THE EXAMINATION OF THE UNDERPRICING OF INITIAL PUBLIC OFFERINGS (IPOS) IN MALAYSIA: 1990 – 1995

*Norita Mohd Nasir**
*Rosliza Mat Zin***

ABSTRACT

The objective of this study is to determine the level of underpricing and the possible explanations for the underpricing phenomena by studying 112 companies listed on the KLSE Main Board for the period 1990-95. The results confirm that underpricing occurs in the Malaysian stock market, especially in the industrial sector for the 1990-93 period and the construction sector for 1994-95. The insignificant price fluctuation after the first day of trading conforms to the efficient market hypothesis. Analysis on the proxies reveals that none of the observable measure for "ex-ante" uncertainty is significantly related to the level of underpricing in the Malaysian IPO market.

1. INTRODUCTION

The underpricing for initial public offerings of common stock appears to be a recurring phenomenon across major capital markets. Previous studies indicate that the underpricing occurs across a number of different time periods and samples (McGuinness, 1992). In Malaysia, a study by Dawson (1987) on 21 IPOs for the period 1978-1983 provides similar evidence. Studies done by Othman Yong (1991, 1996) and Ku Nor Izah Ku Ismail et al. (1993) on the Kuala Lumpur Stock Exchange also indicate significant returns received by investors at the time of initial listing.

According to Rock's (1986) model, there is a positive relationship between the "ex-ante" and "ex-post" uncertainty surrounding the new issues for underpricing. Using this model, six proxy measures were used in this study, namely the standard deviation (SD) of daily returns for each stock, the number of uses of the funds raised from the offerings (USES), the gross proceeds raised from the issue (GROSS), the annual sales in the most recent twelve-month period before going public (SALES), the number of months since the firm was incorporated (AGE) and the auditing firm before going public (AUD).

Previous studies on IPOs in the Malaysian market investigated the period in the 1980s. Since there were many initial public offerings in the 1990s, the trend of underpricing during this period needs to be examined. This study has two major objectives. The first objective is to determine the level of underpricing for 115 newly listed shares on the Kuala Lumpur Stock Exchange (KLSE)

---

*Norita Mohd Nasir is a lecturer attached to the School of Business and Information Technology, Monash University Malaysia.
**Rosliza Mat Zin is a lecturer attached to the school of Accountancy, Universiti Utara Malaysia.
We would like to thank Universiti Utara Malaysia for funding this research, Dr. Shamsul Nahar, Dr. Hajah Mustafa, Professor Dr. Ahmad Mahdzan, Professor Dr. Noran, Dr. Azhar and Kamarun Hisham for their encouragement.
This paper was presented at the Tenth Annual PACAP Finance Conference, Kuala Lumpur, October 26 – 28, 1998

for the period 1990-1995. The sample was split into industry-specific sub-samples to allow comparison of underpricing levels across different business sectors. The second objective of the study focuses on the possible explanations for the underpricing phenomena. It is closely related to the existing models for equilibrium levels of underpricing and the related theoretical and empirical literature derived from the models.

The rest of this paper covers section two to four. Section two provides a description of the IPO market in general as well as the major explanations for the underpricing phenomena. Section three describes the data used in the empirical tests and a discussion of the measurement of the variables used. This includes the measurement of the IPO underpricing and the explanatory variables for the underpricing level. Section four discusses the empirical evidence and interprets the results. Finally, a summary of the results and the concluding remarks follow.

2. LITERATURE REVIEW ON IPOS

2.1 Level of Underpricing

Early studies of initial public offerings were mainly concerned with the profit made by the investors in these issues. Examination of excess return of initial public listings from offer price to after-market price indicates that the issue is offered at a significant discount from the price expected in the after market. The public buy new shares because they believe that the new issues are underpriced (Rock, 1986). This means that the public perceives the purchase to be a short-term investment which guarantees big profits with low or minimum risk (Tinic, 1988). Ibbotson (1975) found the average initial performance to be positive (11.4%), indicating that, on the average, new issue offerings were underpriced. A study by Ibbotson and Jaffe (1975) found a significant level of underpricing of 16.8% in a large proportion of the firms going public. These firms were high risk (hot issue market) and were found at the beginning and at the end of the 1960s. However, their after-market returns appear to be normal. Further, McDonald and Fisher (1972) in their study of 142 issues from 1969 through March 1970, concluded that there was a significant and positive return for initial subscribers in the first week following the offering.

