

IMPACT OF GREY MARKET PREMIUM ON LISTING PRICE OF IPO

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Abstract: - Grey Market Premium signifies market sentiment and anticipated demand for an IPO prior to its listing. Despite GMP's common use as an IPO performance predictor, its accuracy needs empirical validation. The objectives of the study are to study the impact of GMP on the listing prices of IPO and the factors that are considered by the investors in selection IPO. Primary data is collected from 400 investors using convenience sampling method. The findings revealed that higher GMPs are generally associated with higher listing prices, making GMP a valuable predictor for investment strategies. From analysis it is confirmed that a significant dependency between subscription levels and GMP, indicating that higher subscription levels result in higher GMPs, reflecting strong market demand and sentiment. Retail investors play critical role in influencing GMP. with higher retail subscription levels leading to higher GMPs...

Keywords: Grey Market Premium, Retail investors, IPO, Listing prices

1. INTRODUCTION

The grey market premium (GMP) is a key metric associated with grey market trading, especially during the IPO phase. It represents the difference between the unofficial grey market price of a company's shares and the IPO price set by the company itself (N & K, 2022). In other words, the Grey Market Premium reflects the premium or discount at which investors are willing to buy or sell shares in the grey market compared to the IPO price. The GMP predicts how the IPO will perform on its first day of trading (Jiang et al., 2023)

Retail investors in India frequently consider GMP a crucial indicator when choosing to subscribe to IPOs. Analysing how GMP influences their decision-making can offer significant insights into their psychology and behaviour (Löffler et al., 2005). Comparing GMP forecasts with actual IPO results can verify its dependability as a prediction tool. Assessing GMP's accuracy can provide insights into market efficiency and the impact of unofficial indicators on official market outcomes (Shaikh & Padhi, 2013). Analysing the impact of GMP can help retail investors understand the factors affecting IPO performance, aiding them in making more rational and informed investment choices. Understanding GMP's influence on investment decisions can also lead to developing strategies to mitigate risks, particularly for retail investors vulnerable to market speculation (Sahoo & Rajib, 2010)

Retail investors primarily seek listing gains in the Indian IPO market. Grey Market Premium (GMP) is an informal market where IPO prices are traded before official listing, affecting investor decisions. Empirical results suggest that grey market prices are predictable and associated with initial listing returns (D. V. Chandu et al., 2024). Selling at grey market prices and subsequent short-covering has been shown to be profitable. The listing day returns are strongly positively related to GMP that is measured on the day prior to listing (Cornelli & Goldreich, 2003). This



finding indicates that grey market prices provide early indications regarding listing day prices (Falconieri & Tastan, 2018). The grey market activity does not have an impact on the trading activity on the listing day. It appears that for issues with high investor interest trading takes place in the pre-listing grey market as impatient investors do not need to wait until stock market listing (Lowry & Shu, 2002). The aftermarket returns start correcting sharply from listing day onwards when we use grey market prices as the basis (Loughran & McDonald, 2013). This gives rise to a profitable trading strategy of selling at grey market prices followed by short-covering upon listing (V. Chandu et al., 2022).

GMP is closely linked to the listing gains of IPOs. A higher GMP often correlates with a higher listing price. This relationship suggests that GMP is a useful tool for predicting IPO performance (Zaremba & Szyszka, 2016). However, it is crucial to recognize that while GMP provides insights into potential gains, it is not always a reliable predictor, as it does not account for all market conditions and company fundamentals. Retail investors focus on short-term listing gains rather than evaluating the underlying value of the company (van Heerden & Alagidede, 2012).

