

# Influence of Individual Investors' Sentiment on Malaysian IPO Trading Volume

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#### **Abstract**

The observation of the Malaysian IPO market shows the volatility of trading volume during the 1st trading day and illiquidity of trading volume during the 15th trading day. The less liquid trading indicates that investors, to some extent, must expect to face difficulty in selling their shares and volatility in share prices during the 15 days after the Malaysian IPOs' listing if they were to invest in this market. Acknowledging the importance of an informed investment decision for better evaluation of firms and security of capital, the investors should know the determinants of IPO trading volume. However, numerous past studies on IPO trading volume show that the focus from the aspect of investors' reaction that is on individual investors' sentiment towards IPOs firms as the main determinant is scarce. Google search volume score (GSVS) is a reliable proxy to measure the sentiment of individual investors as individual investors are the primary users of Google to search information, particularly of the newly issued stocks. Using a total of 271 IPOs listed in Main Market and ACE Market of Bursa Malaysia from 2004 to 2020, tested using ordinary least square regression models, this study found that pre-market and post-market individual investors' sentiment significantly and positively influences IPO trading volume.

**Keywords:** Google Search Volume Score, Initial Public Offering, IPO Trading Volume, Post-Market Individual Investors' Sentiment, Pre-Market Individual Investors' Sentiment

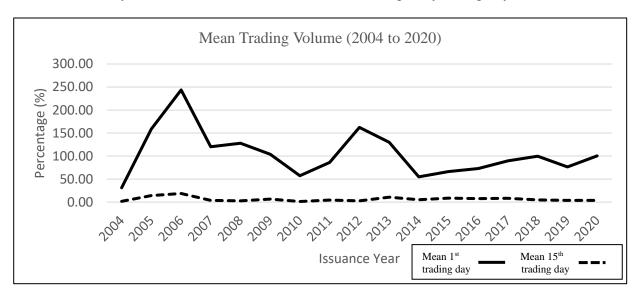
#### Introduction

Initial public offerings (IPOs) are firms' shares offered for the first time to the public in a stock exchange (Yong & Albada, 2019). A newly listed firm needs to have a good performance as it implies its potential to survive longer post-IPO. Fine et al. (2017) define IPO performance as the performance of IPO firms for a certain duration after the firms' listing in the stock market. The performance of IPOs can be observed as early as from the listing day to the longest of several years after the listing. From the IPO firms' side, IPO performance is to measure the success of the firms in raising funds through the exercise of IPO (Yong, 2019). Despite the significance of having good performance, Fischer and Pollock (2004) state that there is a high possibility of firms failing upon entering the IPO market due to the difficulty in managing the transformational effects on the change of their business status from private to public entities. The change is bound to impact the performance of the firms upon listing. Past studies often view IPO performance from the aspect of initial return. The trading volume during the first few days of IPO listing is another aspect of IPO performance that recently has attracted considerable interest in studies of IPOs (Abdul-Rahim et al., 2013).

High trading activities (investors buy and sell shares) indicate huge cash flow from shares traded in an IPO market and that IPO firms have sufficient liquidity. It is important to sustain a certain level of liquidity as the illiquid stocks are riskier which can cause overvaluation of



the stocks' price in the short-run (Uddin, 2009), while, underperformance in the long run (Asquith et al., 2005; Boehme et al., 2006; Desai et al., 2002; and Jones and Lamont, 2002). High liquidity of all stocks is also needed as it reflects the overall market efficiency and stability (Geithner, 2007). However, apart from portraying the high market liquidity, investment in IPOs can be unpleasant as it is inconsistent in average trading volume which may also show how volatile and illiquid the IPO market can be anticipated in recent years which the unfavorable situation found to happen in Malaysian IPO market. The observation in Figure 1 shows the condition of Malaysian IPOs issued from 2004 to 2020 during early listing days.



(Source: Thomson Reuters DataStream Database)

Figure 1: Average Trading Volume of Malaysian IPOs on 1<sup>st</sup> Trading Day and 15<sup>th</sup> Trading Day from 2004 to 2020

Figure 1 shows 9 out of 17 observations years show the average trading volume of Malaysian IPOs on the 1st trading day of higher than 100 percent indicating high and active average trading volume during the observation years (8 out of 17 observation years shows low average trading volume as the average trading volume is below 100 percent). Even though it seems like more than half observation years records the IPOs to have high average trading volume and high liquidity on 1<sup>st</sup> trading day, a high average trading volume during the listing day is predictable because short-term investors usually will buy and sell their subscribed IPOs to grab for quick profits, whenever the chance comes. Aggarwal (2003), Che-Yahya et al. (2019), and Yong (2010) state, the situation of high trading volumes in the first few trading days are caused mainly by flippers which if there is extensive flipping activity, will cause a sudden decrease in the price of an IPO and thus lower the initial return. If this happens, there will be less demand for IPO shares after the 1st listing day which causes the high liquidity of IPOs will no longer persist especially after several days the IPO is listing. Regardless, a higher volume of trading should not only be depicted on the 1st trading day which motivates this study to also observe the condition of the Malaysian IPO market after several days upon listing, which is on the 15<sup>th</sup> trading day. It is needed for the IPO market to also have high trading activity in the medium and long term for more liquid IPO markets and lower shares price volatility.

