Journal of Business Studies Quarterly
2012, Vol. 4, No. 2, pp. 140-158 ISSN 2152-1034

Journal of Business Studies Quarterly jbsq.org

Performance of Malaysian IPOs and Impact of Return Determinants

Nejat Younesi
Aref Mahdavi Ardekani
Mohammad Hashemijoo
Multimedia University

Abstract
This study has examined the IPO performance in Malaysia from 2007 to 2010. Results show that under-pricing exists in the first day of trading during the particular period, but results show that the degree of under-pricing is dramatically decreased in comparison with what is shown in previous studies. Empirical findings also show that none of return determinants including Age, size, total unit offered, offering price and KLCI index movement are able to affect on IPO initial return. It shows that Malaysian IPOs follow anarchy during this period while their performances are not predictable by return determinants.

Key Words: Initial Public Offering, Stock Market, Under-pricing.

JEL Classification: G12, G14, G15

Introduction

There are many studies which have been examined the Initial Public Offering (IPO) performance in different countries. Price performance of IPOs is well documented in developed markets such as U.S and U.K. The basic principle of business indicates that all firms need to collect and increase their capital during their business to involve in a new project, develop their production, and expand the operation or just to establish the business at first. One of the best ways that firms can use to raise their capital is issuing stocks and selling them to the public. Initial Public Offering (IPO) is the first sale of stock to the public by a private company. At the time of IPO, the private equity of the company will transform to the common stock for the purpose of being traded to the public market to raise the capital. The general perception is that the IPO is a stage of companies' life cycle. It means companies that reach this stage during their growth eventually go public. But, there are many large companies which are not involved in IPO.

Pagano, Panetta and Zingales (1995) believe that IPO is not a stage but it can be described as a choice for firms.

Regardless the reasons which may encourage firms to go public, two anomalies have pointed out in many researches. Goergen, Khurshed and Mudambi (2007) indicate that the short-run excess return and bad long-run performance respectively are expected after initial public offering. Initial return can simply described as the difference between offering price of a new issue and its closing price at the end of the first day of trading (Chong & Puah, 2009; Yong, 2007). It is also known as under-pricing.

This study is going observe the IPO performance in Malaysia during year 2007 to 2010 and also strives to decipher if the correlation exist between return and its determinants such as Age, Firm size, Total shares offered, Price of the offering shares and KLCI Index movement.

Literature Review

Initial Public Offering

Initial Public Offering (IPO) is one of the most important financial decisions which attract many researchers to focus on reasons and different aspects of going public. IPO is the first issuance of securities with the purpose of selling to the public (Bukh, Nielsen, Gormsen & Mouritsen, 2005). A sample definition for IPO is exchanging securities with cash to raise the firms' capital. This exchange would happen in primary market, where issuers and investors meet each other. It means, firms that have issued security are unaffected by secondary market transactions (Booth, 2007). Pagano et al. (1995) devoted that firms in the IPO process will transform their private equities to securities and issue them for the first time to sell in the primary market. Many factors may affect on the decision of going public. For example, Rosen, Smart, Zutter and Dept (2005) devoted that firms that are remained private are expected to be smaller than the average of those which have been transformed to public traded. Size of firms, the amount of profitability and age of firms are other factors which are expressed by Rosen et al. (2005). Although numerous theories attempt to explain the reasons of going public, still passion of raising capital is the most important reason of IPO (Leon Li, Sheu, Lin & Tang, 2007). Almost all literatures have similar definition for initial public offering. Kumar and Beattie (2004) have stated that IPO is when a company issues securities for the first time with the purpose of selling to public while Loughran, Ritter and Rydqvist (1994) have expressed that IPO is the transformation of private equities to common stocks those which are tradable with investors in public market.

The general perception is that IPO is an inevitable stage of a firm life cycle. It means all private firms will be involved in IPO process eventually. Pagano et al. (1995) have unfavorable opinion about this perception by explaining IPO as a firm choice. The other interesting question about IPO is that why some companies involve in IPO process with purpose of going public and some other firms prefer not to go public. According to Pagano et al. (1995), firms involve in IPO process for several reasons. Rebalancing the leverage of the firms is the first object under consideration by firms that are going to be public traded. Liquidate the position is another reason may cause firms follow the IPO process. Bharath and Dittmar (2006) believe that although a vast body of literatures devoted to explore advantages and costs of IPO with the purpose of explaining the decision of going public, the results are not coherent; since the information of private firms is limited and scarce, direct comparison between IPO firms and firms that decided to remain private is complicated. Finally, Kenourgios, Papathanasiou and Melas (2007) believe

that IPO is an interesting financial issue since the performance of securities is mystery in terms of IPO-share pricing which cause to transfer an abnormal return to the investors' pocket.

Under-pricing

Tsangarakis (2004) and Gu (2003) indicate that the firm's transformation from private to public equity is a vital point for existing shareholders and potential investors since the success of IPO depends on some variables such as pricing ability that represents the intrinsic value of a firm. If shares of a firm are overvalued, it may cause to fail in selling securities to the public. Tsangarakis (2004) also expresses that if the firm's shares are undervalued, it does not represent the cash flow and firm's value fairly. According to Aggarwal and Conroy (2000) and Fernando, Krishnamurthy and Spindt (2004), underwriters play an important role to reduce the risk of pricing and allocating shares.

