MODERATING EFFECT OF INVESTOR DEMAND ON THE RELATIONSHIP BETWEEN INSTITUTIONAL INVESTORS' PARTICIPATION AND FLIPPING ACTIVITY

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Abstract

This paper examines the moderating effect of investor demand on the relationship between institutional investors' participation and flipping activity of Malaysian IPOs. Measured with proxy, flipping activity seems to be the least risky way to optimize returns from IPOs. If done excessively, flipping activity could produce a damaging effect on the aftermarket performance of the new shares. Issuers and underwriters could restrict availability of shares to flip by strategically allocating a larger proportion of IPOs to institutional investors. This strategy could work because this group of investors is perceived to be "loyal" as they tend to keep their shares for a long-term investment. However, the impact of restricting supply of IPOs in the immediate aftermarket could aggravate the situation if the IPOs are highly demanded. The shift of the demand curve to the right when supply curve has shifted to the left induces a new equilibrium at a higher price level. Further price appreciation will make investors be more tempted to flip to optimize their returns, pushing flipping activity to its maximum level. Using 247 Malaysian IPOs covering the period from January 2000 to December 2012, this study finds that investor demand does moderate the negative relationship between institutional investors' participation and flipping activity.

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1. Introduction

The persistent underpricing phenomenon of IPOs has attracted volumimous theoretical and empirical studies for decades searching for its explanations. Paradoxically, another anomaly that has been exhibited in the IPO market is relatively less attended, that is, the extraordinarily high trading volume during the first few days of IPO listing relative to the rest of the days (Abdul Rahim et al., 2013; Ellis, 2006; Islam & Munira, 2004). Aggarwal (2003) and Ellis (2006) document mean trading volume of the U.S IPOs as high as 81.97 percent and 76 percent in the first two trading days, respectively. Figure 1 demonstrates that for the period from 2000 to 2012, Malaysian IPO market has not been spared by this tsunami-like trading wave. Kayani and Amjad (2011) and Reese (1998) find a greater degree of both initial return and trading volume of IPOs but mostly in cases of highly demanded IPOs. Based on these findings, it seems reasonable to propose that the anomalous behavior of IPOs should also be examined from the volume perspective. The proposition is particularly supported by the fact that scant evidence has been established on the excessive trading activity in IPOs immediate aftermarkets.

Most previous studies attribute the abnormally high trading volume in the immediate aftermarket to immediate liquidation by flippers (e.g., Aggarwal, 2003; Ellis, 2006), that is, investors who are allocated with IPOs (Bayley et al., 2006). The issue is the extreme high trading volume in the immediate aftermarket (e.g., Abdul Rahim et al., 2013; Ellis, 2006) is a good indication that flipping activity has been done excessively. Flipping activity could destroy firms' value and shareholders' wealth because it creates a sudden and substantial flow of new shares that could drag price of the IPOs down below its fair value (Gounopoulos, 2006). Due to the potential damaging effects, IPO issuers and underwriters have strong incentives to prevent excessive flipping acitivity. Issuers are subject to close scrutiny from their debtholders and shareholders that substantial decline in firms' value reduces their ability to raise capital in favorable terms in the future. Underwriters' reputation in the meantime does not only depend on the success of the IPOs, but also in proving that the new shares have been offered at fair price. Excessive flipping which reduces IPO price to below its fair value (assumed to be the offer price) will make the investors unhappy. Unsatisfied investors are more likely to file lawsuits and less likely to subscribe to future offerings.