Table 1: Previous Studies on Underpricing of Malaysian capital market

Study	Sample's period	Sample size	Level of underpricing
Dawson, 1985	1978 - 1983	21	166.67%
Othman Yong, 1991	1983 - 1988	33	167.4%
Ku Nor Izah et al, 1993	1980 - 1989	63	114.6%
Othman Yong, 1996	1990 - 1994	220	72.9%*

*including second board

Previous research on the Malaysian stock market (Table 1) shows that the returns on new equity issues are high especially on the first day of trading. For instance, a study by Othman Yong (1991) covering periods from 1983 to 1988 finds that for the first day the average return,

based on the difference between the first day's closing price and the offer price is approximately 167.4%. Another study by Ku Nor Izah Ku Ismail et al. (1993) shows that the excess return on the first day is 114.6%. Both studies conclude that the returns decline after the first day and returns are insignificant during the period after their initial listing. Another research by Othman Yong (1996) finds that the level of underpricing for 220 issues listed on the Main and Second Board is at 72.9%.

Many earlier studies also addressed the implication of the results for the efficient market hypothesis. Ibbotson (1975), for instance, concluded that the results are generally consistent with the efficiency of the post issue market and after the first and second month, there are very few large departures from efficiency. Studies by Miller and Reilly (1987), Dawson (1987) and McGuinness (1992) also show that for both underpriced and overpriced issues, the market adjusts to any mispricing during the first day of public trading. Therefore, any excess returns are not available in the post issue market. A study by Dawson (1987) on prices in the Hong Kong, Singapore and Malaysian markets finds that, except in the Malaysian market, price is generally stable over the following year.

2.2 Possible Explanation of Underpricing

Hypotheses have been developed and tested to explain the underpricing of new issues [Baron (1982), Rock (1986) and Beatty and Ritter (1986)]. Theoretical arguments explaining the underpricing in terms of informational asymmetry are based on the models of Baron (1982) and Rock (1986).

Baron (1982) argues that the discount is due to the superior information of the investment banker who sets the price and distributes the issue. Ritter (1984) has developed an implication of the undepricing model and applied it to the 'hot issue' market of 1980. While Ritter (1984) finds a significant relationship between price variability of an issue in the after market (which serves as a proxy for initial uncertainty) and the size of the discount, he concludes that the hot issue market of 1980 is attributable to another factor, the sudden appearance of natural resource firms going public.

Parson and Raviv (1985) argue that the discount is a result of asymmetric information among investors, and they explained how both seasoned and unseasoned offerings are on average, underpriced. Rock (1986) explained that uninformed investors face a "winner's curse" since they have a greater chance of being allocated shares in undersubscribed (overpriced) issues than in oversubscribed (underpriced) issues. In general, the greater the uncertainty about the true price of the new shares, the greater the advantage of the informed investors and the greater the discount the firm must offer to attract uninformed investors into the market (Rock, 1986). Beatty and Ritter (1986) confirmed this insight, within Rock's (1986) model, where the notion of uncertainty described is defined in the "ex ante" sense. Beatty and Ritter (1986) note the following for the "ex ante" uncertainty: "A representative investor who diversifies by submitting purchase orders for many initial public offerings in the face of winner's curse problem merely guarantees that the realised average initial return will be less than the unconditional average initial return on the issue for which purchase orders are submitted."

Using Rock's model, McGuinness (1992) offered possible explanations for the level of underpricing across various issues in the Hong Kong market. The result revealed that "ex-ante" uncertainty is positively and significantly related to the IPO underpricing levels. A study done by Clarkson (1994) on the US market also reports a positive relation between underpricing and the "ex-ante" uncertainty and found that there is a hierarchy of proxies. Further, he concludes that as the effectiveness of a selected proxy as a measure of "ex-ante" uncertainty increases, so does the strength of the relation between the degree of underpricing and "ex-ante" uncertainty as measured by that proxy. For the Malaysian market, oversubscription rate and the size of the issuing firms (measured by the paid up capital) were used as the explanatory variables to explain the underpricing phenomenon [Ku Nor Izah et al (1993), Othman Yong (1996)].