Figure 1 exhibits only a moment of silence for trading activity on the 15<sup>th</sup> trading day in almost all years as the figure shows 17 out of 17 observations years display the low average trading volume of Malaysian IPOs on the 15<sup>th</sup> trading day of almost 0 percent This shows an alarming



situation for the average trading volume of Malaysian IPOs on the 15<sup>th</sup> trading day which can no longer show a liquid position as the trading activity seems to slow down as time passes. More importantly, the observation of trading volume on the 15<sup>th</sup> trading day is far from the investors' interest to invest and participate in this market. The reason being, the less liquid trading implies that investors, to some extent, must expect to face difficulty in selling their shares and high volatility in share prices during the 15 days after the IPOs' listing if they were to invest in this market. This scenario may cause investors to shift their investment from IPOs to other asset classes and from the Malaysian market to other markets, along with the expectation that these shifts can give more advantages to their investment portfolio. As for issuing firms, a less liquid position might lead to a less desire to become a public firm, making a smaller number of IPO firms go public in the coming years in this market. As supported by Draho (2004), markets with illiquid stocks or a small volume of trading transactions are likely to experience a small number of newly listed IPOs.

Despite the issues of flipping activity on the 1<sup>st</sup> trading day which cause trading volume volatility and low trading volume on the 15<sup>th</sup> trading day, a feasible solution proposed in this study is for investors to execute their investment decision cautiously, believing that there are still potential firms that can generate high trading activity for both 1<sup>st</sup> trading day and 15<sup>th</sup> trading day for better security of their capital from the low-price volatility. Acknowledging the importance to execute an informed investment decision for better evaluation of firms and protection of wealth, investors should know the determinants of IPO trading volume.

In achieving this study's objective, this study attempts to focus on one potential determinant of IPO performance that received less attention compared to other well-studied determinants (e.g., firm age, IPO size, market condition, and underwriter reputation). In specific, this study proposes the aspect of investors' reaction that is on individual investors' sentiment towards IPO firms as the main determinant of IPO trading volume. Investor sentiment can be defined in many ways but usually carries the same general meaning: investor's attention and behavior. Investor sentiment occurs due to information asymmetry, which in the context of IPOs, information asymmetry suggests that parties involved in issuing IPOs and the investors do not hold the same level and amount of information (e.g., about the true quality of the firms).

Albada et al. (2019) posit that the Malaysian IPO market experience greater information asymmetry implying that certain investor sentiment can easily be observed from their attention and behavior. The impact in the individual investors' sentiment also differs as time passes as more information should be available to this group of investors to making an informed decision. For instance, individual investors might be extremely optimistic about an IPO firm in the pre-IPO market (i.e., before an IPO firm starts trading in the stock market), encouraging them to search for information about the firm, offline and online heavily. Their encouragement might not persist in the post-IPO market (i.e., when the IPO firm is already listed in the stock market) as they might have received a considerably great amount of information about the IPO from various sources resulting in a different form and magnitude of their sentiment that will lead to its different influence on IPO trading volume. Nevertheless, little is understood on the influence of individual investors' sentiment (both in pre-market and post-market) on IPO trading volume as past studies mostly separately focused on the individual investors' sentiment in pre-market (Gao et al., 2016; Moussa et al., 2017; Tsukioka et al., 2018) and individual investors' sentiment post-market (Lowry, 2003; Lee et al., 2002). It is important to analyze the sentiment as early as the shares are announced for listing (pre-market sentiment) and after it is listed (post-market sentiment). Thus, to capture the individual investors' sentiment in both the premarket and post-market and its influence on the IPO trading volume are of paramount importance and is therefore, the objective of this study.



#### **Literature Review**

IPO trading volume reflects the buying and selling activity of shares at a given time. In the context of IPOs, trading volume on the 1<sup>st</sup> trading day and 15<sup>th</sup> trading day can reflect the proportion of shares traded on the 1<sup>st</sup> trading day and 15<sup>th</sup> trading day as compared to the total IPO units issued. Past studies often used different approaches to estimate trading volume. For example, Choi (2019) using the information on trading volume turnover, which is the number of traded shares divided by the total number of shares outstanding, De Souza et al. (2018) use total units of IPOs, traded daily. Zameni and Yong (2016) use the abnormal daily trading volume in estimating the market-adjusted volume ratio. Abdul-Rahim et al. (2013), Anwar and Mohd-Rashid (2021), Che-Yahya et al. (2014), and Che-Yahya and Matsuura (2021) measure using the volume of shares traded on 1<sup>st</sup> trading day by the number of shares issued.

