Jurnal Ilmiah Akuntansi dan Bisnis

Volume 9, Number 2, 2024 pp. 124-133 P-ISSN: 2528-2093 E-ISSN: 2528-1216

Open Access: https://journal.undiknas.ac.id/index.php/akuntansi/



The Rise of Tech Corporation In Indonesia: Are Tech IPOs Priced Differently?

Randy Kuswanto (D)

Accounting Department, Wiyatamandala School of Business, Jakarta, Indonesia

ARTICLEINFO

Article history:

Received: 2024-06-25 Revised: 2024-08-29 Accepted: 2024-10-20 Available Online: 2024-12-25

Keywords:

underpricing; technology firms; stock returns; indonesia stock exchange; Mann-Whitney U test; information asymmetry

DOI:

https://10.38043/jiab.v9i2.59

ABSTRACT

This research investigates whether technology IPOs in Indonesia are priced differently compared to non-technology IPOs, focusing on their post-IPO returns at various time points (T+1, T+7, T+30, T+90, and T+180). The study utilizes a sample of 325 IPO firms, including 33 technology firms, that went public between 2017 and 2023. Using the Mann-Whitney U test, the research analyzes differences in stock returns between technology and non-technology sectors. The results indicate no statistically significant differences in returns at any of the observed time points, challenging the common assumption that technology IPOs are subject to higher underpricing due to higher uncertainty and growth potential. The findings suggest that market conditions, information transparency, and governance mechanisms may have mitigated sector-specific pricing differences. This research contributes to the literature on IPO pricing by providing evidence from an emerging market context and offers valuable insights for investors and policymakers regarding the dynamics of IPO pricing in Indonesia.

This is an open access article under the <u>CC BY-SA</u> license.



1. INTRODUCTION

Underpricing in the context of initial public offerings (IPOs) refers to the situation where the offer price of IPO shares is set lower than their first-day trading price in the secondary market. This phenomenon has been extensively studied in empirical equity market research (Borges, 2006; Giudici, 2000; Marcato et al., 2018; Mumtaz et al., 2016; Z. Wang et al., 2022). It is important for investors to understand underpricing as it can have significant implications for their investment decisions. When IPO shares are underpriced, investors who are able to secure shares at the offer price can potentially earn a significant return by selling the shares in the secondary market on the first trading day. This presents an opportunity for investors to capitalize on the price differential between the offer price and the first-day trading price.

Several factors have been identified as influencing underpricing in stock offerings. Information asymmetry is a prominent factor influencing underpricing. For example, Sahoo & Raj (2022) highlighted the impact of disclosed qualitative factors on underpricing in the Indian IPO market, emphasizing the role of issue price and initial market price expectations. Additionally, Chahine et al. (2019) examined the influence of venture capital firm reputation on IPO valuations in the United States, indicating the significance of reputation transfer in affecting investor valuations of IPOs. Boulton et al. (2021) found that the existence and number of visits to a Wikipedia article are associated with IPO underpricing, indicating the role of investor awareness and information asymmetry. Additionally, Tajuddin et al. (2019) highlighted the effects of information asymmetry in the context of Shariah-compliant status and investors' demand for IPOs, suggesting its impact on underpricing. Market conditions and economic uncertainty also play a significant role in underpricing. Gupta et al. (2023) demonstrated that factors such as investors' subscription rate, issue expenses, lead manager reputation, and economic policy uncertainty are associated with underpricing, emphasizing the influence of economic conditions. Moreover, Li et al. (2020) indicated that volatile market conditions and institutional constraints contribute to the IPO anomaly, underscoring the impact of market dynamics on underpricing. Corporate and financial characteristics of IPO firms are crucial determinants of underpricing. Chen et al. (2024) examined the impact of anti-takeover provisions on IPO underpricing, highlighting the role of corporate governance mechanisms. Furthermore, Kuswanto (2020) found the non-financial information like the risk factors could also lower the price of the stock, emphasizing the significance of firm-specific attributes. In conclusion, the determinants of underpricing in IPOs are multifaceted and encompass information asymmetry, market conditions, corporate and financial characteristics, regulatory factors, and cultural influences. Understanding these factors is essential for investors, regulators, and market participants to comprehend the dynamics of underpricing and its implications for the capital market.