For this study, in order to establish a relationship between the level of IPOs underpricing and the "ex-ante" uncertainty in the Malaysian market, proxy measures for the uncertainty are required. Possible proxy measures suggested in the literature include the standard deviation of post-listed returns [Ritter (1984), Beatty and Ritter (1986), McGuinness (1992), Clarkson (1994)], the age of the firm issuing shares [Ritter (1984), Clarkson (1994)] and its size as measured by average sales [Ritter (1984), Clarkson (1994)]. Beatty and Ritter (1986) also suggested the use of gross proceeds raised from the offerings [see also Clarkson (1994)] and the number of different uses for the funds raised [see also McGuinness (1992)] disclosed in the prospectus published prior to an IPO. In addition, the auditor may also have a role in determining the underpricing level [Titman and Trueman (1986), Booth and Smith (1986), Beatty (1989), Clarkson (1994)]. These proxy measures have not been addressed in the local arena.

3. METHOD

This study examines new companies, which were listed on the KLSE Main Board for the period 1990-95. Prospectuses and the closing prices for the first fifteen days of trading for each company were collected. Out of the total 115 new companies listed on the Main Board, three companies were excluded.

The profile of the 112 companies is as shown in Table 2:

Table 2: Descriptive Statistics for a Sample of 112 KLSE IPOs for the period 1990-95

Panel A: Frequency of IPO in KLSE

Year	Number of IPOs
1990	19
1991	21
1992	26
1993	12
1994	19
1995	18
Total	115

Panel B: Industry Distribution

Industry Group	Number of Companies
Consumer Product	16
Industrial Product	25
Construction	9
Trading/Services	21
Finance	21
Hotel	3
Property	14
Plantation	3
Total	112

Panel C: Industry-specific sub samples according to KLSE indices

Type of Industry	Index Associated	Sample size
Companies listed 1990-1993		
Consumer Product/Industrial Product/ Construction/Trading Services/Hotel	Industrial	51
Finance	Finance	17
Property	Property	5
Plantation	Plantation	2
Total		75
Companies listed 1994-1995		
Consumer Product	Consumer Product	5
Industrial Product	Industrial Product	7
Trading/Services	Trading/Services	7
Construction	Construction	4
Finance	Finance	4
Plantation	Plantation	1
Property	Property	9
Total		37

To determine the level of underpricing for the KLSE IPOs under review, the excess returns earned by investors holding those issues were calculated as follows:

$$MARj,t = (Pj,t/Pj,t-1) - (Mj,t/Mj,t-1)$$

Where:

MARj,t = Market adjusted rate of return on stock j at period t,

Pj,t = Closing price of stock j, t days from initial trading (t=1 refers to the end of first day of trading),

Pj,t-1 = Closing price of stock j on t-1st day of trading (when t=1, t-1 refers to the offering price/subscription price of the IPO),

Mj,t = KLSE Index at the close of trading on the t th day of trading for stock j, and

Mj,t-1 = KLSE Index at the close of trading on the t-1st day of trading for stock j.

t = 1, 2, 3, 4.....15

The reason for using the indices (Mj,t) is to adjust the price movement of each stock for market fluctuations. To this end, the KLSE Composite Index was used to determine the level of underpricing of KLSE IPOs. With the market adjustments, the level of underpricing was computed for each stock on a daily basis, from the date of listing until the 15th day of trading. The level of underpricing for each industry was determined by using the industry specific indices to adjust for the market movement, according to the particular stock.

To determine the average excess market return measured for each day, the market adjusted rate of return of all stocks on that particular day was averaged. Based on an equally weighted basis, the measurement of the average market return, AVRj,t, was calculated as follows:

$$AVRj,t = 1/n \sum_{j=1}^{n} MARj,t$$

The calculation of average excess returns for different holding periods (day 0-15) will show the difference of the level of underpricing for the overall sample and by industry.