Figure 1
Trend of IPO trading volume for the first 20 days after listing
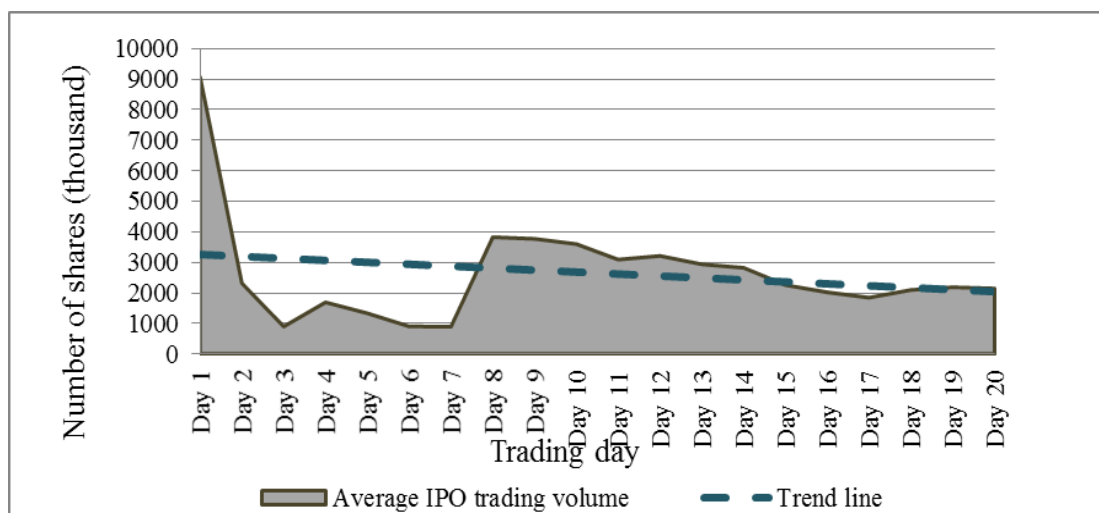
Note: Average trading volume is estimated based on the total number of shares traded (in thousand) on the respective trading day divided by 310 Malaysian IPO companies.
Sources: 1) Bursa Malaysia   2) DataStream Database.

A proactive way to deal with excessive flipping activity is through allocating a larger proportion of the IPOs to institutional investors. Studies have shown that institutional investors are usually perceived as long term investors or act as the 'strong hands' (Aggarwal, 2003; Gounopoulos, 2006) because of their preference for income stream (dividend) to instant one-off capital gains (Sapian et al., 2012). Empirically, Krigman et al. (1999) and Bash (2001) have found a negative association between institutional investors' participation and flipping activity. However, institutional investors' involvement in IPOs could also attract greater demand on IPOs which ultimately pushes flipping activity to a level higher than its' normal. Supporting evidence on the positive relationship between institutional investors participation and flipping activity are found in Aggarwal (2003), Bayley et al. (2006), and Tran et al. (2007).

This study attemps to exclusively examine the role of institutional investors in mitigating flipping activity and whether or not investor demand moderate such role. These relationships are tested while controlling for some variables that have been found significant in influencing flipping activity. As far as this study is concerned, this issue has never been addressed before. In the context of Malaysian IPOs, three of the earliest studies on flipping activity (Chong et al. 2009, 2011; 2009) have focused on several behavioral theories such as noise signal and disposition effect as explanation for the flipping activites while Yong (2010) focuses on the influence of initial returns.

The rest of this paper is structured as follows. Section 2 reviews relevant literature on flipping activity and institutional investors' participation.

This is followed by Section 3 which describes the methodology employed in this study. Section 4 presents and discusses the empirical results and Section 5 presents conclusions drawn from this study.

2. Literature Review

Extant literature is in consensus in arguing that the abnormally high trading volume in the immediate aftermarket is caused by flipping activity (Aggarwal, 2003; Ellis, 2006; Islam & Munira, 2004). By definition, flipping is the immediate liquidation of shares within the first few trading days by investors who receive allocations of the new shares at the IPOs (Bayley et al., 2006). Some studies (e.g., Chong et al., 2009; Gounopoulos, 2006; Hakim et al., 2012) propose that the substantial flipping activity is a rational response to the high IPO initial returns. That is, investors will flip their shares as they perceive flipping as the way to optimize instant returns at minimal risks. The advantage of flipping however is somewhat one-sided. Excessive flipping activity can induce a damaging effect on firms' value and shareholders' wealth because it could trigger an 'IPO flash flood' that could cause a 'price landslide' in the IPO market. Specifically, flipping can produce an unnecessary sudden flood of shares in the early aftermarket, which can generate an artificial pressure on IPO price particularly in cases where demand for the IPOs is not adequate to absorb the sudden excess supply. The combination of low demand and sudden excess supply will almost certainly sink the price of new shares to a level that is low enough (Aggarwal, 2003; Fishe, 2002) that ultimately shrinks the value of the firm and therefore, shareholders' wealth (Arthurs et al., 2009). Gounopoulos (2006) asserts that flipping activity is also capable of distracting the early momentum of the issuing companies by dragging the market value of the company's shares to less than its fair market value. Due to the damaging effects, flipping has to be examined so that the preventive measures could be taken to ensure the flipping activity is better controlled.