In the past half-decade, there has been progressive change in relation to IPO activity in Indonesia. There has been a significant increase in IPO activity since 2017. Over the period of 2017-2023, the number of issuers increased to 903 companies compared to the number registered at the end of 2016, which was 537 companies. This increase in IPO activity amounted to a 68.15% increase, representing a highly significant uptrend over the past eight years. Even during the COVID-19 pandemic, there were 50 companies that went public in 2020, the highest number in ASEAN. During period 2017 to 2023, there was a significant number of technology sector companies going public. Moreover, in January 2020, the Indonesia Stock Exchange implemented a new sector classification called IDX Industrial Classification (IDX-IC). This classification system replaced the Jakarta Stock Industrial Classification (JASICA) that had been used by the exchange since 1996. One of the new industry classifications in IDX-IC is the emergence of the Technology sector, which includes the subsectors of Software & IT Services and Hardware & Technology Equipment. As the end of 2023, there were a total of 44 (4.76%) technology sector companies listed on the Indonesia Stock Exchange.



Figure 1. The increasing of tech IPOs numbers over the years

The surge in technology IPOs has attracted considerable attention in the capital market, particularly regarding the phenomenon of underpricing. Several studies have investigated this issue, shedding light on various factors influencing IPO underpricing in the technology sector. Yu et al., (2022) found significant underpricing in the stocks of high-tech companies on the SSE STAR Market and Nasdaq Market, indicating a potential for overpricing. Baschieri et al., (2021) highlighted that IPO firms with high local investor demand may be more underpriced, suggesting a possibility of overpricing in high-tech IPOs due to difficulties in valuation. Additionally, Bc & Liu, (2021) noted that non-GAAP measure disclosure and insider trading incentives in high-tech IPO firms could impact stock returns, indicating potential overpricing. Predkiewicz et al., (2021) argued that a high degree of pre-IPO leverage in high-tech companies is associated with increased uncertainty and risk, potentially leading to higher underpricing and, by extension, overpricing. Gao & Hou, (2019) also found that higher leverage is associated with increased risks and uncertainty, resulting in greater underpricing of high-tech IPOs, suggesting a potential for overpricing in these firms. In conclusion, the evidence from these studies suggests that there is a possibility of overpricing in high-tech IPOs, as indicated by significant underpricing, difficulties in valuation, impact of non-GAAP measures, and the association of leverage with increased risk and uncertainty in high-tech IPOs.

This research aims to investigate the underpricing phenomenon of technology firm IPOs in Indonesia. The study seeks to fill a gap in the existing literature by focusing specifically on the pricing dynamics of technology firm IPOs in Indonesia, which has not been extensively explored in previous research. However, these findings are primarily drawn from developed markets, with limited studies examining whether these patterns hold true in emerging markets like Indonesia. Moreover, while Indonesian IPO activity has increased substantially since 2017—driven by the introduction of the IDX Industrial Classification system and the growing presence of technology firms—little is known about how these structural changes have influenced IPO pricing dynamics in the technology sector. This research seeks to address this gap by focusing specifically on the pricing behavior of technology IPOs in Indonesia, comparing it to non-technology IPOs. By doing so, this study provides novel insights into the applicability of global IPO pricing theories within the context of a developing market.

This research contributes in at least three ways. First, by focusing specifically on the underpricing phenomenon across the world in the context of technology firm IPOs, this research addresses a notable gap in the

existing literature. Previous studies have predominantly examined IPO underpricing across various industries without specifically delving into the unique pricing dynamics of technology firms. Therefore, this research can contribute to a more comprehensive understanding of the underpricing behavior of tech IPOs. Secondly, From an academic perspective, the research can contribute to the theoretical understanding of IPO underpricing by focusing on a specific industry segment. The findings of the study can enrich the academic literature on IPO pricing dynamics, underpricing determinants, and the implications for different industry sectors, particularly in the context of technology firms. For the last, The findings of this research can have practical implications for investors seeking to participate in tech IPOs. Understanding whether tech IPOs are priced differently can help investors make informed decisions about their investment strategies, risk assessment, and potential returns. Moreover, the research can offer insights into the factors that may contribute to underpricing in technology firm IPOs, enabling investors to better evaluate the quality and performance of these offerings.

Finally, this article is written based on the following structure. The research gap, research's novelty, and literature review are presented in section 1. Section 2 will present sample and population data, research indicators, and research methods to investigate the Tech IPOs stock price phenomenon. Section 3 describes the findings and results for answering the research question. The last section, section 4, presents the conclusions of this study.

2. METHOD

Research Design

This research adopts a quantitative approach to examine the phenomenon of underpricing in technology firm IPOs in Indonesia. A descriptive and comparative research design will be employed to assess whether underpricing in tech IPOs differs from other sectors. The study aims to identify key factors influencing underpricing in technology IPOs by utilizing secondary data obtained from the Indonesia Stock Exchange (IDX) and other relevant financial databases.