To test the possible explanation on the underpricing phenomenon in the Malaysian market, a number of proxies representing the "ex-ante" uncertainty were used. The proxies selected for this study have been suggested as proxies for "ex-ante" uncertainty in previous studies (as noted) and are defined as follows:

"Ex-post" (Unobservable) measure:

SD: Standard deviation of daily returns in the newly listed stocks between the close on the first day and the 15th day of trading [Ritter (1984), Beatty and Ritter (1986), McGuinness (1992), Clarkson (1994)].

"Ex-ante" (Observable) measures:

USES: The number of different uses for funds raised by the firm from the offering as disclosed in the prospectus [Beatty and Ritter (1986), McGuinness (1992)].

GROSS: The gross proceeds raised from the offerings [Beatty and Ritter (1986), Clarkson (1994)].

SALES: The annual sales in the most recent twelve-month period before going public [Ritter (1984), Clarkson (1994)].

AGE: The number of months since the firm was first incorporated before going public [Ritter (1984), Clarkson (1994)].

AUD: The auditor with a (0,1) variable with a value of 1 if the auditor is among the 'Big Six' [Titman and Trueman (1986), Beatty (1989), McGuinness (1992), Clarkson (1994)].

From previously cited studies [i.e. Ritter (1984), McGuinness (1992), Clarkson (1994)], "ex-ante" uncertainty is expected to be in a decreasing pattern for GROSS, SALES, AGE and AUD and conversely for SD. For variable USES, both positive and negative signs are expected. To test the hypothesis, a linear regression analysis was conducted using average initial return, UND as the dependent variable and the proxies for the "ex-ante" uncertainty as the independent variables.

4. RESULTS

4.1 Level Of Underpricing

The average initial return (UND) for the overall sample of 112 companies is 78% for the 1990-95 period, 50% for 1990-93 and 133% for 1994-95 (Table 3). The period was split into two (1990-93 and 1994-95) due to the reclassification of industrial sector on the KLSE Main Board (Table 2 Panel C).

Table 3: Average Excess Returns for KL IPOs

	All Sample 1990-1995		1990-1993		1994-1995	
	Excess Returns	T-Value	Excess Returns	T-Valu	Excess Returns	T-Value
	%%		%		%	
Initial U/pricing	77.73	11.49**	50.24	7.14**	133.47	13.87**
Day 1 to:						
2	-0.47	-0.25	0.31	0.61	-1.06	-0.84
3	-0.01	-0.24	-0.17	-0.52	0.05	0.06
4	0.36	-0.38	-0.45	-1.32	0.57	1.06
5	0.34	-0.85	-0.36	-1.20	0.06	0.12
6	-0.14	-1.29	-0.39	-1.20	-0.23	-0.52
7	-0.31	1.07	0.27	0.85	0.40	0.65
8	-0.13	-2.70	-0.59	-1.94	-1.18	-1.87
9	-0.01	0.60	0.28	0.41	0.33	0.57
10	-0.11	-1.09	-0.39	-0.73	-0.63	-0.86
11	-0.22	-0.05	-0.27	-1.35	0.52	1.05
12	-0.34	0.96	0.22	0.86	0.64	0.63
13	0.32	1.20	0.01	0.05	1.01	1.84
14	-0.79	-0.57	0.06	0.22	-0.55	-1.09
15	0.30	-1.16	0.03	0.17	-1.02	-1.51
	n= 112		n=75		n=37	

* return is significantly different from zero at 5% level

** return is significantly different from zero at 1% level

Of the total companies analyzed, 96.43% were underpriced, 3.57% were overpriced while none of the total companies were traded at the offer price. Further, the observed post-listing daily returns were found to fluctuate above and below the starting price but these fluctuations were not significantly different from zero. This shows that the market quickly establishes a market price that reflects all available information. The findings differ from Dawson's (1987) study on the Malaysian market in which he found that the price increased after the initial returns.

Table 4 and Table 5 provide a comparison of the underpricing level between the sub-samples. For the year 1990-93, the industrial sector is found to contribute most to the underpricing of the whole sample (62%). The finance and property sectors are underpriced by 27% while the plantation sector reports the lowest underpricing level (10%) (Table 4).

