. R square was found to be 0.0514; adjusted R square was found to be 0.0144 and Root MSE was computed as 57.607. There is impact of BSE Sensex on share price change on the date of listing ($P > |t|$ value 0.05). There is also impact of BSE Sensex on share price change also on one month after the date of listing ($P > |t|$ value 0.03). In both the cases, it was found to be significant at 5% level of significance. Thus, the second null hypotheses is accepted in our study as neither total number of internal nor total number of external risk disclosures in the prospectus have any effect on underpricing of shares.

Table-4: Impact of total number of internal and external type of risk disclosures and other factors affecting the %share price change from the offer price to the price on the date of listing

%share price change from the offer price to the price on the date of listing.	Coef.	Std. Err.	T	P> t	[95% Conf. Interval]	
Listing Delay	-.4711863	.6206076	-0.76	0.448	-1.693961	.7515886
BSE Sensex Impact	1.162726	.593791	1.96	0.051	-.007212	2.332665
Total Internal Risks	-.1694178	.1964201	-0.86	0.389	-.5564217	.2175862
Total External Risks	.4573023	.5397337	0.85	0.398	-.6061278	1.520732
Issue Type	-1.614662	7.63462	-0.21	0.833	-16.65705	13.42773
Log of Age	-16.37812	11.93744	-1.37	0.171	-39.8983	7.14206
Firm Age Difference	.4587127	.4262116	1.08	0.283	-.3810463	1.298472
Log of Issue Size	5.951606	4.810174	1.24	0.217	-3.525817	15.42903
No. of Lead managers	-2.688492	2.207967	-1.22	0.225	-7.03882	1.661835
Cons	25.44574	14.44467	1.76	0.079	-3.014414	53.90589

Table-5: Impact of total number of internal and external type of risk disclosures and other factors affecting the %share price change from the offer price to the price exactly one month after the date of listing

%share price change from the offer price to the price one month after the date of listing.	Coef.	Std. Err.	T	P> t	[95% Conf. Interval]	
Listing Delay	.003727	1.171854	0.00	0.997	-2.305161	2.312615
BSE Sensex Impact	1.653628	.7905489	2.09	0.038	.09602	3.211236
Total Internal Risks	-.1070006	.3669963	-0.29	0.771	-.8300884	.6160872
Total External Risks	.5855205	1.00435	0.58	0.560	-1.393337	2.564378
Issue Type	-22.97245	14.22673	-1.61	0.108	-51.00318	5.058283
Log of Age	-26.03486	21.95202	-1.19	0.237	-69.28663	17.21691

Firm Age Difference	.436069	.783017	0.56	0.578	-1.106699	1.978837
Log of Issue Size	9.597894	8.928978	1.07	0.284	-7.994752	27.19054
No. of Lead managers	-1.543506	4.129297	-0.37	0.709	-9.679405	6.592393
Cons	54.02526	27.38306	1.97	0.050	.072785	107.9777

H₀₃: All categories of risk factors disclosed in the prospectus have no impact on the underpricing of shares.

The results as obtained in Table-6 and 7 clearly shows that various categories of risks reported had no impact on %share price change on the date of listing and even one month after the date of listing. In Table-6, R square was found to be 0.0779; adjusted R square was found to be 0.0120 and Root MSE was computed as 31.59. In Table-7, R square was found to be 0.0536; adjusted R square was found to be -0.0140 and Root MSE was computed as 57.446. BSE Sensex clearly impacts the share price change as in both the cases it was found to be significant at 5% level of significance ($P > |t|$ value 0.04). Thus, the third null hypothesis is accepted in our study as various categories of risks in the prospectus except disclosures in management risk category have no effect on underpricing of shares. Thus, only the disclosures in management risk category have a significant impact on %share price change from the offer price to the price on the date of listing ($P > |t|$ value 0.06).