The existence of under-pricing is well documented in almost all IPO-related literatures among different countries. Table 1 shows the under-pricing at the first listing day among different countries.

Table 1: Empirical results of international IPO returns

Country	**Author**	**Time Duration**	**N**	**Initial R (%)**
Belgium	Rogiers *et al*. (1993)	1984-1999	96	15.7
Brazil	Leal (1998)	1979-1992	66	74.1
Canada	Jog and Srivastava	1971-1992	258	5.4
China	Datar and Mao (1997)	1990-1996	226	388
Finland	Keloharju (1993)	1984-1992	85	9.6
France	Derrien and Womack (1999)	1992-1998	264	13.2
Germany	Ljungqvist (1999)	1978-1999	407	27.7
Greece	Kazantzis and Levis (1995)	1987-1991	79	48.5
Greece	Kazantzis and Thomas (1996)	1987-1994	129	51.7
Hong Kong	Zao and Wu	1980-1996	334	15.9
Hungray	Jelic and Briston (1999)	1990-1998	25	44
Italy	Arosio *et al*. (2000)	1985-2000	164	23.9

Japan	Fukuda *et al.*, Hamao *et al.*	1970-1996	975	24
Korea	Dhatt *et al.*., Choi and Heo	1980-1996	477	74.3
Malaysia	Isa and Yong	1980-1998	401	104.1
Portugal	Almeida and Dugue (2000)	1980-1998	21	10.5
Singapore	Lee *et al.*	1973-1992	128	31.4
Spain	Otero and Fernandez (2000)	1985-1997	58	12.8
Taiwan	Lin and Sheu	1986-1995	241	34.6
Turkey	Durukan (2002)	1990-1997	173	14.61
UK	Loughran *et al.* (1994, updated 2000)	1959-1999	2802	13.9
USA	Ibboston *et al.*	1960-1999	14376	17.4

Source: (Kenourgios et al., 2007)

This financial phenomena occurs when market price of shares are greater than the offering price for shares (Chong & Puah, 2009). Under-pricing can be simply defined as percentage profit from the offered share price by a company to closing price of shares at the end of first listing day (Jones & Swaleheen, 2010). Under-pricing which has been reported in many countries causes an abnormal return for investors and reduces the underwriters' risk (Bessler & Thies, 2007). While Aktaş, Karan and Aydoğan (2003) indicate that under-pricing is the outcome of optimism about the firm by potential investors, Knopf and Teall (1999) state that this phenomena is a cost that existing shareholders bear in the IPO process. According to Knopf and Teall (1999) and Wilbon (2003), IPO is reshaping a firm by transferring value from existing shareholders to potential and new investors. New investors have permission to invest at a desirable price; therefore, the degree of under-pricing may be great in some circumstances (Derrien & Womack, 2003). While some researchers try to decipher the reasons of under-pricing, others are going to explore the factors may affect on IPO performance. Time lag between pricing and public listing that may take several weeks in some countries, increases the waiting risk. Tsangarakis (2004) states that extending the time for listing will generate the doubt among investors that prediction of market condition and its volatility by issuers are not accurate.

Ang and Boyer (2009) believe that whether firms are in new industries or established, they will be different in terms of IPO performance both in short-run and long-run. Unknown product or service and low level of competition among new industry firms and also lower barrier for new entrants are characteristics of new industry that make it different from established industries (Chan, Wang, & Wei, 2004). But being in established industries provides more information for investors. In fact, financial statements of an IPO can be compared to all

information of other firms in established industries. If firms in new industries show accelerate growth in earning, it may cause to over-value IPO shares (Kiymaz, 2000).

Paleari and Vismara (2007) pointed out that over-valuation by public market affect on IPO performance. Investors may focus on earning growth of financial statements which has been highlighted by managers. Shares of firms will be over-valued if investors consider on earning growth regardless of possibility of growth decrease during time (Biais & Faugeron-Crouzet, 2002).

IPO-Return Determinants

The first step of involving in IPO process for private equity firms is selecting an underwriter (Gompers & Lerner, 2003). Generally, underwriters buy securities from issuer and sell them to the public in primary market (Gompers & Lerner, 2003; K. A. Kim, Kitsabunnarat, & Nofsinger, 2004). Investment banks underwrite securities and buy them from issuer and sell them to the potential and interested investors. Organizing the IPO process, timing and pricing are some responsibility of underwriters (Degeorge & Derrien, 2001; Fan, Wong, & Zhang, 2007). According to Dong, Michel and Pandes (2011) and Cheng, Cheung and Tse (2006), pricing is the vital role that underwriters must play carefully. In fact, mispricing is may tarnish the reputation of investment banks. That's why high reputable underwriters normally evaluate firms that are going to start IPO (Sapusek, 2000; Rindermann, 2004). Loo, Lee and Yi (1999) and also Bhabra and Pettway (2003) believe that there are three parties in IPO; issuer firm, underwriters and investors. Issuer firms involve in IPO process with the purpose of raising capital. They may start going public by selling securities to the public directly or may go public indirectly with the aid of an underwriter.

Underwriters typically act as agents that prepare required and needed information about issuer for investors. Since there is less information about private firms, investors evaluate the offered equity by observing the past performance of underwriters.

