Phenomena and determinants of underpricing, flipping activity and long term performance: an empirical investigation of sharia IPO in Indonesia

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Abstract: This study aimed to examine the phenomenon and factors affecting of underpricing, flipping activity and long term performance of Shariah IPO at the Islamic Securities in Indonesia Stock Exchange 2010–2014. The sample consisted of 59 companies enlisted in Islamic Securities. The results of one sample t-test showed there had been underpricing and flipping activity. Meanwhile there was no long-term performance decrease occurring during the Sharia IPO. The result of GLS test indicated return on equity (ROE), reputation underwriter, type of industry and time (hot/old) was negative effect on underpricing. Debt to equity (DER), earning per share (EPS) variables; auditor reputation was positive effect. Whereas, return on asset (ROA) and size of age was no significant affect on underpricing. Besides, GLS test also showed DER was negative effect on flipping activity. Type of industry; time (hot/cold) was positive effect. Whereas, ROA, ROE, EPS, size of age, firm size, underwriter reputation and auditor reputation variables was no significant effect on flipping activity.

Keywords: sharia IPO anomaly; underpricing; flipping activity; long-term performance; auditor; flipping; performance.

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1 Introduction

Previous studies on initial public offering (IPO) show consistent results for underpricing. This underpricing condition is widely evidenced in previous studies. The overall review of underpricing was obtained from Ibbotson and Ritter (1995). Studies conducted by Reilly and Hatfield (1969), McDonald and Fisher (1972), Bear and Curley (1975), Ibbotson (1975), Block and Stanley (1980), Rock (1986), Chalk and Peavy (1987), Tinic (1988), Allen and Faulhaber (1989), Grinblatt and Hwang (1989), Welch (1989), Chemmanur (1993), Loughran et al. (1994), Booth and Chua (1996) and Hameed and Lim (1998) demonstrated the underpricing phenomenon of an initial public offering (IPO).

Underpricing phenomenon in short term will be followed by other phenomenon, namely underperformance in the long term run. This is indicated by the performance of IPO's shares below market performance (Ritter, 1991). In Indonesia, 92.10% of companies (from 35 companies) who conducted IPO during 2002–2006 experienced a decline in long-term stock performance (Febriyana, 2012). Therefore, market surveillance becomes a necessity when any deliberate attempt is made at disrupting a free and fair mechanism for price discovery in a stock market (Joy Thoppan and Punniyamoorthy, 2013). Besides, The availability of venture capital is closely linked to stock markets for young growth companies as an initial public offering (IPO) is usually the most attractive exit channel (Gerke and Mager, 2006; Rahman, et al., 2017).

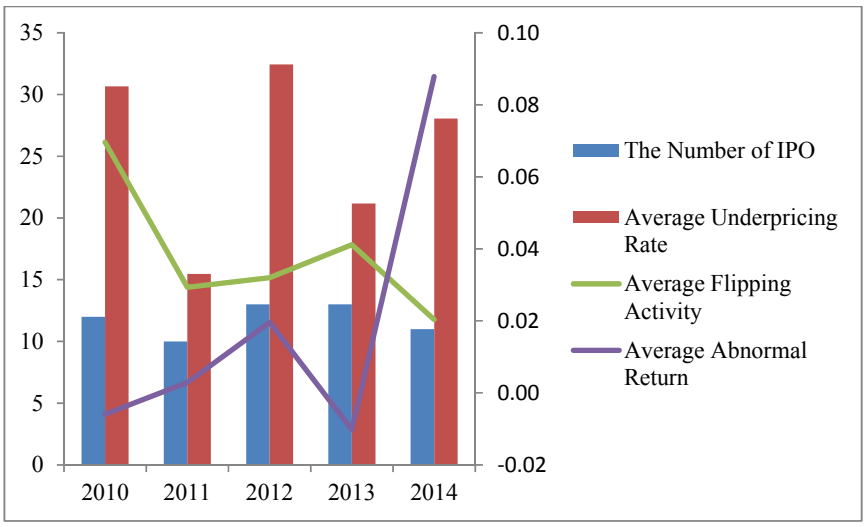
Based on Figure 1, it is indicated that the IPO market of Indonesia faces underpricing phenomenon that varies since 2010 until 2015 where the highest rate of underpricing was occurred in 2012 with an average underpricing rate of 32.45% and the lowest was occurred in 2011 with an average underpricing rate by 15.47%. The highest average flipping activity in 2010 was 0.07 while the lowest was in 2014 with the value of 0.02. Moreover, the highest average abnormal return was occurred in 2014 with the value of 0.02 and the lowest was occurred in 2010 and 2013 with the value of -0.1, respectively. Sharia shares had properties such as no doubtful transactions, shares had to be come from companies that operating halal business activities, no unethical and immoral transactions, and no transaction instruments practising *mudaraba, musharaka, ijara, istisna'* and *salam*.