By dividing IPOs into high and low GMP IPOs, the analysis is carried out to know whether there are any significant differences between them. By and large there are no significant differences between high and low GMP IPOs as far as offer related characteristics are concerned. When it comes to the degree of underpricing, there are contrasting results for low and high GMP IPOs (BRAU & FAWCETT, 2006). It was found that high GMP IPOs experience high level of underpricing than low GMP IPOs. In the light of analysis, it is accepted that grey market premiums are unbiased predictors of underpricing or listing day prices and high GMP IPOs have better explanatory power (ELLIS, 2006). Subscription levels, retail investor insights, and educational background also significantly impact IPO awareness and market sentiment (Hanley, 1993).

Furthermore, there is a need to evaluate the accuracy of GMP predictions in relation to actual IPO performance and to understand the various factors Indian retail investors consider when subscribing to IPOs ((Rajamadagu & M. S., 2022).

2. METHODS:

The primary objectives of the study are to study the impact of GMP on the listing prices of IPO and the factors that are considered by the investors in selection IPO. For this purpose, the companies listed between January 2023 and June 2024 in the Indian IPO market are considered. Primary data has been collected through structured questionnaire from 400 investors using conveyance sampling method.

3. DATA ANALYSIS AND FINDINGS:

The following analysis is based on the secondary data.

3.1 GMP predictions for companies listed between 2023-2024

281 companies are listed in the stock exchanges between 2023 and 2024. Their listing day opening prices compared to the expected prices.

Out of 281 companies, 144 (approximately 51.25%) had listing day opening prices above the expected price and 137 companies (approximately 48.75%) had listing day opening prices below the expected price. The GMP predictions were fairly accurate as there is almost an even split between companies whose listing prices were above or below the expected prices. The close distribution (144 vs. 137) indicates that the GMP is a reasonably indicator of the actual listing day open prices.

3.2 Correlation between Grey market premium and listing price.

Null hypothesis : There is no correlation between GMP and the listing open price.

Alternate hypothesis : There is a positive correlation between GMP and the listing open price.

Correlation analysis has been done to test the above hypothesis.

Pearson correlation analysis conducted between the Grey Market Premium (GMP) and the listing open price of IPOs of 281 companies listed on the NSE between 2023 and 2024.

The Pearson correlation coefficient between the listing open price and GMP is 0.651. This value indicates a moderate to strong positive linear relationship between the listing open price and the GMP. The correlation coefficient of 0.651 suggests that as the Grey Market Premium (GMP) increases, the listing open price also tends to increase. This implies that higher GMPs are generally associated with higher initial trading prices on the listing day. The very

low p-value (< 0.001) confirms that the observed correlation is statistically significant, providing strong evidence against the null hypothesis (which states that there is no correlation between GMP and the listing open price). Therefore, we can confidently state that there is a significant positive relationship between the two variables.

The moderate to strong positive correlation suggests that GMP is a useful predictor of the listing day open price. Investors can use GMP to gauge potential listing prices, aiding in investment decisions. The correlation, while significant, is not perfect (0.651), indicating that there are other factors influencing listing prices. Overreliance on GMP alone could lead to misinformed investment decisions if other variables are ignored. The correlation coefficient does not account for market anomalies, external shocks, or sudden changes in market conditions. Investors relying solely on GMP may be unprepared for unexpected market movements. Pearson correlation measures only linear relationships. It may oversimplify the relationship between GMP and listing prices, missing out on potential non-linear dynamics or more complex interactions. Correlation does not imply causation. The positive relationship does not confirm that GMP directly causes higher listing prices. Other underlying factors or coincidental trends may influence both GMP and listing prices (Hawaldar et al., 2018).

3.3 Dependency relationship between total subscription level and the GMP.

Null hypothesis : There is no relationship between the total subscription level and the GMP.

Alternate hypothesis : There is a dependency relationship between the total subscription level and the GMP.