Past studies reported several determinants which been found significant in explaining the trading volume of IPOs such as market condition, firm age, firm size, industry type, shariah-compliant status, underwriter reputation, IPO offer size, demand and supply, information asymmetry, and initial return (Abdul-Rahim et al., 2013; Anwar & Mohd-Rashid, 2021; Chang et al., 2017; Che-Yahya et al., 2014; Che-Yahya & Matsuura, 2021; Choi, 2019; Moussa et al., 2017). From the list, most of the past studies shown the determinants to be among firm characteristics. However, as mentioned, the focus from the aspect of investors' reaction that is on individual investors' sentiment towards IPO firms as the main determinant is scarce.

Da et al. (2011) disclose that the individual investors' sentiment can explain IPO performance. However, the influence of individual investors' sentiment in the pre-market and post-market on IPO performance may differ based on the different reactions of individual investors in different time frames (pre-market and post-market). The influence of pre-market individual investors' sentiment on IPO trading volume can be reviewed in Moussa et al. (2017), which reveal a significant positive relationship between investors' sentiment (proxied by public information). A similar finding is found in Che-Yahya and Matsuura (2021). This study's finding concludes that investors with more information in their hands will have higher motivation to invest, increasing the attention to buy and sentiment of individual investors. The increment in the decision-making chances leads to a positive relationship between individual investors' sentiment and trading volume. While the impact of post-market individual investors' sentiment on IPO trading volume can be found in Lowry (2003). Using U.S. IPOs covering from 1960 to 1996, the study found that trading volume is positively influenced by investors' sentiment in the post-market (measured by closed-end funds). In another finding, Lee et al. (2002), using New York stocks issued from 5th January 1973 to 6th October 1995, revealed that trading activities caused the share price to rise above fundamental value when investors sentiment (measured by the investors' intelligence sentiment index) is overall bullish. Oppositely, if investors' sentiment is bearish, trading activities will drop the share prices below fundamental value, thereby lowering the expected returns. Leveraging on the same finding of past studies, this study expects a positive relationship between individual investors' sentiment (pre-market and post-market) and IPO trading volume as follows:

Hypothesis 1: There is a positive relationship between individual investors' sentiment during pre-market and IPO trading volume.

Hypothesis 2: There is a positive relationship between individual investors' sentiment during post-market and IPO trading volume.

Theoretically, the influence of individual investors' sentiment on IPO trading volume in the pre-market and post-market can be explained by the signalling theory. Ross (1977) develops



signalling theory, which the proposition in the theory is derived from the information asymmetry hypothesis used in Akerlof (1970). The information asymmetry hypothesis upholds that there are differences in information about firms between potential investors (outsiders) and managers (insiders). This study proposes that IPO issuers can signal the actual quality of their firms using the information on "individual investors' sentiment" to transmit information on the possible success extent of IPO firms. If IPOs are found to have higher attention from individual investors (from higher GSVS), IPO firms can have a high trading volume. As the level of information received by investment participants about IPO firms is not the same, increased attention paid to genuine news may increase the rate at which information is incorporated into prices (Da et al., 2011). The information asymmetry may contribute to higher individual investors' attention as individual investors will keep searching about an IPO from Google and the increased intensity to buy leads the IPO to have more demand and higher prices. High information uncertainties lead to higher buying activities due to the high demand for shares from uninformed investors (individual investors). Overall, higher attention from individual investors given towards an IPO will increase the trading volume.

#### Methodology

The population of this study is 430 IPOs listed on Main Market and ACE Market of Bursa Malaysia from January 2004 to December 2020. The sample period begins in January 2004 because, as stated in Colaco et al. (2013), the frequency of search terms in the Google Trends to estimate the attention or sentiment of individual investors can be accessed only from 2004. A total of 159 IPOs has been excluded, producing 271 IPOs in a final sample. A total of 159 IPOs has been excluded following the filtering process. This study excludes all rare types of IPOs (e.g., restricted offer for sale, restricted public issue, warrants, tender offer), financial, insurance, and REITs firms, IPO with missing value, and outlier. Data for IPO trading volume on the 1st trading day and 15th trading day are gathered from the Eikon Thompson Reuters database. Meanwhile, data for individual investors' sentiment (pre-market and post-market) are sourced from Google Trends, collected from 15 days before the listing of an IPO (following the start of the balloting period of IPO) to 15 days after the listing of an IPO (to minimize interference of search by other reasons). Da et al. (2011) and Lim and Stridsberg (2015) posit that the individual investors may increase their search frequency of an IPO on google during the next two weeks after any news (after the listing of the IPO) which the search frequency during this time frame is crucial to predict stock prices.