This study employs a comparative quantitative research design to examine the differences in stock returns between technology and non-technology firms following their IPOs. Specifically, the study will assess the stock returns at five distinct time points: T+1 (one day after the IPO), T+7 (seven days after the IPO), T+30 (thirty days after the IPO), T+90 (ninety days after the IPO), and T+180 (one hundred and eighty days after the IPO). This design enables a comprehensive analysis of the post-IPO performance over short-term and medium-term periods.

Given the large variance typically observed in stock market returns, a non-parametric approach is necessary. Therefore, the Mann-Whitney U test, a non-parametric test that does not rely on the assumption of normal distribution, will be used to compare the differences in returns between technology and non-technology firms at each time point.

Sample and Population

The population for this study consists of all public companies conducted initial public offerings in Indonesia between January 2017 and December 2023. A focus will be placed on companies categorized under the technology sector, which includes Software & IT Services and Hardware & Technology Equipment as classified by the IDX Industrial Classification (IDX-IC). For comparison purposes, non-tech companies from other sectors that went public during the same period will also be included in the study. A purposive sampling technique will be employed to select companies based on the following criteria:

- a) The company conducted an IPO on the Indonesia Stock Exchange (IDX) between 2017 and 2023.
- b) Complete financial data is available for the IPO, including the offering price, first-day trading price, and relevant corporate financials such as stock-split or reverse split information for price adjustment.
- c) Data on stock returns for the specified time points (T+1, T+7, T+30, T+90, and T+180) must be available.

The sample selection process is detailed in Table 1. Out of a total of 391 companies that conducted IPOs during the 2017–2023 period, exclusions were made for suspended shares, companies with missing data, and delisted shares, resulting in a final sample of 358 companies.

Table 1. Sampling Framework

Criteria	Number of Companies		
Total IPOs 2017–2023)	391		
Excluded: Suspended stock during T1-T180	(26)		
Excluded: Incomplete data	(6)		
Excluded: Delisted stock	(1)		
Final sample	358		

p-ISSN: 2528-1216, e-ISSN: 2528-2093

Finally, we collect 358 firm out of 391 IPOs during 2017-2023. Since we analyze the window period of T+1, T+7, T+30, T+90, and T+180, in total we analyze 1.790 stock price historical data.

The selected timeframe of 2017 to 2023 was chosen for its relevance to significant changes in Indonesia's capital market landscape. First, the period marks the introduction of the IDX Industrial Classification system in January 2020, which included the formal categorization of the Technology sector. This development reflected the increasing prominence of technology firms within the Indonesian economy and their growing participation in IPO activity. Second, the timeframe captures the effects of the COVID-19 pandemic, during which Indonesia experienced a surge in IPO activity, with 50 companies going public in 2020—the highest in ASEAN. These factors make the period particularly suitable for analyzing the pricing dynamics of technology IPOs in a rapidly evolving market.

Data Analysis

To examine whether there is a significant difference in stock returns between technology and non-technology firms at the five time points, the following analyses will be conducted:

a. Descriptive Statistics

Descriptive statistics, including the median, interquartile range, and variance, will be reported for the returns at each time point (T+1, T+7, T+30, T+90, and T+180) for both technology and non-technology firms. These statistics will provide an overview of the distribution and variability of returns across the two sectors.

b. Mann-Whitney U Test

Given the potential for high variance and non-normal distribution of stock returns, the Mann-Whitney U test will be used to compare the differences in returns between technology and non-technology firms. The test will be applied at each of the five time points (T+1, T+7, T+30, T+90, and T+180) to determine whether the differences in returns between the two sectors are statistically significant.

The Mann-Whitney U test is appropriate for this analysis because:

- a) It is a non-parametric test, which does not require the assumption of normality in the data.
- b) It compares the medians between two independent groups (technology and non-technology firms).
- It is robust to outliers and large variances, which are common in stock return data.

The null hypothesis (H₀) for each test will be that there is no significant difference in returns between technology and non-technology firms at the given time point. The alternative hypothesis (H₁) is that there is a significant difference in returns between the two groups.

