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## International Journal of Multidisciplinary Research in Science, Engineering and Technology (IJMRSET)

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# A Comparative Study of IPO Valuation in India: Discounted Cash Flow V/S Market Multiple Approach

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**ABSTRACT:** This paper looks at the performance of two popular valuation techniques applied in pricing the Initial Public Offerings (IPO) in the Indian capital market, that is, the Discounted Cash Flow (DCF) technique and the Market Multiples technique. The IPO valuation is a very important issue of corporate finance as it determines the investor demand, the success of the subscription and the performance of the company in the long term. The valuation of IPO companies is however usually challenging as they have little financial track record, uncertain cash flows in the future and high growth rates. The research will be founded on secondary data gathered on 20 Indian firms that had launched IPOs in the period 2018-2024. Draft Red Herring Prospectuses (DRHPs), annual reports of the companies, stock exchange filings and other valid financial sources provided financial information.

The paper uses both DCF and Market Multiples techniques of valuing companies and comparing them with the real prices of IPO issues. The relationship between the estimated valuation and actual IPO prices was assessed by multiple linear regression analysis, graphical analysis and prediction error analysis. The results indicate that both the valuation techniques are statistically significant in explaining IPO prices.

Nevertheless, Market Multiples valuation explains and predicts better than DCF valuation. The regression model yielded a very high R<sup>2</sup> value of 0.9908 which shows high level of model reliability. Graphical analysis also revealed that Market Multiples were more related to IPO prices compared to DCF valuation. The mean error of the predictions of the model was 9.73 and this is acceptable accuracy in financial modelling. This paper finds that in India, the pricing of IPOs is more affected by market-based relative valuation than by intrinsic valuation techniques. The results can be applied by investors, analysts, investment bankers and companies intending to go public.

**KEYWORDS:** IPO Valuation, Discounted Cash Flow, Market Multiples, Indian Capital Market, Regression Analysis, Relative Valuation

## I. INTRODUCTION

The Initial Public Offering (IPO) is a very important stage in the history of life of any company since it is a moment when privately controlled company is transformed to the publicly traded company. By issuing IPO, companies can attract capital by their public investors, increase publicity towards their companies and have a wider access to the financial markets. Pricing of the companies in the IPO process is a key aspect in determining the success of the offering because it has a direct effect on the demand of investors, the performance of the listing, and long-term shareholder value.

The process of valuation during an IPO is complicated since most companies joining the public market lack a track record of operations, their cash flows are not predictable and growth prospects are high. The IPO firms tend to be in fast-evolving industries unlike mature firms with consistent financial performance where the conventional methods of valuation outcomes could be different. Therefore, the investment bankers and financial analysts use various valuation techniques to establish the rational price band of the IPO offerings.



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The Discounted Cash Flow (DCF) method and Market Multiples (Relative Valuation) are some of the most widely used valuation methods. DFS approach is an intrinsic method of valuation that approximates the present value of the future cash flows of a company at a reasonable cost of capital. This approach is conceptually based upon the principles of financial valuation and trying to reflect the underlying economic value of the company on the basis of its future financial performance.

$$\text{Firm Value} = \sum_{t=1}^n \frac{FCF_t}{(1+r)^t}$$

Where,

- FCF = Free Cash Flow
- r = Discount Rate
- t = Time Period

Whereas DCF method is very common in the corporate finance, it involves proper forecasting of the future revenues, margins, and capital expenditure, which in the case of companies going public, can be extremely unpredictable. Due to this reason, analysts tend to supplement intrinsic valuation techniques with relative valuation techniques. The market multiples technique is used to value a firm by comparing it with other firms that are publicly traded using financial ratios like Price- to-Earnings (P/E), Enterprise Value to EBITDA (EV/EBITDA), and Price-to- Sales (P/S). Such multiples indicate market sentiment and investor expectations and thus they are very handy in IPO valuation where market comparables are used as a point of reference in pricing decisions.

Over the past few years, the Indian IPO market has grown drastically with a number of high-profile IPOs in the technology sector, fintech, e-commerce, and digital services. Zomato, Nykaa, Paytm and Policybazaar are some of the companies that have drawn a lot of attention of investors when it comes to their IPOs. Nonetheless, the pricing of most of these IPOs has been a subject of controversy of whether such valuation techniques are good to capture the underlying value of companies or whether they are affected by the market mood and are driven by the speculative demand.

A number of studies indicate the IPO pricing can be off-putting intrinsic values depending on a number of factors including, information asymmetry, investor optimism, and underpricing by the issuing companies and underwriters. Consequently, there is the need to empirically test the effectiveness of various valuation methods in describing IPO pricing outcomes.