McLaughlin, Safieddine and Vasudevan (2000) divided an underwriter's activities in three groups. First, they prepare advice by information gathered from public market, then, buy securities to be issued and finally market shares to the public. It has been expressed by this literature that high reputable underwriters affect on IPO performance in two ways. Since high reputable investment banks evaluate the market more accurate, the level of under-pricing is less when a prestigious underwriter market securities. Furthermore, compensation for IPO which is done through a high reputable investment banks is higher since they have more information needed to set the price for offered shares.

Chemmanur and Fulghieri (1994) indicates that prestigious underwriters are more worry about their reputation. Furthermore, they only organize those IPOs with guarantee of transferring true information from issuer to investors. Yip et al. (2009) found that short-run excess return and subsequent long-run underperformance are highly expected when firms are underwritten by high reputable underwriters. This result has been found by observing the effect of investment banks prestige on 1772 IPO returns in US while Kenourgios et al. (2007) reported that prestigious underwriters reduce under-pricing and long-run underperformance of Athens Stock Exchange IPOs. Interestingly, Goergen et al. (2007) reported that there is no relationship between investment banks' reputation and IPO performance in U.K.

Jones and Swaleheen (2010) also observed the effect of underwriter reputation on IPO returns from 1980 to 2003 in U.S. literature examined the relationship in two ways. When public offering has been taken as an external factor, a negative effect of underwriter reputation has been found on IPO returns during 1980 to 1991 but, positive from 1992 to 2003. And when

endogenous factors such as firms' age and venture capital support have been considered, a positive and significant relationship between investment banks reputation and IPO returns has been explored during 1980 to 2003. Durukan (2002) listed 7 factors that may affect on IPO return. Size of firms at the time of going public, privatization program, size of offering shares, age of IPO firms, D/E and P/E ratios and methods that may use for going public have been tested to find whether they have any relationship with IPO performance. Clark (2002) also tested the effect of age at the time of IPO on IPO performance whether firms are active in high-tech or low-tech industries. Size of offering shares and also size of firms are mentioned by Islam, Ali and Ahmad (2010) for IPO related researches. Portion of shares offered to public also have been mentioned by Hogan and Olson (2006). Equity Carve-Out (ECOs) performance and return of IPOs were compared in literature where size of offering have been found more important factor in IPOs rather than ECOs. Firms' characteristics and their effect on IPO return will be pointed out in IPO evidences in next parts.

Efficient Market Hypothesis

Efficient market is the market that all security prices reflect information at any moment (Fama, 1998). In fact, this idea which accepted as one of the most important theory in modern financial economies indicates that information is melt efficiently is security prices at any point in time. Fama (1998) reported that outdated information cannot be used to predict and forecast the behavior of securities in future.

Based on information structure, Fama (1991) divided the overall efficient market in three forms: If security prices are weak-form efficient, then price changes are randomly fluctuated and there is no pattern for forecasting future price of securities based on available information. In fact, in weak-form efficient market, general information including past securities prices and volume of offering shares are available to public investors. This information is the kind of information that is available for everybody. In other words, in weak-form efficient market, price of securities at any point in time is reflected the past prices. According to this theory, investors are not able to use technical analysis to buy undervalued stocks with the purpose of selling them overvalued. Investors who select their portfolio randomly, have the same risk as investors who buy securities based on past share price information (Fama, 1991) but still some investors may use fundamental analysis to achieve more gain from stock trading.

If security prices are semi-strong efficient, then stock price at any point in time reflect all public information which is available for everybody. This information includes past prices of securities, volume of trading and also firms' endogenous information such as financial reports and statements or even economic factors. The fact is that reflection public information that is available for everybody in stock prices prevents opportunist investors to achieve superior gain from selling and buying shares. Nor fundamental neither technical analysis is able to forecast the future behavior of security prices. In semi-strong efficient market, all past security prices and public information that is documented in annual reports, financial newspapers and firms' announcements are incorporated to calculate the current share price. If the market is semi-strong efficient through information structure, investors cannot achieve superior profit above normal return.

If security prices are strong efficient, all information, whether public or private, is incorporate to calculate security prices. It means, security prices at any point in time, reflect all market information including public and private data. According to this theory, no one -even insider- is not able to achieve more gain by using endogenous private information they hold. In

fact, exceed return cannot be achieved by firms' insiders – managers- or who has access to private information.

Market Feedback Hypothesis

Underwriters typically set the price below the market value to reveal information which can be used to offer fully-priced securities in Seasoned Equity Offering (Durukan, 2002). Based on this hypothesis, under-pricing is a reward for investors who revealed their information about firms' value.

Durukan (2002) believes that information is more accumulated in market and market is more informed rather than managers. Underwriters compensate investors for revealing information by under-pricing. Durukan (2002) indicate that the high gain at the first listing day shows that insiders downgrade the firms' value. They use this information to raising capital during Seasoned Equity Offering (SEO).

Lawsuit Avoidance Hypothesis

Lawsuit avoidance hypothesis indicated that parent firms (issuers) under-price their issues in initial public offering with the purpose of decreasing the possibility of litigation by investors who are not satisfied from their investment in terms of security performance.
Security Act 1993 in U.S forces all participants to be liable about material omission. Generally, lawsuit avoidance is based on two concepts. (a) Deterrence Effect which reduces the likelihood of future litigation brought by investors for any omission of material which present in IPO and (b) Insurance Effect which indicates the rational behavior of parent firms (issuers) and investment banks (underwriters) to under-price issues to avoid future possible litigation.
A simple definition is that lawsuit avoidance suggests that issuer firms and underwriters set the price of securities below the market value as a shield against future litigations. In fact, under-pricing reduces the possibility of future liability claims by investors against parent firms and underwriters (Teoh, Welch, & Wong, 1998).