## Definition and Measures IPO Trading Volume

The trading volume of IPOs is the dependent variable of this study, which is estimated based on two periods; 1<sup>st</sup> trading day and 15<sup>th</sup> trading day. Anwar and Mohd-Rashid (2021), Chung et al (2017), Jiang and Li (2013), and Yong (2010) calculated trading volume by the number of shares traded divided by the total number of shares issued. This study observes the total number of shares traded on the 1<sup>st</sup> trading day and the number of IPO units issued to measure trading volume on the 1<sup>st</sup> trading day (VOL1). Meanwhile, the total number of shares traded on the 15<sup>th</sup> trading day and the number of IPO units issued are used to measure trading volume on the 15<sup>th</sup> trading day (VOL15). The measurements of trading volume are shown in Equations (1) and (2), respectively.

$$VOL1_i = \frac{NOST_{1i}}{NOSI_i} \times 100 \tag{1}$$

Where,

 $VOL1_i = 1^{st}$  trading day trading volume of *i*th firm



= Total number of shares traded on 1st trading day of ith firm NOST<sub>1i</sub>  $NOSI_i$  = Total number of shares issued of *i*th firm

$$VOL15_i = \frac{NOST_{15i}}{NOSI_i} \times 100 \tag{2}$$

Where,

=  $15^{th}$  trading day trading volume of *i*th firm VOL15<sub>i</sub>

= Total number of shares traded on the  $15^{th}$  trading day of *i*th firm NOST<sub>15i</sub>

= Total number of shares issued of *i*th firm **NOSI**i

#### Individual Investors' Sentiment

This study gathers Google Search Volume Score (GSVS) to estimate pre-market and postmarket individual investors' sentiment. According to Da et al. (2011), Google Trend captures individual investors' attention based on the frequency of the individuals' searches. The higher is the score, the higher is attention from individuals. Following Da et al. (2011), GSVS that is observed at a given point of time usually shows investors' attention towards an IPO and thus, must be regarded as a positive sentiment. Past studies estimate GSVS using different considerations, Da et al. (2011) use logarithm of search volume in the listing week of IPOs minus the logarithm of median search volume in the previous eight listing weeks of IPOs. Meanwhile, Colaco et al. (2013) observe abnormal search volume (difference between the average search volume score over the four weeks after the initial filing date and the average search volume score over the four weeks before the initial filing date).

The search volume score for each firm is estimated following the idea of Da et al. (2011) that use the firm name as search terms. However, this study uses the average score from three search keywords of IPO firm's name given the probability of individual investors to search information about an IPO using different names; (a) name of an IPO firm as listed in Bursa Malaysia, (b) name of an IPO firm without the word "BERHAD," and (c) name of an IPO firm before listing on Bursa Malaysia. The search keywords are limited to only three because this study attempts to reduce the probability of investors searching for anything other than an intention of gathering information about an IPO. To calculate each IPO's GSVS, the following measurement is used.

$$GSVS_{i} = \frac{a_i + b_i + c_i}{15}$$
 (3)

Where,

 $GSVS_i = Google Search Volume Score of ith firm$ 

= Score for the name of an IPO firm as listed in Bursa Malaysia of ith firm  $a_{i}$ = Score for the name of an IPO firm without the word "BERHAD" of ith firm  $b_{\rm i}$ = Score for the name of an IPO firm before listing on Bursa Malaysia of ith firm  $c_{i}$ 

The observations of individual investors' sentiment during pre-market and post-market were collected from 15 days before the listing of an IPO (due to balloting period) to 15 days after the listing of an IPO (to minimize interference of search by other reasons). The measurement is shown in Equations (4) and (5), respectively.

$$PREINSENT_{i} = \frac{GSVS_{i} \text{ on 15 days before listing}}{3} \times 100$$

$$POSTINSENT_{i} = \frac{GSVS_{i} \text{ on 15 days after listing}}{3} \times 100$$
(5)

$$POSTINSENT_{i} = \frac{GSVS_{i} \text{ on } 15 \text{ days after listing}}{3} \times 100$$
 (5)



Where,

PREINSENT<sub>i</sub> = Average three search keywords of GSVS for pre-market individual investors' sentiment of *i*th firm

POSTINSENT<sub>i</sub> = Average three search keywords of GSVS for post-market individual investors' sentiment of *i*th firm

 $GSVS_i$  = Google Search Volume Score of *i*th firm

#### Control Variables

This study controls for a set of other independent variables in examining the influence of individual investors' sentiment on IPO trading volume. The summary of measurement for control variables used in this study is shown in Table 1.

