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VALUATION OF INDIAN IPO'S ALLOTMENT AND CURRENT PRICE ANALYSIS - ARE INDIAN IPOs OVERVALUED?

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ABSTRACT

Purpose: This study was conducted to analyze the IPOs of companies listed between 1st January 2021 to 30th April 2021 with the objective to determine whether the price at which the IPOs were introduced are fair, undervalued or overvalued and whether the performance of these IPOs have a significant relationship with factors such as the size of the IPO, age of the company and the proportion of promoters holding in the company.

Theoretical framework: Companies registered in India can usually raise funds in two ways: borrowing money using debentures or issuing shares. An initial public offering is a financial arrangement wherein the shares of a private company are offered for sale for the first time to the general public. Based on the theory described in, a semi-theoretical pricing framework is created for the fixed-price and book-building mechanisms.

Design/methodology/approach: The data were collected from NSE (National Stock Exchange) website and analyzed using the metrics such as Abnormal Returns which is calculated in order to analyze if the IPOs are underpriced, overpriced or fairly priced and Regression has been performed to check if there is any significant relationship among the Age, Size of IPO and promoter' holdings in the company after the IPO with the listing day gains or short-term gains of the IPO.

Findings: It was found that the Indian IPOs are undervalued and thus leave money on the table for the issuer of these IPOs. From the regression analysis, it is observed that there is no significant relationship between the factors such as age of the company, promoters' holding in the company and the size of the IPO with the listing days returns and the 10-day period return of the IPO.

Research, Practical & Social implications: Although most researchers believe that IPOs are usually affected by hot and cold periods or bearish-bullish trends, we are trying to determine the effectiveness of book-building method for IPOs following the pandemic in India. The study uses tools such as Abnormal Mean Return (AMR) and Regression to analyze the price of IPO, total returns on and after 10 days of listing of the IPOs, the market return during the same period, and the relationship of these

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returns with other variable like size, ownership and promoter' holdings in the company to determine if they have any significant impact on these returns.

Originality/value: Fair valuation of an IPO could be the reason for its success and over-valuation and under-valuation may lead to its failure and may result in huge monetary losses. The current research on IPO is significant in the sense it contributes by making it clear about the concept of IPO through Literature and about its valuations through analysis which is based on Abnormal Returns and Regression

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AVALIAÇÃO DA DISTRIBUIÇÃO DE IPO'S INDIANOS E ANÁLISE DO PREÇO ATUAL - OS IPO'S INDIANOS ESTÃO SUPERVALORIZADOS?

RESUMO
Objetivo: este estudo foi conduzido para analisar os IPOs de empresas listadas entre 1º de janeiro de 2021 e 30 de abril de 2021 com o objetivo de determinar se o preço pelo qual os IPOs foram introduzidos é justo, subvalorizado ou supervalorizado e se o desempenho desses IPOs tem uma relação significativa com fatores como o tamanho do IPO, a idade da empresa e a proporção de promotores que detêm participação na empresa.
Estrutura teórica: As empresas registradas na Índia geralmente podem captar recursos de duas maneiras: tomando dinheiro emprestado usando debêntures ou emitindo ações. Uma oferta pública inicial é um acordo financeiro em que as ações de uma empresa privada são oferecidas para venda pela primeira vez ao público em geral. Com base na teoria descrita, é criada uma estrutura de precificação semiteórica para os mecanismos de preço fixo e de bookbuilding.
Projeto/metodologia/abordagem: Os dados foram coletados do site da NSE (National Stock Exchange) e analisados com o uso de métricas como Retornos Anormais, que são calculados para analisar se os IPOs estão subvalorizados, supervalorizados ou com preços justos, e foi realizada uma regressão para verificar se há alguma relação significativa entre Idade, Tamanho do IPO e participação do promotor na empresa após o IPO com os ganhos do dia da listagem ou ganhos de curto prazo do IPO.
Conclusões: Constatou-se que os IPOs indianos são subvalorizados e, portanto, deixam dinheiro na mesa para o emissor desses IPOs. A partir da análise de regressão, observou-se que não há relação significativa entre fatores como a idade da empresa, a participação dos promotores na empresa e o tamanho do IPO com os retornos dos dias de listagem e o retorno do período de 10 dias do IPO.
Implicações sociais, práticas e de pesquisa: Embora a maioria dos pesquisadores acredite que os IPOs geralmente são afetados por períodos quentes e frios ou tendências de baixa e alta, estamos tentando determinar a eficácia do método de bookbuilding para IPOs após a pandemia na Índia. O estudo usa ferramentas como o retorno médio anormal (AMR) e a regressão para analisar o preço da IPO, os retornos totais em 10 dias após a listagem das IPOs, o retorno do mercado durante o mesmo período e a relação desses retornos com outras variáveis, como tamanho, propriedade e participação do promotor na empresa, para determinar se elas têm algum impacto significativo sobre esses retornos.
Originalidade/valor: A avaliação justa de uma IPO pode ser a razão de seu sucesso, enquanto a supervalorização e a subvalorização podem levar ao seu fracasso e resultar em enormes perdas monetárias. A pesquisa atual sobre IPO é significativa no sentido de que contribui ao esclarecer o conceito de IPO por meio da literatura e de suas avaliações por meio de uma análise baseada em retornos anormais e regressão.

