
Flipping activity in Malaysian IPO market: a new explanation from the winners' curse perspective

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Abstract: This study examines the influence of winners' curse phenomenon on flipping activity through a winners' curse measurement proposed in Amihud et al. (2003). The study defines winners' curse using allocation rate ($ALLOC_j$) which is as the natural log of the reciprocal of investor demand or oversubscription ratio. In a view, the presence of winners' curse in an IPO market leads to high flipping activities indicating that new IPO subscribers are not willing to retain the allocated IPOs for longer term. However, from another view where high $ALLOC_j$ could also reflect IPOs with low demand, the immediate trading activity by the new subscribers is not possible to be done. The latter view suggests that $ALLOC_j$ should produce low flipping activities. Using a sample of 381 IPOs issued in Bursa Malaysia from January 2000 to December 2013, the cross-sectional multiple regression analyses results report that $ALLOC_j$ relate significantly and negatively to flipping activity. The significant relationship supports the latter view that uninformed investors are more likely to win big IPOs which are not demanded by the informed investors. Therefore, the lower demanded IPOs produce low flipping activities.

Keywords: flipping activity; winners' curse; initial public offerings; Malaysian IPO market.

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1 Introduction

Over the decades, the early performance of initial public offerings (IPOs) has been a central attraction to many researches probably because the extent of long term success of an IPO is much reliance on its performance in the immediate aftermarket or at the time when it is just eligible for trading in stock market. To date, early performance of an IPO is often evaluated by its initial return or price appreciation in the first few trading days. There is only a limited studies focus on initial trading volume of an IPO to measure the early performance of an IPO in spite of the observation that IPO markets have been reporting a substantially high trading volume during the first few days (Aggarwal, 2003; Ellis, 2006; Che Yahya et al, 2014; Che Yahya and Abdul Rahim, 2015). The scant

number of studies and attention on IPO initial trading volume is seen paradoxical given the argument that substantial trading activity in the early aftermarket may cause severe downward pressure on price of the IPO (Fishe, 2002; Krigman et al., 1999) which can impede the IPO to offer desirable profits to investors; impair long-term performance of the IPO and jeopardise the change of IPO company to absorb enough demand when issue for subsequent equity offerings (SEOs). Given its multi-dimension effects and significance to IPO companies and investment community, this study intends to investigate the initial trend of IPO trading volume as another way to evaluate the early performance of an IPO.

Some past studies claim that the substantially high trading volume during the first few trading days is contributed mainly by flippers (Aggarwal, 2003; Yong, 2010). The proposition leads the scant past studies on IPO trading volume to skew their focus to flipping activity to understand the initial trend of trading volume in IPO market and its causes. In other words, past studies often use flipping activity to reflect the high trading volume during the first few trading days. Defining as immediate disposal of shares in the first few trading days by new investors who receive allocations of the shares during the IPO offerings (Che Yahya and Abdul Rahim, 2015; Ellis, 2006), flipping activity is often related to new investors who are extremely profit oriented in nature. They will be most likely to immediately sell their allocated shares upon learning the chance to grab for optimum initial returns. Their behaviour to immediately sell their shares is expected given the well established fact that IPOs in many markets normally will experience considerably good positive return, particularly on the first few days of trading (Mohd Rashid et al., 2014).

While most of past studies on the determinants of IPO flipping activity employs prelisting elements (Abdul Rahim et al., 2013; Islam and Munira, 2004; Yong, 2010), pricing effect (Aggarwal, 2003; Bayley et al. 2006; Ellis, 2006; Fishe, 2002; Krigman et al., 1999), signalling hypothesis (Che Yahya et al., 2014; Che Yahya and Abdul Rahim, 2015) and behavioural hypothesis (Chong, 2009; Chong et al., 2009, 2011), this study intend to shift the focus onto winners' curse hypothesis as its main interest to understand IPO trading volume in the early aftermarket (or flipping activity). The winners curse hypothesis describes the adverse selection problem which circulates around the tendency of new uninformed investors who would win or be allocated a large number of IPOs that are not demanded by the informed investors probably due to overpriced IPOs (Amihud et al., 2003), low quality and/or high risk companies (Che Embi, 2010). The informed investors are not likely to be trapped or cursed because with more and/or better information which they hold, they are able to differentiate high from low quality investments. Therefore, the informed investors are not likely to demand and subscribe for the IPOs. Unlike informed investors who earlier have shied away from the IPOs, the uninformed investors who successfully received allocation of the new shares are now left only with an option to purchase and subscribe for the demanded shares since, unlike in Taiwan IPO market (Lin et al., 2010), IPO withdrawal option (i.e., an option to let go off the IPOs during allotment stage) is not a norm for Malaysian IPOs (Abdul Rahim et al., 2012).

Perceiving possibility of the subscribed shares' price to substantially deteriorate in the long term due to less demand, the uninformed investors who subscribed the shares would opt not to hold their shares for a longer term. For a safety reason, they tend to resort for a sudden liquidation or flipping their shares a moment after the shares are available for trading in stock exchange. Therefore, to a certain extent, the existence of winners' curse

seems to lead to high flipping activity. The proposition is further supported by an argument that the underwriter will respond by strategically underprice the IPOs during the allotment stage to retrieve the interest and confidence of uninformed investors onto the IPO company. The underpricing strategy of the IPO will cause the IPO to offer a better return in the first few trading days. This strategy is particularly essential to lessen the possibility that the issue fails (undersubscribe) due to the leakage of adverse information about the IPOs (Chowdhry and Sherman, 1996). Therefore, equally considering the nature of being profit oriented, potential flippers will subscribe only to manipulate the market by flipping their shares for optimum return (due to underpricing) in the immediate aftermarket. From one perspective, *ceteris paribus*, this study should hypothesise that IPOs with high winners' curse possibilities (or lower oversubscription ratios) will lead to higher flipping activities as new shareholders or subscribers and pre-IPO shareholders would have lower willingness to retain the shares.

However, from another perspective where high existence of winners' curse phenomenon also could be implied as of less demand for an IPO (Abdul Rahim et al., 2012; Amihud et al., 2003), the immediate trading activities (or flipping activities) by the new subscribers are less possible since there will be no takers (buyers) to subscribe the shares in the secondary market due to the high risk or low quality of the shares. The supply-demand theory will suggest that at a given level of supply, the low demand will drag the price of these less demanded IPOs to a lower level and produce a lower initial return. Therefore, equally considering the nature of flippers and the less ability of an IPO to receive sufficient order or demand to initiate trading in the secondary market, flipping activity are not likely and therefore is expected to be lower when winners curse phenomenon is perceived to highly occur in an IPO company. In other words, *ceteris paribus*, IPOs with lower oversubscription ratios should be followed by lower flipping activities as new subscribers and pre-IPO shareholders might not be able to cash out immediately with lower demand from the secondary market.

