# Impact of Potential of Follow-on Offerings on IPOs Initial Returns

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## Abstract

This paper examined 410 IPOs listed on Bursa Malaysia throughout 2003–2019 to investigate the signalling impact of potential follow-on offerings (PFOs) on initial returns. We found a negative yet insignificant association between PFO and initial return. Assuming that the diverse signalling mechanisms based on the different levels of investor demand (DD) may have contributed to the insignificant negative result, we found that the interaction between PFO and DD provides a possible path in connecting to IPO initial return. Significant negative results of the interaction term indicate that while the influence of PFO on initial return depends on the level of DD, IPO return would be significantly lower for firms with a higher PFO. Consequently, a higher PFO suggests greater potential for the issuance of external equity financing, sends a negative signal to investors, and leads to a downward adjustment on overvalued price and initial return. Our findings add to the signalling theory in the context of an emerging country, namely, Malaysia.

**Keywords:** IPO; Underpricing; Potential Follow-on Offering; Investor Demand; Oversubscription

## 1.0 Introduction

An Initial Public Offering (IPO) refers to the sale of shares by a private entity to potential inventors in order to be listed on an exchange. The initial return of an IPO, which is often underpriced, is the first-day trading return derived from the difference between the offer price and market selling prices. Investors consider IPOs one of the best investment opportunities to produce excessive instant returns (Liu et al., 2023; Mehmood et al., 2023; Mohd-Rashid et al., 2019). Vast amounts of empirical support are available for such excessive returns. Ibbotson et al. (1994) reported an average increase from 21.1% in 1960 to 55.5% in 1992 for the United States (US). Ritter and Welch (2002) found similar findings for the US between 1980 and 2001, peaking at 65% between 1999 and 2000. Despite discrepancies in ranges, most US market studies have reported positive excess returns (see Bradley & Jordan, 2002; Ligon & Liu, 2011; Liu et al., 2023; Tuominen, 2023; Zheng et al., 2005). Elsewhere, Boulton et al. (2009) analysed IPOs from 49 countries and Loughran, Ritter, and Rydqvist (1994) looked at 25 countries; both studies reported positive excess returns ranging from 4% to 80% on average. Loughran et al.

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(1994) considered Malaysian IPOs as offering a deep discount among a handful list of emerging markets. There is a consensus that the Malaysian IPO underpricing is in the range of 63% to 167% (see Dawson, 1987; Ku-Ismail et al., 1993; Yong & Isa, 2003; Taufil-Mohd, 2007; Yong & Albada, 2018; Tajuddin et al., 2023). While several theories and factors have been discussed in exploring the reasons behind such high underpricing among emerging market IPOs, this study examines potential follow-on offerings (PFOs) to explain excess returns among Malaysian IPOs.

This paper focuses on the influence of PFOs on IPOs' initial returns. A PFO is an issuance of stock shares following a company's IPO and calculated as a ratio of the total unissued capital to the total authorised capital. Companies perform PFOs for various reasons such as corporate demand to raise cash flow to fund company debt and to partake in acquisitions. Accordingly, this paper advances the argument that information regarding PFOs serves as a specific form of signal concerning managerial behaviour that should be embedded into the IPO pricing. Based on the signalling theory of capital structure (see Leland & Pyle, 1977; Ross, 1977), we henceforth wish to investigate the impacts of PFOs on initial returns.

According to Jegadeesh et al. (1993), issuers who underprice their IPOs are likely to issue follow-on offerings. Hence, initial returns are considered a determinant of follow-on offerings (Su & Fleischer, 1999). Researchers argue that PFOs could trigger a negative signal such that firms with a high PFO may take some time before entering the market with their season offerings (Harper et al. 2004; Jung et al. 1996; Michaely & Shaw 1994). Unlike developed markets, research on emerging markets including Malaysia has not considered the impact of PFO on initial return. This paper extends the work of Draho (2004), who claimed that issuers deliberately leave a good taste for investors by underpricing their IPOs in order to increase the chance of success of their subsequent or follow-on offerings. Usually, companies exercise their follow-on offerings three years after listing (Jegadeesh et al., 1993). To draw investors' attention and obtain better prices on the follow-on offerings, companies often underprice their issues (Welch, 1989), thus creating a PFO to influence the initial return.