Issuing firms and their underwriters, however, might implement a proactive measure to alleviate the adverse effect of excessive flipping acitivity. Studies have shown that institutional investors are usually perceived as long term investors or act as the 'strong hands' as they tend to retain their ownership in a company (Aggarwal, 2003; Gounopoulos, 2006) probably because of their preference for income stream (dividend) to instant one-off capital gains (Sapian et al., 2012). Therefore, by allocating a large portion of new shares to institutional investors, issuing firms and their underwriters could effectively control the availability of new shares for flipping activity. That is, since institutional investors are not expected to flip their shares, increasing the portion of IPOs allocated to them reduces the portion of IPOs that is free to be flipped and as such, reduces flipping activity. Empirically,

Krigman et al. (1999) and Bash (2001) have found a negative association between institutional investors' participation and flipping activity.

A conclusive direct negative association between institutional investors' participation and flipping activity is however difficult to predict without giving similar consideration on the demand side of the IPOs. This is particularly pertinent for a study which basic argument relies on the supply and demand theory and which aims in restricting flipping. The reason is that, the negative impact of restricted supply on flipping activity could be reversed if the IPOs are highly demanded. The argument fits rather well in Malaysian financial markets where supply of promising financial products is rather limited to fulfill the needs of investors to at least safeguard the time value of their wealth. This study argues that the investors will be more tempted to flip if the shift of the supply curve to the left coupled with the shift of the demand curve to the right brings the price of the IPOs to a new higher equilibrium level. The new higher price will entice investors to flip to optimize returns, pushing flipping activity further to its maximum level until the market is overflowed with supply of new shares which eventually will drag the price down.

From the more prominent signaling theory in IPO literature, high institutional investors' participation could be interpreted as a signal of quality of the issuing companies. This line of argument leads to a negative relationship between institutional investors' participation and flipping activity. Since institutional investors are perceived to be informationally opaque, they should only invest in companies with good prospects of future cash flows, implying flipping may not necessarily yield higher total returns. However, the same signal could also trigger a bandwagon effect or fads effect as free riders among uniformed investors would quickly jump into the bandwagon to get their share of the returns. This behavioral reaction drives up demand on IPOs (Aggarwal et al., 2011) which creates an upward pressure on the price of the IPOs. If the price appreciation is high enough for any investors (institutional or retail) to miss, flipping activity will be the preferred choice to gain profits from the IPOs (Yong, 2010). This proposition is in line with Kayani and Amjad (2011) and Reese (1998) who find that initial returns and trading volume are substantial in cases of high investors' demand on IPOs. The results of other studies (e.g., Chanine, 2007; Ismail et al., 1993; Low & Yong, 2011; Yong & Isa, 2003) which document a positive association between investor demand and initial return are indication in support of the conjecture.

The positive relationship between institutional investors' participation and flipping activity could also results from the behavior of the institutional investors themselves. As reported in Aggarwal (2003), Bayley et al. (2006), and Tran et al. (2007), institutional investors flip

more of new shares that are allocated to them are cases of hot or underpriced IPOs.

In the context of Malaysian IPOs, three of the earliest studies (Chong et al. 2009, 2011; 2009) which covers the period from 1991 to 2003 focus on behavioral theories such as noise signal and disposition effect to explain the flipping activities. Yong (2010) focuses on the influence of initial returns on Malaysian flipping during the period from 2004 to 2007. None has examined exclusively to role of institutional investors in explaining flipping, and so does the moderating role of investor demand on the relationship.

3. Methodology

The sample utilized in this study comprises IPOs listed on Bursa Malaysia covering the period from January 2000 to December 2012. The starting period is chosen to conveniently identify institutional investors' participation in the IPOs from a category of offerings labeled as "private placement" issue. The final sample of 247 IPOs is attained after screening out rare type IPOs, IPOs issued by financial institutions and insurance companies due to the different format of financial statements, IPOs with missing values, and IPOs with flipping ratios more than 100 percent since it signifies repeat trading by normal traders rather than flippers. Data for this study are sourced from the websites of Bursa Malaysia, the prospectuses of companies, Bloomberg and DataStream.