Eventually, without adequate trading activities in the IPO immediate aftermarket, high level of liquidity in an IPO market will not occur. Although, to a certain extent, high liquidity (i.e., due to extensive flipping activity) is not encouraged as it will cause a sudden landslide in the initial price and return of an IPO, its necessities is also of essential as it indicates stability and resiliency of IPO markets particularly Malaysian market, which is still characterised as a thin equity market with relatively lower trading volumes (Sapian et al., 2012). In addition, the encouragement on IPO trading volumes is called for as it is also a key factor to attract foreign investors' funds. Foreign funds are so much required to further increase demand and liquidity of the equities, which will together increase returns and wealth of the Malaysian shareholders. The increment in wealth of the Malaysian shareholders is consistent to the main objective of Malaysia's Economic Transformation Program (ETP) that is an aspiration to propel Malaysia into a high income economy and a high-income nation. Originated from above motivations therefore, this study aims to examine the influence of winners' curse phenomenon on flipping activity of 381 IPOs listed in Malaysian stock exchange (officially known as Bursa Malaysia), covering the period from January 2000 to December 2013. In a nutshell, this study is initiated not only to fill up the gap in past studies on IPO trading volume in the immediate aftermarket as well as to understand how winners' curse phenomenon can influence flipping activity, it is also to provide support to the initiative of Malaysian government, through its ETP, to produce the higher income nation by 2020.

Apart of the supports given by this study to the National aspiration, the examination on the impact of winners' curse on flipping activity particularly in Malaysian IPO market is also motivated by some reasons. Firstly, Malaysian IPO market still appears as a thin market. The main issue for this is the lack of transparency on the information of the issuers (Sapian et al., 2012). The lack of transparency suggests Malaysian market as a perfect avenue or setting to examine the influence of winners curse as this phenomenon is usually related to the problem of adverse selection and information asymmetry (Chowdhry and Sherman, 1996). As posited by Tajuddin et al. (2015), the level of information asymmetry in developing market is higher than in developed markets, thereby offering more needs to examine the issue on the implication of information asymmetry and adverse selection to the investors' behaviour in developing markets such as in Malaysian IPO market.

Next, this study also attempts to solve the inconsistency arised between the definition of flippers and the common proxy employed to measure flipping activity particularly in IPO markets such as in Malaysian IPO market where data on flippers and their trading activity are not made available. Originally, past studies measure flipping activity by the actual volume of selling activity executed by new IPO subscribers in the earliest trading days against the total number of shares issued. This measurement is consistent to the original definition of flipping activity which proposes that only new IPO subscribers are considered as the potential flippers. However, in some IPO markets particularly in Malaysian IPO market where data on flippers are not possible to retrieve, a study has to opt for a proxy to measure flipping activity. Some of the past studies are in a mutual claim that the substantially high trading volumes in the first few trading days are caused mainly by flippers (e.g., Aggarwal, 2003; Yong, 2010). As such, flipping activity is measured by the total trading volume usually during the first trading days against the total number of shares issued at the IPO.

As discussed in Section 3.2, variables definition and analytical methods, this study claims that the high volume of trading could not only be contributed by new IPO subscribers but a group of shareholders who own a portion of shareholdings before the IPOs and are not affected by the mandatory lock-up provision if they decide to sell a proportion or all of their shares in the immediate aftermarket. Disregarding the initial trading pattern of this group of shareholders particularly in the Malaysian IPO market where the flippers cannot be identified is somehow unjustified. That is, this study posits that the original definition of flippers which is limited only to the new subscribers will be defeated. In a attempt to solve the inconsistency arised between the definition of flippers and the common proxy employed to measure flipping activity while in the meanwhile to provide for a more reflective proxy, this study proposes a modified measurement to flipping activity. Apart of clarifying another motivation to conduct for this study, the modification on the original or usual proxy of flipping activity is expected to be marked as another contribution of this study as it could offer studies on flipping activity in IPO markets a more consistent definition of flippers, particularly when data of flippers and their selling activities are not disclosed.

The remaining sections of this paper are organised as follows; Section 2 reviews relevant literature. Section 3 describes the data and methodology used in this study. Section 4 presents and discusses the empirical results while Section 5 concludes the findings.

2 Literature review

2.1 Flipping activity of IPO worldwide

The degree of flipping ratio varies across studies and across markets, but the figures seem as anomalous as initial returns or underpricing phenomenon which has caught so much attention in literature on IPOs. This represents a paradox because flipping activity also can be the main factor of the IPO performance at the point of its listing. Table 1 provides descriptive evidence on the flipping activity that has been reported in previous studies. The anomalous flipping activity in these markets, specifically Malaysia, flags the need to find explanations for underlying behaviour. Referring to the reported figures, it might not even be too much to claim that understanding flipping activity is as important as understanding initial returns.

Table 1 Ratio of flipping activity in various countries and study periods

<i>Studies</i>	<i>Market and sample period</i>	<i>Sample size</i>	<i>Observation days</i>	<i>Flipping activity (%)</i>
Krigman et al. (1999)	USA (1988–1995)	1,232	Day 1	45.40 %**
Bash (2001)	USA (1988–1995)	3,891	Day 3 to 25	48.10 %**
Aggarwal (2003)	USA (1997–1998)	617	Day 1 to 2	15.00 %*
Gounopoulos (2006)	USA (2003–2004)	51	Day 1 to 2	24.30 %*
Islam and Munira (2004)	Bangladesh (1994–2001)	96	Day 1 to 7	29.67 %**
Bayley et al. (2006)	Australia (1995–2000)	419	Day 1 to 3	22.07 %*
Tran et al. (2007)	Finland (1995–2000)	50	Day 1 to 3	22.00 %*
Chong (2009)	Malaysia (1991–2003)	132	Day 1	7.66 %**
Chong et al. (2009)	Malaysia (1991–2003)	132	Day 1	7.66 %**
Sapian et al. (2012)	Malaysia (2003–2008)	187	Day 1 to 5	24.6 %**
Abdul Rahim et al. (2013)	Malaysia (2003–2008)	243	Day 1 (Mean Daily)	33.86 %**
Che Yahya et al. (2014)	Malaysia (2000–2012)	247	Day 1	10.43**
Che Yahya et al. (2014)	Malaysia (2000–2012)	248	Day 1	38.33%**
Che Yahya and Abdul Rahim (2015)	Malaysia (2000–2012)	370	Day 1	58.84%**

Notes: * flipping ratio is the percentage of shares flipped over the total shares offered.

** flipping ratio is the percentage of shares traded over the total shares offered.

2.2 *Winners' curse hypothesis*

Adverse selection problems and asymmetry information are the main elements of the winner's curse phenomenon (Rock, 1986) which categorises investors into two broad groups: informed and uninformed investors. The two groups of investors are separated by their ability to assess relevant information of an IPO prior to its listing. While informed investors (e.g., institutional investors) normally at the advantage to evaluate an IPO since better and more information are readily assessable to them, uninformed investors (e.g., retail investors) usually opt to seek for any relevant signal as a guide for their investment's decision. For instance, believing that they are more likely to win IPOs which are not desired by the informed investors due to overpriced IPOs (Amihud et al., 2003), low quality and/or high risk companies (Che Embi, 2010), the uninformed investors avoid the curse of winning such IPOs by not participating in the IPO market (Keloharju, 1993; Koh and Walter, 1989; Levis, 1993) or immediately disposing their allocated shares in the immediate aftermarket. Issuers and underwriters, who are considerably aware on costs of unsuccessful IPOs that could be very high if they fail to receive sufficient subscriptions, will purposely underprice the IPOs to regain the uninformed investors back into the market (Abdul Rahim et al., 2012).

As far as the review on past studies is concerned, studies on winners' curse hypothesis are skewed to test its influence only on initial return of IPOs (e.g., Abdul Rahim et al., 2012; Aggarwal et al., 2008; Amihud et al., 2003; Lin et al., 2010; Welch, 1992; Yong, 2009, 2011). Nearly no study is found to relate it to flipping activity. Amihud et al. (2003) reports evidence from the Israeli IPO market when they show that underpricing is negatively associated to the winners curse (measured by rate of allocation to subscribers). The study claim that this result is in line to the existence of adverse selection problem (Rock, 1986). According to the study, uninformed investors earn slightly less in initial returns compared to informed investors. This is probably because the uninformed investors receive more allocations of the overpriced IPOs.