In the last few decades, trading volume is one of interesting subjects. This relates to several variables: underwriters, IPO results, IPO initial performance, exchanges, market momentum and others, related to different degrees of flipping activity (Ellis et al., 2000; Aggarwal, 2003; Bayley, 2006).

According to Ellis (2002), on the first day of trading, there is a gap of flipping about 70% of shares volume sold in IPO. Therefore, Flipper plays the role of actor receiving stock allocation and selling them on the first day of IPO to obtain an abnormal return (Smith and Pulliam, 2000). This will speed up 'stagging' activities, affecting IPO price stabilisation and IPO retention. Thus, the initial performance of the IPO is influenced by stock prices, stock allocations and flipping activity by investors (Aggarwal, 2003). His

finding showed that trading volume on the first few days after the IPO is very high but decreases rapidly. His study found that trading volume on the first two days was, on average, 81.97% and 74.10%. It is generally believed that most of initial trades are high. This volume is caused by 'flipper'.

Figure 1 Number of IPO, average underpricing rate, average flipping activity and average abnormal return in Indonesia (see online version for colours)



Source: IDX fact book

There are several studies on initial public offering (IPO) examining the relationship of variables that may affect underpricing levels. Johnson and Miller (1988), Carter and Manaster (1990) and Carter et al. (1998) suggested that the relationship between underwriter prestige and initial return of IPO is significant. Other researchers such as Othman Yong (1997) found a significant effect of pre-subscription ratios on initial profit levels, but no significant relationship between firm size and initial profit rate. Some other reviewers conducted studies to determine the variables that may affect underpricing levels, (Wasserfallen and Wittleder, 1994; Zaidirina and Lindrianasari, 2015) finding a positive effect of underpricing on standard deviation, firm size, firm age, sales, book value, and publishing volume. (Ljungqvist's, 1997) study also found a positive and significant effect of underpricing on

- the stock market
- macroeconomic situation
- insider retention rates
- a negative and significant effect on bidding sizes.

This current research uses Sharia IPO data. The system of conventional capital market mechanisms containing usury, *maysir* and *gharar* all this time has raised doubts among Muslims. However, recently Islamic financial institutions and markets have been emerging, which stand on the Shariah provision – the guided way to behave or guided rationality (Mahmudul Alam and Shahed Akbar, 2015). Shariah capital market is

developed in order to accommodate the needs of Muslims in Indonesia who want to invest in capital markets in accordance with sharia principles. This is related to an assumption among the Muslims themselves that investing in capital markets on the one hand is something that is not allowed (forbidden) based on Islamic teachings, while on the other hand Indonesia needs to pay attention and attract foreign investors to invest in the capital market in Indonesia, especially Middle Eastern Investors considered as potential investors (Rodoni, 2009, p.62). This appears to constitute a policy challenge, considering the enormous gain that would accrue to the economy from increasing foreign participation in the market (Edo, 2011; Untoro, et al., 2017).

This study has four objectives. The first one is to analyse the phenomenon of underpricing, flipping activity and long-term performance of Sharia IPO from 2010 to 2014 in Indonesian Stock Exchange. The second is to analyse the effect of Underwriter's Reputation, Industry Type, Auditor's Reputation, Time (Hot/Cold), return on asset (ROA), return on equity (ROE), DER, earning per share (EPS), Company Life and Company' Size of Initial Return (underpricing), Flipping Activity, and long-term performance of Sharia securities. The third is to analyse the effect of Underpricing levels on Flipping Activity level. The fourth is to analyse the effect of Underpricing and Flipping activity on long-term performance.