Palavras-chave: Avaliação, IPOs, Retorno de Mercado, Participações de Promotores.

VALORACIÓN DE LA DISTRIBUCIÓN DE LAS IPO INDIAS Y ANÁLISIS DE LOS PRECIOS ACTUALES - ¿ESTÁN SOBREVALORADAS LAS IPO INDIAS?

RESUMEN
Propósito: Este estudio se llevó a cabo para analizar las OPV de las empresas que cotizaron entre el 1 de enero de 2021 y el 30 de abril de 2021 con el objetivo de determinar si el precio al que se introdujeron las OPV es justo, está infravalorado o sobrevalorado y si el rendimiento de estas OPV tiene una relación significativa con factores como el tamaño de la OPV, la edad de la empresa y la proporción de promotores que poseen capital en la empresa.
Marco teórico: Por lo general, las empresas registradas en la India pueden captar fondos de dos formas: tomando dinero prestado mediante obligaciones o emitiendo acciones. Una oferta pública inicial es un acuerdo financiero en el que las acciones de una empresa privada se ponen a la venta por primera vez al público en general. A partir

de la teoría descrita, se crea un marco semiteórico de fijación de precios para los mecanismos de precio fijo y bookbuilding.
Diseño/metodología/enfoque: Se recopilaron datos del sitio web de la NSE (National Stock Exchange) y se analizaron utilizando parámetros como los rendimientos anormales, que se calculan para analizar si las OPI están infravaloradas, sobrevaloradas o tienen un precio justo, y se realizó una regresión para ver si existe alguna relación significativa entre la edad, el tamaño de la OPI y la participación del promotor en la empresa tras la OPI con los beneficios del día de cotización o los beneficios a corto plazo de la OPI.
Conclusiones: Se descubrió que las OPI indias están infravaloradas y, por lo tanto, dejan dinero sobre la mesa para el emisor de estas OPI. A partir del análisis de regresión, se observó que no existe una relación significativa entre factores como la edad de la empresa, la participación de los promotores en la empresa y el tamaño de la OPI con los rendimientos del día de cotización y los rendimientos del periodo de 10 días de la OPI.
Implicaciones sociales, prácticas y de investigación: Mientras que la mayoría de los investigadores creen que las OPI suelen verse afectadas por periodos cálidos y fríos o tendencias bajistas y alcistas, nosotros intentamos determinar la eficacia del método de bookbuilding para las OPI tras la pandemia en la India. El estudio utiliza herramientas como la rentabilidad media anormal (RMA) y la regresión para analizar el precio de la OPV, la rentabilidad total en los 10 días siguientes a la salida a bolsa de las OPV, la rentabilidad del mercado durante el mismo periodo y la relación de estas rentabilidades con otras variables como el tamaño, la propiedad y la participación del promotor en la empresa para determinar si tienen algún impacto significativo en estas rentabilidades.
Originalidad/valor: La valoración justa de una OPI puede ser la razón de su éxito, mientras que la sobrevaloración y la infravaloración pueden llevarla al fracaso y provocar enormes pérdidas monetarias. La presente investigación sobre las OPI es significativa en el sentido de que contribuye a aclarar el concepto de OPI a través de la literatura y sus valoraciones a través de los rendimientos anormales y el análisis basado en la regresión.