The regression analysis e the dependent variable is the Grey Market Premium (GMP) as times greater than the issue price, and the independent variable is the total subscription level. The F-statistic (443.023) is very high and the p-value (< 0.001) is very low, indicating that the model is statistically significant and the predictor (total subscription level) reliably explains the variation in GMP. R (0.736): This indicates a strong positive correlation between the total subscription level and the GMP. R Square (0.542): Approximately 54.2% of the variance in GMP can be explained by the total subscription level. Adjusted R Square (0.540): This value, adjusted for the number of predictors, is very close to the R Square, indicating a good fit with minimal bias. The constant term (0.158) represents the expected GMP when the total subscription level is zero. The coefficient for Total Subs(times) (0.002) suggests that for each unit increase in the total subscription level, the GMP increases by 0.002 times the issue price. The high t-value (21.048) and very low p-value (< 0.001) indicate that the total subscription level is a highly significant predictor of GMP. A Beta value of 0.736 means that for each unit change in the total subscription level, the GMP changes by 0.736 units.

Investors can use total subscription levels as a reliable indicator of GMP. A higher subscription level typically suggests a higher GMP, providing insight into market demand and potential price appreciation. The significant positive relationship between total subscription levels and GMP reflects strong market sentiment. Higher subscription levels indicate higher investor interest, translating into higher GMPs (Abrahamson, 2024).

3.4 Dependency relationship between retail investors' subscription level and the GMP.

Null hypothesis : There is no relationship between the retail investors' subscription level and the GMP.

Alternate hypothesis: There is a dependency relationship between retail investors' subscription level and the GMP.

In ANOVA analysis for a regression model where the dependent variable is the Grey Market Premium (GMP) as times greater than the issue price, and the independent variable is the subscription level of retail investors (RII). The high F value (26.233) and its significance ($p < 0.001$) indicate that the regression model is a good fit for the data, meaning the RII subscription level significantly predicts the GMP. R Square (0.275): This indicates that approximately 27.5% of the variance in GMP can be explained by the RII subscription level. Adjusted R Square (0.265): This adjusted measure accounts for the number of predictors in the model, showing a similar explanatory power. Unstandardized Coefficient (B) for RII: For every one-unit increase in the RII subscription level, the GMP increases by 0.005 times the issue price. Standardized Coefficient (Beta): 0.525 indicates a moderate to strong positive relationship between RII subscription levels and GMP. The high t-value (5.122) and its significance ($p < 0.001$) confirm that the relationship is statistically significant.

The RII subscription level is a significant predictor of GMP, explaining 27.5% of its variance. The moderate to strong positive Beta value (0.525) suggests that higher RII subscription levels are associated with higher GMPs. Investors can use the RII subscription level as an indicator to gauge potential GMP, aiding in investment decisions. Given the statistically significant relationship, monitoring RII subscription levels can provide valuable insights into market expectations and demand. The positive relationship indicates that strong retail investor interest

(higher RII) generally correlates with higher GMPs, reflecting positive market sentiment. Investors and analysts can infer market enthusiasm from high RII levels, anticipating higher GMPs. However, the R Square value (0.275) suggests that while RII is a significant predictor, there are other factors influencing GMP that are not captured by this model. Investors should consider additional variables and broader market conditions for a more comprehensive analysis (Sundarasan et al., 2018).

3.5 The different factors that are considered by investors while investing in the IPOs are as follows.

A significant majority of respondents (70.8%) opined that company's business model and uniqueness as very important or highly important when investing in an IPO. A notable 41.3% of respondents opined that management team's track record as very important or highly important for IPO decisions, emphasizing the value of leadership experience. Most respondents (71.0%) opined that industry growth prospects as very important or highly important for IPO decisions. A significant majority (87.3%) opined that financial performance indicators as very or highly important for IPO decisions, underscoring the critical role of a company's financial health. A significant 54.3% of respondents opined that GMP or investor sentiment as very or highly important for IPO decisions, highlighting its key role in investment choices. A notable 40.0% of respondents opined that the competitive landscape within the industry as very or highly important for IPO decisions, emphasizing its significance in their investment choices (Tan et al., 2015).