2 Literature review

A previous study on initial public offering (IPO) in the US has been done by Reilly and Hatfield (1969). In the study, they hypothesised that underwriters who had a declining price-new issue response and investors who bought new issue shares would gain relatively short-term and long-term gains compared with market returns. A short-term period is defined in two ways, namely

- from the day of bidding until the day after the bidding is made
- from the day of bidding until the Friday of the fourth week after the bidding takes place.

For the long term, the measurement is starting from the day of bidding until Friday after one year bidding.

Logue (1972) tested the achievements of 250 new publications offered during 1965–1969. The results indicated that there was an average over-delivery of 42%. Next, Logue (1973) performed a multiple regression analysis to recognise the underlying determination of underpricing. The study used ten independent variables: competing publication number, high market spirits, speculative properties, cash reprints, non-cash reparations, bid value amount, second issuance, debt bonds, under-restricted underwriters, and risk used in the analysis. The results of study show the relationship between underpricing and number of competing issuances, and amount of bid value, with the second issuance being significant.

The empirical test of Carter and Manaster's IPO model (1990) was consistent with Rock (1986). The result of test indicated that an increasing IPO price will offset investors having no information on trading risks in order to obtain better information. They also explained in this theory that the larger the part that includes the capital informed in IPO, the greater the price equilibrium will increase.

Carter et al. (1998) tested three alternative prestige underwriter measurements, linked to early profits and long-term benefits over a three-year period. Three measurements of prestige underwriters used are Johnson and Miller (1988), Carter and Manaster (1990) and Megginson and Weiss (1991). They found that the effect of prestige underwriter measurements on initial gain was significant. Of these three prestige underwriter measures, only CM was significant when assessed along with JM and MW in the context of initial gain and in IPO prestige context as well for three years. These findings are in accordance with Michaely and Shaw's (1994) study finding that the average market-adjusted gains for long-term periods were slightly negative for IPOs that held market holdings by more prestigious underwriters.

Most studies on IPOs examine the relationship between prestige underwriters and early profits. For example, Johnson and Miller (1988), Carter and Manaster (1990) and Carter et al. (1998) classified prestigious underwriters based on tombstone contained in the financial section of the newspaper determining the prestige of a prestigious bank interpreter. Johnson and Miller (1988) distinguished prestige into three criteria using sample dichotomy in the prestigious and less prestigious sections (bulk bank interpreter, mainstream, and main part of the bank interpreter). Carter and Manaster (1990) also used tombstone statements.

Ljungqvist (1997) and Rehman, et al. (2016) found a positive and significant relationship between underpricing and

- the stock market,
- macroeconomic conditions
- internal detention rates, and
- negative relationships with the size of supply.

Using a sample of 189 firms from 1970 to 1993, the mean under pricing was 9.2%, smaller than that found in Wasserfallen and Wittleder's (1994) study which used 92 German's IPO from 1961 to 1987, 17.6%. IPO made in Germany for long period has poor investment with more than 12% loss in one to three years on the market.

Chaney and Lewis (1998) analysed a sample of 489 firms conducting an IPO in the period of 1975–1984 that reported the income. They found a positive relationship between average income and company achievement. Similarly, Firth (1998) used a sample of 116 IPOs enlisted in the Singapore Stock Exchange in the period of 1977–1992. This study examined the role of earning forecast published in the prospectus, indicating market value and initial profit explanation and long-term achievements of this new publishing stock market. He found a positive relationship between expected earnings (earning forecast) and market value. Profit stocks within three years after being registered was closed at zero and this is different from that in some other countries meeting significant and negative profit.

Bayley (2006) defined flipping activity as the share volume sold and bought by investors on the first day of IPO or total shares invested by investors before IPO list, measured by aftermarket trade. Lee and Walter (2006) defined flipping as reselling IPO shares during the first three trading days. The goal is to liquidate IPO allocations, from which underwriters and institutional investors seek to create better results from IPO on the first day of trading to attract retail investors (Boehmer and Fishe, 2000).