Using a sample of 120 IPOs listed on Bursa Malaysia from 1991 to 2008, Yong (2009) is another study that provides supporting evidence for winners' curse hypothesis. Using private placement issue to proxy the participation of informed investors on IPOs, the study finds that uninformed investors obtain a higher initial return when the percentage of informed investors participating (or private placement issues) in the IPO market is less. Yong (2011) re-visits the issue in the same market and find similar results during the new extended study period (2001–2009). Private placement issues record significantly lower initial returns than the non-private placements issues. The results of the study during the two sample periods (1991–2008 and 2001–2009) supports the argument that the underwriters deliberately underprice the IPOs to retrieve the interest of uninformed investors to the IPO company. Measuring both allocation rate and participation of informed investors on IPOs to proxy for winners curse hypothesis, Abdul Rahim et al. (2012) offers support to Yong's (2009). In specific, employing 384 IPOs listed on Bursa Malaysia from 1999 to 2008, the study reports that uninformed investors enjoy higher initial return when the participation of informed investors in the market is lower.

Over in Taiwan IPO market Lin et al. (2010), using 315 fixed-priced IPOs listed from 1995 to 2003, finds support on the existence of winners curse but underwriters in the market plays a major role by absorbing overpriced shares which are left untaken. Investors in Taiwan IPO market strategically react by withdrawing from their IPO

allocations upon understanding from allocation rate that the new issues are overpriced. The results imply that the uninformed investors are somehow relied on allocation rate not only to assist them whether to participate or not in the IPO market but also as a guidance tool to improve their investment decision and performance.

Welch (1992) and Aggarwal et al. (2008) criticises some explanations in winners' curse hypothesis when they offer an alternative explanation that skews to the bandwagon effect. The two studies suggest that a higher institutional investors' participation in an IPO is the key factor that will produce a higher initial return because these IPOs attract additional demand from investors who participate in the IPO by merely imitating the behaviour of the institutional investors. In other words, they claim that the IPOs are not strategically underpriced to retrieve the interest of uninformed investors. Instead, the IPOs that are highly ordered by institutional investors tend to receive a high oversubscription rate. The supply-demand theory will suggest that at a given level of supply, the additional demand will push price of the highly demanded IPOs to a higher level and produce a higher initial return. While the winners' curse hypothesis predicts that the private placement and initial return relationship is negative, the cascade or bandwagon effect predicts the relationship is positive.

3 Data and methodology

3.1 Sample size and procedures

This study uses a final sample of 381 Malaysian IPOs issued from January 2000 to December 2013 and listed on either the Main market or ACE market of Bursa Malaysia. January 2000 is chosen as the starting point of this study to reduce the impact of the 1997/98 Asian financial crisis on the analysis. The study covers the period until 2013 when the effect of the 2007/2008 US sub-prime crisis is still pulling down most markets. However, Malaysian market is not adversely affected by the crisis, not to the extent of the Asian financial crisis (Che Embi, 2010). The sample of 381 IPOs, which represents nearly 75% of the total population is finalised after excluding all IPOs issued by financial and insurance companies, uncommon issue type of IPOs and IPOs with missing value. Data for this study are sourced from prospectuses of IPO companies, website of Bursa Malaysia and database of DataStream.

3.2 Variables definition and analytical methods

3.2.1 Dependent variables

The dependent variable in this study, flipping activity (*FLIP*), is defined conventionally as an action of immediate re-sells of shares succeeding the listing by the original subscribers who are allocated with the IPOs at the offer price (e.g., Chong et al., 2009, 2011; Krigman et al., 1999; Yong, 2010). Flipping activity is commonly reported as the percentage of shares flipped against the total number of shares issued. The accessibility of data on flippers in developed markets such as in the USA, UK and Australia allows it to be tracked more accurately.

However, in most markets especially the emerging ones such as in Malaysia, research works resort to proxies for the flipping activity due the non disclosure of the data (Sapian

et al., 2012). A standard measure or proxy used in these markets is the total trading volume divided by the total amount of shares issued (Islam and Munira, 2004; Krigman et al., 1999; Yong, 2010). This proxy is frequently accepted probably due to the conjecture that the high trading volume in the first few trading days is mainly caused by the flippers (Aggarwal, 2003; Ellis, 2006). The standard measure is illustrated in the following equation:

$$\text{standFLIP}(i)_i = \frac{VOL_i}{NOSHI_i} \quad (1)$$

where

$VOL_{i,t}$ trading volume of the i^{th} issuer on the first trading day

$NOSHI_i$ number of shares issued for the i^{th} issuer at the IPO.

By conventional definition, the flippers referred in equation (1) are restricted to only the new shareholders who are allocated with the IPOs at the offer price. However, practically, pre-IPO shareholders who own a percentage of shares before the IPOs and are not affected by the mandatory lock-up provision (i.e., a restriction to sell or transfer a portion of shareholdings during a certain period right after the listing of an IPO) also have an equal chance to dispose or flip their shares at the initial trading days like the new shareholders. Accordingly, the high volume of trading also could be contributed by this group of shareholders if they decide to sell a portion of their shares in the immediate aftermarket. Disregarding the initial trading pattern of this group of shareholders particularly in the Malaysian IPO market where the flippers cannot be identified is somehow unjustified. In short, recognising that:

- 1 flipping activity can be similarly contributed by new shareholders and pre-IPO shareholders partially
- 2 the standard proxy of flipping activity may mislead, this study therefore intends to propose a modification on the standard definition of flippers as well as on the standard proxy of flipping activity.

The modification on the standard definition of flippers is depicted with the fraction of shareholdings held by the new shareholders and the pre-IPO shareholders that compose the total shareholdings of the company (Figure 1). This figure shows that the flipping activity is not confined only to the number of shares issued ($NOSHI$) but also to the total number of shares held by pre-IPO shareholders which are not affected by mandatory lock-up provision. Thus, this study proposes that flippers should be defined as all original shareholders (new and pre-IPO) who are not subjected to the lock-up provision and sell their shares in the immediate aftermarket. In other words, only shareholders whose portion of shares must be locked are not considered as potential flippers.

Based on the illustration in Figure 1, equation (2) is developed as an alternative proxy of flipping activity in this study. That is, the modified flipping activity, shortened as modFLIP should equal to:

$$\text{modFLIP}(i)_i = \frac{VOL_i}{NOSHI_i} \quad (2)$$

subject to a maximum of:

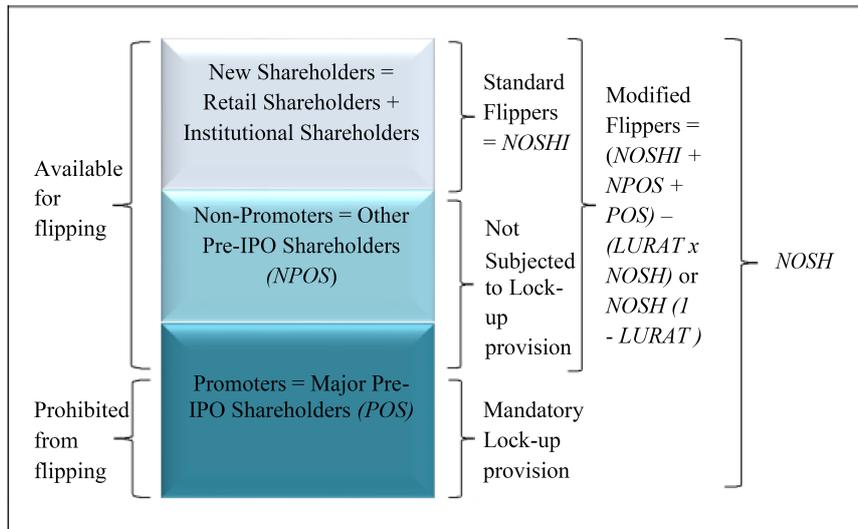
$$VOL_i^{MAX} = (NOSHI_i + NPOS_i + POS_i) - (LURAT_i - NOSH_i)$$

$$VOL_i^{MAX} = NOSH_i (1 - LURAT_i)$$

where

- $modFLIP_i$ modified flipping activity of the i^{th} issue
- $VOL_{i,t}$ trading volume of the i^{th} issue on the first trading day
- $NPOS_i$ number of shares held by non-promoters = $OS_i - POS_i$
- OS_i number of original shares prior to IPO
- POS_i number of shares held by promoters of the i^{th} issue
- $NOSH_i$ number of shares outstanding for the i^{th} issue after the IPO
- $LURAT_i$ number of shares locked by promoters of the i^{th} issue.

Figure 1 Flippable shares based on fraction of shareholdings at IPOs (see online version for colours)



Notes: Non-promoters are also referred to as non-affected shareholders by the mandatory lock-up provision, interchangeably. Starting in 3 May 1999, the Malaysian IPO market is subjected to mandatory IPO lock-up provision. The Securities Commission (the Malaysian capital market regulator) has set the mandatory lock-up ratio at 45% of the total shares outstanding to be held by the major pre-IPO shareholders for at least one year period starting from the commencement of the IPO listing. Abbreviation of *NOSH* is total number of shares outstanding. *NOSHI* is total number of shares issued. *LURAT* is the percentage of shares locked by promoters.

3.2.2 Independent variable

The main independent variable of this study, the winners' curse, is reflected as the probability that the investors will be allocated successfully an amount of IPOs which they are demanded or the rate of IPOs allocated to them (Che Embi, 2010). The measurement of winners' curse in this study is based on the allocation rate ($ALLOCT_i$) as proposed in Amihud et al. (2003) and Lin et al. (2010). The high $ALLOCT_j$ indicates the probability of uninformed investors to win a portion of IPOs which are not demanded by informed investors such that also reflects the existence of winners' curse. The logistic transformation of $ALLOCT_i$ is illustrated as follows:

$$ALLOCT_i = \log\left(\frac{ALLOCT_i + \alpha}{1 - ALLOCT_i + \alpha}\right) \quad (3)$$

where

α 0.5/N, N is sample size

$ALLOCT_i$ issued units/total demand (1/OSR)

OSR_i oversubscription ratio or unit subscribed divided by units offered.

$ALLOCT$ estimates the allocation rate or the chances that the subscribers are likely to receive the amount of IPOs they have ordered. Hence, $ALLOCT$ must be positive or in the range from 0 to 1 ($0 < ALLOCT \leq 1.0$). As suggested in Amihud et al. (2003), $ALLOCT$ must be lower than 1.0 because in cases like that, i.e., when the IPOs are undersubscribed, then the underwriters will absorb the unsubscribed IPOs. In this study, $ALLOCT$ is estimated based on the reciprocal of the OSR value. In the final sample of IPO used in this study, there are 28 such cases of IPOs that fail to get full subscription. Accordingly, the $ALLOCT$ values for these IPOs set to be equal to 1.0. Eleven other cases where the number of units subscribed equal to the number of units issued also have their $ALLOCT$ equals to 1.00.

3.2.3 Control variables

The control variables (CV) of this study includes lock-up ratio ($LURAT$) which is expressed as the percentage of shares locked by promoters while lock-up period ($LUPER$) is referred to as the number of days the shares are held by promoters and is expressed in a dummy of 1 for all IPOs subjected to 180 days lock-up period and 0 for IPOs with 90 days $LUPER$. Next is initial return ($RETURN$) which is measured as the percentage change in price, between the opening price on the opening day and the offer price. The fourth control variable, institutional investors' participation ($INSTPAT$) is measured by the ratio of private placement issue to total shares offered. Offer size ($OFFSIZ$) is measured as the natural log of the total number of shares issued for an IPO multiplied by its offer price ($LN(NOSH \times P^{OFFER})$). Next, heuristic representative or $HEUREP$ is measured by the average returns on the opening trading day of the three most recent new issues listed prior to an IPO. Meanwhile $STOMKT$ is the average one week or five trading days return of FTSE Bursa Malaysia Emas index. Both the $HEUREP$ and $STOMKT$ are used to measure market condition during the study period. Industry represents the group or sector which the IPO issuers belong to and is measured using dummy technology companies (D^{TECH}).

3.2.4 Estimation models

To examine the influence of winners' curse on flipping activity using two measurements with a control of eight variables, the following multiple regression equations are applied:

$$\text{standFLIP}(i)_i = \alpha + \beta_1 \text{WINCURSE}_i + \beta_j \sum_{j=1}^8 \text{CV}_j + \varepsilon \quad (4a)$$

$$\text{modFLIP}(i)_i = \alpha + \beta_1 \text{WINCURSE}_i + \beta_j \sum_{j=1}^8 \text{CV}_j + \varepsilon \quad (4b)$$

where α is the regression intercept, β is the estimated coefficient of the respective predictor variable, $\text{CV}_{i,j}$ is the control variables from $j = 1, \dots, 8$ for the i^{th} IPO, while the remaining variables are as defined in earlier section and ε is the error term.

4 Empirical results

4.1 Preliminary results

Table 2 presents the descriptive statistics of a sample of 381 IPOs, listed from January 2000 to December 2013. The average *standFLIP* is 58.30% (or 19.51% for *modFLIP*) ranging from a minimum of 0% to a maximum of 100% (or 55% for *modFLIP*). The figure of *standFLIP* suggests that the Malaysian IPO market experiences flipping activity to a greater extent (on average 58.30% on the first day of trading) than in developed markets. In the US market, Aggarwal (2003), Bash (2001) and Krigman et al. (1999) finds that flipping contributes to 15%, 45.40% and 48.10% of total trading, respectively. Meanwhile in the emerging market of Bangladesh, Islam and Munira (2004) find that the percentage is a half of the reported figure in this study (29.67%) but the observation is made on the first seven trading days. Over in Australia, Bayley et al. (2006) reports a mean of 22.07%. One important observation from the descriptive analysis on flipping activity is that Malaysian IPO market and the US IPO market appears to experience higher flipping activity since in this study as well as in past studies on Malaysian IPOs report higher percentage of flipping activity (e.g., Abdul Rahim et al., 2013, 33.86 %; Che Yahya et al., 2014, 38.33%; Che Yahya and Abdul Rahim, 2015, 58.84%).