Table 1: Summary of Control Variables

No.	Variables	Proxies	Notations	Measurements /Definition
1.	Firm Age	Incorporation	AGE	IPOyear <sub>i -</sub> Inc <sub>i</sub>
2.	IPO Size	year (years) Offering Size (log)	OFFSIZE	$Ln\ (NOSI_i \ x \ Poffer_i)$
3.	Market Condition	1st trading day	MKTRETURN1	$\frac{KLCI_{1i} - KLCI_{-15i}}{KLCI_{-15i}} \times 100$
	(1 <sup>st</sup> trading day)	KLCI Return (%)		${KLCI_{-15i}} x 100$
4.	Market Condition	15 <sup>th</sup> trading	MKTRETURN1	$\frac{KLCI_{15i} - KLCI_{1i}}{KLCI_{1i}} \times 100$
	(15 <sup>th</sup> trading day)	day KLCI Return (%)	5	${KLCI_{1i}}$ x 100
5.	Underwriter	Underwriter	UNDREP	$\frac{UNDT_i}{TOTUNDT_i} \times 100$
	reputation	Market Share (%)		$TOTUNDT_i$
6.	Sector	<b>Dummy Sector</b>	SECTOR	Dummy 1 for firms in the technology
		(1  or  0)		sector and 0 for the rest.
7.	IPO Risk	Offer price	RECIPROCAL	1
		(times)		Poffer <sub>i</sub>

#### Result and discussion

#### Preliminary Result and IPO Performance

Table 2 shows the descriptive statistics of IPO trading volume on the 1<sup>st</sup> trading day (VOL1) reporting the mean of 14.24 percent and median of -7.58 percent. The mean ranges from a minimum value of 0.14 percent to a maximum of 291.63 percent. For the 15<sup>th</sup> trading day (VOL15), the descriptive statistics reported the mean of 0.93 percent and median of 0.30 percent ranging from a minimum value of 0.01 percent to a maximum value of 28.47 percent. The mean trading volume showed a declining pattern of performance on Malaysian IPOs. Based on the value recorded for standard deviation exhibited in Table 2, VOL1 has the highest standard deviation compared to 2.35 percent in VOL15. The value signifies that there is high trading activity on the 1<sup>st</sup> trading day the IPO market is highly liquid which when it is compared to VOL15, shows how the table turns and not much trading activity happens on 15 days after IPO is listed, showing the IPO market now in illiquid condition. For PREINSENT, the mean is 261.86 percent and the median is 0 percent, ranging from a minimum value of 0 percent to a maximum value of 1824.44 percent, while for POSTINSENT, Table 2 reported the mean of 132.96 percent and median of 0 percent, ranging from a minimum value of 0 percent to a maximum value of 1220.00 percent. The values imply that the percentage of GSVS during pre-



market is higher than post-market. This signifies the individual investors' higher search volume using Google during the IPO pre-market.

Table 3 presents the correlation values for all variables that the results fell between -0.43 and 0.74. The highest correlation value is between VOL1 and VOL15. However, as the variables are not used in the same model, and the value did not exceed the cut-off point of 0.9 (Asteriou and Hall, 2015), there is no severe multicollinearity issue found in this study.

#### Main Empirical Results

This study examines the influence of pre-market and post-market individual investors' sentiment on the 1<sup>st</sup> trading day (VOL1) and 15<sup>th</sup> trading day (VOL15). The regression results of Model VOL1 and VOL15 are presented in Table 4. Before proceeding to the main findings, this study conducts several diagnostic tests including normality test (Jarque-Bera), multicollinearity (Pearson Correlation Matrix), heteroscedasticity (White-test), autocorrelation (Durbin-watson), and model specification (Ramsey RESET). The diagnostic tests need to be carried out to ensure the data are clean and produce reliable regression results. VOL1 and VOL15 of Table 4 produced an adjusted R<sup>2</sup> of 15.88 percent and 13.79 percent, respectively, which indicate that only 15.88 percent and 13.79 percent of the variation in VOL1 and VOL15 are explained by variables used in this study. F-statistic values of 8.28 and 7.17 for Model VOL1 and VOL15 are significant at 1 percent level, indicating that the models are fit and the results of Durbin-watson (1.71 and 1.68) shown that both models are free from severe autocorrelation issues.