This paper seeks to make comparisons between the usefulness of the Discounted Cash Flow model and Market Multiples model in estimating the IPO valuation in Indian capital market. The study uses secondary level of financial information of the chosen IPO companies to place a reliance on the valuation methods and utilizes the multiple regression analysis to find out the connection between approximated valuations and actual prices of IPO issues.

This study is likely to add to the existing literature on the IPO valuation due to its empirical outcomes on the comparative effectiveness of the intrinsic and relative methods of valuating IPOs in the emerging market like India. Further, the findings can have implications on investors, financial analysts and investment bankers to make decisions on the pricing and valuation of IPOs.

### II. REVIEW OF LITERATURE:

The study conducted by Loughran and Ritter examined the change in the underpricing of IPO during the course of decades. The authors analyzed data on the IPO in the United States and discovered that the degree of underpricing has fluctuated a lot over the periods of time. This paper was traveling on the argument that investment banks and underwriters are significant in the process of establishing the price of IPOs.

The authors revealed how investment bankers gather data on institutional investors prior to setting the final offer price of IPO. In the process, investors specify what they say they are ready to spend at the various levels. The underwriters in turn rely on this to set the best price that can result in the highest program of investor demand and the valuation expectations of the issuer.



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Damodaran gave an in-depth structure of valuing firms through basic financial analysis. The paper has highlighted the application of the Discounted Cash Flow (DCF) model as a major intrinsic valuation tool. The author notes that the value of any company is calculated based on the present value of its future cash flow

Kaplan and Ruback tested accuracy of discounted cash flow valuations by comparing this value with the actual price of transactions in corporate acquisition. In the study, multiple leveraged buyout deals were examined and the researcher found that the estimates of the DCF are usually consistent with the market values in the case of availability of value financial forecasts.

Ljungqvist made a wide survey of scholarly literature with respect to the issue of IPO pricing and underpricing. The research was a summary of the empirical results of various IPO markets across the globe. The author claims that IPO valuation depends on various factors such as information asymmetry, reputation of underwriters, institutional investor participation or involvement, and market sentiment.

### Research Gap:

Current research on IPOs concentrates largely on the aspects of underpricing, performance in the stock market and investor actions, particularly in developed economies such as the US and Europe. Although certain studies elaborate on the description of DCF (intrinsic valuation) and Market Multiples (relative valuation) independently, few studies compare the two valuation techniques with each other in the context of IPO pricing.

In addition, empirical studies are lacking in developing countries such as India which has a different IPO dynamics based on the high-growth companies, investor mood, and market fluctuations.

Thus, this paper addresses the gap by the comparative effectiveness of DCF and Market Multiples in IPO pricing in India.

### Scope of Study:

This study focuses on analysing IPO valuation in the Indian capital market, specifically comparing:

- Discounted Cash Flow (DCF) method
- Market Multiples (P/E, EV/EBITDA, P/S)

Key scope includes:

- Sample of IPO companies listed between 2018–2024
- Data collected from DRHPs, annual reports, NSE/BSE filings
- Covers industries like technology, finance, consumer goods, etc.
- Compares estimated valuations with actual IPO prices
- Uses regression analysis to identify which method is more accurate

### Data Methodology

#### a) Data Collection

- Type: Secondary Data
- Sources:
  - DRHP & RHP documents
  - NSE & BSE websites
  - Company annual reports
  - Financial platforms (Moneycontrol, Capital Market reports)

#### b) Sample

- 20 IPO companies
- Time period: 2018–2024
- Covers multiple industries

#### c) Variables Used

- Dependent Variable:
  - IPO Issue Price
- Independent Variables:



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- DCF Valuation
  - Market Multiples Valuation
- d) Tools & Techniques
- Multiple Linear Regression (main analysis)
  - Scatter plots & graphical analysis
  - Prediction & error analysis
  - Software used: Microsoft Excel (Data Analysis ToolPak)
- e) Purpose of Methodology
- To test relationship between valuation methods and IPO price
  - To compare accuracy and explanatory power of DCF vs Multiples

### III. DATA ANALYSIS

#### 3.1 Introduction

This chapter presents the empirical analysis of IPO valuation in the Indian capital market by comparing two widely used valuation techniques: Discounted Cash Flow (DCF) and Market Multiples. The main objective is to examine which method better explains IPO pricing.

The analysis is based on a sample of 20 IPO companies listed between 2018 and 2024. Various statistical tools such as multiple linear regression, graphical analysis, and prediction error analysis have been used to evaluate the relationship between valuation estimates and actual IPO prices.