The portion of authorised shares that remained unissued (PFO) shows a financial slack in the IPO firms. In other words, the increasing PFO indicates that there are still ample opportunities for IPO firms to raise additional equity funds. The present study proposes that firms with a lower paid-up capital ratio have a greater tendency to make seasoned offers; these firms improve their future IPO competitiveness by using the ratio to provide a strong indicator to outsiders. We argue that most high-quality firms will have a lower paid-up capital and are willing to forgo the benefits of underpricing as they will be able to recover the cost from subsequent offerings. This phenomenon can provide a refreshing view to IPO investors in Malaysia as it reflects the potential for follow-on offerings. Thus, this paper aims to investigate the importance of such information in explaining initial returns.

The remaining parts of this paper are organised as follows. The literature review is discussed in chapter 2. Chapter 3 explains the methodology adopted in this research and chapter 4 elaborates on the findings. Finally, chapter 5 concludes the paper.

## 2.0 Review of the Literature

As proposed by Akerlof (1970), signalling theory indicates a buyer's use of market statistics to judge product quality before purchasing. In this case, the seller may generate the opportunity to sell low-quality products at higher prices by trapping buyers into a situation of information asymmetry, leaving sellers better informed on the actual product quality. Later, Leland and Pyle (1977) developed signalling models based on IPO valuation, which expresses high fractional ownership of a business by entrepreneurs. This exposes certain characteristics of companies that face a higher risk in conveying a credible signal to potential investors. A major reason behind underpricing is to 'leave a good taste' in investors' mouth, enabling firms to sell subsequent offerings at better prices. Allen and Faulhabe (1989), Grinblatt and Hwang (1989), and Welch (1989) have formalised this reputation-building argument within the signalling model, contending insiders' use of underpricing to indicate higher-quality (good) issues. Such higher-quality firms would thus be able to offer greater discounts (underpricing) compared to lower-quality (bad) issues. While the proceeds will undoubtedly be reduced by underpricing the IPOs, it remains an effective approach in attracting a huge demand from new outside investors. Once the fair values of firms are discovered in the immediate aftermarket, firms will start to realise the benefits from this approach, allowing them to return to the market to sell their seasoned offerings (follow-on offerings) at greater prices. Consequently, the shortfall incurred as a result of IPO underpricing is easily recouped from the follow-on offerings. Welch (1989) found that between 1977 and 1982, 38% of the companies issued the season equity offering (SEO) within a few years after going public, adding credence to this claim.

This paper investigates the impact of PFOs on IPO initial returns in Malaysia. As empirical works on PFOs in the Malaysian IPO market are rare, we emphasize the findings from other markets as the benchmark literature. Thus far, the follow-on offering issue has been dismissed by scholars, giving little regard for the correlation between PFOs and initial returns; rather, initial returns have acted as one of the determinants of follow-on offerings (Su & Fleischer, 1999). Furthermore, Jegadeesh et al. (1993) highlighted that issuers who engage in IPO underpricing are more likely to issue the PFO as soon as possible. In contrast, PFOs could also trigger a negative signal as firms might take some time before entering the market with their seasoned offerings (Harper, Johnston, & Madura, 2004). Moreover, issuers with excellent prospects do not show a preference for an SEO, which often leads to new shares with the same claims for a firm's higher profits and values (Myers & Majluf, 1984). Rather, SEOs play a more benevolent role in firms with a possible crisis as losses can be shared between existing and new shareholders. In short, a higher potential of an SEO via a low paid-up capital ratio could indicate a firm with weaker prospects. This argument supports the signalling theory, whereby firms that finance their projects via equity-driven means have a higher propensity for future negative outlooks (Leland & Pyle, 1977). Based on these theoretical and empirical arguments, this paper hypothesises that PFOs have a negative effect on the initial returns of IPOs.