Ellis (2006) found that the relationship between initial return and trading volume composition had a significantly positive effect on flipping activity. Other studies have found a positive relationship between early return and flipping activity in the aftermarket (Miller and Reilly, 1987; Mohamad, et al., 2011) and Schultz and Zaman (1994). In addition to initial return, underwriter reputation and price revision of submission price for the bid price also explain flipping activity of IPO in aftermarket trade.

Research related to stock performance after the initial offer has been done. The results show that there is an underpricing phenomenon in short term and there is a decrease in performance (underperformed) in long term. The factors that can explain underperformance occurrence are risk measurement errors, bad luck and too optimistic investors against the company's prospect (Ritter, 2000).

Long-term performance is stock performance in more than one year period. A study examined underperformance phenomenon in the long-term performance of IPO conducted in Italy. The results suggested that in most of IPOs, outperformance occurred after 1, 5, and 10 trading days and underperformance would occur after 2 or 3 years of trading in the market, while IPO stock returns that occurring in the 80s did not show a significant difference from that of other stocks (Arosio, 2001). Another study on the behaviour of IPO shares in Canada found that a significant long-term performance of IPOs in Canada experienced underperformance in the same market (Kooli and Suret, 2002).

3 Research methodology

3.1 Data collection

The data used in this study consisted of 59 initial public offerings (IPOs) in the list of Sharia Securities of Indonesia Stock Exchange compared with the total population of 73 IPOs during 2010–2014. The sample used in this study was a non probability sample with Purposive Sampling. Only IPO companies active and in the list of Sharia Securities was experiencing underpricing.

Different types of data were obtained from various sources:

- company prospectus for company information and offering price,
- Indonesia Stock Exchange (IDX), Financial Services Authority, journal, literature, and internet and
- annual report for getting information on individual companies' financial statements.

3.2 Data analysis and statistical testing

The analysis in this study is divided into four sections. The first one analyses the phenomenon of underpricing, flipping activity and long-term performance of Sharia IPO in Indonesia Stock Exchange during 2010–2014. Statistical test used is one-sample t-test (Shin, 1994; Triola, 1998) and Wilcoxon's test (Hollander and Wolfe, 1973; Daniel, 1978) in Rodoni (2001) is used to test the first, second and third hypotheses. Firstly, the data is tested based on the data normality of Kolmogorov Smirnov.

To declare one sample t test, the t-value can be calculated as follows:

$$t = \frac{\bar{x} - \mu}{\sigma / \sqrt{n}}$$

where

x: sample

μ: population

n: sample size

σ: standard deviation of population.

The second analyses the effect of Underwriter Reputation, Industry Type, Auditor Reputation, Time (Hot/Cold), ROA, ROE, DER, EPS, Corporate Life, and Firm Size on Initial Return, Flipping Activity, and Underperformance in the list of Sharia Securities. The third analyses the effect of Underpricing level on Flipping Activity level enlisted Sharia securities. The fourth analyses the effect of Underpricing level and Flipping level on Underperformance level in the list of Sharia Securities.

The test in the second, third and fourth sections use GLS model. Generalised least square (GLS) as one of least square estimation is an estimation made to overcome heteroscedasticity capable of maintain the efficiency of estimator without losing unbiased and consistency.

$$Y_i = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \beta_7 X_7 + \beta_8 X_8 + \beta_9 X_9 + \beta_{10} X_{10} + \varepsilon_i$$

with variable $(\varepsilon_i) = \sigma_i^2$

where

Y_i: initial return, flipping activity, abnormal return

$\beta_{1\text{-}10}$: coefficient

X_1: underwriter reputation

X_2: industry type

X_3: auditor reputation

X_4: Time (Ho/Cold)

X_5: return on asset

X_6: return on equity

X_7: debt equity ratio

X_8: earning per shares

X_9: firm age

X_{10}: firm size

ε_i: means error.

Before performing GLS test, BLUE test or classical regression assumption is conducted, including: normality test, multicolinearity, autocorrelation and heteroscedasticity.