There is notable variation in opinions about the importance of the regulatory environment and compliance history. many investors are indifferent or only moderately concerned with regulatory compliance in their investment decisions. A substantial 63.1% of respondent's opined that market conditions and the economic outlook as either very or highly important for IPO investment decisions, reflecting their significance in investor evaluations. Approximately 35.1% of respondents opined that timing as very or highly important, suggesting that strategic timing decisions can be crucial for aligning with market conditions. The majority of respondents (69.6%) consider a company's brand reputation and market position to be very or highly important, emphasizing their significance in investment decisions. Technological innovation, intellectual property, sustainability and CSR and strategic vision are important factors that investors consider while investing (Ljungqvist et al., 2006). The majority of respondents (55.0%) opined that the influence of media on GMP as highly important, with 19.8% considering it very important. Conversely, 6.3% find it not important at all. This suggests that media influence significantly impacts investor perceptions of GMP. The majority of respondents (35.5%) view investing in IPOs as highly risky. the data highlights a strong awareness among retail investors of the risks associated with IPO investments. The majority of respondents are optimistic about IPO success thus investors have a positive outlook on the success of IPOs (Omran, 2005).

The majority of respondents (41.3%) opined that impact of GMP on IPOs "Highly important," indicating its crucial role in their investment decisions. The majority of respondents opined that GMP as a valuable indicator. Overall, the data reflects confidence in GMP as a useful tool for evaluating market sentiment and IPO performance.

3.6 Significance of education in IPO awareness level .

Null hypothesis : Education does not significantly affect IPO Awareness.

Alternate hypothesis : Education significantly affects IPO Awareness.

R: The correlation coefficient (0.515) indicates a moderate positive relationship between Education and IPO Awareness. R Square: This value (0.265) indicates that approximately 26.5% of the variance in IPO Awareness can be explained by Education. Adjusted R Square: This value (0.264) is slightly adjusted for the number of predictors in the model and remains close to the R Square value, confirming the model's robustness. Std. Error of the Estimate: The standard deviation of the residuals (1.230) measures the average distance that the observed values fall from the regression line. R Square Change: This value (0.265) indicates the change in the R Square value due to the inclusion of the Education variable. F Change: The F-statistic (143.863) tests the overall significance of the model. Sig. F Change: The p-value (<.001) indicates that the model is statistically significant. Sum of Squares (Regression): The variability explained by the model (217.690). Sum of Squares (Residual): The variability not explained by the model (602.247). df: Degrees of freedom. For regression, it's 1, and for residual, it's 398. Mean Square: Sum of Squares divided by the respective df. For regression, it's 217.690, and for residual, it's 1.513. F: The F-statistic (143.863) indicates that the regression model significantly predicts the outcome variable. The significance value (<.001) shows that the overall regression model is significant.

Unstandardized Coefficients (B): The slope of the regression line (0.952) indicates that for each unit increase in Education, IPO Awareness increases by 0.952 units. Standard Error: The standard error of the coefficient

(0.079) measures the average amount the coefficient estimates vary. Standardized Coefficients (Beta): The standardized coefficient (0.515) indicates the number of standard deviations that IPO Awareness will change as a result of one standard deviation change in Education. t: The t-statistic (11.994) tests the null hypothesis that the coefficient is equal to zero. Sig.: The p-value (<.001) indicates that the coefficient is statistically significant. Correlations: The Zero-order, Partial, and Part correlations (all 0.515) indicate the strength of the relationship between Education and IPO Awareness.

The regression analysis demonstrates that Education is a significant predictor of IPO Awareness. The model explains approximately 26.5% of the variance in IPO Awareness, indicating that as Education increases, IPO Awareness also increases (JAIN & KINI, 1994). The relationship is positive and statistically significant, with a moderate effect size. This means that individuals with higher levels of education tend to have higher awareness of IPOs (Sehgal & Singh, 2008). The model is robust, as indicated by the Adjusted R Square and the significance levels throughout the analysis (de Groot et al., 2012). Financial analysts can segment the investor population based on their education level and tailor strategies accordingly. Understanding that education significantly influences IPO awareness can help in predicting investment behaviours and preferences (Jampala et al., 2016).