In assessing the effect of PFOs on the initial return of IPOs, this study also controls for five other variables that might affect the initial return. The first control variable is the level of investor demand. Firm characteristics such as offer size, market return, offer price, and underwriter market share also serve as the control variables. Such control variables are selected due to their significant impact in IPO research, as showcased in previous studies. The level of investor demand is measured using the oversubscription ratio (OSR). Reese (1998) states that investor

interest caused or expressed by media reports is positively related to the level of underpricing and the trading volume. This demand, which can be measured using the OSR, is a pertinent factor in the success of an IPO due to its role in the aftermarket performance of IPOs (Chowdhry & Sherman, 1996; Low & Yong, 2011). Several studies in Malaysia have concluded that the average OSR in Malaysia is 40 times (Dawson, 1987; Low & Yong, 2011; Taufil-Mohd, 2007; Yong & Isa, 2003). Investor demand could reveal investors' optimism of an IPO's prospect based on the available pre-listing information.

Offer size is used as a proxy for the supply of IPOs. According to Beatty and Ritter (1986), lower IPO offer sizes are more speculative than larger offer sizes. Thus, smaller issues are more likely to be underpriced, which is consistent with the findings of previous studies (see Yu & Tse, 2006; Mohd Rashid et al., 2019) that noted the supply of IPOs has a negative relationship with the initial return.

Meanwhile, attractive market returns would influence investors to subscribe to IPOs. Derrien and Womack (2003) found market returns as significant ex-ante predictors of the level of initial return of French IPOs. This finding is supported by Ma and Faff (2007) and Mahmood et al. (2011) who argue that the market conditions prior to an IPO listing influence investors' sentiment and initial returns. Based on the above discussion, this study expects that market condition would influence the initial return.

Beatty and Welch (1996) explained why a low offer price leads to a high initial return. They posit that IPOs with lower offer prices are usually from high-risk issuers and tend to attract more outside analysts. The wide coverage invites additional attention, thereby creating demand for the IPOs, subsequently adding pressure on the price on the first day of trading. Tajuddin et al. (2015) support this argument by stating that investors would receive higher initial returns from higher-risk IPOs, which offer lower offer prices.

Investment banks or underwriters play a role in the issuance of IPOs and obtain high revenues via advisory fees. Thus, investment banks have to compete amongst themselves to increase their individual market share. Cooney et al. (2001) stated that the prestige from the underwriter's market share could minimise the adverse selection problem whilst also decreasing the ex-ante uncertainty linked with IPOs. Kenourgious et al. (2007) and Jones and Swaleheen (2010) support the argument that an underwriter's market share can significantly influence the level of initial return.

## 3.0 Data and Methodology

In this study, IPO prospectuses published on the website of Bursa Malaysia served as primary data sources. The sample utilised was chosen from a list of IPOs listed on Bursa Malaysia from January 2003 to December 2019. Our time period covered the global financial crisis but excluded the Asian financial crisis of 1997–98. A total of 508 IPOs was issued during the period of study. After omitting outliers and finance companies, 410 IPOs remain for further analysis.

This paper presents the descriptive statistics for the whole sample and an analysis of median differences for two samples of IPOs. The non-parametric Wilcoxon signed-rank test can be used

to determine whether two dependent samples selected from a population have the same distribution. We segregated the IPOs into two groups of high and low initial returns based on the median of all the initial returns. IPOs that gave initial returns above the median value were classified as IPOs with high initial returns, while those giving initial returns below the median value were categorised as IPOs with low initial returns. We used the same approach to segregate high and low PFOs and high and low demand IPOs. We also employed a cross-sectional study and undertook a multiple regression analysis to evaluate the study's hypotheses. To fit with the objective of the study, which is assessing the effect of PFOs and investor demand on IPOs' initial returns, the following regression equation is proposed:

$$IR_i = \beta_0 + \beta_1 PFO_i + \beta_2 DD_i + \beta_3 SIZE_i + +\beta_4 3MR_i + \beta_5 PRICE_i + \beta_6 UMS_i + \varepsilon_i \quad \text{(Eq. 1)}$$

where IPO initial return (IR) is a dependent variable determined by the change in the price of the issue on the first trading day against its offer price, expressed in percentage. Meanwhile, the independent variable is potential follow-on offering (PFO), measured as a ratio of the total unissued equity capital to the total authorised equity. This paper also considers five control variables, namely investor demand (DD), offer size (SIZE), market condition (3MR), offer price (PRICE), and underwriter market share (UMS). Details of these variables are provided in Table 1.