Model VOL1 and Model VOL15 report a significant and positive influence of individual investors' sentiment in pre-market (PREINSENT) and individual investors' sentiment in postmarket (POSTINSENT) on trading volume. The t-statistics of 3.9224 (p-value of 0.0001) in Model VOL1 and 3.8434 (p-value of 0.0002) in Model VOL15, signify both models' significance at a 1 percent level. Even though the influence of PREINSENT (POSTINSENT) in both models are significant at a 1 percent level, the t-statistics value of PREINSENT in Model VOL1 is higher, thus is able to verify the proposition of this study on the different magnitudes of the sentiment of individual investors from two different time frames (in premarket and post-market). Referring to the higher t-statistics value of PREINSENT in Model VOL1, this study again confirms that the individual investors are highly optimistic in searching keywords or information about an IPO during pre-market. The finding of this study is also consistent with the one reported in De Souza et al. (2018), which indirectly suggests that pessimism in investors' sentiment should lead to lower trading volume due to the lower demand of shares. In another instance, the finding of this study is consistent with Che-Yahya and Matsuura (2021) and Lowry (2003) that found the level of investor sentiment to positively influence trading volume as to when investors sentiment is bullish, it increases trading activities and share prices to be above the fundamental value.

Meanwhile, the results presented in Table 4 support the theory applied in this study: signalling theory. The significance and positive relationship between PREINSENT and VOL1, and between POSTINSENT and VOL15 are consistent with the theory, postulating that if an IPO is found to have a higher intensity to be bought by individual investors, investors tend to search for more information (in this context, will google for more information about the IPO). This postulation is consistent with Zhu and Niu (2016) that posits new shares with high information uncertainty will receive more focus and attention from investors, which leads to higher buying activities due to the high demand of shares from uninformed investors. Indirectly, it can signal that high attention from individual investors causes high trading volume.



Table 2: Descriptive Statistics of Sample IPOs (2004-2020)

Variables	Mean	Median	Minimum	Maximum	Std. Dev.	Skewness	Kurtosis	Jarque-Bera
VOL1 (times)	14.24	7.58	0.14	291.63	26.51	6.94	63.54	43565.89***
VOL15 (times)	0.93	0.30	0.01	28.47	2.35	7.4	76.25	63055.43***
PREINSENT (%)	261.86	0	0	1824.44	393.66	1.65	4.95	165.49***
POSTINSENT (%)	132.96	0	0	1220	225.31	2.13	7.96	481.7***
AGE (years)	14.6	12	1	52	11.79	0.89	3.31	37.08***
OFFSIZE (RM'000)	116,000	30,000	5,143	2,770,000	352,000	5.65	37.72	15055.64***
MKTRETURN1 (%)	0.42	0.60	-15.96	9.27	3.09	-1.48	9.19	531.59***
MKTRETURN15 (%)	0.21	0.43	-14.2	10.57	3.05	-1.03	7.14	241.15***
UNDREP (%)	6.62	2.04	0	35.83	9.12	1.71	4.92	174.24***
SECTOR (%)	0.18	0	0	1	0.39	1.66	3.75	130.64***
RECIPROCAL (times)	1.93	1.54	0.28	7.69	1.36	1.4	4.88	128.75***

Table 3: Correlation Matrix among Variables

Variables	VOL1	VOL15	PREINSE NT	POSTINS ENT	AGE	OFFSIZE	MKTRET URN1	MKTRET URN15	UNDREP	SECTOR	RECIPRO CAL
VOL1	1										
VOL15	0.74	1									
PREINSENT	0.02	0.03	1								
POSTINSENT	0.02	0.01	0.49	1							
AGE	0.06	0.01	0.09	0.08	1						
OFFSIZE	-0.21	-0.18	0.19	0.25	0.11	1					
MKTRETURN1	0.08	0.04	-0.04	-0.00	0.02	-0.02	1				
MKTRETURN15	-0.01	0.02	-0.04	0.00	-0.10	-0.05	-0.18	1			
UNDREP	-0.09	-0.04	-0.14	0.03	-0.03	0.40	-0.03	0.05	1		
SECTOR	0.01	0.09	-0.10	-0.03	-0.27	-0.29	-0.05	0.13	-0.06	1	
RECIPROCAL	0.00	0.04	0.20	0.15	-0.06	-0.43	0.04	0.06	-0.31	0.18	1