4. Conclusion:

The analysis shows that Grey Market Premium (GMP) is a reasonably accurate predictor of IPO listing day opening prices, with an almost even split between companies listing above or below expected prices (Engelen & van Essen, 2010). While GMP is useful, it should not be the sole factor in investment decisions due to its limited accuracy. Further research is needed to understand the relationships between subscription levels, investor education, and GMP (Dhamija & Arora, 2017). While GMP is a useful predictor for investment strategies and risk management, it should not be solely relied upon due to its limitations and the potential influence of other factors (Gompers & Lerner, 2003). Investors should use GMP alongside other analytical tools and be cautious of market dynamics and non-linear interactions (Bansal & Khanna, 2012). Higher subscription levels generally lead to higher GMPs, reflecting strong market demand and sentiment. Investors can use subscription levels as a reliable predictor of GMP, aiding in investment strategies and risk management (Ellul & Pagano, 2006). Regulators might also use these insights to ensure fair IPO pricing practices (Neupane et al., 2014). Retail investors' subscription levels (RII) significantly predict the Grey Market Premium (GMP). Educated individuals are generally more aware of IPOs. Financial analysts can use these insights to tailor strategies and predict investment behaviours based on education levels (Bora et al., 2012). Key factors influencing IPO decisions include financial performance, the company's reputation, and industry growth prospects, with Grey Market Premium (GMP) and investor sentiment also playing significant roles (Elston & Yang, 2010). While GMP is a valuable indicator, it should be complemented by other analytical tools due to its limitations (Loughran et al., 1994).

Data Privacy statement: The data that support the findings of this study are available from the corresponding author, raveendrapv@msrit.edu, upon reasonable request.

References:

1. Abrahamson, M. (2024). Offer Price and Post-IPO Ownership Structure. *Journal of Risk and Financial Management*, 17(2), 61. <https://doi.org/10.3390/jrfm17020061>
2. Bansal, R., & Khanna, A. (2012). Determinants of IPOs Initial Return: Extreme Analysis of Indian Market. *Journal of Financial Risk Management*, 01(04), 68–74. <https://doi.org/10.4236/jrfm.2012.14012>
3. Bora, B., Adhikary, A., & Jha, A. (2012). Book Building Process: A Mechanism for Efficient Pricing in India. *International Journal of Trade, Economics and Finance*, 109–113. <https://doi.org/10.7763/IJTEF.2012.V3.182>
4. BRAU, J. C., & FAWCETT, S. E. (2006). Initial Public Offerings: An Analysis of Theory and Practice. *The Journal of Finance*, 61(1), 399–436. <https://doi.org/10.1111/j.1540-6261.2006.00840.x>
5. Chandu, D. V., Kumar, D. T. K., Sri, R. K., Kandimalla, J., Meenamrutha, C., & Siddhardha, K. L. (2024). An Empirical Study on Influence of Grey Market Premium and listing gains on Investment in Initial Public Offering. *Educational Administration: Theory and Practice*, 344–353. <https://doi.org/10.53555/kuey.v30i4.1470>
6. Chandu, V., Reddy, K. P., Srilakshmi, S., & Shifaly. (2022). Pre-investment perception of investors' towards security market in indian context. *International Journal of Professional Business Review*, 7(2), e0416. <https://doi.org/10.26668/businessreview/2022.v7i2.416>
7. Cornelli, F., & Goldreich, D. (2003). Bookbuilding: How Informative Is the Order Book? *The Journal of Finance*, 58(4), 1415–1443. <https://doi.org/10.1111/1540-6261.00572>
8. de Groot, W., Pang, J., & Swinkels, L. (2012). The cross-section of stock returns in frontier emerging markets. *Journal of Empirical Finance*, 19(5), 796–818. <https://doi.org/10.1016/j.jempfin.2012.08.007>
9. Dhamija, S., & Arora, R. K. (2017). Determinants of Long-run Performance of Initial Public Offerings: Evidence from India. *Vision: The Journal of Business Perspective*, 21(1), 35–45. <https://doi.org/10.1177/0972262916681243>