Abdul-Rahim and Yong (2010) and Mohd-Rashid et al. (2017) find that the initial returns of Malaysian IPOs are driven by investor demand (DD). Assuming that the insignificant negative relationship between PFO and initial return is due to the diverse signalling mechanisms at different levels of demand, we consider the interaction term of PFO and DD (PFO × DD) in another model for robustness. The model can be written as follows:

$$IR_i = \beta_0 + \beta_1 PFO_i + \beta_2 DD_i + \beta_3 SIZE_i + \beta_4 3MR_i + \beta_5 PRICE_i + \beta_6 UMS_i + \beta_7 PFOxDD_i + \varepsilon_i \quad \text{(Eq. 2)}$$

Table 1: Description of the variables

| Variable | Type | Measurement |
|---|---|---|
| Initial return (IR) | Dependent variable | Percentage change between the offer price and the first-day listing price |
| Potential follow-on-offering (PFO) | Independent variable | Ratio of the total unissued equity capital to the total authorised equity |
| Investor demand (DD) | Independent variable | Rate of oversubscription |
| Offer size (SIZE) | Control variable | Natural logarithm of the total number of equity issued × offer price. |
| Market condition (3MR) | Control variable | The weighted average return of EMAS Index 3 month before listing. |
| Offer price (PRICE) | Control variable | The offer price of each IPO. |
| Underwriter market share (UMS) | Control variable | The percentage value of all shares underwritten by the underwriter for a particular year. |

## 4.0 Results

Table 2 displays the descriptive statistics of the IPOs. It is observed that the average initial return of Malaysian IPOs based on the 410 final sample is 29.66%. The minimum initial return is −59.41% and the maximum is 404.17%, demonstrating a wide discrepancy between the minimum and maximum initial returns of Malaysian IPOs. Such a discrepancy provides a pathway for a detailed assessment of the factors influencing initial return. The highest PFO is 95.5% whereas the lowest is zero per cent, resulting in a 44.52% average that reflects the sheer potential of the IPO firms to raise future additional equity funds. This information is valuable in delineating the initial returns. The demand from investors (DD) has a mean value of 29.93 times, with minimum and maximum values of −0.89 times and 229.20 times, respectively. The average three-month market return prior to listing is 0.7% and ranges from −6.6% to 10.7%. For the study period, the average number of shares issued is 83.54 million and the median is 30.85 million. The lowest offer price stands at RM0.12 and the highest is RM5.05. Finally, the underwriter market share has a mean of 7.88%, with the lowest at 0.06% and the highest at 90.8%.

Table 2: Descriptive Statistics

| **Variables** | **Mean** | **Median** | **Min.** | **Max.** | **Std. Dev.** | **Skew** | **Kurt** |
|---|---|---|---|---|---|---|---|
| Initial return (%) | 29.66 | 29.66 | -59.41 | 404.17 | 51.49 | 2.49 | 13.02 |
| PFO (%) | 44.52 | 48.00 | 0.00 | 95.50 | 21.71 | -0.06 | 60.07 |
| Oversubscription ratio (times) | 29.93 | 17.39 | -0.89 | 229.20 | 38.01 | 2.56 | 10.91 |
| No. of shares issued (million) | 83.54 | 30.85 | 2.00 | 2,480.00 | 228.00 | 6.94 | 60.07 |
| Avg. 3-month market return (%) | 0.007 | 0.010 | -0.066 | 0.107 | 0.03 | 0.29 | 4.08 |
| Offer price (RM) | 0.98 | 0.75 | 0.12 | 5.05 | 0.75 | 1.87 | 8.22 |
| Underwriter market share (%) | 7.88 | 2.70 | 0.06 | 90.80 | 11.93 | 3.09 | 16.68 |

*Notes.* Std. Dev. = Standard Deviation, Skew = Skewness, Kurt = Kurtosis, RM = Ringgit Malaysia.

Table 3 presents a comparison between the median values of the main variables based on independent sample Wilcoxon signed-rank tests. The Wilcoxon signed-rank test results are used to examine the differences in medians between the two groups. Non-parametric tests would assume that the initial return is not normally distributed. In reporting an independent Wilcoxon signed-rank test results, the significant value of the test's *T*-value is required. The values of high and low initial return IPOs, high and low potential follow-on offering IPOs, and high and low investor demand IPOs have been tabulated in Panel A, Panel B, and Panel C of Table 3, respectively.