In term of *ALLOC*, the sample IPOs report that on average investors receive around 21% of the IPOs that they apply to subscribe ranging from a minimum of 0% and a maximum of 100%. The mean figure is similar to that reported in Abdul Rahim et al. (2012) but slightly lower than that reported in Lin et al. (2010) (27.89%). The mean value of *ALLOC* suggests that at most of the time, the chance of investors to be allocated with IPOs is only as slim as 21%. The lower mean *ALLOC* probably because IPOs are mostly underpriced resulting in the shares to be allocated more to informed investors (or institutional investors). This proposition is consistent to Aggarwal (2003) and Gounopoulos (2006) who argues that the institutional investors are commonly being allocated a greater proportion of new shares because of their commitment to retain the shares longer. As a matter of fact, major institutional investors in Malaysia are pension fund, fund management firms as well as other financial and banking institutions such as the Employees Provident Fund, Permodalan Nasional Berhad, Lembaga Tabung Haji and

PERKESO which invest in common stocks to fulfill some asset allocation requirement and to protect the minority shareholders' interests (Abdul Wahab et al., 2008; Abdul Wahab, 2012).

Table 2 Profile of sample IPOs, 2000–2013

<i>Items</i>	<i>Mean</i>	<i>Median</i>	<i>Min.</i>	<i>Max.</i>	<i>Std. dev.</i>
<i>standFLIP</i> (%)	58.50	55.34	0	100	0.36
<i>modFLIP</i> (%)	19.51	14.14	0	55.00	0.16
Initial return (offer to open) (%)	27.39	14.54	-137.93	404.17	0.56
Oversubscription ratio, OSR (times)	31.87	14.85	-0.89	377.96	49.41
<i>ALLOC</i> ($0 < (1/OSR) \leq 1.0$)	0.21	0.06	0	1.00	0.31
Lock-up ratio (%)	56.17	54.68	20.00	83.53	0.09
Lock-up period (years)	322	334	180	360	76.26
Institutional investors' participation (%)	44.55	51.39	0.00	100.00	0.33
Issue size (units '000)	0.85	1.45	0.02	2.48	24.8
Offer price (RM)	0.99	0.75	0.12	5.05	0.77
Representative heuristics	27.28	16.05	-0.84	174.24	0.35
Stock market condition	0.90	4.58	-1.55	1.07	0.36

Notes: Sample size, $n = 381$ for the period from January 2000 to December 2013.

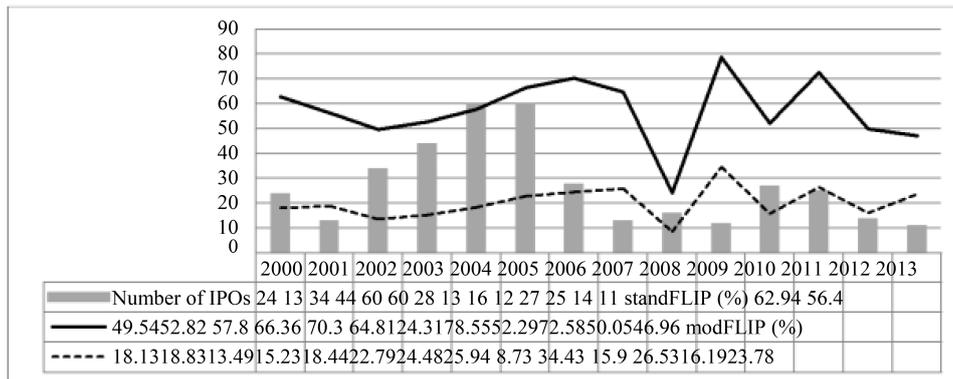
standFLIP is flipping activity on first trading day measured using the standard formula [see equation (1)]. *modFLIP* is flipping activity on first trading day measured using the modified formula [see equation (2)]. *ALLOC* is allocation rate.

For other explanatory variables, this study reports that the mean lock-up ratio is 56.17 percent which ranges from a minimum of 20.00% to a maximum of 83.53%. For comparison, the mean lock-up ratio in this study appears to be lower than the figures reported in the US market. For instance, the average lock-up ratio is reported to be as high as at 83.90% (Brav and Gompers, 2003) and 93.40% (Braun et al., 2004). The wide difference could be due to the mandatory provision practiced in the Malaysian IPO market. In specific, effective from May 1999, the Security Commission of Malaysia has mandated a minimum of 45% lock-up ratio suggesting that most majority shareholders of the issuing firms opt to only lock in their shares to almost similar percentage of the compulsory requirement. In the meantime, the majority shareholders of few other firms voluntarily lock more of their shares than the requirement (i.e., maximum of 83.53%). Although the minimum of 45% lockup ratio is obligated, there are at least two issuing firms which obtained exemption from the SC for any minimum requirement due to their market capitalisation. This could be seen by the minimum 20% of lockup ratio reported in this study. In terms of the lock-up period, this study reports the mean of 322 days, implying that IPO issuers lock their promoters' shares toward the maximum lock-up period. In the US, the average lock-up period is only 163 days (Braun et al., 2005) and 187 days (Field and Hanka, 2001). Overall, comparing figures reported in this study with those reported in the developed markets, the smaller lock-up ratio but rather longer lock-up period are found in the Malaysian IPO market.

Figure 2 plots yearly *standFLIP* and *modFLIP* which both are estimated on the first trading day. In general, *standFLIP* displays an uprising trend starting from year 2002 before it declines to a lowest of 24.31% in 2008. The yearly trend of the *modFLIP* also

appears to be similar to that found in yearly *standFLIP* when flipping activity starts to appreciate in 2002 but at levels that are consistently lower than the *standFLIP*. Similar to the *standFLIP*, the *modFLIP* also declines to its lowest value (8.73 %) in 2008. However, it is interesting to note that the lowest yearly *standFLIP* is slightly larger than the highest 11.72% *standFLIP* found in Chong (2009) and Chong et al. (2009), both from 1991 to 2003 for the Malaysian IPO market. The highest value (11.72 %) in their studies is very much lower than the highest yearly *standFLIP* reported in this study (78.55 %) in 2009. In relation to the yearly number of IPOs issued, Figure 2 also displays that, regardless of measurements, yearly trend of flipping activity seems consistent to the yearly trend of IPO issuance. Specifically, flipping activity is shown to be higher when number of IPO issued are larger and vice versa. This parallel pattern between yearly flipping activity of both measurements and number of IPOs issued could be due to the optimism of investors on IPO market that eventually increases demand of the IPOs. As suggested by Welch (1992) and Aggarwal et al. (2008), IPOs which are highly demanded usually will produce higher initial returns. Hence, motivates new shareholders to immediately dispose their allocated shares.

Figure 2 Yearly flipping activity of IPOs, 2000–2013



Note: Flipping activity, regardless of measurement, is estimated on the first trading day.

4.2 Main empirical results

The main results of this study are presented in Table 3 using two model specifications. Panel A reports regression results where flipping activity is estimated using the standard formula while panel B presents result where flipping activity is measured using modified formula. To ensure realibility of the regression results, several other diagnostic tests are performed (e.g., Jarque-Bera for normality of data distribution, heteroscedasticity and autocorrelations of the regression residuals). The specification of regression models is tested using Ramsey’s RESET (Regression Equation Specification Error Test).

As shown in Table 3, the regression models in Eq. (4) produce an adjusted R^2 of 22.86% (panel A) and 15.35% (panel B), implying that all predicting variables in total explain to a lowest of 15.35% of the variations in flipping activity of Malaysian IPOs. The F-statistic (12.22, panel A) and (7.48, panel B) verifies that both models’ goodness-of-fit is satisfactory at the 0.01 level of significance. In terms of model specifications, the Ramsey’s RESET result proves that both models are correctly specified with an

insignificant probability value of 0.338 for panel A (0.619 for panel B). Further, the Durbin–Watson statistics also pass Savin and White’s critical values, ratifying the absence of an autocorrelation issue. Scrutiny of White’s general heteroscedasticity test shows that both models (panel A and panel B) have the potential of homoscedasticity. To solve the issue, the White’s general test is used.