10. ELLIS, K. (2006). Who trades IPOs? A close look at the first days of trading☆. *Journal of Financial Economics*, 79(2), 339–363. <https://doi.org/10.1016/j.jfineco.2004.09.006>
11. Ellul, A., & Pagano, M. (2006). IPO Underpricing and After-Market Liquidity. *Review of Financial Studies*, 19(2), 381–421. <https://doi.org/10.1093/rfs/hhj018>
12. Elston, J. A., & Yang, J. J. (2010). Venture capital, ownership structure, accounting standards and IPO underpricing: Evidence from Germany. *Journal of Economics and Business*, 62(6), 517–536. <https://doi.org/10.1016/j.jeconbus.2010.08.003>
13. Engelen, P.-J., & van Essen, M. (2010). Underpricing of IPOs: Firm-, issue- and country-specific characteristics. *Journal of Banking & Finance*, 34(8), 1958–1969. <https://doi.org/10.1016/j.jbankfin.2010.01.002>
14. Falconieri, S., & Tastan, M. (2018). The role of admission documents on the pricing of UK fixed priced IPOs. *Economics Letters*, 173, 44–46. <https://doi.org/10.1016/j.econlet.2018.09.007>
15. Gompers, P. A., & Lerner, J. (2003). The Really Long-Run Performance of Initial Public Offerings: The Pre-Nasdaq Evidence. *The Journal of Finance*, 58(4), 1355–1392. <https://doi.org/10.1111/1540-6261.00570>
16. Hanley, K. W. (1993). The underpricing of initial public offerings and the partial adjustment phenomenon. *Journal of Financial Economics*, 34(2), 231–250. [https://doi.org/10.1016/0304-405X\(93\)90019-8](https://doi.org/10.1016/0304-405X(93)90019-8)
17. Hawaldar, I. T., Naveen Kumar, K. R., & Mallikarjunappa, T. (2018). Pricing and performance of IPOs: Evidence from Indian stock market. *Cogent Economics & Finance*, 6(1), 1420350. <https://doi.org/10.1080/23322039.2017.1420350>
18. JAIN, B. A., & KINI, O. (1994). The Post-Issue Operating Performance of IPO Firms. *The Journal of Finance*, 49(5), 1699–1726. <https://doi.org/10.1111/j.1540-6261.1994.tb04778.x>
19. Jampala, R. C., Lakshmi, P. A., & Dokku, S. R. (2016). A Study on Factors Influencing the Initial Public Offerings (IPO) in the Bombay Stock Exchange (BSE), India. *International Journal of Corporate Finance and Accounting*, 3(1), 22–35. <https://doi.org/10.4018/IJCF.2016010102>
20. Jiang, Z.-Z., Zhao, J., Yi, Z., & Zhao, Y. (2023). Inducing information transparency: The roles of gray market and dual-channel. *Annals of Operations Research*, 329(1–2), 277–306. <https://doi.org/10.1007/s10479-020-03719-0>
21. Ljungqvist, A., Nanda, V., & Singh, R. (2006). Hot Markets, Investor Sentiment, and IPO Pricing*. *The Journal of Business*, 79(4), 1667–1702. <https://doi.org/10.1086/503644>
22. Löffler, G., Panther, P. F., & Theissen, E. (2005). Who knows what when? The information content of pre-IPO market prices. *Journal of Financial Intermediation*, 14(4), 466–484. <https://doi.org/10.1016/j.jfi.2004.06.004>
23. Loughran, T., & McDonald, B. (2013). IPO first-day returns, offer price revisions, volatility, and form S-1 language. *Journal of Financial Economics*, 109(2), 307–326. <https://doi.org/10.1016/j.jfineco.2013.02.017>