Panel A shows the initial return levels, demonstrating a substantial difference between the high and low initial return groups based on median values. For the average return, the group of high initial returns reported 42% while the group of low initial returns showed only 0.77%. Further, the high initial return group has a median PFO of 44%, which is lower than the 50% recorded by the low-initial return group. This result demonstrates that IPOs with higher PFOs will provide lower initial returns. As more equities will be issued in the future, more shareholders will have equal claims on the firms; thus, the prices of the IPOs are adjusted downward to reflect a negative market reaction towards the common stock issuances. The finding lends strong support to the signalling theory of capital structure literature that equity issuance, which is seen as a way for shareholders to share the projected risk with other investors, is associated with a negative

signal of the prospects of firms or the viability of their projects (Leland & Pyle 1977; Narayanasamy et al. 2018). In this panel, there is also higher interest from investors (demand) for the high initial return group than the low initial return group, as demonstrated by the OSR value of 28.81 times and 9.44 times, respectively. This result indicates that when the demand for an IPO is strong, the IPO price will increase during listing and investors will obtain a higher initial return afterwards. Further comparison shows the average number of shares issued for the high initial return group is 25 million, which is lower than the average of 37.22 million shares recorded by the low initial return group, thus allowing a smaller number of shares to earn higher initial returns. This finding is supported by the Panel C result where the high investor demand group has fewer number of shares issued (28.25 million shares) than the low investor demand group (36.98 million shares). When there is a higher demand from investors for a small number of shares issued, prices will be pushed upwards, thus increasing the incidence of high IPO initial returns (Tajuddin et al., 2018; Mehmood et al., 2020). Generally, the lower average offer price (RM0.70) of smaller companies is apparent when compared against that of larger companies (RM0.80). Such results support the notion of demand being higher for smaller firms, as their initial returns are expected to be higher.

Table 3: Median Difference Test

| | Initial return (%) | Potential Follow on Offering (%) | OSR (times) | Number of Shares Issued | Market Return (%) | Price (RM) | Underwriter Shares (%) |
|---|---|---|---|---|---|---|---|
| *Panel A: High and Low Initial Return (IR)* | | | | | | | |
| High-return IPOs (*N* = 205) | 42.000 | 44.000 | 28.810 | 25,000,000.00 | 0.012 | 0.700 | 2.700 |
| Low-return IPOs (*N* = 205) | 0.769 | 50.000 | 9.440 | 37,219,240.00 | 0.003 | 0.760 | 2.000 |
| Median difference | 41.231 | -6.000 | 19.370 | -12,219,240.00 | 0.009 | -0.060 | 0.700 |
| Wilcoxon *Z*-statistic | -17.08*** | -2.98*** | -8.06*** | -4.80*** | -0.84 | -1.48 | -0.33 |
| *Panel B: High and Low Potential Follow on Offering(PFOs)* | | | | | | | |
| High PFO IPOs (*N* = 205) | 13.333 | 60.000 | 16.870 | 31,505000.00 | 0.008 | 0.850 | 2.000 |
| Low PFO IPOs (*N* = 205) | 21.053 | 24.148 | 17.563 | 30,400,000.00 | 0.016 | 0.700 | 3.800 |
| Median difference | -7.719 | 35.852 | -0.693 | 1,105,000.00 | -0.008 | 0.150 | -1.800 |
| Wilcoxon *Z*-statistic | -2.44** | -17.09*** | -0.32 | -0.13 | -0.70 | -1.58 | -2.60*** |
| *Panel C: High and Low Investor Demand (DD)* | | | | | | | |
| High DD IPOs (*N* = 205) | 30.36 | 47.650 | 40.247 | 28,250,000.00 | 0.01240 | 0.700 | 3.200 |
| Low DD IPOs (*N* = 205) | 5.15 | 48.000 | 5.913 | 36,977,000.00 | 0.00094 | 0.800 | 2.015 |
| Median difference | 25.21 | -0.350- | 34.335 | -872,700.00 | 0.01146 | -0.100 | 1.185 |
| Wilcoxon *Z*-statistic | -7.54*** | 0.59 | -16.86*** | -3.16*** | -3.06*** | -2.94*** | -1.24 |

*Notes*. ***, **, and * represent significance levels at 1%, 5%, and 10%, respectively. IR stands for initial return. PFO is the potential follow-on offering. DD represents the demand from investors. OSR is the oversubscription ratio. PRICE is the offer price of IPOs. SIZE is the natural logarithm of the total number of equity issued × offer price. 3MR is the weighted average return of EMAS Index. UMS is the underwriter market share.