The dependent variable in the present study is the flipping ratio (*FLIP*) which is measured as follows:

$$FLIP_i = VOL_i / NOSHI_i \tag{1}$$

where, $VOL_{i,t}$ is the trading volume of the ith issuer on the first trading day, and $NOSHI_i$ is the number of shares issued. The main predictor variable, the institutional investors' participation *(INSTRAT)* reflects the proportion of IPOs offered to the institutional investors and is measured as follows;

$$INSTRAT_i = PRIPLA_i / NOSHI_i \tag{2}$$

where, $PRIPLA_i$ is the private placement IPOs of the ith issuer. The relationship between the two variables is then controlled against five factors: initial return *(IR)*, lockup period *(LUPER)* which is tested using a dummy which takes a value of 1 for 1-year lock-up period and 0 others, underwriter ranking *(UNDRANK)*, supply of IPOs *(SUPPLY)* and hot issue market *(HOTMKT)* which is also tested using a dummy which

takes 1 for years with IPOs geater than mean and 0 otherwise. The moderating variable, investor demand (*DMD*), is measured using oversubscription ratio. This study employs hierarchical regressions to test the direct relationship between instutional investors' participation and flipping activity and moderating effect of investor demand on the relationship. The direct and moderated effect regression models are respectively represented as follows:

$$FLIP_i = \alpha + \beta_1 INSTRAT_i + \beta_2 DMD_i + \beta_j \sum_{j=1}^{5} CV_{i,j} + \varepsilon \tag{3a}$$

$$FLIP_i = \alpha + \beta_1 INSTRAT_i + \beta_2 DMD_i + \beta_3 (INSTRATxDMD)_i + \beta_j \sum_{j=1}^{5} CV_{i,j} + \varepsilon \tag{3b}$$

where, α is the regression intercept, β is the estimated coefficient of the respective predictor variable, $CV_{i,j}$ is the control variables from $j = 1,..., 5$ for the ith IPO, while the remaining variables are as defined in earlier section and ε is the error term.

4. Empirical Result and Analysis

Table 1 provides the descriptive statistics. The average 10.43 percent of flipping ratio (*FLIP*) is reported, which is slightly higher than 7.66 percent reported in Chong et al. (2009). The proportion of institutional investors is on average 41.68 percent which indicates that nearly half of the IPOs are allocated for them. The average initial return is 23.34 percent, slightly lower than the 27.77 percent to 30.21 percent recently reported by Yong (2010), Abdul Rahim et al. (2012, 2013) and substantially lower than those reported in the 90s (e.g., 167.4% by Yong (1991) and 72.85% by Yong (1997)). The mean investor demand, measured based on the over subscription ratio, is 28.15 times, also lower than those reported recently (e.g., 39.12 times by Yong (2010), 40.29 times by Abdul Rahim et al. (2013) and 43.55 times by Sapian et al. (2012)).

Table 1
Descriptive Statistics

Variables	Mean	Std. Dev.	Min.	Max.
Flipping ratio (%)	10.43	0.08	0.00	41.46
Institutional investors' participation (%)	41.68	0.34	0.00	100
Initial return (%)	23.34	3.47	-68.13	404.17
Investor demand (times)	28.19	44.97	-0.89	263.42
Offer size (RM billion)	0.15	9.29	0.02	12.5

The regression results are shown in Table 3. The adjusted R-squared values, for Model I and Model II, indicate that about 23 percent of variations in flipping activity are explained collectively by the predictor variables. The Ramsey RESET tests are consistently insignificant, indicating the models are correctly specified. The Durbin-Watson statistics show values of around 2 in both models and the correlation coefficients (Table 2) between variables exhibit values of less than 0.75 cut off point, suggesting that autocorrelation and heterokedasticity problems are also unlikely.

Table 2
Correlation among all Variables.

Variables	1	2	3	4	5	6	7	8
1. Flipping ratio	1.00							
2. INSTRAT	0.002	1.00						
3. Initial return	0.177	0.014	1.00					
4. Lockup period	-0.281	0.015	0.057	1.00				
5. Supply of IPOs	-0.008	-0.311	-0.173	-0.431	1.00			
6. Hot issue market	0.231	0.099	-0.068	-0.439	0.185	1.00		
7. UNDRANK	-0.028	0.049	-0.054	0.019	0.162	0.143	1.00	
8. Investor demand	0.125	0.233	0.294	0.183	-0.256	0.044	-0.112	1.00

Notes: INSTRAT = Institutional Investors' Participation; UNDRANK = Underwriter's Reputation; and the numbers in column headings correspond with the number of variables in rows.