Table 4: OLS Regression results

		Model VOL1			Model VOL15		
Variables	Exp Sign	Coefficient	T-stats	Coefficient	T-stats		
Main Independent Variables							
PREINSENT	+ve	0.0003	3.9223***				
POSTINSENT	+ve			0.0007	3.8434***		
Other Independent Variables							
AGE	-ve	0.0021	0.8219	0.0034	1.0042		
OFFSIZE	-ve	-0.4026	5.7251***	-0.4303	- 4.5864***		
MKTRETURN1/MKTRETURN15	+ve	0.0162	1.7191*	0.0193	1.5161		
UNDREP	+ve	-0.0008	-0.2204	-0.0015	0.3196		
SECTOR	-ve	0.0444	0.5473	0.2062	1.9118*		
RECIPROCAL	+ve	-0.0257	-1.0256	-0.0223	-0.6751		
$\mathbb{R}^2$		0.1806		0.1602			
Adjusted R <sup>2</sup>		0.1588		0.1379			
F-statistic		8.2801		7.1674			
p-value (F-stats)		0.0000		0.0000			
Durbin Watson		1.7051		1.6773			

Note: Sample size = 271. \*\*\*, \*\* and \* indicate significant at 1%, 5% and 10% level, respectively.

For control variables, OFFSIZE negative and highly significant influencing VOL1 and VOL15. MKTRETURN1 has shown a positive and significant influence on IPO trading volume in Model VOL1. While SECTOR is positive and significant at 10 percent level in Model VOL15. The other variables have shown insignificant influence on IPO trading volume.

#### Conclusion

Using a sample of 271 IPOs listed on Main Market and ACE Market of Bursa Malaysia from January 2004 to December 2020, this study investigated the influence of pre-market and postmarket individual investors' sentiment on IPO trading volume. This study reveals a significant positive influence between pre-market and post-market individual investors' sentiment and IPO trading volume during the 1<sup>st</sup> trading day and 15<sup>th</sup> trading day. Other than the main independent variable of this study, few other independent variables also significantly influence trading volume. In a nutshell, the main predictor variable that is pre-market and post-market individual investors' sentiment is one of the determinants that influence the trading volume of IPOs. Meaning that the investors should consider the information of GSVS (measurement for pre-market and post-market individual investors' sentiment) as the higher is the number of searches of the firms in Google, the higher is attention from individual investors and thus, contributed to higher investors intention to buy IPO which resulting to higher trading volume and liquidity of IPO. Future studies, however, need to explore other possible variables due to the low adjusted R<sup>2</sup> produced in this study. Future studies should also consider other platforms to capture sentiment from individual investors rather than only retrieving it from the Google Trend. It is also recommended for future studies to extend the observation of trading volume to the medium and long term as this study only focuses on the short term (1st trading day and 15th trading day).



#### Acknowledgment

The authors would like to acknowledge that this article is part of a research project funded by the Faculty of Business and Management, Universiti Teknologi MARA (UiTM). Project ID: 600-RMC/MYRA 5/3/LESTARI (038/2020).

#### References

- Abdul-Rahim, R., Sapian, R. Z. Z., Yong, O., & Auzairy, N. A. (2013). Flipping Activity and Subsequent Aftermarket Trading in Malaysian Initial Public Offerings (IPOs). Asian Academy of Management Journal of Accounting and Finance, 9(1), 113-128.
- Aggarwal, R. (2003). Allocation of initial public offerings and flipping activity. Journal of Financial Economics, 68(1), 111–135.
- Akerlof, G.A. (1970). The Market for "Lemons": Quality Uncertainty and the Market Mechanism\*. The Quarterly Journal of Economics, 84(3), 488-500.
- Albada, A., Yong, O., Abdul-Rahim, R., & Mat Hassan, M.E (2019). Information Asymmetry and Signaling in Emerging IPO Markets: The Case of Malaysia, Asian Journal of Business and Accounting. 12. 1-28.
- Anwar, A., & Mohd Rashid, R. (2021). Does the Pricing Mechanism Affect the IPO Flipping Activity in Pakistan? Journal of Asian Finance, Economics and Business. 8(1), 237-246.
- Asteriou, D. & Hall, S.G., (2015). Applied Econometrics: Palgrave Macmillan, Third Edition, Macmillan International Higher Education.
- Asquith, Paul, Pathak, P., & Ritter, J. (2005). Short interest, institutional ownership and stock returns. Journal of Financial Economics 78, 243-276.
- Boehme, R., Danielsen, B., & Sorescu, S. (2005). Short sale constraints, difference of opinion, and overvaluation. Journal of Financial and Quantitative Analysis 41, 455-487.
- Che-Yahya, N., Abdul-Rahim, R., & Mohd Rashid, R. (2019). Flipping activity in Malaysian IPO market: a new explanation from the winners' curse perspective. International Journal of Accounting and Finance, 9(1), 47-67.
- Che-Yahya, N., Abdul-Rahim, R., & Yong, O. (2014). Influence of Institutional Investors' Participation on Flipping Activity of Malaysian IPOs. Economic Systems, 38(4), 470-486.
- Che-Yahya, N., & Matsuura, Y. (2021). Does Individual Investors' Sentiment Explain Japanese IPO Aftermarket Performance? The Journal of Asian Finance, Economics and Business. 8(4), 1079-1090.
- Choi, H. M. (2019). Market Uncertainty and Trading Volume Around Earnings Announcements. Finance Research Letters. 30(C), 14-22.
- Chung, C. Y., Kim, J., & Park, J. (2017). Individual Investor Sentiment and IPO Stock Returns: Evidence from the Korean Stock Market. Asia-Pacific Journal of Financial Studies, 46(6), 876-902.
- Colaco, H. M. J., Cesari, A. D., & Hegde, S. P. (2013). Retail Investor Sentiment and IPO Valuation. European Financial Management Association. 23, 691-727.
- Da, Z., Engelberg, J., & Gao, P. (2011). In Search of Attention. The Journal of Finance, 66(5).