3.3 Hypothesis testing

For the first analysis, there are three hypotheses:

- there is an underpricing of initial public offering (IPO) in the list of Sharia Securities
- there is a flipping activity in initial public offering (IPO) in the list of Sharia Securities
- there is long term underperformance in initial public offering (IPO) in the list of Sharia Securities.

For the second, third and fourth analyses, the hypotheses formulated are as follows:

- There is an effect of Underwriter Reputation, Industry Type, Auditor Reputation, Time (Hot/Cold), ROA, ROE, DER, EPS, Firm Age, and Firm Size on Initial Return, Flipping Activity and Long-term Performance enlisted Sharia Securities.
- There is an effect of Underpricing level on Flipping Activity level in the list of Sharia Securities.
- There is an effect of Underpricing and Flipping Activity on Long-term Performance Level in the list of Sharia Securities.

3.4 Operational variable of research (Table 1)

Table 1 Operational variables of research

Variable	*Description*	*Indicator*
Initial Return (Y1)	The difference between the stock prices during initial public offering is lower and the closing price on the first day in secondary market	$IR = \frac{P_{ti} - P_{to}}{P_{ti}} \times 100\%$
Flipping Activity (Y2)	The proportion of total trading volume on the first day of trading with the total number of shares issued	$\text{FLIP} = \frac{\text{Total trading volume on the first day}}{\text{Total number of shares}}$
Abnormal Return (Y3)	The measurement of abnormal return uses Market Adjusted Model which assuming that the best estimator for estimating the return of a security is current market index return.	$AR_{it} = R_{it} - R_{mt}$ where $R_{mt} = \frac{IHSG_t - IHSG_{t-1}}{IHSG_{t-1}}$
Underwriter Reputation (X1)	Measured from underwriters belonging to the 50 most active underwriters in the Indonesia Stock Exchange	Based on the rating of 50 underwriters in Indonesia Stock Exchange: • underwriters enlisted in IDX = 1 • underwriters not enlisted in IDX = 0

Table 1 Operational variables of research (continued)

Variable	*Description*	*Indicator*
Industry Type (X2)	Demonstrating that Underpricing level of manufacturing companies is different from that of non-manufacturing companies	By company category: • Manufacturing Company = 1 • Non-Manufacturing Company = 0
Auditor Reputation (X3)	Measured categories if the company employs auditors included in the Big Four of Public Accountant Firms when the company conduct the listing	Based on the category of Auditor Reputation: • Auditor employed is included in the Big Four of Public Accountant Firms = 1 • Auditor that is not included in the Big Four of Public Accountant Firms = 0
Time (Ho/Cold) (X4)	Measured with dummy variables for companies with IPO in hot market and cold market. The benchmark is based on the annual IPO underpricing rate	Hot/Cold Market determination categories: • Average annual Underpricing rate >25% (Hot period) =1 • Average annual Underpricing rate <25% (Cold period)=0
Return on Asset (X5)	Measuring the management's ability to generate revenue from asset management.	$\text{ROA} = \frac{\text{Profit after EAT Tax}}{\text{Total Asset}}$
Return in Equity (X6)	Measuring management's ability to generate revenue from capital management (equity)	$\text{ROA} = \frac{\text{Net Profit}}{\text{Equity of Ordinary Shareholders}}$
Debt Equity Ratio (X7)	Debt to Equity Ratio (DER) is the ratio of total debt to the company's capital	$\text{DER} = \frac{\text{Total Debt}}{\text{Captial}}$
Earning Per Shares (X8)	Measuring how much profit can be granted per share	$\text{ROA} = \frac{\text{Net Profit After Tax}}{\text{Number of Liquid Shares}}$
Firm Age (X9)	Difference between the year of IPO and the year of company establishment	AGE = Year of IPO – Year of Company Establishment
Firm Size (X10)	Measured by Ln total assets owned by the company on the last year before the company goes public.	SIZE = Ln (Total Assets)

Source: Ross et al. (2002), Ehrhardt and Brigham (2002) and obtained by researcher from various references

4 Finding and discussion

The result of Sharia IPO test related to underpricing, flipping activity and long term performance phenomena, is as follows. Table 2 shows the descriptive statistics result of the phenomena.