Table 3 OLS regression results on the influence of winner’s curse on flipping activity on the first trading day

Variables	Exp. sign	Panel A: <i>standFLIP(i)</i>		Panel B: <i>modFLIP(i)</i>	
		Coefficient	t-statistics	Coefficient	t-statistics
Main variable					
<i>ALLOCT</i>	–	–0.120	–3.435***	–0.046	–3.328***
Control variables					
<i>LURAT</i>	–	–0.703	–3.496***	–0.449	–3.894***
<i>LUPER</i>	–	–0.001	–6.648***	–0.001	–5.263***
<i>RETURN</i>	+	0.080	2.507**	0.041	2.435**
<i>INSTRAT</i>	–	–0.095	–1.610*	–0.011	–0.429
<i>OFFSIZE</i>	–	–0.113	–8.900***	–0.029	–4.601***
<i>HEUREP</i>	+	–0.060	–1.114	–0.042	–1.817*
<i>STOMKT</i>	+	0.004	0.101	0.007	0.428
<i>DTECH</i>	+	0.073	1.611*	0.015	0.756
R ²			0.2286		0.1535
Adjusted R ²			0.2099		0.1330
F-statistics			12.222		7.480
p-value (F-stats)			0.000		0.000
Durbin-Watson			1.810		1.783
VIF range					
Ramsey TEST:					
F-test statistics			0.917		0.247
p-value			0.338		0.619

Notes: Sample size (N) = 381. ***, ** and * indicates significant at 1%, 5%, and 10%, respectively. Flipping activity are estimated on the first trading day. Abbreviations *standFLIP(i)* = standard flipping activity on first trading day; *modFLIP(i)* = modified flipping activity on first trading day; *ALLOCT* = allocation rate; *LURAT* = lockup ratio; *LUPER* = lock-up period; *RETURN* = initial return (offer-to-open) on first trading day; *INSTRAT* = institutional investors’ participation; *OFFSIZE* = offer size; *HEUREP* = heuristics representation; *STOMKT* = stock market condition; *DTECH* = company sector.

In general, the coefficients of almost all predicting variables [including winners curse, (*ALLOCT*)] in both panels are in the directions predicted in the study. An exception is only to heuristic representative. In terms of predicting variables that have a significant influence on flipping activity; *ALLOCT*, *LURAT*, *LUPER*, *RETURN* and *OFFSIZE* are consistently in the list (both panels). Unlike *RETURN*, the other three significant variables produce a high level of significance (0.01 levels) to flipping activity. In the

meantime, *INSTRAT* and *DTECH* are found to be significant in explaining flipping activity only when the two predicting variables are estimated using standard formula (*standFLIP(i)*). *HEUREP* has a significant relationship to flipping activity only for the modified formula (*modFLIP(i)*, panel B). Further, this study finds an insufficient level of confidence that *STOMKT* has a significant influence on flipping activity, as the positive coefficient of the variable is not statistically significant in both models (panel A and panel B).

The negative and significant relationship between both lockup provision's components (*LURAT* and *LUPER*) works nicely with signalling theory where higher proportion and longer period of shares that are locked implies quality and/or good future growth of an IPO company such that motivates new shareholders to retain their shares in a longer term (Brau et al., 2005; Che Yahya and Abdul Rahim, 2015; Mohan and Chen, 2001) for steady price appreciation during the longer period. Meanwhile, the demand and supply theory justifies the positive significant relationship between *RETURN* and flipping activity (*standFLIP(i)* and *modFLIP(i)*) as well as the negative and significant relationship between *OFFSIZE* and flipping activity (also for both measurements). In greater details, at a given level of demand, the greater supply of IPOs (i.e., larger number of the new shares issued) will drag price of the highly supplied IPOs to a lower level and produces a lower initial return. Being profit motivated investors, flippers will be unlikely to immediately sell their shares learning that the current level of initial return for the shares is not adequately appealing for them to generate optimum returns. This chronology also offers rationale of a lower flipping activity when initial return (*RETURN*) is lower.

The analysis of the results in Table 3 now proceeds to focus upon the main issue raised in the study: the influence of allocation rate (*ALLOCT*) on flipping activities (*standFLIP(i)* and *modFLIP(i)*). As presented in Table 3, this study reports that *ALLOCT* is negatively and significantly associated to flipping activity at 99% level of significance. This finding is consistent regardless of measurements of flipping activity (*standFLIP(i)* and *modFLIP(i)*). A detail discussion of results on the significant relationship between allocation rate (*ALLOCT*) on flipping activities (*standFLIP(i)* and *modFLIP(i)*) is provided in the following section.

4.3 Discussion on main empirical results

This study investigates the influence of winners' curse phenomenon on flipping activity of Malaysian IPOs. Using a sample of 381 IPOs for the period from January 2000 to December 2013, this study finds that the significant and negative relationship between allocation rate (a measurement to winners curse) and flipping activity are consistent when it is estimated on the first trading day and first trading week. This study hypothesises that the existence of winners' curse phenomenon can influence flipping activity based on the reasoning that either from:

- 1 signalling perspective where high allocation rate (or high existence of winners' curse) implies the refusal of informed investors to subscribe for the shares due to overpriced, low quality and/or high risk such that induces new shareholders to quickly sell their allocated shares when the shares are eligible to be traded due to the fear of losing value of their investment

- 2 demand perspective as flipping activity by the new subscribers are unlikely because there will be no buyers to subscribe the shares in the secondary market due to its high risk or low quality.

While the former perspective predicts that *ALLOCT* and flipping activity relationship is positive, the later perspective predicts the relationship to be negative. As shown in Table 3, this study finds that *ALLOCT* is negatively and significantly associated to flipping activity at a 0.01 level of significance. This finding is consistent regardless of measurements of flipping activity (*standFLIP(i)* and *modFLIP(i)*). The results support the latter perspective in this study that the immediate selling activity (or flipping activity) is not really possible when there is not enough support received from the market. Understanding the risk of losing market value of the shares, no buyers will get close and buy the shares. In other words, the shares are not likely to receive adequate level of demand in the aftermarket that permits the shares to change hands. Therefore, the higher is *ALLOCT*, the lower flipping activity will be.

The results on the negative and significant relationship between *ALLOCT* and flipping activity for both measurements also suggest that *ALLOCT* can be used as an effective strategy to reduce the excessive flipping activity. To some extent, the existence of winners curse is bad to the issuing company as it curses the uninformed investors because these new shares will less likely produce high returns (Amihud et al., 2003; Rock, 1986). However, from another view, *ALLOCT* could assist IPO issuing firms to protect firms' value and shareholders' wealth by curbing excessive flipping activity. A restriction on high flipping activity is essential due to the claim that high flipping activity creates a sudden and substantial flow of new shares that could drag price of the new shares down below its fair value (Fishe, 2002). A sizable decline in firms' value reduces its ability to raise capital in favourable terms in the future. Underwriters' reputation, in the meantime, depends not only on the success of the IPOs but also on proving that the new shares have been offered at a fair price. Furthermore, excessive flipping activity that reduces the IPO price to a level below its fair value (assumed to be the offer price) will also make the investors unhappy. Unsatisfied investors are more likely to file lawsuits and less likely to subscribe to SEOs. Thus, equally understanding that IPO firms and underwriters have strong incentives to prevent excessive flipping activity and this study finds a negative and significant relationship between *ALLOCT* and flipping activity, issuing firms somehow could rely on *ALLOCT* to achieve their objective in curbing the excessive flipping activity. In a nutshell, although some studies claim that a greater allocation of new shares to institutional investors (informed investors) is possible to reduce flipping activity due to their nature to hold the shares in a longer term, a high number of shares distributed to retail investors (uninformed investors) could also produce similar outcome.