A comparison of the results of three-month market return (3MR) before listing revealed that a good market condition, with an average of 0.0124 or 1.24% market return, could attract higher subscription from investors. On the other hand, an average market return of 0.094% was reported by the low investor demand group. This result indicates investors' expectation that the group of high demand IPOs will give high investment returns when the market condition is relatively good; this is reflected by the average initial return of 30.36% generated by the group with high investor demand compared to the average of 5.15% generated by their low investor demand counterpart. Another important point lies with the fact that underwriters with large market shares are associated with higher initial returns compared to underwriters with low market shares, as shown in Panel B. Large underwriters are seemingly large syndicates or reputable underwriters. Reputable and quality underwriters usually have more experience and marketing efforts, leading to higher demand from investors and higher prices on the day of listing (Dong et al., 2011; Albada et al., 2018).

Table 4 shows the Pearson correlation matrix. Most of the independent variables have a correlation of less than 0.50, except for the correlation between PRICE and SIZE that shows a significant positive correlation of 0.56. However, multicollinearity is not an issue as the variance inflation factors (VIF) range from 1.23 to 2.91 (see Table 5). The Newey-West covariance estimator was used to modify the standard error before proceeding with the cross-sectional regression analysis.

Table 4: Correlation Matrix

| Variables | IR | PFO | DD | PRICE | SIZE | 3MR | UMS |
|---|---|---|---|---|---|---|---|
| IR | 1 | | | | | | |
| PFO | -0.04* | 1 | | | | | |
| DD | 0.36*** | 0.05 | 1 | | | | |
| PRICE | -0.05* | -0.10** | -0.23*** | 1 | | | |
| SIZE | -0.21*** | -0.12 | -0.27*** | 0.56* | 1 | | |
| 3MR | 0.19** | -0.01 | 0.11** | -0.07 | -0.02 | 1 | |
| UMS | 0.08 | -0.08** | -0.09 | 0.40*** | 0.25*** | -0.12*** | 1 |

*Notes*. ***, **, and * represent significance levels at 1%, 5%, and 10%, respectively. IR stands for initial return. PFO is for the potential follow-on offering. DD represents the demand from investors. OSR is the oversubscription ratio. PRICE is the offer price of IPOs. SIZE is the natural logarithm of the total number of equity issued × offer price. 3MR is the weighted average return of EMAS Index. UMS represents the underwriter market share.

Table 5 displays the outcomes of the regression analysis. Based on part (A) of Table 5, all other variables except for PFO are found to be significant in explaining IPOs' initial returns. It leads us to the conclusion that regardless of the high or low PFO in Table 3, the initial returns across Malaysian IPOs are driven by investor demand (DD), consistent with Abdul-Rahim and Yong (2010) and Mohd-Rashid et al. (2017). Assuming that the insignificant negative relationship between PFO and initial return is due to the diverse signalling mechanisms at the different levels of demand, we consider the interaction term of PFO and DD (PFO × DD) in a separate model for robustness. The result in part (B) of Table 5 demonstrates a significant negative relationship between the interaction term (PFO × DD) and IPO initial return. The effect of PFO on initial return depends on the level of demand from investors; thus, the initial return would be significantly lower for firms with higher PFOs but mitigated by the level of investor demand for

IPOs. This negative relationship is supported by the signalling theory of capital structure (Leland & Pyle 1977; Ross 1977).

