

The Effects of Venture Capital Syndicate on the IPO Underpricing Phenomenon

--Based on China Growth Enterprise Market from 2009-2015

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Abstract

Venture capital is gaining more importance in Chinese economy with the passage of time. This study examines the effects of venture capital syndicate on the IPO underpricing of the China Growth Enterprise Market with 375 firms supported by venture capital. In this research study we focus on the data of the China Growth Enterprise Market from 2009 to 2015. we use linear regression analysis by SPSS 22 to show the relationship between venture capital syndicate and the adjusted IPO underpricing rate. Our findings show that the venture capital syndicate has a positive correlation with IPO underpricing in the wake of the latest policy for the reason of the “grandstanding Theory” and the “market power”.

Key words: *IPO underpricing; growth enterprise market; venture capital; venture capital syndicate*

1 Introduction

The IPO underpricing phenomenon has been proved by many researches in different countries, how venture capital effects on this phenomenon also grabs much attention of scholars. The certifying agent theory which was proposed by Barry¹ shows that when venture capitals join in newly established firms, the IPO underpricing would be reduced and be more reasonable than without them. This theory has been proved by some scholars such as Jain and Kini², Lin and Smith³ in some countries. While Gompers⁴ brought up another theory which claims that the participation of venture capitals would not be helpful in control of the IPO underpricing because of the motivation of reputation which means venture capitals are eager to be accepted by the market at the expense of some profit. This point of view has also been proved by Ritter and Hamao⁵, Arikawa⁶. According to the situation in China, the capital market also draws much attention, Tang⁷, Xu⁸ and some other scholars focus on the effects of venture capital to the newly established firms by doing some empirical researches. In recent years, more venture capitals participate in newly established firms in forms of syndicate; Andy⁹ emphasizes the differences between venture capital syndicates and single venture capital. Salim¹⁰ has discussed the effects of venture capital syndicate on IPO performance as a developing country; the Chinese capital market is not as well developed as in some other developed countries such as the United States. Correspondingly this micro-segments has not been lucubrated especially in China, the effects of venture capital background have been researched more than the organizational forms, some scholars begin to focus on the effects of venture capital syndicate on the IPO underpricing phenomenon and on how venture capital syndicate influence on the performance of newly established firms.

The goal of this paper, therefore, is to examine the effects of venture capital syndicate on the

IPO underpricing phenomenon of newly established firms. In our analysis of venture capital syndicate, we focus on the data of the China Growth Enterprise Market from 2009 to 2015. Our analysis explores the different effects between venture capital syndicate and single venture capital on the IPO underpricing phenomenon.

2 Literature Review

2.1 The effects of venture capital on the IPO underpricing phenomenon

Several studies examine the effects of venture capital on the IPO underpricing phenomenon and proposed a significant point of view that the firms, which joined the venture capital, are less underpriced than those firms without venture capital. Barry explains his point “IPOs with better monitors” by comparing the firms which joined venture capital and ones which without venture capital from 1978-1987. Megginson and Weiss¹¹ explain the same idea which named the “certification hypothesis” by empirical research, for the venture capitals’ participating are able to reduce the degree of information asymmetry. In brief, the “certification hypothesis” illustrates that the price of firms with venture capital supported are more close to the intrinsic value because of the venture capitals’ reputation in the capital market. While, Gompers proposed the “grandstanding Theory” which claimed that the quality of venture capitals supported firms are better than firms without venture capitals supported mainly because of the venture capitals’ management experiences, In addition, Chemmanur¹² believes that “market power” which consider the reputation of venture capital attracts more investors, as a result, the price of these firms will be higher than those without venture capital supported.

2.2 The effects of venture capital syndicate on the IPO underpricing phenomenon

The venture capital syndicate signifies that more than one venture capital participate in the same firm in a broad sense while does not require the simultaneity. To compare with independent venture capital, venture capital syndicate contains some more superiorities; Firstly, the opportunity of sharing, Bygrave¹³ suggests that a venture capital syndicate can bring more opportunities to the new firm, also, Barry considered that the venture capital syndicate can avoid the uncertainty of the market more; risk sharing, Bygrave¹⁴ proposed that the venture capitals have strong motivation for risk sharing which can lower the financial risks; collaborative management, Lerner¹⁵ claims that the venture capital syndicate as “a powerful system that consistently and efficiently produces new ideas”. Some scholars as Tian¹⁶, Salim¹⁷ and Chemmanur¹⁸ support these advantages by empirical researches.

According to the development of capital market and the research Status of the Subject, venture capital has been one of the most attractive Point of focus, most of the research concentrate on the effects of venture capital syndicate on performance of the new firm, while, in China a majority of researches focus on the effects of different venture capitals’ background on the IPO underpricing phenomenon, the joining form is still a newly developing domain. Our research expects to prove the theory mentioned above by empirical research.