Research Indicator/Variable

The primary indicator used to assess the research hypothesis is the stock return, calculated at each time point (T+1, T+7, T+30, T+90, and T+180) as follows:

$$R_{t+x} = \frac{P_{t+x} - IPO}{IPO} \tag{1}$$

Where:

= number of days after the IPO (T+1, T+7, T+30, T+90, and T+180)

R at t+x = stock return at the respective time point

= stock price at the end of the trading day for the respective time point P at t+x

IPO = Offering price of each stock

3. RESULT AND DISCUSSION

Results

We compiled data from IPOs conducted between 2017 and 2023, which initially included 391 firms, of which 36 belonged to the technology sector. After obtaining the closing price data from the Indonesia Stock Exchange (IDX), we excluded firms that had been delisted, suspended, or had incomplete data. We also have adjusted the offering price if a stock have any corporate action such as stock-split and reverse-split to avoid the miss calculation of the stock return. As a result, our final sample consists of 358 firms (33 tech-stocks) that meet the necessary criteria for analysis.

Table 2 summarizes the number of IPO stocks that experienced positive returns at five distinct time points following their initial public offerings (IPOs). The positive returns at each point (T+1, T+7, T+30, T+90, and T+180) indicate underpricing, where the first trading prices were higher than the IPO prices. This analysis is based on a sample of 325 IPO stocks, 33 of which belong to the technology sector.

FED. 1 1 A	3 T 1	0 1	4 1 4 4	the state of the s		4	
Table 7	Number	ot stock	which h	have positive	refurn at ea	ch fime	noint
I abic 2.	Tullioci	OI STOCK	WILL I	nave positive	ictuill at ca	CII tIIIIC	pomi

Time Point	All Stocks (N = 358)	Tech Stocks (N = 33)	Non-Tech Stocks (N = 325)
T+1	300	28	272
T+7	271	30	241
T+30	256	28	228
T+90	224	23	201
T+180	204	23	181

From the table 2, it is evident that a significant majority of IPO stocks across both technology and non-technology sectors show positive returns on the first day of trading (T+1). However, as time progresses, the number of stocks exhibiting positive returns declines. This is true for both technology and non-technology stocks, indicating a reduction in underpricing over time.

- i. T+1 (1 day post-IPO): 83.80% of all stocks experienced positive returns. Technology stocks showed a slightly lower percentage of positive returns (84.85%) compared to non-technology stocks (83.69%).
- ii. T+180 (180 days post-IPO): By T+180, the percentage of stocks showing positive returns decreased to 56.98% for all stocks, with technology stocks (69.70%) showing a marginally better performance than non-technology stocks (55.69%).

The data indicates that while underpricing is prevalent across the board, technology stocks show a marginally lower percentage of positive returns initially, but they tend to maintain better performance over the medium term (180 days post-IPO).

Table 3. The mean and median of all sample

Time Point	Mean (All)	Mean (Tech)	Mean (Non- Tech)	Median (All)	Median (Tech)	Median (Non- Tech)
T+1	26.56%	22.30%	27.00%	33.90%	20.00%	34.19%
T+7	75.70%	63.72%	76.91%	37.29%	43.75%	36.67%
T+30	116.26%	133.36%	114.52%	33.44%	47.00%	33.33%
T+90	137.92%	175.17%	134.14%	23.13%	51.00%	19.64%
T+180	188.28%	521.68%	154.43%	9.92%	41.59%	7.88%

The data on table 3 presents the mean and median returns of IPO stocks at five time points (T+1, T+7, T+30, T+90, and T+180) for all stocks, technology stocks, and non-technology stocks. The mean return for all IPO stocks starts at 26.56% on T+1 and rises significantly to 188.28% at T+180. However, the median return shows a more conservative increase, peaking at 33.90% on T+1 and dropping to 9.92% by T+180. This indicates a wide variance in stock performance, where a few outliers likely pulled the mean higher.

On T+1, non-technology stocks had a slightly higher mean return (27.00%) than technology stocks (22.30%), indicating that non-tech IPOs may have been more underpriced initially. By T+30, technology stocks begin to outperform non-technology stocks in terms of mean returns, with a significant difference at T+90 (175.17% vs. 134.14%) and T+180 (521.68% vs. 154.43%). This suggests that while technology IPOs might start slower, they tend to yield higher returns over the medium term. The median returns for technology stocks were consistently lower than non-tech stocks at T+1 but improved over time, peaking at 51.00% at T+90, compared to non-tech stocks' 19.64%. This indicates that, on average, technology stocks outperformed their non-tech counterparts, but the distribution was less consistent.

The observed variations between mean and median returns for technology IPOs highlight the heterogeneity within the sector. High mean returns suggest that a small number of technology firms achieved exceptional post-IPO performance, potentially due to strong market demand or unique business models. However, the lower median returns indicate that the majority of technology IPOs performed closer to the overall market average. This disparity underscores the importance of considering individual firm characteristics, such as size, profitability, and growth potential, in future analyses.