#### 3.2 Data Description

The dataset includes IPO companies from different sectors such as technology, financial services, manufacturing, and consumer goods. This ensures that the analysis captures diverse valuation practices across industries.

Table 3.1: Sample Data

Company	Year	IPO Price (₹)	DCF Value (₹)	Multiples Value (₹)
Zomato	2021	76	48	62
Nykaa (FSN E-Commerce)	2021	1125	740	890
Paytm (One97 Communications)	2021	2150	980	1420
Policybazaar (PB Fintech)	2021	980	620	810
Delhivery	2022	487	350	420
LIC India	2022	949	780	910
Zyudus Wellness	2019	1460	1210	1325
Latent View Analytics	2021	197	140	175
Aether Industries	2022	642	520	610
Sona BLW Precision	2021	291	240	275
Burger King India	2020	60	44	55
Happiest Minds	2020	166	130	158
Route Mobile	2020	350	270	320
Affle India	2019	745	590	710
Indigo Paints	2021	1490	1180	1380
Dodla Dairy	2021	428	350	410
MTAR Technologies	2021	575	460	540
Data Patterns	2021	585	470	560



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Campus Activewear	2022	292	230	270
Mamaearth (Honasa Consumer)	2023	324	250	305

The dataset contains three key variables:

- **IPO Price:** Actual issue price offered to investors
- **DCF Value:** Intrinsic valuation based on future cash flows
- **Multiples Value:** Relative valuation based on comparable firms

The data was checked for consistency and no missing values were found, ensuring reliability of analysis.

### 3.3 Methodology and Tools

#### 3.3.1 Research Approach

A quantitative research approach has been adopted to analyse the effectiveness of valuation methods. The study uses secondary data collected from DRHPs, stock exchange filings, and company reports.

#### 3.3.2 Regression Model

To examine the relationship between IPO price and valuation methods, the following regression model is used:

$$IPO\ Price = \beta_0 + \beta_1(DCF\ Value) + \beta_2(Multiples\ Value) + \epsilon$$

Where:

- IPO Price = Dependent variable
- DCF & Multiples = Independent variables
- $\beta_0$  = Intercept
- $\epsilon$  = Error term

#### 3.3.3 Steps in Analysis

1. Data arranged in Excel format
2. Data Analysis ToolPak used
3. Regression model applied
4. Coefficients,  $R^2$ , and p-values analyzed
5. Graphical and prediction analysis performed

#### 3.3.4 Additional Techniques

- Scatter plots to visualize relationships
- Trendlines &  $R^2$  to measure strength
- Error analysis to evaluate prediction accuracy

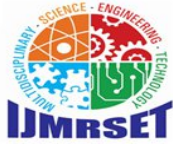
### 3.4 Regression Analysis Results

Table 3.2: Regression Output

Variable	Coefficient	Standard Error	t-Statistic	p-value
Intercept	-39.22	21.41	-1.83	0.0846
DCF Value (₹)	-2.05	0.235	-8.71	0
Multiples Value (₹)	2.91	0.193	15.08	0

Interpretation of Results

- The DCF coefficient (-2.05) indicates a negative relationship with IPO price.
- The Market Multiples coefficient (2.91) shows a strong positive relationship.
- Both variables are statistically significant ( $p < 0.05$ ).



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This suggests that Market Multiples have a stronger influence on IPO pricing compared to DCF valuation.

### 3.5 Model Summary

Table 3.3: Model Summary

Statistic	Value
R Square	0.9908
Adjusted R <sup>2</sup>	0.9897
Multiple R	0.9954
Standard Error	55.46

#### Interpretation

- The R<sup>2</sup> value of 0.9908 indicates that 99.08% of variation in IPO prices is explained by the model.
- The small difference between R<sup>2</sup> and Adjusted R<sup>2</sup> confirms that the model is not overfitted.
- The high Multiple R value shows a very strong correlation.

This confirms that the model is highly reliable and statistically strong.

### 3.6 Graphical Analysis

#### IPO Price vs Market Multiples

- Strong positive linear relationship
- R<sup>2</sup> = 0.9498
- Data points closely clustered

#### IPO Price vs DCF

- Moderate relationship
- R<sup>2</sup> = 0.8679
- Data points more scattered

#### Interpretation

- Market Multiples provide better explanatory power
- DCF shows higher variability due to uncertain cash flows

Graphical results support regression findings.