Winners' Curse Hypothesis

General investors who are going to invest in IPO firms by purchasing securities can be divided to two groups. Rock (1986) claimed that informed investors are the group of outside investors who are better informed about firms' value by holding knowledge about cash flow and other statements while uninformed investors have lack of information about future cash flow and value of issuers rather than the first group.

This information asymmetry provides a situation that informed investors look for under-priced IPOs while outside uninformed investors lose by invest in less successful IPOs or over-priced issues. Deeds and Decarolis (1999) indicate that under-pricing is a rational strategy by firms to reduce the effect of this information asymmetry between informed and uninformed investors. In fact, issuer firms under-price their securities to increase the level of participation in public market.

Data and Methodology

More than 90 firms have been listed in KLSE since 2007 to the end of 2010. IPOs are well distributed and cover all sectors including Telecommunication, Agriculture, Properties, Consumer Products, Plantation, and Finance.

Table 2: Number of IPOs from 2007 to 2010 and Number of IPOs Included in Research

Year	No. of IPOs	No. of IPOs Included	Percentage of IPOs Included
2007	28	21	22.34
2008	23	13	13.83
2009	14	13	13.83
2010	29	19	20.21
Total	94	66	70.21

28 IPOs have not been considered in this study due to the lack of information to support the analysis (see Table 2).

Opening and closing prices of listing day for 66 selected IPOs have been collected from Bursa Malaysia Knowledge Centre Database and IPOs offering share prices have been collected from prospectuses. In addition, daily prices from their listing day to the end of year 2011 have been collected. Collected data for the first week after listing and also the first month after listing day show the trend of return after IPO's initial return. The first year return of IPOs also shows the long-run performance for investors who have bought and held shares for one year.

As the other literatures have selected different time periods to show IPO performance, this research has selected first day, first week, first month and first year to show the post-IPO performance of firms during 2007 to 2010. Islam et al. (2010) suggested that IPOs show higher return in their first listing week while they provide a fluctuated return during the first year. Kenourgios et al. (2007) also selected the first week, first month and first year to show the performance of IPOs in Greece from 1997 to 2002.

IPO Performance

To calculate the return of stocks (in %) in any given time period, the equation below is used:

$$IR_{i,t} = \frac{CLP_{i,t} - OFP_{i,0}}{OFP_{i,0}} x100$$

Where:

$CLP_{i,t}$ = Closing Price of stock i at time t

$OFP_{i,0}$ = Offering Price of IPO shares

To calculate the Market Return in the same time periods, Kuala Lumpur Composite Index (KLCI) is used as the market benchmark which represents the overall market condition in Malaysia and its sectors.

$$R_{k,t} = \frac{P_{k,t} - P_{k,0}}{P_{k,0}} x100$$

Where:

$P_{k,t}$: Price of KLCI Index at time t

$P_{k,0}$: Price of KLCI Index on the offering day

Raw (Initial) Return of IPOs is calculated as percentage change in price which is offered by firms to the closing price of shares on the first trading day. Market Adjusted Return is percentage change in offering price of IPOs to the first-day closing price less the change in Market Return in the same period of time.

$$MAR_{i,t} = IR_{i,t} - R_{k,0}$$

Where:

$MAR_{i,t}$: Market Adjusted Return (in %) of stock i at time t.

Average Market Adjusted Return is calculated to show the weighted average market adjusted return which includes n (Number) of IPO shares at the time t.

$$AMAR_t = 1/n \sum MAR$$

Where:

$AMAR_t$: Average Market Adjusted Return for n stocks at time t

Data and Results

According to Table 3, all the years yield positive initial return for IPOs on the first day of trading. The highest Initial return is achieved in year 2007 with 11.87 percent (Standard Deviation of 11.24) on the first listing day. Offer-to-close initial return yields 7.3 percent of return in year 2008 with Standard Deviation of 37.15 and 9.45 percent in year 2009 (Standard Deviation of 18.82). Empirical result for year 2010 shows that IPOs in this year yield 0.91 percent initial returns on average. In fact, most of the stocks which have been issued in IPOs during these four years were under-priced. It means that the closing prices of stocks on the first day of listing were higher than their offering prices. During these years, the higher average initial return is devoted to year 2007 with 11.87%. The highest return of firms' stocks is observed in year 2008 with 98.40 percent return while the lowest with -42.63 percent is found in year 2008. Market Adjusted Return also shows positive return during 2007 to 2010.

Table 3: First-day Return of IPOs

Returns	**Year**			
	2007	**2008**	**2009**	**2010**
Mean Initial Return	11.87%	7.3%	9.45%	0.91%
Standard Deviation	11.24	37.15	18.82	14.67
Highest Return	33.6%	98.40%	49.00%	30.00%
Lowest Return	-13.64%	-42.63%	-15.24%	-30.77%
Mean KLCI Return	-0.0005	0.13	-0.21	-0.03
Mean Market Adjusted Return	11.87%	7.17%	9.66%	0.94%

Since the IPO studies must be relative to the market, Raw (Initial) return must be adjusted with market return behavior and performance. It is distinct that average market return in all years from 2007 to 2010 was very close to zero. That is why Mean Initial Return and Mean Market Adjusted Return are not significantly different from each other. In addition, it is considerable that the Mean of Market Adjusted Return (12.42) is greater than the Median (7.99). It shows that the

number of high IPO returns is more than low IPO returns in our sample. Therefore, the Market Adjusted Return is rightly skewed.