In summary, technology IPOs, although less underpriced initially, tend to provide substantially higher returns over the medium term (T+180), indicating their potential for long-term growth and investor appeal. The

higher median returns for technology stocks at later time points (T+90 and T+180) suggest that, while some tech IPOs may lag initially, the sector as a whole offers better performance compared to non-tech stocks over time.

Mann Whitney U Test

The results of the Mann-Whitney U test presented in the table 4. We compare the returns of technology and non-technology firms at five distinct time points following their initial public offerings (IPOs) T+1, T+7, T+30, T+90, and T+180. At T+1, the Mann-Whitney U value is 4742.500 with a Z-value of -1.095 and a p-value of 0.273. Since the p-value is greater than 0.05, this indicates no statistically significant difference in returns between technology and non-technology firms on the first day after the IPO. Similarly, the Z-value is not extreme enough to reject the null hypothesis, which supports the conclusion that both groups of firms perform similarly on T+1.

Table 4. Mann Whitney Test

Time Point	Mann- Whitney U	Z-Value	Asymp. Sig. (2-tailed)	Hypothesis Conclusion
T+1	4742.5	-1.095	0.273	Fail to reject H ₀ (No significant difference)
T+7	5135.5	-0.401	0.689	Fail to reject Ho (No significant difference)
T+30	5060.5	-0.533	0.594	Fail to reject Ho (No significant difference)
T+90	4783.5	-1.022	0.307	Fail to reject Ho (No significant difference)
T+180	4686	-1.194	0.232	Fail to reject Ho (No significant difference)

On T+7, the Mann-Whitney U value is 5135.500, and the Z-value is -0.401, with a p-value of 0.689. This result is consistent with T+1, as the p-value remains well above the significance threshold of 0.05, showing no significant difference between the returns of technology and non-technology firms after one week of trading. At T+30, the Mann-Whitney U value is 5060.500 with a Z-value of -0.533 and a p-value of 0.594. Again, the results suggest that there is no significant difference in returns between the two groups 30 days after the IPO, as the p-value is still above the 0.05 threshold. The Z-value also reinforces this interpretation, as it does not indicate strong evidence to reject the null hypothesis.

At T+90, the Mann-Whitney U value is 4783.500, with a Z-value of -1.022 and a p-value of 0.307. Despite the longer time horizon, the p-value remains greater than 0.05, showing no statistically significant difference in returns between technology and non-technology firms after 90 days. The Z-value further suggests that the two groups of firms do not perform differently at this point in time. Lastly, at T+180, the Mann-Whitney U value is 4686.000, the Z-value is -1.194, and the p-value is 0.232. Once again, the results show no significant difference between the returns of the two groups at 180 days post-IPO, as the p-value remains higher than the threshold of 0.05. The Z-value is consistent with the previous time points and does not indicate a divergence in the performance of technology and non-technology firms.

Across all time points—T+1, T+7, T+30, T+90, and T+180—the results consistently show that there are no statistically significant differences in stock returns between technology and non-technology IPOs. This suggests that the pricing dynamics of technology firms, while possibly distinct in terms of sector characteristics, do not result in significantly different return patterns when compared to non-technology firms within the observed time frame. Despite some variations in mean returns observed in descriptive statistics, these differences are not large enough to be statistically significant, as confirmed by the Mann-Whitney U test results.

These findings imply that while technology firms may exhibit different growth expectations and business models, the market does not price them differently from non-technology firms in the post-IPO phase, at least within the first 180 days. This outcome can be attributed to market conditions, investor behavior, or valuation techniques that apply uniformly across sectors. Future research might explore longer time horizons or alternative factors contributing to IPO performance in different sectors.

Discussions

The results of this study indicate that there is no statistically significant difference in the returns of technology and non-technology firms at any time point (T+1, T+7, T+30, T+90, T+180) following their IPOs. This finding challenges the prevailing assumption that technology IPOs, due to their distinct characteristics such as high uncertainty and growth potential, should exhibit significantly different pricing dynamics compared to non-technology IPOs. Various prior studies have explored the factors influencing IPO underpricing, and these findings can be analyzed in relation to our results.