Table 4: Average Excess Returns for KL IPOs: Industry-specific 1990-1993

	Industrial		Finance		Plantation		Property	
	Excess Returns %	T-Value	Excess Returns %	T-Value	Excess Returns %	T-Value	Excess Returns %	T-Value
Initial U/pricing	62.13	6.68**	26.58	3.39**	9.98	3.91	27.39	2.45*
Day 1 to:								
2	-0.21	-0.34	0.87	0.89	1.54	1.00	1.95	0.71
3	-0.16	-0.35	0.23	0.40	1.80	1.00	0.63	0.76
4	-0.51	-1.28	-0.90	-0.95	-0.20	-0.51	0.92	0.97
5	-0.40	-1.01	-0.26	-0.78	3.46	0.89	-1.39	-1.83
6	0.17	0.41	-0.12	-3.00	-0.98	-0.62	-1.27	-1.56
7	0.60	1.39	-0.78	-1.79	-1.23	-61.23**	0.05	0.09
8	-0.54	-1.39	-0.00	0.00	-1.69	-1.23	-1.48	-4.01**
9	-0.17	0.43	1.60	0.56	-0.67	-1.00	-1.21	-0.82
10	0.08	0.24	-1.99	-0.97	0.95	1.17	0.43	0.82
11	-0.26	-0.98	-0.42	-0.85	1.29	1.00	-1.05	-0.94
12	0.18	0.60	-0.10	-0.35	0.58	1.00	1.67	0.65
13	0.21	0.48	-0.57	-1.77	-0.27	-0.18	1.17	0.55
14	0.15	0.45	-0.85	-2.58*	-0.46	-0.24	2.49	2.52
15	0.11	0.53	0.25	0.66	-2.00	-1.26	0.54	0.56
	n = 51		n = 17		n = 2		n = 5	

*significant at 5% level

**significant at 1% level

Table 5 shows the level of underpricing for seven sectors for the period 1994-95 with the construction sector reporting the highest level of underpricing (176%). The underpricing of the other sectors (consumer product, industrial product, trading and property) are significantly different from zero at 1% level except for the finance sector which is significant at 5% level.

Table 5: Average Excess Returns for KL IPOs 1994-1995 : Industry Specific

	Consumer Product		Industrial Product		Trading		Construction		Finance		Plantation		Property	
	Exc Ret (%)	T-Val	Exc Ret (%)	T-Val	Exc Ret (%)	T-Val	Exc Ret (%)	T-Val	Exc Ret (%)	T-Val	Exc Ret (%)	T-Val	Exc Ret (%)	T-Val
Initial Underpricing	98.11	8.98**	116.79	6.91**	147.80	4.33**	175.61	7.95**	125.23	4.46*	111.72		142.25	7.42**
Day 1 to:														
2	-2.55	-1.59	0.83	0.37	-2.05	-1.17	3.31	0.45	-1.25	-0.82	-1.31		-1.73	-0.86
3	-3.27	-3.07*	2.33	1.08	-2.02	-1.10	-0.48	-1.23	-1.56	-1.99	-6.82		2.10	0.86
4	0.83	0.50	0.34	0.20	0.98	1.06	2.29	2.14	-0.60	-0.57	-1.90		0.80	-0.50
5	-0.03	-0.20	1.23	0.80	0.11	0.10	1.92	1.35	-1.00	-0.63	0.65		0.96	0.98
6	-0.99	-0.64	-1.01	-0.98	-0.81	-1.04	0.06	0.05	-0.24	-0.14	-0.01		0.06	0.04
7	-0.31	-0.25	0.36	0.19	-0.16	-0.29	-0.18	-0.14	1.02	0.44	0.52		0.87	0.50
8	-1.41	-0.96	-1.61	-1.50	-2.95	-3.62**	-0.14	-0.08	-1.50	-1.54	-4.35		0.42	0.24
9	1.19	0.80	-0.55	-0.37	0.64	0.47	-1.55	-1.66	1.76	1.03	-1.85		0.49	0.38
10	0.02	0.02	0.96	1.11	-3.90	-1.86	-2.00	-2.51	-2.21	-2.07	-0.38		1.19	0.60
11	1.02	0.57	0.62	1.01	1.14	0.96	0.63	0.37	0.13	0.13	1.78		-0.35	-0.36
12	0.57	0.38	0.37	0.22	2.59	0.82	-1.78	-0.56	-0.08	-0.18	0.41		2.24	2.19
13	-0.85	-0.91	0.08	0.09	0.80	0.73	2.08	1.76	1.64	1.39	2.43		0.82	1.13
14	1.51	0.73	0.11	0.17	-0.62	-0.91	-3.78	-3.33*	0.96	0.67	-1.06		-0.54	-0.50
15	-2.20	-3.16*	-2.18	-2.86*	-0.97	-1.26	-2.69	-1.02	-0.54	-1.03	2.07		1.18	1.35
	n=5		n=7		n=7		n=4		n=4		n=1		n=9	