Table 2 Descriptive results of sharia IPO data

Variable	*N*	*Minimum*	*Maximum*	*Mean Return (percent)*	*Standard Deviation (percent)*
Initial Return (Under-Pricing)	59	0.35	70.00	25.9037	22.10782
Flipping Activity	59	0.00	0.25	0.0391	0.04114
Long term Return (Abnormal Return)	59	–0.09	0.92	0.0177	0.12521

Source: Processed Data by SP0

The descriptive statistics show that the mean underpricing rate of 59 companies conducted IPO in the list of Sharia Securities during 2010–2014 is 25.90% with standard deviation of 22.11%. Flipping Activity variable (FLIP) shows that the mean flipping rate of IDX is 0.0391, meaning that 3.91% of companies conducting IPO experience Flipping Activity. Abnormal return (AR) variable shows that the average long-term stock return of all sample firms is 0.0177, which meaning that the average long-term stock return of all sample companies increases by 1.77% 1 year after IPO.

4.1 Result of one sample t-test

Table 3 about underpricing testing shows that the p-value/sign for two-tailed is 0.000 smaller than $\alpha = 0.05$, so Ho: $\mu \leq 0$ is not supported and Ha is supported, meaning that there has been underpricing in initial public offering (IPO) based on the closing price toward offering price enlisted in Islamic Securities of Indonesia Stock Exchange during 2010–2014 with the mean underpricing rate of 25.90%. Underpricing occurs because ex-ante uncertainty of price offered at the IPO, information asymmetry (Beatty and Ritter, 1982) and underpricing in the IPO company are needed to compensate the investors having no information with those having more information (Rock, 1986).

Table 3 Result one sample *t*-test (Underpricing, flippingActivity and underperformance)

No	*Data testing*	*Df*	*Sign (Two-tailed)*	*Result Hypothesis*
1.	Underpricing	72	0.000	Ho is not supported (Underpricing)
2.	Flipping Activity	72	0.000	Ho is not supported (Flipping Activity)
3.	Underperformance	72	0.281	Ho is not supported (no underperformance)

Source: Data processed by SPSS

Table 3 about flipping activity indicates that p-values/sign for two-tailed is 0.000 smaller than $\alpha = 0.05$, so Ho: $\mu \leq 0$ is not supported and Ha is supported, meaning that flipping activity has occurred in the Sharia Initial Public Offering (IPO) with the average flipping activity level of 3.90%.

Table 3 about underperformance indicates that the value of p-values/sign for two-tailed is 0.281 greater than $\alpha = 0.05$, so Ho: $\mu \leq 0$ is supported, and Ha is not supported,

meaning that there is no underperformance in Initial Public Offering (IPO) with the mean return of 1.77%.

4.2 The result of generalised least square model

The results of test on the effect of ROA, ROE, DER, EPS, Firm Age (Age), the Underwriter Reputation (RU), Industry Type (JI), Time (hot/cold) and Auditor Reputation on Underpricing; the effect of plus independent variables (firm size and underpricing) on flipping activity; and the effect of flipping activity on long-term performance are shown in Table 4.

Table 4 Result of underpricing, flipping activity and long-term performance on some variables

	Underpricing		*Flipping activity*		*Long-term performance*	
Predictor	*Coefficient*	*P-value*	*Coefficient*	*P-value*	*Coefficient*	*P-value*
Constant	37.92	0.089	0.08045	0.080	–0.18762	0.000**
ROA	0.2055	0.146	0.0000424	0.853	0.0010022	0.019**
ROE	–0.21849	0.000**	0.0000140	0.892	–0.0005034	0.003**
DER	0.41089	0.000**	–0.00038334	0.000**	–0.00088290	0.000**
EPS	0.019596	0.000**	–0.00002148	0.074	–0.00000231	0.928
Age	–0.3747	0.618	0.0000531	0.692	0.0012951	0.000**
RU	–4.538	0.027**	–0.002203	0.570	0.029856	0.000**
JI	–14.448	0.000**	0.024124	0.000**	0.05249	0.005**
Time	–10.878	0.000**	0.014546	0.000**	0.024539	0.000**
AU	13.3367	0.000**	0.006603	0.105	0.020604	0.000**
Size			–0.001810	0.278	0.004144	0.006**
Underpricing			–0.00002596	0.735	0.0015386	0.000**
Flipping					–0.61065	0.000*
	R-Sq (Adj.) = 99.2%		R-Sq (Adj.) = 74.8%		R-Sq (Adj.) = 96.0%	