4.4 Further empirical analysis and results

In previous studies (Bash, 2001; Chong, 2009; Chong et al., 2009, 2011; Krigman et al., 1999; Yong 2010), regardless of the availability of data on flippers and the measurement of flipping activity, the flipping activity is not only estimated from the first trading day. Usually, the assumption about the activities of flipping is that it can last up to the end of the first trading week. In term of previous empirical studies, estimation of flipping activity has been taken from the first three trading days (Bayley et al., 2006; Tran et al.,

2007), first five trading days (Sapian et al., 2012), first seven trading days (Ellis, 2006; Gounopoulos, 2006; Islam and Munira, 2004), and first 30 days (Islam and Munira, 2004). This study extends the estimation of flipping activity to the first trading week or the fifth trading days as proposed in Islam and Munira (2004) and Sapian et al. (2012). The extension on period of the observation is justified because flippers will usually try to sell their shares in the first trading week to obtain the highest returns. This proposition is also justifiable in a case of IPOs which are traded in a market which is still characterised with a thin trading. That is, although all flippers would want to sell their IPOs on the first day of trading when the price is normally at its highest point, not many are actually successful in doing so because they are normally not enough demand to absorb the supplied IPOs.

Table 4 OLS Regression results on the influence of winner's curse on flipping activity estimated on the first five trading days

<i>Variables</i>	<i>Exp. sign</i>	<i>Panel A: standFLIP(i)</i>		<i>Panel B: modFLIP(i)</i>	
		<i>Coefficient</i>	<i>t-statistics</i>	<i>Coefficient</i>	<i>t-statistics</i>
Main variable					
<i>ALLOCT</i>	–	–0.296	–2.332***	–0.084	–2.821***
Control variables					
<i>LURAT</i>	–	–1.985	–2.099***	–0.869	–3.512***
<i>LUPER</i>	–	–0.003	–2.544***	–0.001	–3.909***
<i>RETURN</i>	+	0.448	2.671**	0.129	3.150***
<i>INSTRAT</i>	–	–0.129	–0.525	0.009	0.184
<i>OFFSIZE</i>	–	–0.383	–5.423***	–0.059	–4.558***
<i>HEUREP</i>	+	–0.017	–0.073	–0.091	–1.783*
<i>STOMKT</i>	+	0.266	1.351	0.029	0.763
<i>DTECH</i>	+	0.026	0.150	0.023	0.552
R^2			0.1569		0.1689
Adjusted R^2			0.1365		0.1488
F-statistics			7.6750		8.381
p-value (F-stats)			0.0000		0.000
Durbin-Watson			1.830		1.756
VIF range					
Ramsey TEST:					
F-test statistics			2.158		0.438
p-value			0.142		0.508

Notes: Sample size (N) = 381. ***, ** and * indicate significant at 1%, 5%, and 10%, respectively. Flipping activity are estimated on the first five trading days.

Abbreviations *standFLIP(ii)* = standard flipping activity on first five trading days measured using the standard formula; *modFLIP(ii)* = modified flipping activity on first five trading days measured using modified formula; *ALLOCT* = allocation rate; *LURAT* = lockup ratio; *LUPER* = lock-up period; *RETURN* = initial return (offer-to=open) on first trading day; *INSTRAT* = institutional investors' participation; *OFFSIZE* = offer size; *HEUREP* = heuristics representation; *STOMKT* = stock market condition; *DTECH* = company sector.

The results as reported in Table 4 display that the overall explanatory power (adjusted R^2) of panel A (15.69 %) is lower but panel B (16.86 %) is higher compared to those reported earlier in Table 3. Despite that, the F-statistics report that both models are acceptable at 0.01 significant level. In terms of the role of predicting variables, all predictors retain their signs and significance similar to those reported in both panels of Table 3. In terms of the main independent variable, *ALLOCT* retains its sign and significance similar to that reported in Table 3, offering further indication that high existence of winners' curse will cause a drop in demand of the shares in the aftermarket such that reduces flipping activity. Thus, no further discussion is needed.

5 Conclusions and suggestions

This study investigates the influence of winners' curse phenomenon on flipping activity of Malaysian IPOs. Using a sample of 381 IPOs for the period from January 2000 to December 2013, this study finds that the significant and negative relationship between allocation rate (a measurement to winners curse) and flipping activity are consistent when it is estimated on the first trading day and first trading week. The consistent regression results are also reported on the negative relationship when standard proxy of flipping activity is modified. The negative *ALLOCT* coefficients found in this study indicate that when winners' curse on an issuing firm is suspected to occur, the aftermarket demand of its share is possibly lower inferring that less supports or subscription from the market on the shares are received. Following demand and supply theory, the less demanded shares will less likely generate high positive initial returns such that discourages the shareholders particularly flippers to immediately sell their shares. An equally important justification is the shares that have not received sufficient demand by the market will give low permissibility of the shares to change hands in the secondary market such that tight up the shareholders to be a longer period in the company.

Arguing that lower demanded shares will produce lower aftermarket value and initial return; investors therefore, must closely scrutinise all available information pertinent to the IPOs in addition to that provided in the prospectus prior to making decision to place an application or subscription for the IPOs. This is to ensure that they will not invest in losing investment since in Malaysian IPO market for particular, the withdrawal option during the allocation stage is unfortunately not available for the subscribers to make 'u-turn' or escape from holding the shares. Since flipping activity is also not really an alternative for them to go out from the company at the soonest time possible, thus a close and wise judgement on the new issue prior to subscription is essential.

To some extent, this study is able to provide a preliminary indication and result on the significant influence of winners' curse and flipping activity. Still, further studies are needed to verify such the results by examining whether or not the aftermarket demand of IPOs (e.g., on the first few trading days) do influence the drop in IPO price in the immediate aftermarket as well as its eligibility for subsequent trading activity in the secondary market. This is because information about the investor demand in the aftermarket can be gauged only after the shares are floated in the market and the non-existence of analysis to prove to influence of aftermarket demand of the shares on flipping activity is considered a major limitation to this study. The evidence is important as it will assist prospect investors to formulate strategies to proactively subscribe for the right issue.