The table below shows under-pricing and overpricing of 66 IPOs in Malaysia from 2007 to 2010. As it discussed in the previous table, IPOs have yielded positive return on first listing day in all the years. Intra-Day Return which is percentage increase from opening price to closing price in the first listing day shows positive 3.47 percent in 2007 and 4.45 percent in 2009. It shows that these stocks' prices were increased during the first listing day. In 2008 and 2010, market shows negative Intra-Day Return for IPOs. The third row in the table which explains First-Week Return of the companies identifies that during each of the four years from 2007 to 2010, all the returns are negative. As seen, during 2007 and 2008, there are negative return rates respectively -14.22 and -13.13 with a little difference that are close to each other. In addition, the most negative return -15.5 is related to third year 2009. In First-Month Return, the same as the previous one, all the data are negative and have a downward movement in each specific year. Moreover, the most negative rate is related to year 2008. The last one is First-Year Return with the most percentage of return, -44.36 for the first year 2007 where this figure with an upward movement reaches to -2.56 in 2010.

Table 4: Return of IPOs during a year

Return (%)	**Year**			
	2007	**2008**	**2009**	**2010**
Initial Return	11.87%	7.3%	9.45%	0.91%
Intra-Day Return	3.47	-5.2	4.45	-0.63
First-Week Return	-14.22	-13.13	-15.5	-2.31
First-Month Return	-27.64	-30.67	-24.12	-0.81
First-Year Return	-44.36	-31.00	-29.4	-2.56

Age of firms

Grounded in statistics, the average of the age for firms which are involved in IPO process is approximately around 7 years. This means that private firms are more intended to be reshaped to the public corporations after 7 years from their launch.71 percent of firms went public when their age was below 10 years. 14 percent of firms were between 10 and 20 years old and just 15 percent of firms were old (more than 20 years after their launch) at the time of IPO. The oldest firm in this particular period was 37 years old which went public in year 2010.

Size of Firms and Total Unit Offered

The size of firms in IPO stage shows that the average size of IPO-firms between 2007 and 2010 is RM 1'685'000'000 where the greatest firm-value between firms is RM 11'169'747'000 (went public in 2008) and the lowest firm-value is RM 2'835'000 (went public in 2007).

Number of shares which have been sold to the public decreased in year 2008 when global market faced financial crisis. In 2009, Total Unit Offered increased again. In addition, the market is very proud of booming the number of stocks which have been traded in public market.

H_1: Under-pricing exists in the first listing day of Malaysian IPO firms.

In order to test whether under-pricing exists in Malaysian Stock Market, the first test which is used is to decide if the data for initial return is normally distributed. The results for testing the normality for raw (initial) return is shown in table 5.

Table 5: Test of Normality for Initial Return

	Kolmogorov-Smirnov			**Shapiro-Wilk**		
	Statistic	**df**	**Sig.**	**Statistic**	**df**	**Sig.**
Initial Return	0.093	66	0.200	0.927	66	0.001

Table 5: Test of Normality for Initial Return

Since Shapiro-Wilk is more appropriate for small sample size (N<50), Kolmogorov-Smirnov test is conducted. Based on K-S normality test, there is no significant departure from normality at α=0.05 for all four years.

As shown in table 6, p-value is 0.006 which is less than 0.05 at α=0.05. This result indicates that initial return mean is significantly different from zero at α=0.05. In addition, lower and upper amounts in 95% Confidence Interval from mean different didn't include 0. Thus, the result should be valid.

Table 6: One Sample Test for Initial Return

	Test Value = 0					
	t	**Df**	**Sig. (2-tailed)**	**Mean Difference**	**95% Confidence Interval of the Difference**	
					Lower	**Upper**
V1	2.848	66	.006	7.33879	2.1919	12.4856

Hence, the One Sample Test result indicates that initial return mean is different from zero. Thereupon, H_1 is not rejected. It means that under-pricing exists in Malaysian IPOs on the first listing day.

From table 7, the mean value of initial returns is 7.34 percent with standard deviation of 20.94. Median is achieved by 5.99 which is close to the mean. It means that data is intended to be symmetric while the Skewness is 0.71 and shows that data is positively Skewed.

Table 7: Descriptive of Initial Return

Initial Return of IPOs from 2007 to 2010	
Mean	7.34
Standard Deviation	20.94
Median	5.99
Minimum	-42.63
Maximum	98.40
Skewness	0.71

According to extreme values, the highest return is 98.40 percent and it is for Perwaja Holding Bhd which had gone public in 2008. The lowest return is -42.63 and it is for Sealink International Bhd which had gone public in 2008.

These evidences are consistent with prior studies like (Aggarwal & Conroy, 2000), (Knopf & Teall, 1999) and (Durukan, 2002) that indicated stocks are under-priced in the first listing day of IPOs.

H_2: Age, Size of Firms, Total Shares Offered, Shares Offered Price and KLCI Index.

Movement affect the IPO return.