Source: Data is processed using minitab16

From the results of GLS test in Table 4 related to dependent variable of underpricing, it can be found that ROE, underwriter reputation, industry type, and time (hot/cold) have a significant negative effect on underpricing and DER, EPS variable and auditor reputation has a significant positive effect, while ROA and age have no significant effect on underpricing.

The result of test shows that underwriter reputation has a significant negative effect on underpricing. That is, the higher the underwriter reputation used by the company, the lower is the underpricing level, and vice versa. This result is in line with Kristiantari (2013) finding that highly reputable underwriters are braver to give high prices as a consequence of quality guarantee, so that underpricing level is low. Lowry and Schwert (2002) suggest that the enrolment of many IPOs with similar industry types over a period will lead to a chain correlation to initial return. In addition, a high initial return will convey beneficial information on market valuations. Positive information appearing in the market will trigger more similar companies to conduct an IPO. This can affect the

underpricing level. Brownhilder (2013) states that hot IPO market is characterised by very high initial return and very high variability of initial return (there is a strong positive correlation between the mean and the early volatility of return over time). References confirm that hot IPO market is characterised by extremely high volumes during the offering, high underpricing, and often oversubscription during the offering. In contrast, cold market of IPOs has lower underpricing and lower issuances, fewer excess demand, and larger offers. Cold markets are typically triggered by poor corporate IPO quality and low-priced bids and few corporate sectors willing to go public.

From the result of GLS test in Table 4 related to dependent variable of flipping activity, it can be found that DER has a significant negative effect on flipping activity and industry type, while time (hot/cold) has a significant positive effect, and ROA, ROE, EPS, Age, size, Underwriter, RU, and auditor reputation have no significant effect on flipping activity.

Underwriter reputation explains the flipping activity significantly. This is because the investor's demand seems to contribute positively to flipping activity, likely as investors see high demand as an indication of the first day's IPO value. This result also shows that a reputable underwriter can overcome the problem of excessive flipping activity. The results of this study contradict the research conducted by Chong et al. (2009) suggesting that underwriter reputation is seen as a signal of company quality, fuelling additional demand and increasing flipping activity. But this research is consistent with Che-Yahya (2014) finding that the role of underwriter reputation has no significant effect on determining the flipping activity.

This means that difference of industrial type affects significantly the flipping activity level. It is because investors pay attention to a company's industry type when investing in public companies. This is related to underpricing, where in this study, the industry type variable affects underpricing level, hence industry type variable is also considered as affecting the flipping activity level, in which flipping activity is the investors' activity of selling IPO shares in order to take advantage of initial underpricing (Arosio et al., 2001). This result contradicts the research conducted by Che-Yahya (2014) finding that there is no significant relationship between corporate sector and flipping activity.

From the results of GLS test as shown in Table 4 related to dependent variable of long-term performance, it can be found that ROA, firm age, firm size, underpricing, underwriter reputation, industry type, time (hot/cold), and auditor reputation have a significant positive effect on long-term performance. ROE and DER variables have significant negative effect, while EPS variable has no significant effect on long-term performance.

This means that the higher the underwriter reputation used, the better is the long-term performance of the stock. These results are in line with Sanora's (2013) study finding that there is a significant and positive effect of underwriter reputation on long-term stock returns, Bravo (1998) states that underperformance phenomenon occurs in almost all industries but financial and restaurant industry. The effect of financial industry on underperformance, according to Miller (2000), can be explained by the divergence of opinion theory approach where there is little difference of opinion among investors on financial industry companies because the financial industry companies have the most stringent regulation in doing business compared with other industries, thereby tending to have a little underperformance.