* significant at 5% level

** significant at 1% level

Table 5 shows the level of underpricing for seven sectors for the period 1994-95 with the construction sector reproting the highest level of underpricing (176%). The underpricing of the other sectors (consumer product, industrial product, trading and property) are significantly different from zero at 1% level except for the finance sector which is significant at 5% level.

Table 6: Determination of differences in average between industries 1990-93

	Finance	Industrial	Plantation
Industrial	-2.925* (59.289)		
Plantation	2.014 (17.468)	5.414** (45.754)	
Property	-0.059 (10.379)	2.38 (13.634)	-1.517 (5.459)

*significant at 5% level
**significant at 1% level
degree of freedom (df) in parentheses

Table 6 shows a comparison of the underpricing level between the sectors for the period 1990-93. The result reveals that the industrial sector is significantly different from finance and plantation sectors at 5% level and 1% level, respectively. For the period 1994-95, results from Table 7 indicate that only the consumer product sector is significantly different from the construction sector at 5% level.

Table 7: Determination of differences in average between industries 1994-95

	Consumer Product	Construction	Finance	Industrial Product	Plantation	Property
Construction	-3.148* (4.449)					
Finance	-0.902 (3.913)	1.412 (5.687)				
Industrial Product	-0.929 (9.561)	2.117 (6.436)	0.258 (5.228)			
Plantation #	-0.509 (4)	1.295 (3)	0.216 (3)	0.106 (6)		
Property	-2.001 (11.593)	1.141 (7.612)	-0.501 (5.974)	0.997 (13.996)	-0.504 (8)	
Trading	-1.387 (7.180)	0.685 (8.941)	-0.511 (8.808)	-0.815 (8.772)	-0.374 (6)	-0.142 (9.665)

* significant at 5% level
** significant at 1% level
degree of freedom (df) in parentheses
only one company listed

2.2 *Possible Explanation of the Underpricing*

The correlation matrix presented in Table 8 shows simple correlation coefficients among all the variables in the model (AGE, GROSS, USES, SALES, AUD, SD, UND). Evidently, there exists a high correlation (r= 0.97) between the underpricing variable, UND (significant at 1% level) and the measure for the uncertainty surrounding the intrinsic value of the issuing company, SD. However, none of the observable proxies for "ex-ante" uncertainty shows a significant relationship with underpricing, although variables SALES and AUD indicate a positive relationship with the underpricing.

Table 8: Correlation Matrix for Continuos Variable

	UND	SD	USES	GROSS	AGE	SALES
UND	1.00					
SD	0.97**	1.00				
USES	-0.47	-0.04	1.00			
GROSS	-0.03	-0.06	0.17	1.00		
AGE	-0.04	-0.04	0.16	0.31**	1.00	
SALES	0.01	0.01	0.10	0.10	0.16	1.00
AUD	0.06	0.03	-0.08	0.07	0.06	0.04

* significant at 5% level
** significant at 1% level

A regression analysis was conducted to test the model, with all the explanatory variables included. The coefficient for SD is significant at 1% level and the adjusted R^2 is at 0.947. The signs of the coefficients on AGE and USES are as predicted although it is statistically insignificant. Interestingly, the signs of the coefficient on AUD, GROSS and SALES are opposite to that predicted although none are statistically significant.

The statistical significance for variable SD and lack of it for variables AGE and USES would appear to question the validity of these variables in capturing the "ex-ante" uncertainty of IPOs for the samples of issues studied. Furthermore, the weak correlations (r = -0.04) of the variable AGE and USES with the SD variable (Table 8) cast some doubt as to whether the AGE and USES variables are capturing the same dimension as the SD variable.