Form Table 8, the mean Age is 7 years while the oldest firm is 37 and the youngest firm is one year old. The average Size of firms is RM 1'685'000'000 and average Total Unit Offered is 159'330'000 shares. The highest number of Unit Offered is 2'480'000'000 share which belonged to Petronas Chemical Group Bhd and the lowest level of Unit Offered is 11'753'000 shares which belonged to Voir Holding Bhd. In addition, the mean Price of IPOs is RM 1.10 where the highest price which is RM 5.05 belongs to Petronal Chemical Group Bhd and the lowest price which is RM 0.23 pertaining to Oversea Enterprise Bhd. Statistics show negative mean for KLCI Index by -0.024 while the highest return for KLCI Index in the particular period is 2.16 percent. It shows that the overall condition of stock market was not well during these four years.

Table 8: IPO Return Determinants

Factors	Age	Size	Total Unit Offered	Price	KLCI Return
Mean	7	1,685,000,000	159,330,000	1.1	-0.024
Highest	37	11,169,747	2,480,000,000	5.05	2.16
Lowest	1	2,835,000	11,753,000	0.23	-3.28
Sig. (2-tailed)	0.645	0.814	0.262	0.817	0.946

The vital results are presented in the last row of Table 8. The Correlation Coefficient test shows the relationship between five selected independent variables and Initial Return. The P-Values which are shown in the last row of table indicate that there is not any significant relationship between these five determinants and Initial Return while p-values are more than 0.05 for all independent variables.

The P-Value for Age is 0.645 which is more than 0.05 and indicates that there is no significant relationship between Age and Initial Return. This outcome does not support previous researches done by (Durukan, 2002) and (Clark, 2002).

The P-Value for Size of IPO firms is 0.812 which is more than 0.05 and indicates that Size of firms cannot affect the IPO return on the first listing day. This outcome is inconsistent with the result achieved by (Islam et al., 2010).

Also, the P-Value for Size of Offering Shares (Total Unit Offered) is more than 0.05 and inconsistent with the results of (Durukan, 2002).

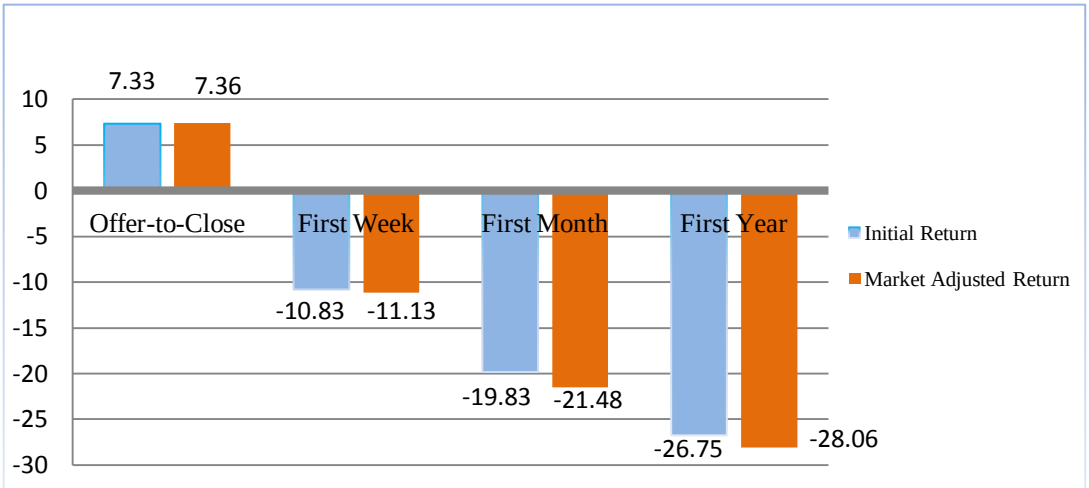
The P-Value for Price and KLCI Return are 0.817 and 0.946 respectively which are more than 0.05. It shows that neither Price nor KLCI Return can be used to predict the Initial Return of IPOs on the first listing day.

Since the average initial return has dramatically dropped from approximately 100 percent (please refer to Table 1) to just 7 percent during the global financial crisis, it seems that the market has encountered an anarchy where endogenous and exogenous factors are not able to predict the return of stocks which are presented in IPOs.

According to all the above outcomes, H_2 is not confirmed. It means Age of firms, Size of firms, Total Unit Offered, Offering Price and KLCI return do not affect the Initial Return of IPOs.

Figure 1 shows the IPOs performance in different periods within a year relative to the market from 2007 to 2010. The trend of both Initial Return and Market Adjusted Return show the overall performance of IPOs from the first listing day to the end of the first year after listing.

Figure 1: IPOs Performance and Overall Market Condition



To observe the performance of Initial Public Offerings, Cumulative Initial Return (CR) and also Cumulative Adjusted Return (CAR) is used to show the trend of IPO performance within a year from 2007 to 2010. All calculations are based on offer-to-close price. Results are presented in Table 9.