Palabras clave: Valoración, OPIs, Rentabilidad del Mercado, Acciones de los Promotores.

INTRODUCTION

Initial public offering is a financial arrangement wherein the shares of a private company are offered for sale to the general public for the first time. The price at which the shares are offered to the public for sale is either decided by the investment bank responsible for the IPO, called a Fixed Price issue or the investment bank decides a floor price and ceiling price based on extensive research and valuation methods and ultimately the general public decides the price of the share, known as Book building method. Most of the IPO in India are introduced using the book building method. Correct valuation of an IPO can be the reason for its success while overpricing or underpricing may lead to the failure of an IPO with huge monetary losses. Performance of a stock is determined by the returns generated by it. It can be calculated for a short or a long period depending upon the type of investor. The performance of a stock is not solely determined by the performance of the underlying company but also depends on the overall industry performance, the prevalent rate of inflation, interest rate of loans and government bonds, and many other macro-economic factors. IPO markets saw a boom in the post-Covid period with shares trading for as high as twice their IPO value by the end on their listing day (Indigo Paints +110.00%) while up-till April, 2021 merely 6 companies showed negative listing day gains.

LITERATURE REVIEW

Loughran and Ritter (2002) observed that the listing day gains for IPOs in USA were very high implying that the IPOs were undervalued leaving as much as twice the money paid to the investment banks as a fee on the table. They also gave an explanation why the IPOs are undervalued and how rising markets after a fall are more prone to this phenomenon than falling markets. Amitosh and Bhaskaran (2004) found that even though most IPOs are undervalued by about 10%, in the sample of IPOs of 2000 companies from the year 1980 to 2000, the median IPOs were significantly overvalued based on industry peer pricing multiples. The magnitude of overvaluation is usually between the range of 14% to as high as 50%. Ajay, Parvinder and Ruchi (2008) studied and reported the effects of phenomena such as a bullish or bearish trend in the markets, and hot or cold periods on the performance of an IPO. Kumar (2008) examined the efficiency of book building method as the means of issuing an IPO considering the total cost the issuers have to borne for raising the funds. Using a sample of Indian IPOs that were issued on the capital markets in 2003–2007, the article seeks to evaluate the effectiveness of IPO issuance procedures while accounting for all costs incurred by issuers, including both direct and indirect costs. It is noted that from a total cost perspective, issuers are neither better nor worse off if they use bookbuilds or fixed price offers under the old system, thus, issuers with fixed price offers are better placed now than they were under the old system, when top managers could make discriminatory allocations. Our results also showed that the expense associated with book construction is higher than the cost associated with fixed price quotations after controlling for issue size and company specifics. They do not lead to higher emissions revenues. Finally, there are the costs for the services of the US senior managers of those of the Indian senior directors. Sabarinathan.G (2010) reported the evolutions in the IPOs markets as a result of regulatory developments and establishment on SEBI. This article is based on the supposition that a better knowledge of the phenomena inside the IPO market may result from knowing the evolution of IPOs since the establishment of SEBI (Securities Exchange Board of India). The study also makes an effort to link changes in issuer profiles to legally binding events that may have an impact on the characteristics of issuers and issuances. Seshadev Sahoo and Prabina Rajib (2010) reported that the listing day performance of an IPO only seems straight forward as to IPOs being underpriced however the post-performance of the IPO is significantly correlated to the measurement of its performance. They observed that the IPOs underperform for one year and then improve their performance in the subsequent years. Giordano M. Cogliati, Stefano Paleari & Silvio Vismara (2011) reversed engineered the value of the shares of a company and the infer growth expectations of going public using discounted Cash Flow modelling since neither sell-side analyst projections nor private information are necessary. Chok and Qian (2013) theorized that the industry background of the senior executives have a significant impact on the amount of capital that can be raised from the capital markets as the executive's industry background influences the expectation from the investors towards the company. They concluded that the investors prefer that the investment strategies of the company should be based on the industry background of the executives. They made an economic model to test the validity of this relationship and observed that there is a positive relationship between the capital raised with the number of executives with a related