



**Pre-IPO and Post-IPO firm performance:
Evidence from Thai Listed Companies**

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**A Minor Thesis Submitted in Partial Fulfillment of the Requirements
for the Degree of Master of Business Administration**

Prince of Songkla University

2018

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ABSTRACT

This study aimed to discover pre-IPO and post-IPO firm performance of Thai listed firms in SET during 2009-2013. Ownership structure and venture capitalists were the main two factors influenced the firm performance. The firm performance was measured by ROA, and ROE. The population of this study was 36 listed firms in SET using multiple regression analysis to describe the firm performance, which separated the analysis into two cases: pre-IPO, and post-IPO period, and venture capitalist-backed firm performance. The result shown ownership structure had no significant impact on firm performance and firms with venture capitalist backed would perform better than the non venture capitalist firms in post-IPO.

Keywords: IPO, Ownership Structure, Venture Capitalist, ROA, ROE

ACKNOWLEDGEMENT

First of all, this minor thesis cannot be completed without guidance and support from my advisor, Dr. Klangjai Sangwijitr. Her suggestion along with other two committees: Dr. Thanawut Saengkassanee, and Aj. Poom Cheejaroen, make this minor thesis strong and complete. I would like to take this opportunity to express my appreciation for them here for time, continuing support, and encouragement through out my year conducting this study. It would not be possible to fulfill my ambition without them.

I also would like to thank you all IMBA lecturers who give me knowledge for not only aiding in this minor thesis but also improving my horizon in real world outside the classroom. I especially thank you Dr. Ekkarit Gaewprapun, who initially supported my interest in this topic and had faith on me that I will able to carry out this study even tough I was not financial degree holder. In addition, I always appreciate the warm support from all officers in the graduate office. Their genuine hearts to help the student are touched.

Special thanks to my friends in IMBA program who always support and encourage one another. Lastly, I would like to thank you my family for their unyielding support and encouragement throughout my years of study. Without them, I would not complete this minor thesis.

Achima Chalarat

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CHAPTER 1

INTRODUCTION

1.1 Background

For decades, “Going public” is the traditional way for companies to access more capital which widely known as “Initial Public Offering or IPO”. IPO changes a business from a privately and solely owned into the shared ownership by public stockholders (Ehrhardt, and Nowak, 2001). An IPO is a significant stage in the growth of many businesses. A business that goes public may also find it easier to obtain capital for future needs through new stock offerings or public debt offerings. Additionally, a related advantage of an IPO is that it provides opportunity for owner, venture capitalists, and investors to cash out their unwanted prior investment. Those shares of equity can be sold as part of the IPO, in a special offering, or on the open market some time after the IPO (Mason, 2005). Furthermore, it increases public awareness of the company. Through IPO process, the publication about the company will expose to prospective investors, customers, and business press. It will enhance credibility with its suppliers, customers, and lenders, which may lead to improved credit terms. Companies will have the upper hand in trade and negotiation (Honig, 2002). Another advantage is to use stock as the incentives for employees and management team. They will put more contribution to company’s goal, as they are one part of ownership. For shareholders, they can enjoy benefit of tax exemption from their individual capital gain. Ultimately, IPO provides a public valuation of a business. This means that it will be easier for the company to enter into mergers and acquisitions, because it can offer stock rather than cash (Draho, 2004).

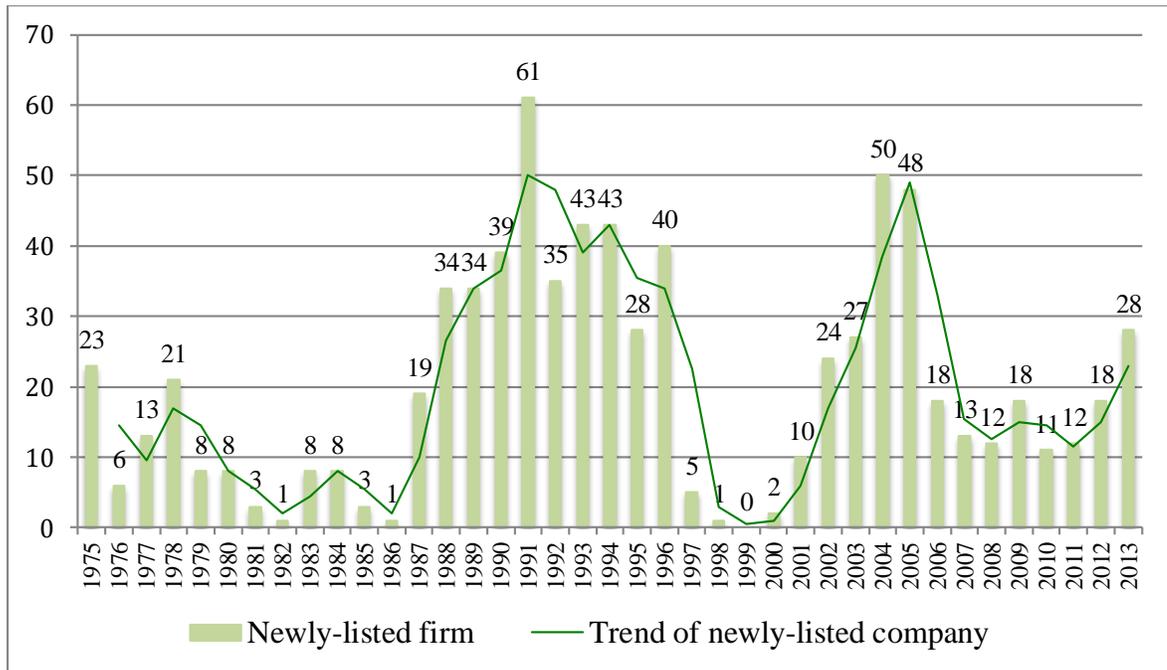


Figure 1.1 Total number of listed companies in SET and MAI

Note: Adapted from SET Going Public Guide by SET 2013. Retrieved from https://www.set.or.th/en/products/listing/files/JST_AW_Going_Public14_Eng.pdf

Figure 1 demonstrates number of listed companies in SET and MAI markets in Thailand from 1975 to 2013. It reflects fluctuating trend in IPO registration throughout those years. However, there is a positive sign for companies to adopt IPO due to positive economic outlook and recovery of political turmoil. Ekvitthayavechnukul (2015) mentioned on his research that the market capitalisation from IPOs is expected to be higher than 250 billion baht (\$7.575 billion) together with estimated return on investment (ROI) derived from IPOs of more than 50 percent higher. For decades, Thailand suffered from political instability and sluggish economy resulting from the change in government. Investors lose confidence in Thailand, and many companies decide to delay IPO registration plan (Jittapong, 2014). Despite adverse factors, in various companies, they found a shift in political party made them rush their listing process to seek more opportunities. Many of them offered a high return on IPOs with potential to become the rising stars in the last two quarters of 2014. Hence, there is the positive sign for IPO in Thailand.