3 Data and variable definition

3.1 Data source

We extracted data about the China Growth Enterprise Market (2009-2015) from CSMAR and WIND. Dividing the firms supported by venture capital or not and then dividing the firms supported by venture capital syndicate or independent with venture capital by means of manual screening. The first-day underpricing rate is used to investigate the degree of the IPO underpricing universally, while, in China, it was only proper from 2009 to 2012, since 2012.12.31, the IPO policy has changed a lot, so that the 10th-day underpricing rate would be better to test the IPO underpricing. So, the empirical research would be divided into two parts, we consider the firms listed on the China Growth Enterprise Market from 2009 to 2012 as the first part and the firms listed on the China Growth Enterprise Market from 2014 to 2015 as the second part (the China Growth Enterprise Market IPO paused during 2013).

3.2 Variables definition

Based on prior research, we try to analyze the relationship between the involving form of venture capital and IPO underpricing. We use the linear regression analysis by SPSS. We define venture capital syndicate (VC_s) as the Virtual independent variable and Adjusted IPO underpricing rate (AR) as the dependent Variable. Select ROA , FEE , $LNSCALE$ and RS as the tool variables: ROA stands for the Return on Assets; fee stands for all the cost of issue; $LNSCALE$ stands for the issuance level; RS stands for the rate of subscription which measures the market investors' subscribe enthusiasm.

$$AR = \alpha_0 + \alpha_1 VC_s + \alpha_2 ROA + \alpha_3 FEE + \alpha_4 LNSCALE + \alpha_5 RS + \varepsilon_i$$

4 Empirical results

4.1 Descriptive statistics

Table 1 indicates the average underpricing of 33.79% for group1 that has 259 samples and 192.25% for group2 including 116 samples. In term of firm characters, 66% of the firms are participated by venture capital syndicate in group1 while others participated by independent venture capital; 67.2% of them are participated by venture capital syndicate in group2.

Table1- descriptive statistics for the entire sample in 2 groups

	Group1 (2009-2012)		Group2 (2014-2015)	
	Mean	Variance	Mean	Variance
AR	0.3379	0.125	1.9225	0.419
VC_s	0.660	0.225	0.672	0.222
ROA	8.2625	24.314	8.9731	49.465
FEE	8.0150	6.882	12.3263	19.730
$LNSCALE$	10.9431	0.305	10.4420	0.261
RS	138.3457	5790.173	710.0942	442104.294
N	259		116	

4.2 Venture capital syndicate and the IPO underpricing

Table 2 includes the linear regression analysis, which shows some connection between the

venture capital syndicate and the IPO underpricing of the firms, which they join in. During 2009-2012, it is supported that the venture capital syndicate can lower the IPO underpricing, while in 2014-2015, the venture capital syndicate cannot lower the IPO underpricing which means that if the firm joint by only one venture capital, the IPO underpricing will be lower. According to our result, we can consider that before the IPO policy changed, the prior viewpoints including opportunity sharing, risk sharing and collaborative management are strongly supported. While after the IPO policy changed, we should not differ these viewpoints do not exist, but to consider the most probable reason for the positive correlation between Venture capital syndicate and the IPO underpricing, is should be the function of the “grandstanding Theory” and the “market power”, which means that venture capital syndicate have stronger influence in the capital market. More than one venture capital participate in a firm can attract more investors in the secondary market, as a result, leading to the higher the IPO underpricing.

Table 2- linear regression analysis results

Variable Symbol	Group1 (2009-2012)	Group2 (2014-2015)
<i>VCs</i>	-0.127***	0.173**
	-2.305	2.416
<i>ROA</i>	0.000	-0.180**
	-.003	-2.248
<i>FEE</i>	-0.278**	0.030
	-3.470	0.269
<i>LNSCALE</i>	-0.275**	-0.087
	-3.312	-0.762
<i>RS</i>	0.390***	0.498*
	6.660	6.439
<i>Adj-R²</i>	0.422	0.230

5 Conclusions

Prior research indicates the functions that venture capital bring into the firm and the superiority of venture capital syndicate. This paper explores the venture capital syndicates' influences on the IPO underpricing phenomenon. Our result shows that the venture capital syndicate is more effective in reducing the IPO underpricing than independent venture capital from 2009-2012 and the venture capital syndicate has a positive correlation with IPO underpricing for the reason of the “grandstanding Theory” and the “market power” by empirical research. This research shows some features of the China Growth Enterprise Market, while there are still some inadequateness needs further researches.

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