24. Loughran, T., Ritter, J. R., & Rydqvist, K. (1994). Initial public offerings: International insights. *Pacific-Basin Finance Journal*, 2(2–3), 165–199. [https://doi.org/10.1016/0927-538X\(94\)90016-7](https://doi.org/10.1016/0927-538X(94)90016-7)
25. Lowry, M., & Shu, S. (2002). Litigation risk and IPO underpricing. *Journal of Financial Economics*, 65(3), 309–335. [https://doi.org/10.1016/S0304-405X\(02\)00144-7](https://doi.org/10.1016/S0304-405X(02)00144-7)
26. N, A. K., & K, D. R. K. (2022). A Study on Performance of IPO (Initial Public offering) with Special Reference to Selected Companies at BSE. *International Journal of Research Publication and Reviews*, 656–670. <https://doi.org/10.55248/gengpi.2022.3.11.7>
27. Neupane, S., Paudyal, K., & Thapa, C. (2014). Firm quality or market sentiment: What matters more for IPO investors? *Journal of Banking & Finance*, 44, 207–218. <https://doi.org/10.1016/j.jbankfin.2014.04.010>
28. Omran, M. (2005). UNDERPRICING AND LONG-RUN PERFORMANCE OF SHARE ISSUE PRIVATIZATIONS IN THE EGYPTIAN STOCK MARKET. *Journal of Financial Research*, 28(2), 215–234. <https://doi.org/10.1111/j.1475-6803.2005.00122.x>
29. Rajamadagu, S., & M. S., A. (2022). Performance Analysis of IPOs: Evidence from India. *PRAGATI: Journal of Indian Economy*, 9(1), 81–97. <https://doi.org/10.17492/jpi.pragati.v9i1.912205>
30. Sahoo, S., & Rajib, P. (2010). After Market Pricing Performance of Initial Public Offerings (IPOs): Indian IPO Market 2002–2006. *Vikalpa: The Journal for Decision Makers*, 35(4), 27–44. <https://doi.org/10.1177/0256090920100403>
31. Sehgal, S., & Singh, B. (2008). Determinants of Initial and Long-Run Performance of IPOs in Indian Stock Market. *Asia Pacific Business Review*, 4(4), 24–37. <https://doi.org/10.1177/097324700800400403>
32. Shaikh, I., & Padhi, P. (2013). The information content of implied volatility index (India VIX). *Global Business Perspectives*, 1(4), 359–378. <https://doi.org/10.1007/s40196-013-0025-4>
33. Sundarasan, S. D., Khan, A., & Rajangam, N. (2018). Signalling Roles of Prestigious Auditors and Underwriters in an Emerging IPO Market. *Global Business Review*, 19(1), 69–84. <https://doi.org/10.1177/0972150917713367>
34. Tan, Q., Dimovski, W., & Fang, V. (2015). The Underpricing of Infrastructure IPOs: Evidence from China. *Review of Pacific Basin Financial Markets and Policies*, 18(04), 1550025. <https://doi.org/10.1142/S0219091515500253>
35. van Heerden, G., & Alagidede, P. (2012). Short run underpricing of initial public offerings (IPOs) in the Johannesburg Stock Exchange (JSE). *Review of Development Finance*, 2(3–4), 130–138. <https://doi.org/10.1016/j.rdf.2012.10.001>
36. Zaremba, A., & Szyszka, A. (2016). Is the Abnormal Post-IPO Underperformance Really Abnormal? The Evidence from CEE Emerging Markets. *Emerging Markets Finance and Trade*, 52(12), 2721–2739. <https://doi.org/10.1080/1540496X.2016.1216988>