industry background for which the funds were being acquired and a negative relationship with executives with other industry backgrounds. Sanjay Sehgal and Bhushan Kumar Sinha (2013) examined the fundamental factors associated with IPOs that result in short-run underpricing and the impact mispricing has on the under-writing investment bank. They examined data from 432 new IPOs between April 2001 and December 2011 and found that four other factors—corporation size, investors' sentiment, funding banks' popularity description—as well as five others—the number of times an IPO issue was subscribed, the number of uses IPOs' proceeds, Listing Delay, Industry PE ratio, and dummy for groups representing new economies—are all significantly associated with the IPOs' short-term preliminary returns. Devarajappa and Tamragundi (2014) reported that the returns associated with an IPO are not solely determined by the performance of the company issuing the IPO but also by the speculators and other external forces. Joshy and Sobhesh (2015) documented the efficiency in pricing an IPO considering the grading of the IPOs by some of the certification mechanisms. The research examined the marketplace effect of a completely unique IPO certification currently brought in India - obligatory grading of IPOs through a credit score agency. The grading became predicted to enhance the IPO pricing performance through presenting complete issue associated records to the marketplace, specifically to the retail buyers. The outcomes imply that grading has handiest a restricted impact at the IPO call for of retail and institutional buyers. The low-grade troubles seem to have weaker call for from buyers relative to the ungraded IPOs. But there is no proof to aid IPO pricing development because of the advent of IPO grading. This is opposite to the proof suggested through a few in advance studies. This indicates the failure of grading as an IPO certification. Sweety and Disha (2016) reported that between 2010 and 2015, in a sample of 113 IPOs, on an average the listing day gains of most of the IPO were significantly positive. The mean of these positive gains was reported as 7.19%. Sanjay and Ravinder (2017) examined the impact of quality certification of IPOs due to the company executive's reputation, credit rating provided by credit rating agencies, presence of anchor investors and the reputation of auditors on the level of IPO performance. Narang (2017) examined the macro-economic factors that affect the performance of the IPOs in the short and long run. He explained the correlation between multiple macro-economic factors and returns of an IPO. The research investigated the short and long run equilibrium relationship between the external factors and also the mercantilism for United Kingdom market over the amount of 1996 to 2016, so as to provide: i) however economics conditions influence IPOs activities and ii) how long the results last (shock). The results of the correlation analysis show that the hypothesis that the business cycle, volatility and rate of interest have informative power for the quantity of IPOs is supported by empirical proof. On the opposite hand, we tend to found no evidence that the stock market come back affects the mercantilism activities. Thonse et.al (2018) examined the performance of the IPOs on listing days and the after-market performance in the long run to conclude that Book-built IPOs are more undervalued than fixed price issues. While the cumulative abnormal average return (CAAR) becomes positive for fixed-issue IPOs after a year and half, CAAR for book-built IPOs can remain negative for more than 5 years. Manu and Chhavi Sani (2020) reported that Indian IPOs are usually undervalued in the short term and that the performance of the IPO doesn't depend on the fundamental factors like size of the issue, sector and age of the company or the shareholding of the promoters. Short-term investors struggle to make investment decisions. Due to the VUCA (Volatility, Uncertainty, Complexity, and Ambiguity) in relation to potential changes in security price, investors view investing in securities as a risky option. Performance of various companies after their initial public offerings (IPOs) in 2017 using the Event Study methodology. The study finds a number of variables that affect how these IPOs evolve over the short term and attempts to identify whether these IPOs are below the short-term pricing. The study found that approximately 70 percent of the IPOs selected are below the short-term price and the movement of these short-term IPOs is not influenced by the age of the company, the size of the IPO issue, the real estate industry, and the development of the developer stakes after the problem. Recently, in Varima, Karim and Ahmed (2023) explored the COVID-19 pandemic and oil price model. Their findings demonstrated that the Covid-19 epidemic has an impact on oil prices in addition to those caused by the commodity itself. Furthermore, over the five years period, from 2016 to 2020, Krishnan and Periasamy (2022) investigated the effectiveness of the Indian stock market. They discovered that the stock market was efficient in its somewhat strong form and that investors were unable to earn returns above those announced by the Nifty IT index for dividends.