Table 9: IPO performance from 2007 to 2010

Returns (%)	**First-Day**	**First-Week**	**First-Month**	**First-Year**
Initial Return	7.34	-10.83	-19.83	-26.75
Market Adjusted Return	7.36	-11.13	-21.48	-28.06
Cumulative Initial Return	7.33	-3.49	-12.49	-19.41
Cumulative Adjusted Return	7.36	-3.77	-14.12	-20.7

According to Cumulative Initial Return, the performance of IPOs have decreased during the year since the overall performance has descended from 7.22% to -19.41%. In support of this result, Cumulative Adjusted Return decreased from 7.36 percent on the first listing day to -3.77

percent on the first listing week after listing. It also kept decreasing during the year, since the Cumulative Adjusted Return shows -20.7% return for new issues in one year after listing day. Thereupon, it could be concluded that investors who are looking for new opportunities by investing in IPOs, cannot gain by purchasing stocks on the listing day and hold those stocks for one year. This study supports the previous findings by (Kenourgios et al., 2007) and who report the negative trend of IPO performance within a year after listing day. This outcome is also inconsistent with the result of researches which have been done by (Durukan, 2002) and (Tsangarakis, 2004) who reported that investors can gain from IPOs by purchasing stocks in the first day of trading and holding them for a year.

Conclusion

The objective of this research was to measure the under-pricing of Malaysian IPOs on the first day of listing and observe the return determinants affect on IPO performance. Although it has been documented in some previous researches that Malaysia is very proud of approximately 100 percent return on the first listing day, this study shows a dramatic change in return during 2007 to 2010 when IPO stocks yielded just around 7 percent discount. The overall performance of market also showed a negative return in this time period. It seems that global financial crisis affected the Kuala Lumpur Stock Exchange and many investors had withdrawn their money from the stock market. According to calculations, average initial return had declined from 7.34 percent on listing day to -10.83 percent, just one week later. It also kept decreasing since the first month shows -19.83 percent returns. The first listing year return also yields -26.75 in averages. The IPO return relative to the market show -3.77, -14.12, and -20.7 cumulative adjusted returns respectively for first week, month and year after listing. Also the correlation between Age of firms, Size of firms, Total unit offered, Offering price and KLCI index movement and IPO initial return have been tested. Interestingly, none of these five variables have any significant relationship with initial return of IPOs. Some of these independent variables have been tested by other researchers. In addition, both Initial Return and Market Adjusted Return show a negative trend from positive return to negative during one year after listing. It means, investors who invest in IPOs cannot gain by purchasing stocks and holding them for one year. Although Initial Return and Market Adjusted Return show 7.34 percent and 7.36 percent in the first day of trading, investors must bear approximately -26.75 percent for Initial Return and -28.06 percent for Market Adjusted Return after one year from listing.

References

Aggarwal, R., and Conroy, P. (2000). Price discovery in initial public offerings and the role of the lead underwriter. *The Journal of Finance, 55*(6), 2903-2922.

Aktaş, R., Karan, M. B., and Aydoğan, K. (2003). Forecasting short run performance of initial public offerings in the Istanbul Stock Exchange.

Ang, J., and Boyer, C. (2009). Performance differences between IPOs in new industries and IPOs in established industries. *Managerial Finance, 35*(7), 606-623.

Bessler, W., and Thies, S. (2007). The long-run performance of initial public offerings in Germany. *Managerial Finance, 33*(6), 420-441.

Bhabra, H. S., and Pettway, R. H. (2003). IPO prospectus information and subsequent performance. *Financial Review, 38*(3), 369-397.

Bharath, S. T., and Dittmar, A. K. (2006). To be or not to be (public). *Ann Arbor,* 1001, 48109.

Biais, B., and Faugeron-Crouzet, A. M. (2002). IPO auctions: English, Dutch, French, and internet. *Journal of Financial Intermediation, 11*(1), 9-36.

Booth, R. A. (2007). Going public, selling stock, and buying liquidity. *Villanova University Legal Working Paper Series*, 96.

Bukh, P. N., Nielsen, C., Gormsen, P., and Mouritsen, J. (2005). Disclosure of information on intellectual capital in Danish IPO prospectuses. *Accounting, Auditing and Accountability Journal, 18*(6), 713-732.

Chan, K., Wang, J., and Wei, K. (2004). Underpricing and long-term performance of IPOs in China. *Journal of Corporate Finance, 10*(3), 409-430.

Chemmanur, T. J., and Fulghieri, P. (1994). Investment bank reputation, information production, and financial intermediation. *Journal of Finance*, 57-79.

Cheng, W., Cheung, Y., and Tse, Y. (2006). The impact on IPO performance of more stringent listing rules with a pre-listing earnings requirement: evidence from Hong Kong. *Journal of Business Finance and Accounting, 33*(5-6), 868-884.

Chong, F., and Puah, C. H. (2009). The Malaysian IPO Market: Volume, Initial Returns and Economic Conditions. *International Review of Business Research Papers,* 5(5), 182-192.

Clark, D. T. (2002). A Study of the Relationship Between Firm Age-at-IPO and Aftermarket Stock Performance. *Financial Markets, Institutions and Instruments, 11*(4), 385-400.

Deeds, D. L., and Decarolis, D. M. (1999). The impact of stocks and flows of organizational knowledge on firm performance: An empirical investigation of the biotechnology industry. *Strategic Management Journal*.

Degeorge, F., and Derrien, F. (2001). IPO performance and earnings expectations: some French evidence: Working paper, HEC Paris.

Derrien, F., and Womack, K. L. (2003). Auctions vs. bookbuilding and the control of underpricing in hot IPO markets. *Review of Financial studies, 16*(1), 31-61.