1.2 Problem Statement

Nowadays, the degree of business competition is intense. Businesses have to seek their ways to overcome the fierce competition. Business expansion is one of the common strategies and IPO is frequently used as its tool to access more fund. However, going public brings skeptical outcome on firm performance, as IPO will change business operation in various aspects. Some firms enjoy good performance even after implement IPO for long period of time yet some firms' performance drop significantly. According to empirical studies, there are several factors behind firm performance during Pre-IPO and Post-IPO. In this study, ownership structure and venture capitalists will be investigated to uncover firm performance.

Although IPO is widely adopted by many businesses around the globe, firms that have gone public usually suffer from the declined long-run performance (Ritter, 1991). This study will clarify factors behind the Pre-IPO and Post-IPO firm performance. Various studies show ownership dilution as major issue. The decision to go public brings about some issues of the separation of ownership and control. Before the IPO, the firm is owned and controlled by few shareholders, who have big incentives in monitoring managers and managing the firm in desirable direction. While after the implementation of IPO, firm will offer the entrance for outsiders and reduce managers and owners' shares. The owner seems to lose some benefit and motivation in the company management which resulting in the low performance in long run (Brennan and Franks, 1997). However, there would be some incentives asides from gaining more capital which encourage owner to go public regardless of the declined performance afterwards.

Unlike the owner, the venture capitalists enjoy full benefit from IPO. They can gain more reputation from successful IPO registration and if IPO is unsuccessful they are free to exit (Krishnan et al., 2009). In addition, the venture capitalists involvement plays significant role in both Pre-IPO and Post-IPO company performance. In Pre-IPO, venture capitalists generally assist the critical stage of financing and expose the quality of the offering to potential investors. However in Post-IPO, Brown (2005)' studies show no

significant change in the performance between venture capitalist-backed and non-venture capitalist-backed firms. In contrast, Gompers et al. (2008) uncovered the benefit of venture capitalist in long term. In addition, previous study on the IPO in western shows no significant effect of venture capital in post-IPO performance. Still, Thailand, the emerging market, just recovers from economic downturn and political crisis may have different context of venture capital. Hence, there is no conclusive evidence for venture capitalists role in firm performance in Thailand.

In summary, there are two main factors behind firm's Pre-IPO and Post-IPO performance: ownership structure, and venture capitalists. Firstly, the change in ownership structure may lead to undesirable firm performance since owners may lose motivation and control over their businesses. However, there would be some incentives for owners to continue being public company in long run despite they have to sacrifice their authority and firm performance to issue the stock. Secondly, there are mixed results of venture capitalist impact on firm performance. Also, there is no empirical study of venture capitalist in Thailand.

1.3 Purpose of the Study

This study is the comparative study between Pre-IPO and Post-IPO firm performance in Thailand through two driving factors: ownership structure, and venture capitalists (VC). It aims to fill the previous research gaps. To begin with, the long run performance of the firm as its owner structure is changed. Although firms can raise immerse capital through IPO, many firms suffered from poor Post-IPO performance due to the shift in ownership and the increase in agency cost. Hence, this study aims to develop more understanding for the tradeoff between the ownership and stock price. Furthermore, this study will clarify the venture capitalist role after the "going public" decision since there is no empirical study for Thailand and there is no conclusive result from other markets.

1.4 Research Question

The research questions of this study are:

1. Does the lower ownership have impact on company long run performance?
2. How venture capitalist affect pre-IPO and post-IPO firm performance?

1.5 Limitation of the Study

This study will only investigate the initial public offering effect on firm performance from the SET: Stock Exchange of Thailand. SET is the major capital market in Thailand under the supervision of Securities of Exchange Commission (SEC.) In addition, the IPO issuing process is undergone and approved by SET. Since 2007, global financial crisis has been the great impact on Thailand. Thai economic condition was severely damaged by this event (Bank of Thailand, 2008). Hence, the time period for IPO movement in this study will be 2009 to 2017 where Thailand gradually recovers from worldwide economic downturn and internal political turmoil (Royal Thai Embassy, 2009). In this research, the Post-IPO performance will be observed 5 years, which is effective enough as long term performance indicator. Furthermore, the number of listed company during 2009 to 2017 is sufficient to represent SET market as a whole. Still, this number may be too small to represent each individual industry for example; there were only 3 listed companies in technology industry during 2009 to 2017.

CHAPTER 2

LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK

2.1 Initial Public Offering (IPO)

The term of Initial Public Offering or IPO refers to the first sale of company stock to the public. IPOs are normally issued by small or young companies as they aim to access to more capital for their business expansion. However, big companies may also do the IPO in order to trade publicly. There are several criteria for company to be listed in the stock market. Company must be prepared both managerial, and financial aspects to meet rigid requirement (Wasserman, 2010).

In Thailand, Stock Exchange of Thailand (SET) formulates certain qualification for IPO. Financial record, market capitalisation, and share distribution will be intensely audited. In this research, the Pre-IPO period is the preparation stage for firms to be listed. It includes the time firms appoint financial advisor to assist in their business re-structure. According to SET's "Going Public Guide" booklet (2013), the pre-IPO period will take approximately 1-1.5 year. Hence, this research will investigate firm performance accordingly to that period. For Post-IPO, it will refer to the period after firms is successfully listed. Herein, the compositions of firm performance that this research will focus on are ownership structure, and venture capitalists.

2.2 Ownership Structure

The ownership structure can be defined as the distribution of company equity and capital. Admittedly, the ownership structure chosen at the IPO stage is important. The tradeoff consideration between ownership and stock price has been argued for many decades. The owner of a private firm will fully internalise the costs and benefits of his choice. On the other hand, the decision to go public will sacrifice the control over the cash flow. Therefore, the ownership structure chosen at the IPO stage is socially efficient (Bebchuk and Zingales, 2000).

The empirical evidence on the ownership to IPO performance is not clear. There are positive arguments on this privatisation, which is based on the incentive alignment perspective as it can control the interest of shareholder and minority shareholders. For example, Mitton (2002) reported firms with high concentrated ownership have significantly better stock price performance in East Asian markets. Gomes (2000) also argued that high concentrated ownership could provide a credible commitment from controlling shareholders for not expropriating the interests of minority shareholders by using dynamic stochastic game, and Perfect Bayesian Equilibrium (PBE) theory. Dynamic stochastic game explained managers and investors behaviour to make their decision based on each other action and current situation, while PBE described their action which based on strategy and belief in such incomplete information they has been given. With those theories, he found that managers as one of owners could manipulate cash flow, and information given to investor to maintain their own wealth, which had positive impact on firm performance.