Table-6: Impact of various types of risk disclosures and other factors affecting the %share price change from the offer price to the price on the date of listing

%share price change from the offer price to the price on the date of listing.	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
Listing Delay	-.5905731	.6618984	-0.89	0.373	-1.89539	.7142435
BSE Sensex Impact	1.293532	.6334499	2.04	0.042	.0447962	2.542267
Management Risk Category	2.087158	1.127987	1.85	0.066	-.1364705	4.310787
OperationsRiskCategory	-.0721058	.4796128	-0.15	0.881	-1.017578	.8733669
TechnologicalIssuesRiskCategory	2.325925	2.421693	0.96	0.338	-2.44802	7.099869
Legal Compliances and Outstanding litigations	-1.412111	.8942623	-1.58	0.116	-3.174993	.3507704
FinancialRiskCategory	-.8375291	.6685997	-1.25	0.212	-2.155556	.4804981
Regulatory	.0763638	1.192306	0.06	0.949	-2.274059	2.426787
MarketandGeneral EconomicConditions	.5613893	1.08076	0.52	0.604	-1.56914	2.691918
InternationalRisk	.5020981	2.778158	0.18	0.857	-4.974554	5.97875
Issue Type	-5.023526	8.426123	-0.60	0.552	-21.63415	11.5871
Log of Age	-16.69698	12.76316	-1.31	0.192	-41.85731	8.463348
Firm Age Difference	.5539975	.4541203	1.22	0.224	-.3412212	1.449216
Log of Issue Size	7.256187	5.144469	1.41	0.160	-2.885231	17.39761
No. of Lead managers	-2.52337	2.462487	-1.02	0.307	-7.377732	2.330992
Cons	29.51728	16.99381	1.74	0.084	-3.983037	63.0176

Table-7: Impact of various types of risk disclosures and other factors affecting the %share price change from the offer price to the price exactly one month after the date of listing

%share price change from the offer price to the price one month after the date of listing.	Coef.	Std. Err.	T	P> t	[95% Conf. Interval]	
Listing Delay	.0384242	1.223224	0.03	0.975	-2.372948	2.449796
BSE Sensex Impact	1.638833	.8216687	1.99	0.047	.0190576	3.258609
Management Risk Category	1.510592	2.050028	0.74	0.462	-2.530679	5.551862
Operations Risk Category	.3306024	.871986	0.38	0.705	-1.388365	2.04957
Technological Issues Risk Category	-.7454496	4.407305	-0.17	0.866	-9.433678	7.942779
Legal Compliances and Outstanding litigations	-.089734	1.623629	-0.06	0.956	-3.290434	3.110966
Financial Risk Category	-1.645527	1.215165	-1.35	0.177	-4.041011	.7499575
Regulatory	-.2829461	2.163656	-0.13	0.896	-4.548214	3.982322
Market and General Economic Conditions	1.365149	1.965715	0.69	0.488	-2.509913	5.240212
International Risk	-1.856895	5.047459	-0.37	0.713	-11.80708	8.093286
Issue Type	-25.16133	15.34346	-1.64	0.103	-55.40828	5.085621
Log of Age	-16.17647	22.89393	-0.71	0.481	-61.30784	28.95491
Firm Age Difference	.349091	.8132818	0.43	0.668	-1.254151	1.952334
Log of Issue Size	11.60948	9.302859	1.25	0.213	-6.72948	29.94844
No. of Lead managers	.1972514	4.494507	0.04	0.965	-8.662881	9.057384
Cons	47.67183	31.39444	1.52	0.130	-14.21681	109.5605

Correlations were also calculated between the %share price change on the date of listing and %changes in BSE Sensex for the same period and the coefficient was ascertained as 0.1263(positive correlation significant at 5% level of significance). Similarly, the correlation coefficient between the %share price change one month from the date of listing and %changes in BSE Sensex for the same period was found to be 0.1525(positive correlation significant at 1% level of significance).