Table 9: Regression Analysis for the Model

Variable	B	Std Error	t	Sig
Intercept	-0.084*	0.036	-2.345	0.021
SD	0.972**	0.093	43.758	0.000
AGE	-0.006	0.00	-0.259	0.796
AUD	0.033	0.032	1.460	0.147
GROSS	0.006	0.000	0.240	0.810
SALES	0.010	0.000	0.423	0.673
USES	0.006	0.011	0.240	0.811
Adjusted R^2	0.947			

* significant at 5% level
** significant at 1% level

In addition to the analysis, the reclassification of the sectors in KLSE was included as a variable to explain the underpricing phenomenon. A dummy variable was used with code "0" for the period 1990-93 and code "1" for 1994-95. However, the regression result shows that the reclassification is not significant in explaining the underpricing phenomenon in the Malaysian market.

5. CONCLUSIONS

Using 112 companies listed on the Main Board of KLSE during the year 1990-95, it was found that underpricing occurs in the Malaysian market at a level of 78% with significant positive returns during the first day of trading. An analysis of the companies in their industry-specific sub-samples showed that the industrial sector contributes the most to the overall underpricing. Further analysis on the excess returns after the first day of trading also reveals that the price adjusts rapidly to the underpricing of the initial offers. The insignificant price fluctuation subsequent to the first day of trading implies that the Malaysian IPO market is efficient in adjusting to a new equilibrium price.

By establishing proxies for "ex-ante" uncertainty, it was found that none of the coefficients for the observable measures were statistically significant in explaining the underpricing phenomenon in the Malaysian market. This can be related to the high level of underpricing in the 1980s. Having experienced a high return from the new issues in the 1980s (Table 1), (potential) investors would expect a similar return on the 1990s' issues and ignore the financial measures provided in the prospectuses distributed. The emergence of potential investors in the market contributes to a higher oversubscription rate of the IPOs, hence increasing the underpricing level (Othman Yong, 1996).

As noted by Beatty and Ritter, if there is a strong relationship between underpricing and the "ex-ante" or observable proxies, the actual initial return of an offering would be predictable (Clarkson, 1994). The result of this study shows that there is no significant contribution of the observable proxy for "ex-ante" uncertainty and underpricing. Therefore, the excess return on the first day of trading of IPOs can hardly be predicted in the Malaysian market. An extension of this research can be done in the view of capturing other possible proxies for "ex-ante" uncertainty in the Malaysian market.

As noted by Othman Yong (1996), underpricing phenomenon in the Malaysian market is higher in the medium sized companies compared to the small and large companies. Since this study found that the industrial sector reports the highest level of underpricing, further study can be done to find out whether companies in the industrial sector are categorized as medium sized. Finally, this study did not cover the period after 1995 due to the change in the new listing requirements concerning the determination of the offer price. Effective from 1 January 1996, the offer price is set by the issuers and the advisors instead of the Securities Commission as traditionally practised.

REFERENCES

Baron, D.P. (1982), "A Model of the Demand for Investment Banking Advising and Distribution Services for New Issue", *Journal of Finance*, 37, pp. 955-976.

Beatty, R.P. (1989), "Auditor Reputation and the Pricing of IPOs", *The Accounting Review*, Vol 64, No 4, October, pp693-709.

Beatty, R.P. and J.R. Ritter (1986), "Investment Banking, Reputation and Underpricing of Initial Public Offerings", *Journal of Financial Economics*, 15 (Jan/Feb), pp. 213-232.

Butler, C., H.S. Dhillon and L.Thiagarajah (1991), *The Malaysian Capital Market*, Kuala Lumpur: Pelanduk Publication.

Bannock, G. and D. Alan (1987), *Going Public - The Market in Unlisted Securities*, London: The Economists Publication.

Booth, J and R. Smith (1986), "Capital Raising, Underwriting and the Certification Hypothesis", *Journal of Financial Economics* 15, pp 261-281.