The absence of statistically significant differences in returns can be attributed to several factors. One possible explanation is the role of corporate governance and institutional investors in Indonesia. Recent regulatory improvements, such as mandatory financial disclosures and increased oversight by the Financial Services Authority (OJK), may have reduced information asymmetry across sectors, leading to more uniform IPO pricing. Additionally, the growing involvement of institutional investors, including venture capital firms, may have acted as a stabilizing factor, mitigating the risks traditionally associated with technology IPOs. As Borges (2006) and Mumtaz et al. (2016) noted, underpricing is often influenced by broader market sentiment, which affects all firms regardless of industry. Given the period of analysis from 2017-2023, which saw the implementation of the new IDX Industrial Classification, COVID-19 pandemic, and a significant upsurge in IPO activity (as noted in this study), the uniform market dynamics may have influenced both tech and non-tech IPOs similarly (Aprillianto & Wardhaningrum, 2021). Investors' general confidence in the IPO market during this time may have reduced the distinctiveness of tech IPO pricing, leading to comparable pricing behavior across sectors.

Another factor worth exploring is the influence of market conditions. The surge in IPO activity during the COVID-19 pandemic, coupled with strong investor confidence, likely created a favorable environment for all sectors, diminishing sector-specific pricing differences. This is supported by the data showing that both technology and non-technology IPOs achieved high initial returns (T+1), which gradually normalized over time. Additionally, information asymmetry is a crucial determinant of IPO underpricing (Jamaani & Alidarous, 2019; Neghab et al., 2023). High-tech firms typically suffer from greater information asymmetry due to their innovative and often intangible assets, which are harder to value (Guo et al., 2021). However, the results of this study suggest that this asymmetry may not have been as pronounced in the Indonesian market. This is potentially due to improved transparency and information disclosure practices in recent years, particularly with the growing use of venture capital (VC) backing. As noted by Wang (2018), VC can act as a certification mechanism, reducing perceived risk and, consequently, the underpricing gap. If Indonesian tech firms were backed by prominent VC firms, the initial uncertainty that usually leads to underpricing might have been mitigated, resulting in pricing behavior similar to that of non-tech firms.

Another factor to consider is the impact of investor sentiment. Several studies have found that technology stocks are particularly susceptible to heightened investor enthusiasm, which can drive underpricing (Chen et al., 2021; Yu et al., 2022). However, this study shows that despite technology firms' potential for high growth, their post-IPO returns do not significantly differ from non-technology firms. This suggests that the initial enthusiasm for tech IPOs may not have been as strong as in other markets, or that speculative behavior, while present, affected both tech and non-tech stocks similarly in the Indonesian context.

Moreover, the general trend observed in this study supports the notion that long-term underperformance may follow initial underpricing (Hanafi & Hanafi, 2022; Sentis, 2009). While technology firms might initially seem poised for higher growth due to their innovative potential, their performance in the medium term (T+90 and T+180) does not diverge significantly from non-tech firms. This could indicate a correction in investor expectations as the market adjusts to the true value of these firms over time.

In conclusion, while the existing literature suggests that technology IPOs are typically more underpriced due to factors such as information asymmetry and investor sentiment, this study finds no statistically significant difference between technology and non-technology IPO returns in the Indonesian market. This could be due to improved transparency, reduced information asymmetry, and market conditions that affected both sectors equally. Future research could explore the role of VC backing, corporate governance, and market sentiment in greater detail to further elucidate the pricing dynamics of tech IPOs in Indonesia.

4. CONCLUSION

This research aimed to investigate whether technology IPOs in Indonesia are priced differently compared to non-technology IPOs by examining their post-IPO returns over multiple time points. The statistical results from the Mann-Whitney U test indicate that there is no significant difference in the returns between technology and non-technology firms at T+1, T+7, T+30, T+90, and T+180. Despite the widely held assumption that technology firms should exhibit distinct pricing dynamics due to their innovative nature, higher uncertainty, and growth potential, this study found that both technology and non-technology firms follow a similar pricing trajectory post-IPO.

These findings challenge the conventional understanding of IPO underpricing in the technology sector, particularly within the context of Indonesia. The absence of significant pricing differences could be attributed to market conditions, improvements in information transparency, and the role of venture capital and corporate governance in reducing perceived risks. Furthermore, the results suggest that investor sentiment in Indonesia may not differentiate strongly between technology and non-technology firms, leading to comparable pricing behavior

in the medium term. However, it is important to note certain limitations of this study. First, potential data bias stemming from reliance on IDX data may influence the generalizability of the findings. Second, the limited observation window of 180 days may not fully capture long-term pricing trends or sector-specific dynamics. These limitations suggest caution in interpreting the results and underscore the need for further research with expanded datasets and extended observation periods.

The implications of this research are twofold. First, it contributes to the academic literature by offering empirical evidence that contradicts the commonly observed pattern of higher underpricing for technology IPOs in other markets. This suggests that sector-specific pricing behaviors may not be as pronounced in emerging markets like Indonesia. Second, for investors and policymakers, the findings highlight the importance of considering broader market conditions and firm-specific factors, rather than relying solely on sector-based assumptions when evaluating IPO opportunities. This research provides valuable insights for future studies that seek to explore the complex dynamics of IPO pricing in developing markets, with an emphasis on the role of market sentiment, information asymmetry, and governance structures in shaping pricing outcomes.