- De Souza, H. E., Da Silveira Barbedo, C. H., & Araujo, G. (2018). Does Investor Attention Affect Trading Volume in The Brazilian Stock Market? Research International Business and Finance. 44(C), 480-487.
- Desai, H., Ramesh, K., Thiagarajan, S. R., & Balachandran, B. V. (2002). An investigation of the informational role of short interest in the Nasdaq market. Journal of Finance 57, 2263-2287.
- Draho, J. (2004). The IPO decision: Why and how companies go public.
- Fine, M.B., Gleason, K. and Mullen, M. (2017). Marketing Spending and Aftermarket Performance of IPO Firms. Marketing Intelligence & Planning, 35(4).
- Fischer, H. M., & Pollock, T. G. (2004). Effects of social capital and power on surviving, Journal of Management, 2(3),70-84.
- Gao, S., Meng, Q., & Chan, K. C. (2016). IPO pricing: Do Institutional and Retail Investor Sentiments Differ? Economics Letters, 148, 115-117.
- Geithner & Timothy, F. (2017). Liquidity Risk and the Global Economy. International Finance 10(2), 183-189.
- Hribar, P., & McInnis, J. (2011). Investor Sentiment and Analysts' Earnings Forecast Errors. Economics, Computer Science. 58(2), 293-307.
- Hui, B., & Li, P. (2013). Does Investor Sentiment Predict Stock Returns? The Evidence from Chinese Stock Market. Journal of Systems Science and Complexity.
- Jiang, L., & Li, G. (2013). Investor Sentiment and IPO Pricing During Pre-Market and Aftermarket Periods: Evidence from Hong Kong. Pacific-Basin Finance Journal, 23 (2013) 65–82.
- Jones, C. M., & Lamont, O. A. (2002). Short sale constraints and stock returns. Journal of Financial Economics 66, 207-239.
- Lee, W. Y., Jiang, C. X., & Indro, D. C. (2002). Stock market volatility, excess returns, and the role of investor sentiment. Journal of Banking & Samp; Finance, 26(12), 2277-2299.
- Lim, S., & Stridsberg, D. (2015). Feeling the Market's Pulse with Google Trends IFTA Journal.
- Lowry, M. (2003). Why Does IPO Volume Fluctuate So Much? Journal of Financial Economics, 67(1), 3-40.
- Moussa, F., BenOuda, O., & Delhoumi, E. (2017). The Use of Open-Source Internet to Analysis and Predict Stock Market Trading Volume. Research in International Business and Finance, 41(C), 399-411.
- Ross, S. A. (1977). The Determination of Financial Structure: The Incentive-Signalling Approach. The bell journal of economics, 23-40.
- Tsukioka, Y., Yanagi, J., & Takada, T. (2018). Investor sentiment extracted from internet stock message boards and IPO puzzles. International Review of Economics & Finance, 56, 205-217.
- Uddin, H. (2009). Reexamination of stock liquidity risk with a relative measure. Studies in Economics and Finance, 26(1), 24-35.



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- Yong, O. (2010). Initial Premium, Flipping Activity and Opening-day Price Spread of Malaysian IPOs. Capital Markets Review, 18(1), 45-61.
- Yong, O. (2019). Performance Of Malaysian Initial Public Offerings: 1990-2017.
- Yong, O. (2014). Prestasi Dan Gelagat Saham Terbitan Baharu Di Malaysia.
- Yong, O., & Albada, A. (2019). Using Signals to Profit from the Malaysian New Issues Market.
- Zameni, A., & Yong, O. (2016). Lock-up Expiry and Trading Volume Behaviour of Malaysian Initial Public Offerings. International Journal of Economics and Financial Issues.
- Zhu, B., & Niu, F. (2016). "Investor sentiment, accounting information and stock price: Evidence from China," Pacific-Basin Finance Journal, 38(C), 125-134.