Table 5: Regression Result

| Dependent variable is the initial return | | | | |
|---|---|---|---|---|
| Independent Variables | (A) The restricted model: without interaction term | | (B) The full model: limited interaction term | |
| | Coefficient | *t*-statistic | Coefficient | *t*-statistic |
| CONSTANT | 160.8083 | -5.9552*** | 154.1452 | 5.6633*** |
| PFO | -0.05745 | -1.0645 | 0.0135 | 0.2285 |
| DD | 0.4358 | 4.8725*** | 0.7153 | 4.0970*** |
| LNSIZE | -9.1064 | -5.7727*** | -8.8921 | -5.6662*** |
| 3MR | 310.4061 | 4.6028*** | 296.6417 | 4.3322*** |
| PRICE | 6.2907 | 1.8131* | 5.9979 | 1.7536* |
| UMS | 0.6458 | 2.3088** | -0.6286 | 0.0251** |
| PFO × DD | - | - | -0.0058 | -1.6866* |
| *R*-squared | 0.2068 | | 0.2131 | |
| Adjusted *R*-squared | 0.1943 | | 0.1987 | |
| *F*-Statistics | 16.6348*** | | 14.7770*** | |
| Probability | 0.0000 | | 0.0000 | |
| Durbin-Watson | 1.8750 | | 1.8801 | |
| VIF range | 1.0462 − 1.6899 | | 1.1004 − 5.3805 | |

*Notes.* ***, **, and * represent significance levels at the 1%, 5%, and 10%, respectively. IR stands for initial return. PFO is the potential follow-on offering. DD represents the demand from investors. PRICE is the offer price of IPOs. SIZE is the natural logarithm of the total number of equity issued × offer price. 3MR is the weighted average return of EMAS Index. UMS represents the underwriter market share. PFO × DD is the interaction term between potential follow-on offering (PFO) and investor demand (DD).

Based on the signaling theory, while equity issuance is seen as a way for shareholders to share project risks with other investors, debt issuance is a way to raise the needed capital without losing shareholders' control over claims on the financial gain of the company. Myers and Majluf (1984) argue that the issuance of equity conveys a negative signal to investors of a lack of confidence in the profitability of investments; hence, the share price may be overvalued. Therefore, a higher PFO suggests greater potential for the issuance of external equity financing, foreboding investors with a negative signal leading to a downward adjustment in the overvalued price and consequently reducing the initial return (Harper et al. 2004). Overall, the signs of the coefficients of interest are comparable to those of the original model.

## 5.0 Conclusion

This paper intends to shed light on the role of the potential of follow-on offering in influencing initial returns while providing an assessment of the signalling hypothesis posed by Leland and Pyle (1977). In this study, we argue that ex-ante information available to investors, such as the potential of follow-on offering, is able to signal issuers' quality and attract attention from potential investors, leading to higher initial returns (Mohd-Rashid et al., 2014; Albada et al.,

2018). Potential investors would thus benefit from using the signalling effect in assessing the initial first-day return and the issuer's quality. Malaysian investors are particularly driven by the initial return they can achieve during the first day of listing by subscribing to IPOs with higher demand from investors, thus avoiding the potential follow-on offerings.

Despite the availability of this information within the prospectus, it is rarely examined in the extant literature. The results of this paper consistently demonstrate that should the percentage of unissued capital to authorised capital remain large, there is a strong tendency to predict that the price of the IPO will not appreciate as high as it might have been expected to be in the immediate aftermarket. The evidence suggests that investors might be intentionally adjusting the price of the IPOs to a lower level, recognising the comparatively smaller short-term sacrifice to initial returns. The larger the percentage of unissued equity capital, the sooner the company would be able to return the market with a larger SEO size, thereby diluting investors' ownership in the company further.

All variables were found to be significant in explaining the changes in the initial return, excluding the potential follow-on offering (PFO). Even though PFO is not statistically significant, the interaction term (PFO × DD) is statistically significant and negative. This result implies that the impact of PFO on initial return becomes significant but is mitigated by investor demand. The outcomes of the current work are expected to aid investors in focusing on the kinds of information they should be aware of during the IPO valuation. In addition, this work yields specific justification regarding the factors associated with significant impacts on initial return, which in itself may serve to be a justified guideline in preventing investors' concerns surrounding negative returns or investments deemed as less profitable.

Future studies may use different proxies of PFO or subsequent equity offerings and review the accuracy of those measures with the proxy set out in the present paper. Should consistency be confirmed, this PFO proxy may be applied in future studies due in part to its inherent advantage over other measures regarding the availability of information within the prospectus, proving beneficial to investors at the point of the IPO. The validity of the presently observed PFO can also be examined based on its ability to predict the actual SEOs, both in terms of the time distance between an IPO and an SEO; and the relative magnitude of an SEO to an IPO. The predictive power of PFO, as opposed to other measures of PFO, could also be further examined in determining the best proxy concerning the likelihood of SEOs.

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