5. ACKNOWLEDGEMENT

This research was supported by funding from the Wiyatamandala School of Business. We express our sincere gratitude to the institution for its financial support, which has been instrumental in facilitating the successful completion of this study. We would also like to extend our appreciation to the faculty members and administrative staff for their guidance and encouragement throughout the research process. Their insights and resources have significantly contributed to the depth and quality of this work. Lastly, we acknowledge the valuable contributions of all participants and collaborators who provided data, feedback, and expertise, enriching the outcomes of this research.

6. REFERENCES

- Aprillianto, B., & Wardhaningrum, O. A. (2021). Pandemi Covid-19: Lebih Baik Menambah Utang Atau Ekuitas? *JURNAL AKUNTANSI UNIVERSITAS JEMBER; Vol 19 No 1 (2021)DO - 10.19184/Jauj.V19i1.26420*. https://jurnal.unej.ac.id/index.php/JAUJ/article/view/26420
- Bakar, N. B. A., & Uzaki, K. (2014). The Impact of Underwriter Reputation and Risk Factors on the Degree of Initial Public Offering Underpricing: Evidence From Shariah-Compliant Companies. *Iafor Journal of Business & Management*, 1(1). https://doi.org/10.22492/ijbm.1.1.02
- Banerjee, S., Dai, L., & Shrestha, K. K. (2011). Cross-Country IPOs: What Explains Differences in Underpricing? Journal of Corporate Finance, 17(5), 1289–1305. https://doi.org/10.1016/j.jcorpfin.2011.06.004
- Baschieri, G., Carosi, A., & Mengoli, S. (2021). The decision to go public and the IPO underpricing with locally biased investors. *The European Journal of Finance*, 27(15), 1489–1532.
- Borges, M. R. (2006). Underpricing of Initial Public Offerings: The Case of Portugal. *International Advances in Economic Research*, 13(1), 65–80. https://doi.org/10.1007/s11294-006-9064-9
- Boulton, T. J., Shohfi, T., & Xin, D. (2021). Investor Awareness or Information Asymmetry? Wikipedia and IPO Underpricing. *Financial Review*, *56*(3), 535–561. https://doi.org/10.1111/fire.12276
- Boulton, T. J., Smart, S. B., & Zutter, C. J. (2013). Industrial Diversification and Underpricing of Initial Public Offerings. *Financial Management*, 42(3), 679–704. https://doi.org/10.1111/fima.12012
- Chahine, S., Filatotchev, I., Bruton, G. D., & Wright, M. (2019). "Success by Association": The Impact of Venture Capital Firm Reputation Trend on Initial Public Offering Valuations. *Journal of Management*, 47(2), 368–398. https://doi.org/10.1177/0149206319847265
- Chen, H., Tang, S., Wu, D., & Yang, D. (2021). The political dynamics of corporate tax avoidance: The Chinese experience. *The Accounting Review*, 96(5), 157–180.
- Chen, K., Li, X., Wan, Q., Ye, J., & Yang, M. (2024). Do Anti-Takeover Provisions Restrain IPO Underpricing? An analysis From the Perspective Of information Asymmetry. *China Accounting and Finance Review*, 26(1), 55–75. https://doi.org/10.1108/cafr-10-2022-0111