For emerging market, most of empirical studies found ownership plays significant role in firm performance. This market has unique characteristics with high degree of information asymmetry, which leads to abnormal positive return in the beginning of IPO and abnormal negative return in long term firm performance. Furthermore, owners has upper hand to align the incentives for managers and shareholders. The level of owner involvement will reduce the conflict between managers and shareholders. Hence, the agency cost will be minimised accordingly (Morck et al., 2000). Still, there were some studies claimed that ownership had negative relationship with firm performance with entrenchment hypothesis. It argued that high ownership concentration triggered agency problems between controlling and minority shareholders. Large shareholders may divert resources from the firm and minority shareholders to themselves (Claessens et al., 2002). Zhu (2014) investigated IPO in China using Turnover Ratio together with regression model, found the change in ownership concentration is favourable to managerial entrenchment and aids in entrenched controlling shareholders with incentives to expropriate outside minority investors.

Kim et al. (2004) applied descriptive statistic to their empirical study to investigate the relationship between ownership and firm performance in Thailand. They found that in pre-IPO period the ownership had 100 percent positive effect on firm performance. Financial tools such as return on asset (ROA) as the indicator for management efficiency to generate income from their assets, and net present value (NPV) as tool to forecast firm value of future revenue, were used to measure post-IPO performance in term of cash flow. They applied operating returns on earning before interest and tax to total assets ratio (EBIT/TA) to measure the operating performance. This ratio is similar to ROA as they both indicate firm profitability of firm's assets. The only difference is ROA applies net income to calculate profitability, while EBIT/TA uses EBIT. Their findings showed another distinct result that firm performance drop significantly after going public. The shift in ownership structure and the separation of owners and managers brought more agency costs to the firm. Therefore, research on the ownership for IPOs in emerging markets is likely to give answer far from conclusive results.

2.3 Venture Capitalists

Venture capitalists are investors who provide capital to new or small firms in their business expansion. They aid these young firms to access to the stock market and they aim for the massive profit on their investment in IPO. The decision whether to pursue venture capitalists or not is the question owner need to be made in the early stage of the IPO (Rajan, 2010). In pre-IPO, a venture's age, size, and profitability have generally been acknowledged as important indicators of its future performance (Hand, 2006).

Venture capitalists as professional investors play a major role in the identification of the portfolio firm's intrinsic value. Venture capitalist as large shareholders will closely monitor the firm to reduce agency costs and increase the value of portfolio firms. Compared to companies without venture capitalists support, the earnings quality of venture capitalist-backed IPO companies should be better (Sahlman, 1990).

Florin (2005) found high-potential ventures show that companies generally go through two critical stages of financing before significant growth: the start-up and development efforts, and access large amounts of capital to increase growth. Still, he found no significant impact on firm performance either venture capitalist-backed or non-venture capitalist backed firm. However, this research is based on telecommunication industry and it used ANOVA to analyse venture capitalist as moderate variable. While, Brav and Gompers (1997) found that non venture capitalist-backed IPOs substantially underperforms the benchmarks and venture capitalist-backed IPOs in most years in the S&P 500 Index, the Nasdaq Composite, and value- and equal-weighted NYSE/Amex indexes. Therefore, the characteristic of market and firm will provide the different context of venture capitalists and its effect on firm performance.

Additionally, Krishnan et al. (2009) illustrated venture capitalists reputation as another aspect of venture capitalists effect on firm performance in China with descriptive statistics. Their studies found venture capitalists reputation had positive relation with firm performance. In pre-IPO stage, venture capitalists reputation promotes good public image and firm portfolio. If IPO is successful, venture capitalists reputation will expand firm opportunities to start more projects. In addition, return on asset (ROA), and market-to-book equity ratio (M/B) has been studies to explain more detail on the post-IPO performance. M/B ratio evaluates firm current value to its book value. In other words, M/B ratio measures firm asset in associated with stock price. The lead venture capitalists would hold stocks not only the beginning of IPO. Their studies showed even two or three year passed, the lead venture capitalists did not sell their stocks and they put more contribution and involvement to firm portfolio to sustain its performance as they invested substantially on the firm. Hence, they concluded their research that firm with venture capitalists-backed will perform better in long run. On the contrary, Bradley et al. (2001) shown opposite result. They implemented abnormal returns and the standardized residual approach to compare firm performance between venture capitalist-backed firms and non-venture capitalists firm during various lock-up periods. They found after the lock-up expiration venture capitalists-backed firm loss 3-4 percent of stock value and non-venture

capitalist backed firm loss just a little value in US market. They also found IPO with more than 180 days lock-up period was unaffected by venture capitalist involvement. They could not find evidence from their non-venture capitalists sample. For their venture capitalist-backed sample, post-IPO price performance, and trading volume are associated with the stock movement. Firm with large stock price increase will suffer from the greater loss as they have abnormal high stock trading volume in the period lock-up expiration. It may conclude that the different finding derived from the different characteristics of sample firms. However, those studies above came from other country. There is still no empirical evidence from Thailand.

2.4 Return on Asset

Return on asset (ROA) can be defined as the indicator of firm efficiency in generating profit from its total asset. Florin (2005) investigated firm performance between venture capitalist-backed firm and non venture capitalist-backed firms. He found return on asset (ROA) in both types of firm was decreased significant in post-IPO period. Krishnan et al. (2009) discovered the same result of the declined performance in long run still venture capitalist-backed firms are less suffered from poor performance than non venture capitalist-backed firms. Morck et al. (2000), on the other hand, found different result from those researches. They observed 25 countries across the world and found that ROA was increased after the firm gone public. Still, his research was based on the assumption the sample countries had good government. Hence, there is no empirical evidence in less developing countries stock market, which may have unstable political climate.

2.5 Return on Equity

Return on equity (ROE) reveals the profit, which generated by the money that shareholder invested. Donaldson (2015) studied the relationship between financial ratio and market capitalisation in IPO in US market. He discovered that post-IPO ROE rose in

service and material industries while, the ROE in others industries was dramatically dropped, which highly correlated with poor financial performance. In addition, the empirical research in Indonesia shown the same result that long run ROE was decreased significantly and it had negative impact on firm performance (Irfani, 2014). Pastusiak et al. (2016) also chose ROE as the effective tool to measure firm performance in their research. They too discovered the similar result of decreased ROE in post-IPO.

2.6 Conceptual Framework

As several researches find IPO and firm performance is highly influenced by three main factors: ownership structure and venture capitalists.

Firstly, ownership structure refers to the change in equity and control of the owner after implementing IPO. The shift in this structure has impact on firm performance, as it is tradeoff between ownership and amount of cash flow. Secondly, there are 2 types of firm: venture capitalist-backed firm, and non venture capitalist-backed firm. Venture capitalists are investors that financially support the firm to be listed. For venture capitalist-backed firm, the involvement of venture capitalist will affect quality of firm offering and company wealth, which directly influences firm performance. However, according to literature review above, there is no conclusive evidence between venture capitalist-backed firm, and non venture capitalist-backed firm on firm performance.