References

- Abdul Rahim, R., Che Embi, N.A. and Yong, O. (2012) 'Winner's curse and IPO initial performance. New evidence from Malaysia', *International Journal of Business and Management Studies*, Vol. 4, No. 2, pp.151–159.
- Abdul Rahim, R., Sopian, R.Z.Z., Yong, O. and Auzairy, N.A. (2013) 'Flipping activity and subsequent aftermarket trading in Malaysian IPOs', *Asian Academy of Management Journal of Accounting and Finance*, Vol. 9, No. 1, pp.113–128.
- Abdul Wahab, E.A. (2012) *Institutional Investors and Analyst Coverage in Malaysia*, Unpublished Manuscript. Universiti Sains Malaysia, pp.1–41.
- Abdul Wahab, E.A., How, J. and Verhoeven, P. (2008) 'Corporate governance and institutional investor: evidence from Malaysia', *Asian Academy of Management Journal of Accounting and Finance*, Vol. 4, No. 4, pp.67–90.
- Aggarwal, R. (2003) 'Allocation of initial public offerings and flipping activity', *Journal of Financial Economics*, Vol. 68, No. 1, pp.111–135.
- Aggarwal, S., Liu, C. and Rhee, S.G. (2008) 'Investor demand for IPOs and aftermarket performance: evidence from the Hong Kong stock market', *Journal of International Financial Market, Institutions and Money*, Vol. 18, No. 2, pp.176–190.
- Amihud, Y., Hauser, S. and Kirsh, A. (2003) 'Allocations, adverse selection, and cascades in IPOs: evidence from the Tel Aviv stock exchange', *Journal of Financial Economics*, Vol. 68, No. 1, pp.137–158.
- Asteriou, D. and Hall, S.G. (2007) *Applied Econometrics. A Modern Approach using E-views and Microfit*, Palgrave Macmillan Publishing Company, New York.
- Bash, A.B. (2001) *Post-IPO Flipping and Turnover: Predictive Factors for Long Run Returns*, Unpublished Manuscript, Dartmouth College, pp.1–28.
- Bayley, L., Lee, P.J. and Walter, T.S. (2006) 'IPO flipping in Australia: cross-sectional explanations', *Pacific-Basin Finance Journal*, Vol. 14, No. 4, pp.327–348.
- Brau, C.J., Carter, D.A., Christophe, E.S. and Key, G.S. (2004) 'Market reaction to the expiration of IPO lockup provisions', *Journal of Managerial Finance*, Vol. 30, No. 1, pp.75–91.
- Brau, C.J., Lambson, E.V. and McQueen, G. (2005) 'Lockups revisited', *Journal of Financial and Quantitative Analysis*, Vol. 40, No. 3, pp.519–530.
- Brav, A. and Gompers, P.A. (2003) 'The role of lockups in initial public offerings', *Review of Financial Studies*, Vol. 16, No. 1, pp.1–29.
- Che Embi, N.A. (2010) *An Examination of the Initial Performance of Malaysian Shariah Compliant IPOs*, Unpublished Doctoral Dissertation, Universiti Kebangsaan Malaysia, Malaysia.
- Che Yahya, N. and Abdul Rahim, R. (2015) 'Role of lockup provision and institutional investors' participation in restricting flipping activity. Is there a moderating effect of investor demand?', *Asian Academy of Management Journal of Accounting and Finance*, Vol. 11, No. 2, pp.1–29.
- Che Yahya, N., Abdul Rahim, R. and Yong, O. (2014) 'Influence of institutional investors' participation on flipping activity of Malaysian IPOs', *Economic Systems*, Vol. 38, No. 4, pp.470–486.
- Chong, F.N. (2009) 'Disposition effect and flippers in the Bursa Malaysia', *Journal of Behavioral Finance*, Vol. 10, No. 3, pp.152–157.
- Chong, F.N., Ahmad, Z. and Ali, R. (2011) 'Representative heuristics and the aftermarket dynamics of the new listings in Malaysia', *Labuan Bulletin of International Business and Finance*, Vol. 9, pp.1–11.
- Chong, F.N., Ali, R. and Ahmad, Z. (2009) 'Does noise signal affect flipping activities', *International Journal of Banking and Finance*, Vol. 6, No. 2, pp.111–127.
- Chowdhry, B. and Sherman, A. (1996) 'The winner's curse and international method of allocating initial public offerings', *Pacific-Basin Finance Journal*, Vol. 4, No. 1, pp.15–30.

- Ellis, K. (2006) 'Who trades IPOs? A close look at the first days of trading', *Journal of Financial Economics*, Vol. 79, No. 2, pp.339–363.
- Field, C.L. and Hanka, G. (2001) 'The expiration of share lockups', *Journal of Finance*, Vol. 57, No. 2, pp.471–500.
- Fishe, R.P.H. (2002) 'How stock flippers affect IPO pricing and stabilization', *Journal of Financial and Quantitative Analysis*, Vol. 37, No. 2, pp.319–340.
- Gounopoulos, D. (2006) *Activity in Fixed Offer Price Mechanism Allocated IPOs*, Unpublished Manuscript, University of Surrey, UK, pp.1–24.
- Islam, M.S. and Munira, S. (2004) 'IPO flipping and its determinants in Bangladesh', *Dhaka University Journal of Business Studies*, Vol. 25, No. 1, pp.1–23.
- Keloharju, M. (1993) 'The winner's curse, legal liability, and the long-term price performance of initial public offerings in Finland', *Journal of Financial Economics*, Vol. 34, No. 2, pp.251–277.
- Koh, F. and Walter, T. (1989) 'A direct test of rock's model of the pricing of unseasoned issues', *Journal of Financial Economics*, Vol. 23, No. 2, pp.251–272.
- Krigman, L., Shaw, W.H. and Womack, K.L. (1999) 'The persistence of IPO mispricing and the predictive power of flipping', *Journal of Finance*, Vol. 55, No. 3, pp.1015–1044.
- Levis, M. (1993) 'The long-run performance of Initial Public Offerings: the UK experience 1980–1988', *Financial Management*, Spring, Vol. 22, No. 1, pp.28–41.
- Lin, D.K.J., Kao, L. and Chen, A. (2010) 'Winner's curse in initial public offering subscriptions with investors' withdrawal options', *Asia-Pacific Journal of Financial Studies*, Vol. 39, No. 1, pp.3–27.
- Mohan, J.N. and Chen, R.C. (2001) 'Information content of lock-up provision in initial public offerings', *International Review of Economics and Finance*, Vol. 10, No. 1, pp.41–59.
- Mohd Rashid, R., Abdul Rahim, R. and Yong, O. (2014) 'The influence of lock-up provisions on IPO initial returns: evidence from an emerging market', *Economic Systems*, Vol. 38, No. 4, pp.487–501.
- Rock, K. (1986) 'Why new issues are underpriced?', *Journal of Financial Economics*, Vol. 15, Nos. 1–2, pp.187–212.
- Sapian, R.Z.Z., Abdul Rahim, R. and Yong, O. (2012) 'Underpricing, flipping activity and aftermarket liquidity of IPOs', *Jurnal Pengurusan*, Vol. 34, pp.29–43.
- Tajuddin, A.H., Mohd-Rashid, R., Abdullah, N.A.H. and Abdul-Rahim, R. (2015) 'An empirical examination of over-subscription in the Malaysian IPO market', *International Journal of Economics and Management*, Vol. 9, No. 5, pp.81–102.
- Tran, L.H., Kalev, P.S. and Westerholm, J. (2007) *An Analysis of the Flipping Activities in Early Aftermarket Trading*, Unpublished Manuscript, University of Sydney, pp.1–41.
- Welch, I. (1992) 'Sequential sales, learning, and cascades', *Journal of Finance*, Vol. 47, No. 2, pp.695–732.
- Yong, O. (2009) 'Winner's curse', in *Bandwagon Effect and Size Effect in IPOs: Evidence from Private Placement IPOs in Malaysia*, Discussion Paper Series, Faculty of Economic and Business, Vol. 4, pp.2–23.
- Yong, O. (2010) 'Initial premium, flipping activity and opening-day price spread of Malaysian IPOs', *Capital Markets Review*, Vol. 18, No. 1, pp.45–61.
- Yong, O. (2011) 'Investor demand and size effect and the immediate post-listing behavior of Malaysian IPOs', *University Tun Razak E-Journal*, Vol. 7, No. 2, pp.25–33.