MATERIAL AND METHODOLOGY

Research Objectives

(i) To study the post IPO performance of a company.

(ii) To evaluate the fairness of the IPO prices of all selected firms

(iii) To analyze the influence of selected variables such as company's age, total issue size of the IPO, and the promoter's holdings after the issue on the total returns on the listing day and 10 days after listing of the selected IPOs.

(iv) To find the difference among mean abnormal returns and the total returns of selected Indian IPOs

Research Hypothesis

H_1*:* Indian IPOs are overpriced.

H_2*:* There exists noteworthy impact of selected variables such as company's age, total issue size of the IPO and the promoter's holdings after the issue on the total returns on the listing day and 10 days after listing of the selected IPOs.

H_3*:* There is a significant difference among the mean abnormal returns and total returns on listing day and on +10 day of selected Indian IPOs.

Model Specification

The study analyzes the data using the following metrics:

Abnormal Returns

Abnormal Returns is calculated in order to analyze if the IPOs are underpriced, overpriced or fairly priced.

Total Return on First Day = (First Day's Closing Price − Issue Price) /Issue Price × 100

10^{th} Day Return = (10^{th} day's closing price- Issue Price) / Issue Price × 100

10^{th} Day Market Return= (10^{th} day's market's closing value – closing value of the market on the last listing day) / Issue Price × 100

Abnormal Return = (10^{th} Day Return of IPO – 10^{th} Day Market Return)

Where,

"Abnormal Return positive": IPO is underpriced
"Abnormal Return zero": IPO is fairly priced
"Abnormal Return negative": IPO is overpriced

Regression

Regression has been performed to check if there is any significant relationship among the Age, Size of IPO and promoter holdings in the company after the IPO with the listing day gains or short-term gains of the IPO.

RESULTS AND DISCUSSION

Table 1: Table showing Analysis of Abnormal Mean Returns

Name of the company	Listing Day Gains	10 Day Return	10th Day Market Return	Abnormal Returns	Analysis
Indian Railway Finance Corporation Limited	-4.23%	-2%	4%	-6%	Overpriced
Indigo Paints Limited	75.00%	75%	7%	69%	Underpriced
Home First Finance Company India Ltd.	19.46%	-2%	8%	-10%	Overpriced
Brookfield India Real Estate Trust	2.44%	-10%	-1%	-9%	Overpriced
Nureca Limited	53.75%	58%	0%	58%	Underpriced
MTAR Technologies Limited	82.61%	77%	-3%	80%	Underpriced
Easy Trip Planners Limited	13.50%	6%	-4%	10%	Underpriced
Craftsman Automation Limited	-8.79%	-3%	1%	-4%	Overpriced
Laxmi Organic Industries Limited	19.62%	49%	1%	48%	Underpriced
Nazara Technologies Limited	80.74%	49%	-2%	51%	Underpriced
Barbeque Nation Hospitality Limited	-2.03%	27%	-1%	28%	Underpriced
Macrotech Developers Limited	-10.29%	23%	-3%	26%	Underpriced
MEAN	**26.81%**	**28.91%**	**0.53%**	**28.39%**	

Source: National Stock Exchange Website

A total of twelve new IPOs were issued during the period under observation. Eight of the IPOs of 8 IPOs was positive and the average return was 28.91%. Eight out of twelve IPOs in the period showed had positive listing day gains with the mean return being 26.81%. The 10 days return of a total positive abnormal return implying they were underpriced while only 4 were overpriced and zero IPOs were fairly valued. A portfolio of only the IPOs issued during the period under observation with each share being held for only 10 days from its listing day would have a generated a return far superior to the shares of market index NSE Nifty-50 held for the same duration as the mean market return was a nominal 0.53% as compared to 28.91% in case of the new IPOs.

The companies that gave positive listing day gains did not necessarily had positive returns after 10 days thus it can be concluded that just because the listing day gains are high it doesn't guarantee positive short term gains.