With multiple regression analysis, this study can be conceptualised the relation between independent variables and dependent variable as figure below:

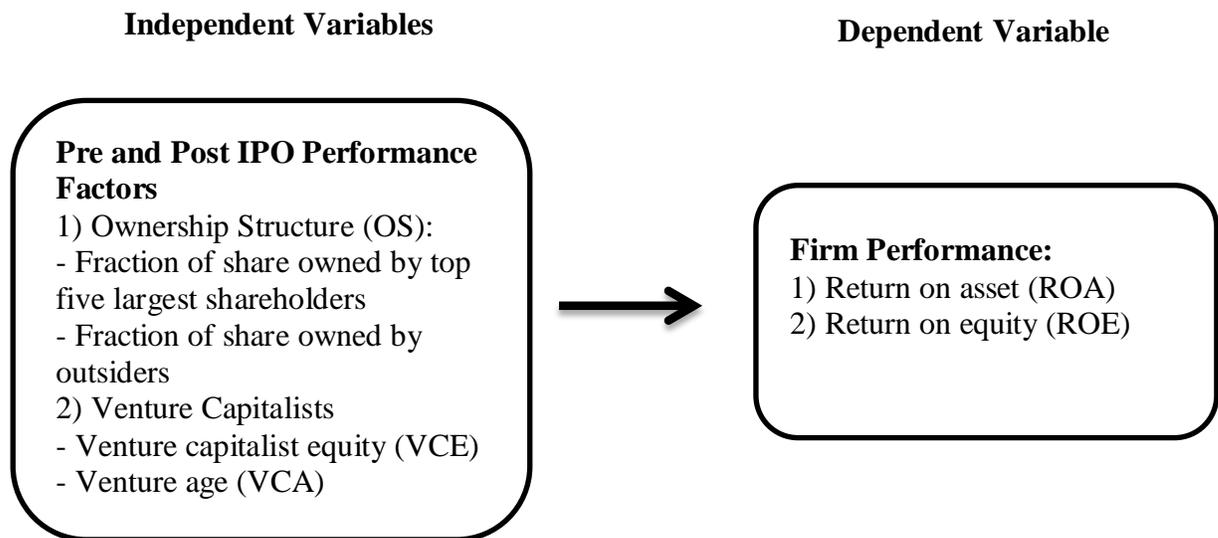


Figure 2.1 Conceptual Framework

CHAPTER 3

RESEARCH METHODOLOGY

3.1 Population and Sample

3.1.1 Population

This study will investigate the IPO performance of 36 listed companies which include 19 venture capitalist-backed firms, and 17 non venture capitalist-backed firms in Thailand SET from 2009 to 2017 when Thai economy started to recover. These listed companies will represent the majority population since SET is the largest source of the capital market in Thailand. They also include database of the SEC, and company annual report.

Table 3.1 Total number of listed companies in SET from 2009-2013

Year of Listing	No. of listed firms in SET	Post-IPO performance evaluation period
2009	7	2009-2013
2010	4	2010-2014
2011	4	2011-2015
2012	8	2012-2016
2013	13	2013-2017
Total	36	

Note: Adapted from SET New Listed Companies/Securities Summary. Retrieved from <https://www.set.or.th/set/ipo.do>

3.1.2 Sample Size

This study will collect 6 years of performance: 1 year for pre-IPO and 5 years for post-IPO. Hence, the total sample will equal to $6 \times 36 = 216$ samples in order to study listed companies in SET as a whole. Among 36 listed firms, there are 19 firms that have venture capitalist as one of shareholders. Henceforth, those 19 firms will be recognised as

venture capitalist-backed firms in this study to research the impact of venture capitalist on firm performance. The sample size for this case will be $6 \times 19 = 114$ samples.

3.2 Research Procedure

In this research, comparative study between the pre-IPO performance and post-IPO performance is the main focus which contain the case of 36 firm performance in pre-IPO and post-IPO, and the case of 19 venture capitalist-backed firms. The process of this research compose of 3 phases:

Phase 1

This research will provide brief information of Thailand capital market including the current situation in SET. Explanation on the purpose and benefit of this research will be given.

Phase 2

For data collection, this research will use secondary data from SET, SEC and company annual report which can be found in company official website to compare firm performance pre-IPO and post-IPO. The annual report will show how changing in ownership impact the operating performance. Furthermore, SET official website will provide shareholder list which will show the list of venture capitalist if it is applicable. This information will assist this research to investigate the different performance between venture capitalist-backed and non venture capitalist-backed firm.

Phase 3

This research will gather all the information on firm performance from annual financial report. The information retrieved from financial report will be analysed by basic descriptive statistic tools and multiple regression analysis.

3.3 Measurement

3.3.1 Independent Variables

Two major components: ownership structure, and venture capitalist, are used as the independent variables in this study.

a) Ownership structure (OS) is measured by ratio between the fraction of share owned by the five largest shareholders and the fraction of share owned by outsiders. This information can be found in both SET website and company annual report under the shareholder list category. Demsetz and Lehn (1985) explained the five largest shareholders will either manage the firm themselves or will control over the management to maximise their wealth.

OS = fraction of share owned by the five largest shareholders/ fraction of share owned by outsiders

If the outcome of OS is more than 1, it can indicate firm 'shares are owned by the insiders rather than outsiders.

b) For venture capitalists, venture capitalist equity (VCE) and age (VCA) are used as proxies. Florin (2005) explained venture capitalist equity is the implication of venture capitalist expectation on the certain IPO performance. The larger size of equity they invested the more return they expected. The venture age will represent the experience of venture capitalists, which influence how they invest in the IPO. In addition, VCE in this study refers to the percentage of share owned by venture capitalist which can be found in SET website and VCA refers to the number of year which venture capitalists participate in SET. This information can be found in company website where it states the company history.

VCE = The percentage of share owned by venture capitalist

VCA = The number of year which venture capitalists participate in SET

3.3.2 Dependent Variable

The dependent variable is the firm performance of IPO. It will be measured twice in order to compare the performance in Pre and Post IPO respectively by profitability ratios. Lesakova (2007) stated that profitability ratios are widely accepted as good indicator to measure firm financial performance. The ratios are most useful in term of comparing firm performance with competitors or with previous period. In this study, the return ratios: return on asset (ROA) and return on equity (ROE) are used as firm performance measurement.

$$\text{ROA} = \text{Net Income} / \text{Total Asset}$$

Herein, net income is the total earning after deduct all expenses, depreciation, and taxes as appear in the company income statement. Total asset includes company current assets and non-current asset, which can be found in the company balance sheet. ROA measures how effectively a firm can generate return on its investment in assets. In other words, ROA indicates how efficiently a firm can transform the money spent on assets into net income or profits. The higher ROA is obviously the more favourable for investors.

$$\text{ROE} = \text{Net Income} / \text{Total Shareholder's Equity}$$

The net income refers to the total earning after deduct all expenses, depreciation, and taxes as appear in the company income statement. Total shareholder's equity consists of company share capital and retained earning, which can be found in the company balance sheet. ROE measures how efficiently a firm utilise shareholder's money to generate profits and firm growth. ROE represent the profitability from the investor

perspectives. Obviously, this ratio is computed based on investors' investment solely.