Specifically, the regression result of Model I in Table 3 that is derived from Equation (3a) show a significant negative coefficient of *INSTRAT* (institutional investors' participation) consistent with the theoretical prediction. The finding is also consistent with those documented in Krigman et al. (1999) and Bash (2001) but contradicts those in Aggarwal (2003), Gounopoulos (2006) and Bayley et al. (2006). This finding suggests that issuers/underwriters can leverage on the 'strong hand' of these loyal investors to control flipping activity as they tend to remain in a company for a longer period.

Model II in Table 3 reports results on the moderating effect of investor demand on the role of institutional investors in reducing flipping. Apparently, the coeffcient of *INSTRAT* on flipping activity remains negative but its significance disappears when the interaction variable (*INSTRATxDMD*) is introduced into the model. The disappearing strength of *INSTRAT* proves that investor demand moderates the effect of institutional investors' participation on flipping activity, *albeit* the insignificant interaction variable. The finding suggests that an allocation decision which favors institutional investors to control flipping activity is not likely to be materialized if the IPOs are highly demanded by investors. Investors are profit-driven by nature such that flippers (those

who are allocated the new shares at IPOs) are not likely to forego any chances to optimize their returns whenever window of opportunities is opened to them. That is, in cases where the price of the new shares appreciates due to high investor demand on the IPOs, flippers will react rationally by taking the fastest exit to cash in their shares. This profit-driven behavior seems to be the possible explanation for the ability of investor demand to weaken the influence of the institutional investors on flipping activity. However, further studies are needed to verify such a supposition. With respect to the control variables, the regression results produce findings which are generally consistent with those in previous findings (e.g., Chong et al., 2009; Gounopoulos, 2006; Hakim et al., 2012).

Table 3
Result of Hierarchical Regressions

Model I: Main Effects			Model II: INSTRAT x Investor Demand		
Variables	Coefficient	t-stats	Variables	Coefficient	t-stats
INSTRAT	-0.103	-2.090***	INSTRAT	-0.072	-1.214
IR	0.006	1.601*	IR	0.005	1.536
(D)LUPER	-0.001	-5.622***	(D)LUPER	-0.001	-5.589***
SUPPLY	-0.079	-7.27***	SUPPLY	-0.077	-6.922***
(D) HOTMKT	0.068	1.766**	(D) HOTMKT	0.038	1.768**
UNDRANK	0.001	0.197	UNDRANK	0.003	0.118
DMD	0.001	1.929**	DMND	0.002	1.671*
			INSTRAT*DMD	-0.001	0.957
R²	0.231		R²	0.234	
Adjusted R²	0.209		Adjusted R²	0.208	
F value	10.27		F value	9.087	
Prob (F-Statistic)	0.000		Prob (F-Statistic)	0.000	
Durbin-Watson	2.105		Durbin-Watson	2.099	
Ramsey RESET Test:			Ramsey RESET Test:		
F Test Stats	0.002		F Test Stats	0.009	
p-value	(0.960)		p-value	(0.922)	

Notes: Sample size, n is 247; dependent variable is flipping ratio (FLIP); and asteriks ***, ** and * indicate significant at 1%, 5%, and 10%, respectively.

5. Conclusion and Implications

This paper examines the ability of investor demand in moderating the association between the institutional investors' participation and flipping activity of Malaysian IPOs. Using a sample of 247 IPOs for the period from 2000 to 2012, this study finds that the significant negative influence of the instititutional investors' participation on flipping is weakened by the presence of investor demand. The negative *INSTRAT* coefficients found in this study imply that issuers and underwriters of IPOs in Malaysia market can effetively reduce flipping by allocating a

larger proportion of their IPOs to institutional investors. However, the effectiveness of this allocation policy is conditional upon level of investor demand on the IPOs. Finding of this study suggests that profit-driven flippers are very likely to flip their new shares that are highly demanded because most likely such shares will experience a remarkable price appreciation. However, further studies are needed to verify such a supposition by examining whether or not highly demanded IPOs do experience increases in IPO price in the immediate aftermarket. Still, because information about the investor demand (i.e., oversubscription ratio) can be gauged several days prior to listing, issuers and underwriters might be able to formulate certain strategies to proactively control flipping activity.

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