This research is in line with Jaskiewicz et al.'s (2005) study on the market condition finding a positive correlation coefficient of underperformance. However, it is different

from Sahoo and Rajib's (2010) study on research hot market finding a negative correlation coefficient of underperformance. Coakley et al. (2007) conducting a study on market conditions (hot market) found that companies conducting IPOs in hot market condition tend to experience more underperformance than those in the cold market.

The results of this study are also in line with Ritter's (1991) and Carter et al.'s (1998) studies in the US indicating a significant positive effect of firm size on long-term stock performance after IPO. This means that there are differences in market image of firm size in US, UK, and Indonesia.

Another supporting hypothesis is the impresario hypothesis (Shiller, 1990; and Debondt and Thaler, 1985), stating that IPO shares are underpriced by underwriters to show the impression of stocks over-demand, so it is suspected that investors who do not get IPO share allocations in the market Prime will be willing to buy it at a higher price in early trading in secondary market.

This means that flipping activity affects the long-term stock performance of companies conducting an IPO. Negative direction of coefficient means unidirectional, in which the higher the flipping activity level, the lower will be the long-term performance of stock, in other words the company's shares have underperformance. This result is not consistent with Bayley's (2006) study finding that there is no relationship between long-term returns and flipping activity, while uninformed investors consistently conduct flipping activity from IPOs with better long-term benefits.

5 Conclusion and implication

5.1 Conclusion

Considering the result of research, the following conclusions can be drawn:

- One sample t-test shows that there have been underpricing and flipping activity at the time of initial public offering (IPO), consistent with findings of many previous studies on under-pricing and a comprehensive review by Ibbotson and Ritter (1995), Bayley (2006), and Ellis (2006) supporting the flipping activity phenomenon. The results of study also found that the long-term underperformance of Sharia IPO shares is not proven.
- The result of GLS test shows that underwriter reputation (RU), Industry Type (JI), Auditor Reputation, and ROE variables have a significant negative effect on initial return (underpricing). Time (hot/cold), debt to equity ratio (DER), and EPS variables have a significant positive effect on initial return. Meanwhile, Return On Asset (ROA), Firm Age (AGE), and Firm Size (SIZE) affect significantly the initial return (under-pricing) during initial public offering (IPO) in the list of Sharia Securities.
- The result of GLS test shows that debt-to-equity ratio (DER) variable has a significant negative effect on Flipping Activity. Industry Type (JI) and Auditor Reputation variables have a significant positive effect on Flipping Activity, Time (hot/cold), Underwriter Reputation (RU), Return On Asset (ROA), ROE, EPS, Firm Age (AGE), Firm Size (SIZE) and Under-pricing variables have no significant effect on Flipping Activity during initial public offering (IPO) in the list of Sharia Securities.

- The results of GLS test shows that ROE, and debt to equity ratio (DER) variables have a significant negative effect on Abnormal Return. Reputation of Auditor, Time (hot/cold), Return On Asset (ROA), Firm Age (AGE), and Firm Size (SIZE) variables have a significant positive effect on Abnormal Return. EPS variable has no significant effect on Abnormal Return during initial public offering (IPO) in the list of Sharia Securities.
- The result of GLS test shows that Flipping Activity has a significant negative effect on Abnormal Return and Underpricing has a positive significant effect on Abnormal Return during initial public offering (IPO) enlisted Sharia Securities.

5.2 Implications

- *To academic interest*

This research is expected to be a source of reference for further researches in analysing the anomaly happening when a company conducts Sharia IPO at DES. In addition, further researches are expected to add other variables not only from financial and non financial factors but also from macro factors of stock during initial public offering (IPO) such as, proceeds, inflation, and interest rate.

- *To non-academic interest*

This research is expected to be a matter of consideration in investing funds in sharia capital market and in obtaining the optimal return for investors. Investors may also consider the underwriter reputation used by the company belonging to the 50 most active underwriters in the stock exchange annually. Experienced and reputable underwriters will be able to organise IPOs professionally and to provide better services to investors, as indicated with the underwriter reputation of the initial return, and can consider whether the funds owned will be invested in issuers in accordance with the principles of sharia or non-sharia.

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