- Chong, T. T. L., Yuan, S., & Yan, I. K. (2010). An Examination of the Underpricing of H-Share IPOs in Hong Kong. *Review of Pacific Basin Financial Markets and Policies*, 13(04), 559–582. https://doi.org/10.1142/s0219091510002074
- Gao, S., & Hou, T. C.-T. (2019). An Empirical Examination of IPO Underpricing Between High-technology and Non-high-technology Firms in Taiwan. *Journal of Emerging Market Finance*, 18(1), 23–51. https://doi.org/10.1177/0972652719831535
- Giudici, G. (2000). What Drives the Initial Market Performance of Italian IPOs? An Empirical Investigation on Underpricing and Price Support. SSRN Electronic Journal. https://doi.org/10.2139/ssrn.241929
- Guo, X., Li, K., Yu, S., & Wei, B. (2021). Enterprises' R&D Investment, Venture Capital Syndication and IPO Underpricing. *Sustainability*, *13*(13), 7290. https://doi.org/10.3390/su13137290
- Gupta, V., Singh, S., & Yadav, S. S. (2023). Disaggregated IPO returns, economic uncertainty and the long-run performance of SME IPOs. *International Journal of Emerging Markets*, 18(10), 3847–3867. https://doi.org/10.1108/IJOEM-09-2020-1098
- Hanafi, S. M., & Hanafi, M. M. (2022). Shariah vs Non-Shariah IPO Underpricing: Evidence From Indonesia Stock Exchange. *Journal of Islamic Accounting and Business Research*, 13(7), 1073–1094. https://doi.org/10.1108/jiabr-02-2021-0060
- Hawaldar, I. T., 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
- Jamaani, F., & Alidarous, M. (2019). Review of Theoretical Explanations of IPO Underpricing. *Journal of Accounting Business and Finance Research*, 6(1), 1–18. https://doi.org/10.20448/2002.61.1.18
- Li, M., Liu, D., Zhang, J., & Zhang, L. (2020). Volatile Market Condition, Institutional Constraints, and IPO Anomaly: Evidence From the Chinese Market. *Accounting and Finance*, 61(1), 1239–1275. https://doi.org/10.1111/acfi.12609
- Marcato, G., Milcheva, S., & Zheng, C. (2018). Market Integration, Country Institutions and IPO Underpricing. *Journal of Corporate Finance*, 53, 87–105. https://doi.org/10.1016/j.jcorpfin.2018.10.002
- Mumtaz, M. Z., Smith, Z. A., & Ahmed, A. M. (2016). An Examination of Short-Run Performance of IPOs Using Extreme Bounds Analysis. *Estudios De Economía*, 43(1), 71–95. https://doi.org/10.4067/s0718-52862016000100004
- Neghab, D. P., Çevik, M., & Başar, A. (2023). *Identifying the Factors Influencing IPO Underpricing Using Explainable Machine Learning Techniques*. https://doi.org/10.21428/594757db.a1c96ea4
- Predkiewicz, K., Pauka, M., & Predkiewicz, P. (2021). IPO Success of High-Technology Companies. *EUROPEAN RESEARCH STUDIES JOURNAL*, *XXIV*(Issue 3B), 799–816. https://doi.org/10.35808/ersj/2539
- Randy Kuswanto. (2020). Disclosure of Risk Factors on Prospectus and Initial Public Offerings (IPO) Performance: Evidence from Indonesia. *Jurnal Ilmiah Akuntansi Dan Bisnis*, Vol 15 No 1 (2020), 15–22.
- Sahoo, S., & Raj, R. (2022). Disclosed Qualitative Factors and Underpricing: An Empirical Evidence From Indian IPO Market. *Pacific Accounting Review*, 34(5), 687–707. https://doi.org/10.1108/par-06-2021-0098
- Sentis, P. (2009). Merging Activity as a Rational Explanation for the Long-Run Underperformance of IPO. *Multinational Finance Journal*, 13(1/2), 75–102. https://doi.org/10.17578/13-1/2-4
- Tajuddin, A. H., Mohd-Rashid, R., Khaw, K. L.-H., & Yahya, N. C. (2019). Shariah-Compliant Status and Investors' Demand for IPOs: The Effects of Information Asymmetry. *International Journal of Islamic and Middle Eastern Finance and Management*, *12*(4), 489–508. https://doi.org/10.1108/imefm-01-2019-0026
- Tian, L., & Zhang, W. (2014). Extreme IPO Underpricing. *Nankai Business Review International*, 5(2), 225–255. https://doi.org/10.1108/nbri-02-2014-0012

- Wang, A. (2018). Technology, R & Amp; amp; D and IPO Underpricing: The Moderator Effect of Venture Capital. *Journal of Service Science and Management*, 11(06), 631–649. https://doi.org/10.4236/jssm.2018.116043
- Wang, Z., Wang, X., Xu, Y., & Cheng, Q. (2022). Are green IPOs priced differently? Evidence from China. *Research in International Business and Finance*, 61, 101628. https://doi.org/10.1016/j.ribaf.2022.101628
- Wong, E. S. K., Wb, R. W., & Ting, L. S. (2017). Initial Public Offering (IPO) Underpricing in Malaysian Settings. *Journal of Economic & Financial Studies*, 5(02), 14. https://doi.org/10.18533/jefs.v5i02.276
- Yu, M., Liu, G., & Qi, C. (2022). IPO Pricing, Investor Behavior, and IPO Underpricing of High-Tech Companies: Evidence From SSE STAR Market and Nasdaq Market. *Discrete Dynamics in Nature and Society*, 2022(1). https://doi.org/10.1155/2022/1711645