3.3.3 Categorical Variable

This study uses dichotomous dummy variable as categorical variable to separate the case study into two groups: pre-IPO, and post-IPO by coding pre-IPO as 0 and post-IPO as 1.

3.4 Instrument and Data Analysis

The research is conducted under comparative and correlation methods through the document and data review together with the analysis.

3.4.1 Descriptive Statistic

In this study, the descriptive statistic will be used to compare the pre and post IPO performance by retrieving the secondary data from SET, and company's annual report. It will also explain the trend using the basic tools: minimum, maximum, mean, and standard deviation.

3.4.2 Multiple Regression Analysis

As there are two independent variables in this research, multiple regression analysis will help the research to answer research question about how ownership structure and venture capitalist affect firm performance. Herein, the analysis is separated into two cases: pre-IPO, and post-IPO period, and venture capitalist-backed firm performance. Pre-IPO and post-IPO firm performance Analysis:

$$ROA = a + b_1 * OS + b_2 * VCE + b_3 * VCA + \text{Period} + e$$

$$ROE = a + b_1 * OS + b_2 * VCE + b_3 * VCA + \text{Period} + e$$

Venture capitalist-backed firms performance Analysis:

$$ROA_{vc} = a + b_1*OS + b_2*VCE + b_3*VCA + \text{Period} + e$$

$$ROE_{vc} = a + b_1*OS + b_2*VCE + b_3*VCA + \text{Period} + e$$

Where:

ROA = Return on asset for pre-IPO and post-IPO

ROE = Return on equity for pre-IPO and post-IPO

ROA_{vc} = Return on asset for venture capitalist-backed firms

ROE_{vc} = Return on asset for venture capitalist-backed firms

a = Constant value

b = Coefficient

OS = Ownership structure

VCE = Venture capitalist equity

VCA = Venture capitalist age

Period = Period which IPO is in using dichotomous coding 0 = Pre-IPO, 1 = Post-IPO

e = Error term

CHAPTER 4

RESULTS

This study is the comparative study of firm performance during pre-IPO and post-IPO periods using ROA and ROE as indicators to measure firm performance. It aims to investigate the effect of the change in ownership structure and the role of venture capitalist on the firm performance by applying descriptive statistics as a tool to explain the general characteristic of variables and using Multiple Regression analysis with one dichotomous dummy variable as categorical variable to answer research questions.

The result in this study is set into two main sections: all samples in both pre-IPO and post-IPO result and the separated venture capitalist-backed firms result.

4.1 Pre-IPO and Post-IPO result

Table 4.1 Descriptive Statistics of Pre-IPO and Post-IPO result

Variables	Min	Max	Mean	Standard	
				Deviation	n
ROA (%)	-72.84	55.31	9.66	0.1340	216
ROE (%)	-147.11	143.90	16.76	0.2661	216
Ownership Structure	0.36	3.88	1.99	1.5589	216
VC Equity (%)	0.60	25.00	5.78	0.0380	114
VC Age (year)	5.00	97.00	35.37	22.1133	114

Table 4.1 shows the statistical data of 216 firms undergone IPO during 2009-2013. During the observed period, the average ROA is 9.66% with the standard deviation of 0.1340. The maximum ROA is 55.31% and the minimum of -72.84%. ROE shows higher mean of 16.76% and 0.2661 as standard deviation. The difference between minimum and maximum of ROE is dramatic of -147.11% and 143.90% respectively. For the independent variable, ownership structure is 1.9923, which reflects most of firm shares is held by the top5 shareholders with minimum of 0.36, maximum of 3.88, and the standard deviation of 1.5589. VCE has 0.0380 as the lowest standard deviation among both

dependent variables and independent variables while its mean is 5.78% with minimum of 0.6% and maximum of 25%. On the other hand, VCA shows the highest mean and standard deviation among all variable of 35.3684 and 22.1132 respectively. The maximum age is 97 years and the minimum age is 5 years.

Table 4.2 ROA Multiple Regression Analysis

Variables	Unstandardised		Standardised		
	Coefficients		Coefficients		
	b	Std. Error	β	t	Sig.
(Constant)	0.174	0.032		5.507	0.000
OS	0.001	0.006	0.011	0.156	0.876
VCE	-0.528	0.245	-0.150	-2.158	0.032
VCA	-0.000	0.000	-0.003	-0.049	0.961
Period	-0.058	0.025	-0.161	-2.298	0.023

**p-value* ≤ 0.05

R=0.222, R²= 0.049, F=2.722, Sig. of F= 0.031

Table 4.2 describes the linear relationship between dependent variable (ROA) and independent variables using multiple regression model with one dummy variable (Period) as categorical variable of pre-IPO and post-IPO using dichotomous coding which pre-IPO=0 and post-IPO=1. This model illustrates the significant correlation between ROA and all independent variable with R=0.222, and R²= 0.049. From the table, OS and VCA have no significant impact on ROA in this model. The standardised coefficient shows VCE has negative impact correlation with ROA that in each unit increase in VCE will decrease 0.528 ROA. Period display negative value in this model, which can be interpreted that in post-IPO the ROA will be decreased by 0.058 or post-IPO, generates 0.017 less ROA than pre-IPO.

Table 4.3 ROE Multiple Regression Analysis

Variables	Unstandardised		Standardised		
	Coefficients		Coefficients		
	b	Std. Error	β	t	Sig.
(Constant)	0.304	0.062		4.917	0.000
OS	0.000	0.012	-0.003	-0.038	0.970
VCE	0.022	0.478	0.003	0.046	0.963
VCA	0.001	0.001	0.059	0.857	0.393
Period	-0.194	0.049	-0.273	-3.939	0.000

**p-value* ≤ 0.05

R=0.279, R²= 0.078, F=4.462, Sig. of F= 0.002

Table 4.3 describes the linear relationship between dependent variable (ROE) and independent variables using multiple regression model with one dummy variable (Period) as categorical variable of pre-IPO and post-IPO using dichotomous coding which pre-IPO=0 and post-IPO=1. This model explains the significant correlation between ROA and all independent variable with R=0.279, and R²= 0.078. This table rejects all independent variables that OS, VCE, and VCA have no significant impact on ROE. In addition, period shows significant correlation with ROE, this model can explain that in post-IPO the ROE will be decreased by 0.194 or Post-IPO generates 0.194 less ROA than pre-IPO.