Carter, R. and S. Manaster (1990), "Initial Public Offerings and Underwriter Reputation", *Journal of Finance* 45(2), pp. 1045-1067.

Clarkson, P.M. (1994), "The Underpricing of Initial Public Offerings, "ex-ante" Uncertainty & Proxy Selection", *Accounting & Finance*, November, pp.67-78.

Dawson, S.M. (1987), "Secondary Stock Market Performance of Initial Public Offerings: Hong Kong, Singapore, Malaysia 1978-1984", *Journal of Business Finance and Accounting*, Spring, pp. 65-76.

Dawson, S.M. (1987), "Initial Public Offer Underpricing: The Issuer's View – A Note", *Journal of Finance*, (42) No. 1, pp. 159-162.

Ibbotson, R.G. (1975), "Price Performance of Common Stock New Issues", *Journal of Financial Economics* 2, pp. 235-272.

Ibbotson, R.G. and J.F. Jaffe (1975), "Hot Issue Markets", *Journal of Finance* 30(4), September, pp. 1027-1042.

Jegadesh, N., M. Weistein and I. Welch (1993), "An Empirical Investigation of IPO Returns and Subsequent Equity Offerings", *Journal of Financial Economics* 34, pp. 153-175.

Koh, D. and M. Walter (1989), "A Direct Test of Rock's Model of Underpricing of Unseasoned Issues", *Journal of Financial Economics* 23, pp. 251-272.

Kuala Lumpur Stock Exchange (1990-1996), *Daily Diary*.

Kuala Lumpur Stock Exchange (1990-1995), *Investor's Digest*.

Ku Nor Izah Ku Ismail, Faudziah Zainal Abidin and Nasruddin Zainudin (1993), "Performance of New Stock Issues on the KLSE", *Capital Market Review*, Vol.1 No. 1, pp. 81-95.

McDonald, J.G. and A.K. Fisher (1972), "New Issues Stock Price Behavior", *Journal of Finance*, pp. 97-102.

McGuinness, P. (1992), "An Examination of the Underpricing of Initial Public Offerings in Hong Kong: 1980-1990", *Journal of Business Finance and Accounting* 19(2), january, pp. 165-186.

Miller, R.E. and F. K. Reilly (1987), "An Examination of Mispricing, Returns and Uncertainty for Initial Public Offerings", *Financial Management*, Summer, pp. 33-38.

Othman Yong (1991), "Performance of New Issues of Securities in Malaysia", *Malaysian Accountant*, June, pp.3-6.

Othman Yong (1996), "Who Actually Did Gain From The Underpricing of IPOs", *Capital Market Review*, Vol 4, No 1, pp33-47.

Parson, J. and A. Raviv (1985), "Underpricing of Seasoned Issues", *Journal of Financial Economics*, 14, pp. 377-397.

Ritter, J.R. (1984), "The "hot issue" market of 1980", *Journal of Business*, Vol.57, pp. 215-240.

Ritter, J. R. (1987), "The Cost of Going Public", *Journal of Financial Economics* 19, pp. 269-281.

Ritter, J. R. (1991), "The Long run Performance of Initial Public Offerings", *Journal of Finance* 46, pp. 3-27.

Rock, K. (1986), " Why New Issues are Underpriced", *Journal of Financial Economics* 15, pp. 187-212.

Smith, C.W. Jr. (1986), "Investment Banking and the Capital Acquisition Process", *Journal of Financial Economics*, 15, pp. 3-29.

Tinic, S. (1988), "Anatomy of Initial Public Offerings of Common Stock", *Journal of Finance* 43, pp. 789-827.

Titman, S. and B. Trueman (1986), "Information Quality and the Valuation of New Issues", *Journal of Accounting & Economics*, pp. 159-172.

Welch, I. (1989), "Seasoned Offerings, Imitation Costs and the Underpricing of IPOs", *Journal of Finance* 44, pp.421-449.

Welch, I. (1991), "An Empirical Examination of Models of Contract Choice in IPO", *Journal of Financial and Quantitative Analysis*, vol 26(4), December, pp. 497-518.

Wu, T.S. (1993), "The Long Run Performance of Initial Public Offerings in Malaysia", *Capital Market Review*, Vol 1 No. 1, pp. 61-80.