Contributing Factors to Risks Disclosure in the Prospectus Analysis was also carried out to see the factors affecting the risk disclosure in the prospectus (see Table-8 for results)

Important results emerge from Table-8 where in it can be noticed that number of internal risk disclosures are significantly affected by number of lead managers ($P>|t|$ value 0.001); issue type ($P>|t|$ value 0.009); delay in listing ($P>|t|$ value 0.006) and number of external risk disclosures are affected by number of lead managers($P>|t|$ value 0.000); delay in listing($P>|t|$ value 0.002) and firm age (difference in terms of number of years from the birth of firm to its year of incorporation) ($P>|t|$ value 0.01), thus found to be highly significant.

Table-8 Contributing Factors to Risks Disclosure in the Prospectus

Total Internal Risks	Coef.	Std. Err.	T	P> t	[95% Conf. Interval]	
Listing Delay	-.5887366	.2119255	-2.78	0.006	-1.006262	-.1712107
Issue Type	6.917866	2.640608	2.62	0.009	1.715463	12.12027
Log of Age	5.745745	4.078164	1.41	0.160	-2.288864	13.78035
Firm Age Difference	-.2220294	.1437118	-1.54	0.124	-.5051638	.061105
Log of Issue Size	1.532792	1.672656	0.92	0.360	-1.762596	4.828181
No. of Lead managers	2.473509	.7434697	3.33	0.001	1.00876	3.938259
Cons	29.03871	4.292849	6.76	0.000	20.58114	37.49629
Total External Risks	Coef.	Std. Err.	T	P> t	[95% Conf. Interval]	
Listing Delay	-.2425797	.0770722	-3.15	0.002	-.3944238	-.0907355
Issue Type	.3646017	.9603256	0.38	0.705	-1.527387	2.256591
Log of Age	-2.448572	1.48313	-1.65	0.100	-5.370567	.4734222
Firm Age Difference	.134967	.0522645	2.58	0.010	.0319978	.2379362
Log of Issue Size	.8184728	.6083047	1.35	0.180	-.379981	2.016927
No. of Lead managers	1.058856	.2703821	3.92	0.000	.5261619	1.59155
Cons	12.93723	1.561206	8.29	0.000	9.861413	16.01305

Summary and Conclusions

The paper is an attempt to study the impact of risk disclosures on underpricing for IPOs during 2011-2016. The results revealed that risk disclosures had no impact on underpricing on the date of listing and even one month after the date of listing. The various categories of risk disclosures were found to have no effect on underpricing except management risk category. But the BSE Sensex was found to have significant effect on underpricing. It was also found that higher was the number of lead managers, higher was the number of risk disclosures. The companies opting for fixed price offer were found to have disclosed larger number of internal risks. Similarly, the companies which were facing more internal and external risks took larger time to list their firms in comparison with their counterparts. Similarly, the companies which had larger number of years of experience in the business reported comparatively greater number of external risks. The study provided an insight that investors do not take risk factor disclosure section of the prospectus seriously, though the companies which reported more management related risks faced larger underpricing. The impact of movement in Sensex during study period was found to be strong and it undermined the importance of other factors likely to be related with the underpricing.

References

- * Abdou, K., & Dicle, M. F. (2007). Do risk factors matter in the IPO valuation? *Journal of financial regulation and compliance*, 15(1), 63-89.
- * Arthurs, J. D., & Busenitz, L. W. (2006). Dynamic capabilities and venture performance: The effects of venture capitalists. *Journal of Business Venturing*, 21, 195-215.
- * Bansal, R., & Khanna, A. (2012). IPOs underpricing and money left on the table in Indian market. *International Journal of Research in Management Economics and Commerce*, 2(6), 106-120.
- * Baron, D.P. (1982). A model of the demand for investment banking advising and distribution services for new issues. *The Journal of Finance*, 37(4), 955-976.