4.2 Venture Capitalist-Backed Firms Result

Table 4.4 Descriptive Statistics for Venture Capitalist-Backed Firm Result

Variables	Min	Max	Mean	Standard Deviation	n
ROA (%)	-72.84	49.68	11.07	0.1294	114
ROE (%)	-147.11	143.90	19.68	0.2584	114
Ownership Structure	0.36	3.88	1.90	1.5975	114
VC Equity (%)	0.60	25.00	5.78	0.0524	114
VC Age (year)	5.00	97.00	35.37	30.5024	114

Table 4.4 displays the statistical data of 114 venture capitalist-backed sample. During the observed period, the average ROA is 11.07% with the standard deviation of 0.1294. The minimum ROA is -72.84% and the maximum is 49.68%. ROE has slightly higher mean of 19.68% and 0.2584 as standard deviation. It shares the same minimum and maximum value as the pre-IPO and post-IPO case of -147.11% and 143.90% respectively. For the independent variable, ownership structure is 1.8967, which reflects most of firm shares is held by the top5 shareholders with the standard deviation of 1.5975. Its minimum is 0.36 and its maximum is 3.88. VCE has 0.0524 as the lowest standard deviation among both dependent variables and independent variables while its mean is 5.78% with minimum of 0.6% and maximum of 25%. Finally, VCA shows the highest mean and standard deviation among all variable of 35.3684 and 30.5024 respectively with the minimum of 5 years and maximum of 97 years.

Table 4.5 ROA Multiple Regression Analysis for Venture Capitalist-Backed firms

Variables	Unstandardised		Standardised		
	Coefficients		Coefficients		
	b	Std. Error	β	t	Sig.
(Constant)	0.166	0.037		4.504	0.000
OS	0.004	0.008	0.055	0.554	0.581
VCE	-0.518	0.238	-0.210	-2.174	0.032
VCA	0.000	0.000	-0.014	-0.142	0.887
Period	-0.038	0.033	-0.109	-1.130	0.261

* p -value ≤ 0.05

R=0.246, R²= 0.060, F=1.753, Sig. of F= 0.144

Table 4.5 describes the linear relationship between dependent variable (ROA) and independent variables using multiple regression model with one dummy variable (Period) as categorical variable of pre-IPO and post-IPO using dichotomous coding which pre-IPO=0 and post-IPO=1. This model illustrates the significant correlation between ROA and all independent variable with R=0.246, and R²= 0.060. OS, and VCA have no significant impact on ROA in this model. According to the standardised coefficient, VCE has negative significant correlation with ROA that in each unit increase in VCE will decrease 0.518 ROA. For period, which shows negative correlation with ROA, it can be concluded that in post-IPO the ROA will be decreased by 0.038 or post-IPO generates 0.038 less ROA than pre-IPO.

Table 4.6 ROE Multiple Regression Analysis for Venture Capitalist-Backed firms

Variables	Unstandardised Coefficients		Standardised Coefficients		
	b	Std. Error	β	t	Sig.
(Constant)	0.315	0.073		4.325	0.000
OS	0.007	0.016	0.040	0.408	0.684
VCE	0.051	0.472	0.010	0.107	0.915
VCA	0.001	0.001	0.075	0.777	0.439
Period	-0.187	0.066	-0.271	-2.833	0.005

**p-value* ≤ 0.05

R=0.275, R²= 0.076, F=2.237, Sig. of F= 0.070

Table 4.6 describes the linear relationship between dependent variable (ROE) and independent variables using multiple regression model with one dummy variable (Period) as categorical variable of pre-IPO and post-IPO using dichotomous coding which pre-IPO=0 and post-IPO=1. This model expresses the significant correlation between ROA and all independent variable with R=0.275, and R²= 0.076. OS, VCE (, and VCA have no significant impact on ROE in this model. Additionally, only period shows significant correlation with ROE. This model can explain that in post-IPO the ROE will decrease by 0.187 or post-IPO generates 0.187 less ROA than pre-IPO.

CHAPTER 5

CONCLUSION AND DISCUSSION

This study is the comparative study of firm performance during pre-IPO and post-IPO periods using ROA and ROE as predictors to measure firm performance. The objective is to investigate the effect of the change in Ownership Structure and the role of Venture Capitalist on the firm performance. The result in chapter 4 will be used to discuss in this chapter together with the limitation and the recommendation for the future study.

5.1 Conclusion

It is undeniable that the degree of competition in business is intense nowadays. Sourcing for more funds is crucial strategy to survive this harsh competition. IPO is frequently adopted as its tool to access more fund. However, many businesses around the globe usually suffer from the declined long-run performance (Ritter, 1991). This study is divided into two cases: 216 samples from Pre-IPO and Post-IPO firm performance, and 114 samples from venture capitalist-backed firms.

5.1.1 Pre-IPO and Post-IPO firm performance

With the multiple regression analysis under the significant level of 0.05, 216 samples show only VCE and ROI have significant impact on ROA. VCE has negative significant effect on firm performance. On the other hand, ROI shows strong positive significance. In addition, only ROI has significant impact on ROE. In post-IPO, both ROA and ROE tend to decrease.

5.1.2 Venture capitalist-backed firm performance

With the multiple regression analysis under the significant level of 0.05, 114 samples reflect the same result as 216 samples that ROI has significant impact on ROA

and ROE. VCE has positive significant impact on ROA. In summary, ROA will rise in post-IPO. On the contrary, ROE will drop in post-IPO.

5.2 Discussion

5.2.1 Ownership structure impact on pre-IPO and post-IPO firm performance

Research question 1: Does the lower ownership have impact on company long run performance?

This study found ownership structure has no significant correlation with ROA, and ROE which are the firm performance indicator. This result contradicted with several previous studies. For example, Morck et al.(2000) stated that the lower ownership concentration in Post-IPO were beneficial to firm performance as it reduced the agency cost. Zhu (2014) also found the ownership structure aid in controlling shareholders with incentives to expropriate outside minority investors.

However, Tsegba and Achua (2011) discovered the same result as in this study. They conducted research in Nigerian market and concluded the ownership structure had no significant relationship with firm performance due to the government policy and corporate structure in Nigeria where owner was monitored closely by shareholders. From my point of view, the non-significant relation may imply the ownership structure was not change significantly in Thai market. According to the data from SET, most of sample in this study had proportion between the major shareholders and outsider was high. It reflected that even after going public, most of the share still owned and controlled by owner. Hence, the ownership structure did not change significantly.