### 3.7 Prediction and Error Analysis

#### Procedure

- Regression equation used to estimate IPO prices
- Error calculated as difference between actual and predicted values

Table 3.4: Prediction Accuracy

Measure	Value
Average Error	9.73%

#### Interpretation

- Error below 10% indicates good predictive accuracy
- Model is practically useful for IPO valuation

### 3.8 Hypothesis Testing

Table 3.5: Hypothesis Results



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Hypothesis	Description	Result
H1	DCF vs IPO Price	Accepted
H2	Multiples vs IPO Price	Accepted
H3	Multiples better than DCF	Strongly Accepted

### Explanation

- DCF is significant but less reliable
- Multiples show stronger explanatory power
- Market-based valuation dominates IPO pricing

### IV. DISCUSSION

The study results show that both Discounted Cash Flow (DCF) and Market Multiples are statistically significant in the pricing of IPO, but the effectiveness varies. The positive correlation between market multiples and IPO prices is higher indicating that firms are valued using industry standards and other similar companies.

Conversely, DCF valuation exhibits poorer performance because it is based on future projecting cash flows, which are not certain in the case of IPO companies, particularly in high-growth industries. The graphical and prediction analysis also substantiate that Market Multiples are more consistent and accurate.

In general, the analysis has shown that in India, IPO pricing is more affected by the market sentiment, expectation of investors, and relative valuation, as opposed to fundamental analysis.

### V. CONCLUSION

This paper has found that both valuation techniques are helpful, but Market Multiples is more effective in explaining the price of IPOs in India. Regression findings indicate that the explanatory power of the regression is strong and Market Multiples are more impactful and accurate than DCF valuation. DCF is not as reliable as it would be theoretically because of assumptions on growth and cash flows. Market Multiples on the other hand capture current market trends and investor behavior and are therefore more relevant in the valuation of IPO. Thus, IPO pricing in India is mostly market-oriented as opposed to intrinsic valuation alone and traders are more dependent on relative valuation methods.

### VI. POSSIBLE EXTENSIONS OF THE STUDY

To generalize the study, one can increase the sample size and time to enhance the study. To achieve a more in-depth analysis, other valuation methods in the future (e.g. asset-based or hybrid) can be added.

Moreover, the inclusion of macroeconomic factors such as interest rates, inflation, and market volatility can offer more information about the pricing of IPOs. Such aspects as the role of investor sentiment, subscription levels, and the market trends can also be analyzed in detail.

More sophisticated methods like the use of panel data or machine learning models can enhance accuracy in predictions. Also, the comparative analysis of the developed and emerging markets could be used to learn the global IPO valuation practices.

### REFERENCES

1. Ritter, J. R. (1991). The long-run performance of initial public offerings. *The Journal of Finance*, 46(1), 3–27.



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(A Monthly, Peer Reviewed, Refereed, Scholarly Indexed, Open Access Journal)

2. Loughran, T., & Ritter, J. R. (2004). Why has IPO underpricing changed over time? *Financial Management*, 33(3), 5–37.
3. Benveniste, L. M., & Spindt, P. A. (1989). How investment bankers determine the offer price and allocation of new issues. *Journal of Financial Economics*, 24(2), 343–361.
4. Beatty, R. P., & Ritter, J. R. (1986). Investment banking, reputation, and the underpricing of initial public offerings. *Journal of Financial Economics*, 15(1–2), 213–232.
5. Damodaran, A. (2002). *Investment valuation: Tools and techniques for determining the value of any asset* (2nd ed.). John Wiley & Sons.
6. Kaplan, S. N., & Ruback, R. S. (1995). The valuation of cash flow forecasts: An empirical analysis. *The Journal of Finance*, 50(4), 1059–1093.
7. Berk, J., & DeMarzo, P. (2014). *Corporate finance* (3rd ed.). Pearson Education.
8. Kim, M., & Ritter, J. R. (1999). Valuing IPOs. *Journal of Financial Economics*, 53(3), 409–437.
9. Fernández, P. (2001). Valuation using multiples: How do analysts reach their conclusions? *IESE Business School Working Paper*.
10. Liu, J., Nissim, D., & Thomas, J. (2002). Equity valuation using multiples. *Journal of Accounting Research*, 40(1), 135–172.
11. Bhojraj, S., & Lee, C. M. C. (2002). Who is my peer? A valuation-based approach to the selection of comparable firms. *Journal of Accounting Research*, 40(2), 407–439.
12. Baker, M., & Wurgler, J. (2007). Investor sentiment in the stock market. *Journal of Economic Perspectives*, 21(2), 129–152.
13. Lowry, M., Officer, M. S., & Schwert, G. W. (2010). The variability of IPO initial returns. *The Journal of Finance*, 65(2), 425–465.
14. Ljungqvist, A. (2007). IPO underpricing. In B. E. Eckbo (Ed.), *Handbook of corporate finance: Empirical corporate finance* (pp. 375–422). Elsevier.



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