- * Carpenter, M. A., Pollock, T. G., & Leary, M. M. (2003). Testing a model of reasoned risk taking: governance, the experience of principals and agents, and global strategy in high technology IPO firms. *Strategic Management Journal*, 24(9), 803-820.
- * Certo, S. T., Covin, J. G., Daily, C. M., & Dalton, D. R. (2001). Wealth and the effects of founder management among IPO-stage new ventures. *Strategic Management Journal*, 22, 641–658.
- * Chemmanur, T.J. (1993). The pricing of initial public offers: a dynamic model with information production. *Journal of Finance*, Vol. 48 No. 1, pp. 285-304.
- * Clarke, Jonathan, Khurshed, Arif, Pande, Alok, Singh, Ajai K. (2015). Sentiment Traders & IPO Initial Returns: The Indian Evidence. *Journal of Corporate Finance* doi: 10.1016/j.jcorpfin.2015.10.007
- * Derrien, F. (2005). IPO Pricing in “Hot” Market Conditions: Who Leaves Money on the Table? *Journal of Finance*, Vol. 60, pp. 487-521.
- * Deumes, R. (2008). Corporate risk reporting: A content analysis of narrative risk disclosures in prospectuses. *The Journal of Business Communication* (1973), 45(2), 120-157.
- * Hanley, K.W. & Hoberg, G. (2010). The Information Content of IPO Prospectuses. *The Review of Financial Studies*, 23(7), 2821-2864.
- * Kim J., Kuntara Pukthuanthong-Le, Thomas W. (2008). Leverage and IPO underpricing: high-tech versus low-tech IPOs. *Management Decision*, 46(1), 106-130 <http://dx.doi.org/10.1108/00251740810846770>
- * Li, F. (2006). Do stock market investors understand the risk sentiment of corporate annual reports? *Available at SSRN 898181*.
- * Lowry, M. and Shu, S. (2002). Litigation risk and IPO underpricing. *Journal of Financial Economics*, 65, 309-35.
- * Ljungqvist, A., Nanda, V. and Singh, R. (2006). Hot Markets, Investor Sentiment, and IPO Pricing. *Journal of Business*, Vol. 79 (4), pp. 1667-1702.
- * Megginson, W. L., Meles, A., Sampagnaro, G., & Verdoliva, V. (2016). Financial distress risk in initial public offerings: how much do venture capitalists matter? *Journal of Corporate Finance*.
- * Mousa, F. T., Bierly, P. E., & Wales, W. J. (2014). Different strokes: IPO risk factors, investor valuation, and firm survival. *Journal of Management & Organization*, 20(03), 348-364
- * Murugesu, J., & Santhapparaj, A. S. (2010). Impact of risk disclosure in the prospectus on valuation and initial returns of initial public offerings in Malaysia. *IUP Journal of Applied Finance*, 16(6), 30.
- * Ritter, J.R. and Welch, I. (2002). A review of IPO activity, pricing, and allocations”, *Journal of Finance*. Vol. 57, pp. 1795-828.
- * Rock, K. (1986). Why new issues are underpriced? *Journal of Financial Economics*, 15(1–2), 187–212.
- * Welbourne, T. M., & Andrews, A. O. (1996). Predicting the performance of initial public offerings: Should human resource management be in the equation? *Academy of Management Journal*, 39(4), 891–919.
- * Welbourne, T. M., Neck, H., & Meyer, G. D. (2012). The entrepreneurial growth ceiling: Using people and innovation to mitigate risk and break through the growth ceiling in initial public offerings. *Management Decision*, 50(5), 778–796.
- * Welch, I. (1989). Seasoned offerings, imitation costs, and the underpricing of initial public offerings. *Journal of Finance*, 44(2). 421-450.
- * Wu, C. (2012). Country risk and valuation of US listed foreign IPOs. *Managerial Finance*, 38(1), 939 – 957. DOI: <http://dx.doi.org/10.1108/03074351211255155>