5.2.2 Venture capitalists impact on pre-IPO and post-IPO firm performance

Research question 2: How venture capitalists affect Pre-IPO and Post-IPO firm performance?

According to the result in chapter 4, venture capitalist had significant relationship with firm performance. In pre-IPO, VCE will generate both ROA and ROE more than the post-IPO as shown in Table 4.5. Regardless of the increase in VCE will decrease firm performance, firm with venture capitalist perform slightly better than non venture capitalist-backed firm. This result is supported by previous studies. Sahlman, (1990) found firms with venture capitalist performed better as the large shareholder like venture capitalists would monitor their performance closely. From my perspective, VCE reflects how much venture capitalists expect from particular stock. Each percentage of equity they invested is carefully monitored to maximise their own profit. Hence, they keep firm perform well. In addition, from SET information most of venture capitalists in Thailand are investment banks, which share similar characteristic of investment behaviour that may result in the non-significant impact of VCA regardless of the difference in age.

5.2.3 The declined performance in post-IPO

According to the result in Chapter 4, both ROA and ROE fall in the post-IPO. Ritter (1991) found the similar result on his studies in US market that firms were generally underperform in post-IPO. He explained this situation as lack of long-term return vision. Firms were drove by investors who were too optimistic on future returns. In addition, Brav and Gomper (1997) did the further studies in this issue. They discussed either non venture capitalist-backed firms or venture capitalist-backed firms would underperform in the first five year after going public. They explained each firm had specific capital allocation. The change in cost of capital of how they made investment would negatively impact firm performance. Thailand where the degree in information symmetry is high, suffer from misperception of investors. Investors make the stock overvalued which reduce the quality of the offering. Massive return on the first day

comes from the overvalued excessive demand that firm will face declined performance subsequently (Aumeboonsuke, 2012). Finally, as Royal Thai Embassy (2009) stated in the period of this study (2009-2013) was the period when Thailand recovered from economics downturn, author thinks most of firms may try to access to large fund for long term project as they saw a good opportunity to grow. Thus, such long term may require ample of time to generate profit, which result in the underperformance in the first five years in post-IPO.

5.3 Limitation and recommendation for the future study

This study only observes firms in SET, which may have limited sample size. For the future study, applying sample from MAI may broaden result of the study. In addition, MAI consists of small and medium enterprises, which attract more venture capitalist to invest there. This may provide more understanding on the venture capitalist role in IPO. Furthermore, this study analyses SET as a whole. Separately observing in each industry is recommended for in-depth study. Ultimately, the cryptocurrency such as Bitcoin become popular among investor nowadays. Initial Coin Offering (ICO) is introduced to find new source of the limited cryptocurrency. The future study may apply or adapt the concept of IPO to study ICO.

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Appendix

Table A: literature review summary

Author/Year of Publication	Article	Research Objectives	Statistical Tools	Variables	Finding
Bebchuk and Zingales (2000)	Ownership Structures and the Decision to Go Public	To study the ownership structure which chosen by maximising entrepreneur at the IPO which may different from social optimal	Probability Statistic	Independent Variables: 1) Share owned by the owner 2) Share sold to public Dependent Variable: 1) Firm valuation - Expected return - Verifiable cash flow	The ownership structure chosen in the beginning of IPO had significant impact on firm valuation in both private and social optimality.

Author/Year of Publication	Article	Research Objectives	Statistical Tools	Variables	Finding
Bradley et al. (2001)	Venture Capital and IPO Lockup Expiration: An Empirical Analysis	To investigate the relationship between venture capitalist and IPO lockup expiration, which affect stock price.	<p>T-statistic to compare between VC and non VC-backed firms:</p> <ol style="list-style-type: none"> 1) Offer amount 2) 90 days performance 3) 180 days performance 4) Share locked 5) Number of lockup period day <p>Multiple regression analysis</p>	<p>Independent variables:</p> <ol style="list-style-type: none"> 1) Lockup expiration period <ul style="list-style-type: none"> - AR at day 0 - CAR at the expiration period 2) Venture capitalist backing <ul style="list-style-type: none"> - AR at day 0 - CAR at 90 and 180 days - Total asset <p>Dependent variable:</p> <ol style="list-style-type: none"> 1) Stock price 	<p>After the lock-up expiration, venture capitalists-backed firm loss 3-4 percent of stock value and non- venture capitalist backed firm loss just a little value in US market. They also found IPO with more than 180 days lock-up period was unaffected by venture capitalist.</p>

Author/Year of Publication	Article	Research Objectives	Statistical Tools	Variables	Finding
Brav and Gompers (1997)	Myth or Reality? The Long-Run Underperformance of Initial Public Offerings: Evidence from Venture and Non venture Capital-Backed Companies	To investigate post-IPO performance of both venture capitalist-backed and non venture capitalist-backed firms.	T-statistic to observe the underperformance: 1) Weighted market return (RM-RF) 2) Difference between firm size 3) Book-to-market stocks difference Jensen's alpha Multiple regression analysis	Independent variables: 1) Venture capitalist-backed firms - Book-to-market ratio - Firm size 2) Non venture capitalist-backed firms - Book-to-market ratio - Firm size Dependent variables: 1) Stock return 2) Book-to-market value	Non venture capitalist-backed IPOs substantially underperforms the benchmarks and venture capitalist-backed IPOs in most years in the S&P 500 Index, the Nasdaq Composite, and value- and equal-weighted NYSE/Amex indexes.

Author/Year of Publication	Article	Research Objectives	Statistical Tools	Variables	Finding
Claessens et al. (2002)	Disentangling the Incentive and Entrenchment Effects of Large Shareholdings.	To investigate the effect of ownership structure on firm value	Valuation Measurement: 1) Market-to-book ratio (Mean, and Median) Multiple regression analysis	Independent variable: 1) Ownership structure - Cash flow - Level of ownership separation Dependent variable: 1) Firm value - Market-to-book ratio - Tobin's Q	The high ownership concentration triggered agency problems between controlling and minority shareholders. Large shareholders may divert resources from the firm and minority shareholders to themselves.

Author/Year of Publication	Article	Research Objectives	Statistical Tools	Variables	Finding
Florin (2005)	Is venture capital worth it? Effects on firm performance and founder returns	To uncover venture capital effect on firm in post-IPO in telecommunication industry.	IPO characteristic (Mean, and S.D.): 1) VC equity 2) Number of founder 3) VC experience 4) Firm age 5) ROA 6) Pre-IPO income 7) Pre-IPO sales 8) Share growth 9) Sales growth 10) Asset growth 11) Founder wealth Multiple regression and ANOVA analysis	Independent variables: 1) Venture capitalist performance - Sales growth - Asset growth - Share growth - ROA - ROS - VC equity 2) Founder performance - Value of share owned by the founder Dependent variables: 1) Post-IPO performance	Either venture capitalist-backed or non venture capitalist backed firm, there is no significant effect on firm performance.