Table 2: Table showing the details of selected variables, listing and normal gains

Sl. No.	Name of the company	Age of the Company (years)	Size of IPO (in crores)	Promoters Holdings	Listing day gains	10 Days Normal Gain
1	Indian Railway Finance Corporation Limited	34	3100	86.36	-4.23%	-2%
2	Indigo Paints Limited	21	1176	54	75.00%	75%
3	Home First Finance Company India Ltd.	11	265	20.26	19.46%	-2%
4	Brookfield India Real Estate Trust	1	3800	54.37	2.44%	-10%
5	Nureca Limited	5	100	70	53.75%	58%
6	MTAR Technologies Limited	51	596.41	50.25	82.61%	77%
7	Easy Trip Planners Limited	13	510	74.9	13.50%	6%
8	Craftsman Automation Limited	35	150	59.76	-8.79%	-3%
9	Laxmi Organic Industries Limited	32	600	72.92	19.62%	49%
10	Nazara Technologies Limited	22	568.91	20.7	80.74%	49%
11	Barbeque Nation Hospitality Limited	15	180	35.7	-2.03%	27%
12	Macrotech Developers Limited	41	2500	88.5	-10.29%	23%

Source: National Stock Exchange Website

Of all the companies that launched an IPO in the observed period, Brookfield India Real Estate Trust is the youngest company, with one year of age, has the least 10-day gain while MTAR technologies is the oldest company with the age of 51 years has rewarded investors with the most listing day gains as well as 10 days normal gains. In case of size of an IPO, Nureca had the smallest IPO and gave more than 50% return as listing day gains as well as 10-day normal gain while Brookfield India with the largest IPO had given only 2.44% as listing days return and a negative 10% return as 10 days normal gains. Companies with more than 50% of the shareholding with promoters gave a mean listing day return of 24.84% and mean 10-day normal return of 30% whereas companies with less than 50% promoter's holdings gave mean return of 32.72% and 25% for listing day and 10 days normal gains respectively. Therefore, it may be concluded from the data observed in the above that older companies with a small IPO size and less than 50% share as promoter's shareholding will outperform IPOs of companies that are new, have a large IPO size and majority proportion of shares in the form of promoter's holdings.

Table 3: Table showing the regression results

Summary OutPut						
Regression Statistics						
Multiple R Square						
R Square	0.238					
Standard Error	0.370					
Obesrvation						
ANNOVA	df	SS	MS	F	Sig. F	
Regression	3	0.343	0.114	0.835	0.511	
Residual	8	1.096	0.137			
Total	11	1.439				
	Coef.	**Std. Err.**	**T.Stat.**	**P-Val.**	**Lower 95%**	**Upper 95%**
Intercept	0.573	0.312	1.838	0.103	-0.146	1.293
Age of the company (Years)	0.004	0.004	0.557	0.592	-0.014	0.022
Size of IPO (in crores)	0.000	0.000	-0.583	0.576	0.000	0.000
Promoters Holdings	-0.006	-0.006	-1.050	0.324	-0.019	0.007

No significant relationship between Age, Size and promoter holdings listing day gains
Source: SPSS Output

The statistical model for listing days gains made using regression has 0.24 as the R-square value and P-values of more than 0.05 for all the factors selected. This implies that the factor selected do not have a significant relationship with the listing day gains. Out of the three selected fundamental factors, Promoter's shareholding after the IPO has the most significant relationship with the listing day gains. The statistical model for 10-day normal gains made using regression has 0.23 as the R-square value and P-values of more than 0.05 for all the factors selected.

CONCLUSION

It has been observed from the calculations that most of the IPO offered in the period under observation have positive short-term gains implying they are underpriced. Therefore, it can be concluded that Indian IPOs are undervalued and thus leave money on the table for the issuer of these IPOs. From the regression analysis it is observed that there is no significant relationship between the factors such as age of the company, promoters holding in the company and the size of the IPO with the listing day's returns and the 10-day period return of the IPO. From the factors considered, 'Share of promoter's holdings' have the most significant effect on the gains among the other factors. However**,** the data is limited to the period under observations and thus may yield different result for different periods. Also, the analysis is mainly based on monetary information only and some non-monetary information is ignored.

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