Dong, M., Michel, J. S., and Pandes, J. A. (2011). Underwriter Quality and Long-Run IPO Performance. *Financial Management, 40*(1), 219-251.

Durukan, M. B. (2002). The relationship between IPO returns and factors influencing IPO performance: case of Istanbul Stock Exchange. *Managerial Finance, 28*(2), 18-38.

Fama, E. F. (1991). Efficient capital markets: II. *Journal of Finance*, 1575-1617.

Fama, E. F. (1998). Market efficiency, long-term returns, and behavioral finance. *Journal of financial economics, 49*(3), 283-306.

Fan, J. P. H., Wong, T. J., and Zhang, T. (2007). Politically connected CEOs, corporate governance, and Post-IPO performance of China's newly partially privatized firms. *Journal of financial economics, 84*(2), 330-357.

Fernando, C. S., Krishnamurthy, S., and Spindt, P. A. (2004). Are share price levels informative? Evidence from the ownership, pricing, turnover and performance of IPO firms. *Journal of Financial Markets, 7*(4), 377-403.

Goergen, M., Khurshed, A., and Mudambi, R. (2007). The long-run performance of UK IPOs: can it be predicted? *Managerial Finance, 33*(6), 401-419.

Gompers, P. A., and Lerner, J. (2003). The really long-run performance of initial public offerings: The pre-Nasdaq evidence. *The Journal of Finance, 58*(4), 1355-1392.

Hogan, K., & Olson, G. (2006). A Comparison of the Characteristics Affecting the Pricing of Equity Carve-Outs and Initial Public Offerings. *Financial Decisions*, 9-26.

Islam, M. A., Ali, R., and Ahmad, Z. (2010). Underpricing of IPOs: The Case of Bangladesh. *Global Economy and Finance Journal, 3*(1), 44-61.

Jones, T. L., and us Swaleheen, M. (2010). Endogenous examination of underwriter reputation and IPO returns. *Managerial Finance, 36*(4), 284-293.

Kenourgios, D. F., Papathanasiou, S., and Melas, E. R. (2007). Initial performance of Greek IPOs, underwriter's reputation and oversubscription. *Managerial Finance, 33*(5), 332-343.

Kim, K. A., Kitsabunnarat, P., and Nofsinger, J. R. (2004). Ownership and operating performance in an emerging market: evidence from Thai IPO firms. *Journal of Corporate Finance, 10*(3), 355-381.

Kiymaz, H. (2000). The initial and aftermarket performance of IPOs in an emerging market: evidence from Istanbul stock exchange. *Journal of Multinational Financial Management, 10*(2), 213-227.

Knopf, J. D., and Teall, J. L. (1999). The IPO effect and measurement of risk. *Journal of Financial and Strategic Decisions, 12*(2), 51-58.

Kumar, S., and Beattie, J. (2004). A comparative study of the state of recent IPO companies–lessons learned. *Industrial Management and Data Systems, 104*(1), 5-15.

Leon Li, M. Y., Sheu, H. J., Lin, L., and Tang, Y. C. (2007). Market Conditions and Abnormal Returns of IPO-An Empirical Study of Taiwan's High-Tech Companies.

Loo, J., Lee, D., and Yi, J. (1999). Profitability and Volatility of IPO Firms and Underwriter Reputation. *International journal of business*, 4, 2.

Loughran, T., Ritter, J. R., and Rydqvist, K. (1994). Initial public offerings: International insights. *Pacific-Basin Finance Journal, 2*(2-3), 165-199.

McLaughlin, R., Safieddine, A., and Vasudevan, G. K. (2000). Investment banker reputation and the performance of seasoned equity issuers. *Financial Management*, 96-110.

Pagano, M., Panetta, F., and Zingales, L. (1995). Why do companies go public? An empirical analysis: National Bureau of Economic Research.

Paleari, S., and Vismara, S. (2007). Over-optimism when pricing IPOs. *Managerial Finance, 33*(6), 352-367.

Rindermann, G. (2004). Venture capitalist participation and the performance of IPO firms: empirical evidence from France, Germany, and the UK: P. Lang.

Rock, K. (1986). Why new issues are underpriced. *Journal of financial economics, 15*(1-2), 187-212.

Rosen, R. J., Smart, S. B., Zutter, C. J., and Dept, F. R. B. o. C. R. (2005). Why Do Firms Go Public?: Evidence from the Banking Industry: Federal Reserve Bank of Chicago.

Sapusek, A. (2000). Benchmark-Sensitivity of IPO long-run performance: An empirical study for Germany. *Schmalenbach Business Review, 52*(4), 374-405.

Teoh, S. H., Welch, I., and Wong, T. J. (1998). Earnings management and the long-run market performance of initial public offerings. *The Journal of Finance, 53*(6), 1935-1974.

Tsangarakis, N. V. (2004). The price performance of initial public offerings in Greece. *Managerial Finance, 30*(10), 26-44.

Wilbon, A. D. (2003). Competitive posture and IPO performance in high technology firms. *Journal of Engineering and Technology Management, 20*(3), 231-244.

Yip, Y., Su, Y., and Ang, J. B. (2009). Effects of underwriters, venture capital and industry on long-term initial public offering performance. *Managerial Finance, 35*(8), 700-715.

Yong, O. (2007). A review of IPO research in Asia: What's next? *Pacific-Basin Finance Journal, 15*(3), 253-275.