Author/Year of Publication	Article	Research Objectives	Statistical Tools	Variables	Finding
Gomes (2000)	Going Public without Governance: Managerial Reputation Effects	To study the agency problem between controlling shareholders and minority shareholders	Probability Test	Independent variables: 1) Manager (as owner) - Size of share sold - Cash flow - Size of share owned by owner 2) Manager's reputation - Stock price at IPO Dependent variables: 1) Firm's growth - Stock price	Manager as a sole owner can give a beneficial commitment to controlling shareholders and avoid giving benefit to minority shareholders. He can manipulate cash flow and information given to investor to maintain his wealth and positive firm performance.

Author/Year of Publication	Article	Research Objectives	Statistical Tools	Variables	Finding
Hand (2006)	Give everyone a prize? Employee stock options in private venture-backed Firms	To examine employee stock options in private U.S. venture-backed firms	Firms Grant Employee Stock Options (FRACOP) linear analysis: 1) Cash compensation 2) One year forecasted revenue growth 3) One year forecasted employee growth 4) Fraction of share held by VC 5) Firm age Logistic regression analysis	Independent variable: 1) Firm size 2) Firm growth opportunity - One year forecasted revenue growth - One year forecasted employee growth Dependent variable: 1) Stock option plan	In US, most of venture-backed firms did not use stock option as incentives or compensation due the high level of uncertainty, and information asymmetry.

Author/Year of Publication	Article	Research Objectives	Statistical Tools	Variables	Finding
Kim et al. (2004)	Ownership and operating performance in an emerging market: evidence from Thai IPO firms	To study the relationship between Thai IPO firms performance and ownership.	<p>Level of operating performance (Mean):</p> <ol style="list-style-type: none"> 1) EBITA/TA 2) Operating cash flow <p>Characteristic of IPO (Mean, and Median):</p> <ol style="list-style-type: none"> 1) Pre-IPO Total asset 2) Firm's age 3) Size of offering 4) Offer price 5) Initial return <p>Wilcoxon signed rank test</p> <p>Multiple regression analysis</p>	<p>Independent variable:</p> <ol style="list-style-type: none"> 1) Ownership structure <ul style="list-style-type: none"> - Firm size - Capital expenditure - Growth - Bank loan <p>Dependent variable:</p> <ol style="list-style-type: none"> 1) Firm performance <ul style="list-style-type: none"> - Change in EBITA/TA - Change in operating cash flow 	In pre-IPO period, the ownership had 100 percent positive effect on firm performance. For post-IPO, firm performance drop significantly. The shift in ownership structure and the separation of owners and managers brought more agency costs to the firm.

Author/Year of Publication	Article	Research Objectives	Statistical Tools	Variables	Finding
Krishnan et al. (2009)	Venture Capital Reputation, Post-IPO Performance, and Corporate Governance	To study venture capital reputation as one of venture capitalist characteristics influence on firm performance in China.	IPO characteristics (Mean): 1) Offer size 2) Issue age 3) Underwriter reputation 4) Market capitalisation 5) Market-to-book ratio IPO long run performance (Mean): 1) ROA 2) Market-to-book ratio 3) Stock return Ordinary least squares (OLS) regressions analysis	Independent variables: 1) Venture capital reputation - VC age - VC syndicate size - VC network centrality 2) IPO market share Dependent variable: 1) Post-IPO performance - ROA - Market-to-book ratio - Stock return	In Pre-IPO stage, venture capitalists reputation promotes good public image and firm portfolio and after IPO, the lead venture capitalist still put contribution to improve firm portfolio as they invested large amount of money in the IPO.

Author/Year of Publication	Article	Research Objectives	Statistical Tools	Variables	Finding
Mitton (2002)	A cross-firm analysis of the impact of corporate governance on the East Asian financial crisis	To study variables related to corporate governance, which has great impact on firm performance around East Asian countries.	Crisis Statistics: 1) Crisis period of stock return (Median) 2) Crisis period currency depreciation Financial Statistics: 1) Total asset (Median) 2) Debt ratio 3) Book-to-market ratio 4) ROA Multiple regression analysis	Independent Variables: 1) Disclosure quality - Firms with listed American Depository Receipt - Firms with big six auditors 2) Ownership concentration - Cash flow - Voting rights 3) Corporate diversification - Number of industries - Percentage of diversified firm Dependent Variable: 1) Corporate Governance - Stock price	Among East Asian countries, firms with high ownership concentration have better stock price performance and overall performance.

Author/Year of Publication	Article	Research Objectives	Statistical Tools	Variables	Finding
Morck et al. (2000)	The Information Content of Stock Markets: Why Do Emerging Markets Have Synchronous Stock Price Movements?	To study factors affect stock movement in emerging market	Stock Movement: 1) Average price during first 26 weeks of IPO 2) Average fraction of stocks moving the same direction Stock Return: 1) Dividend Multiple regression analysis	Independent variables: 1) Country size - Geographical size 2) Economic condition - GDP per capita - Inflation rate 3) Managerial Diversification - ROA - Herfindahl index Dependent variables: 1) Stock return - Correlation between market size and stock price	The level of owner involvement will decrease agency problem and improve firm performance.

Author/Year of Publication	Article	Research Objectives	Statistical Tools	Variables	Finding
Sahlman (1990)	The structure and governance of venture-capital organizations	To analyze the structure of venture-capital organizations, focusing on the relationship between investors and venture capitalists and between venture-capital firms and the ventures in which they invest.	Venture Capital performance (Mean, and S.D.): 1) VC experience 2) Number of founders who are VC 3) Size of fund 4) Number of year funding Multiple regression analysis	Independent variable: 1) Venture capitalist support - VC size - Speed VC raise the fund - VC fund - VC experience Dependent variable: 1) Firm value - Market-to-book ratio 2) Financial performance - Profitability ratios	Venture capitalist keep monitoring firm portfolio to improve financial and accounting information quality, which benefit to firm performance.

Author/Year of Publication	Article	Research Objectives	Statistical Tools	Variables	Finding
Zhu (2014)	Ownership, Corporate Governance and IPO Post-Listing Liquidity	To study ownership and corporate governance impact on IPO post performance	IPO annual performance (Mean, and Median): 1) Trading volume 2) Turnover ratio F-Test Statistic T-Test Statistic Mann Whitney Test by Liquidity Quartile	Independent variables: 1) Ownership - Size of shareholder (base on Post-IPO allocation) - Top 10 ownership share (largest shareholders) 2) Corporate governance - Board size - Board independence Dependent variable: 1) Liquidity - Trading volume, - Turnover ratio	The change in ownership concentration is favourable to managerial entrenchment and aids in entrenched controlling shareholders with incentives to expropriate outside minority investors.

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