Effect of Expiration of Initial Public Offerings Silent Period on Returns in The Stock Exchange Thailand

Walanchanok khampho

Faculty of Business Administration, Chiang Mai University e-mail: Walanchanok khampho@cmu.ac.th (corresponding author)

Danai Likitratcharoen

Faculty of Business Administration, Chiang Mai University e-mail: Danai.l@cmu.ac.th

Received: March 23, 2024

Revised: May 29, 2024 Accepted: June 27, 2024

ABSTRACT

The study of the effects on the rate of return around the expiration of the initial public offering (IPO) lockup agreement period in each industry in Thailand provides important information that recognized information during lockup agreement period. This study was aimed to investigate the information asymmetries during lockup agreement period. The study was analyzed by event study methodology to tested average abnormal returns (AAR) and cumulative average abnormal returns (CAAR). The estimation period was divided to two events based on rule. The first event allows strategic shareholders to sell 25% of common stock under the IPO lockup agreement. The final event that shareholders allowed to sell all of common stock under conditions. The analysis was based on data from 433 companies listed between 2003 and June 30 2021 on the Stock Exchange of Thailand (SET) and the Market for Alternative Investment (MAI). The findings revealed that investors had better access to information in the final event than the first event. Small companies MAI had more gaps in recognized information than large companies on SET. In conclusion, the study provides consistent with the hypothesis of efficient markets during the lockup agreement period, but inefficiencies are still evident in some sectors. Especially technology sector and

industrial sector listed on SET and the agriculture and food sector in MAI have shown inefficiency in both events. Moreover, negative return rates across all industry sector on the SET. However, the study doesn't find statistically significant changes impacting forecasts but except for positive findings in the property and construction sector. Overall, while the market shows efficiency, specific sectors reveal inefficiencies due to information asymmetry, influencing investment decisions.

Keywords: Strategy Shareholders, Public Information, Silent Period, Lockup Agreement Period, Abnormal Return, Cumulative Abnormal Returns

ผลกระทบของช่วงสิ้นสุดระยะเวลาห้ามขายหลักทรัพย์ เสนอขายครั้งแรกต่อประชาชนต่อผลตอบแทน ในตลาดหลักทรัพย์แห่งประเทศไทย

วลัญช์ชนก คำโพธิ์

ภาคการเงิน คณะบริหารธุรกิจ มหาวิทยาลัยเชียงใหม่

อีเมล: Walanchanok_khampho@cmu.ac.th (ผู้ประสานงานหลัก)

ดนัย ลิขิตรัตน์เจริญ

ภาคการเงิน คณะบริหารธุรกิจ มหาวิทยาลัยเชียงใหม่

อีเมล: Danai.l@cmu.ac.th

วันที่ได้รับต้นฉบับบทความ : 23 มีนาคม 2567 วันที่แก้ไขปรับปรุงบทความ : 29 พฤษภาคม 2567 วันที่ตอบรับตีพิมพ์บทความ: 27 มิถุนายน 2567

บทคัดย่อ

การศึกษาผลกระทบของอัตราผลตอบแทนในช่วงสิ้นสุดระยะเวลาห้ามขายหลักทรัพย์ หลังการเสนอ ขายหุ้นสามัญต่อประชาชนทั่วไปครั้งแรก (IPO) ในแต่ละอุตสาหกรรมในประเทศไทย มีวัตถุประสงค์เพื่อ วิเคราะห์ความไม่สมดุลของข้อมูลในช่วงสิ้นสุดระยะเวลาห้ามขายหลักทรัพย์ โดยใช้วิธีการศึกษาเหตุการณ์ เพื่อทดสอบอัตราผลตอบแทนผิดปกติเฉลี่ยและอัตราผลตอบแทนผิดปกติสะสมเฉลี่ย โดยช่วงการวิเคราะห์ แบ่งออกเป็นสองเหตุการณ์ตามเงื่อนไขของข้อตกลงห้ามขายหุ้นสามัญออกใหม่ เหตุการณ์แรกคือการอนุญาต ให้ผู้ถือหุ้นที่มีส่วนร่วมในการบริหารสามารถขายหุ้น สามัญทั้งหมดภายใต้เงื่อนไขได้ โดยการวิเคราะห์อ้างอิงจากข้อมูลของบริษัทจำนวน 433 บริษัทที่จดทะเบียน ระหว่างปี 2546 ถึงวันที่ 30 มิถุนายน 2564 ในตลาดหลักทรัพย์แห่งประเทศไทย และตลาดหลักทรัพย์เอ็มเอ โอ ซึ่งผลการศึกษาชี้ให้เห็นว่านักลงทุนสามารถเข้าถึงข้อมูลในเหตุการณ์สุดท้ายได้ดีกว่าเหตุการณ์แรก นอกจากนี้พบว่า บริษัทขนาดเล็กที่จดทะเบียนในตลาดหลักทรัพย์เอ็มเอไอ มีช่องว่างในเข้าถึงหรือรับรู้ข้อมูล ข่าวสารมากกว่าบริษัทขนาดใหญ่ที่จดทะเบียนในตลาดหลักทรัพย์แห่งประเทศไทย ซึ่งสรุปได้ว่าการศึกษานี้ สอดคล้องกับสมมติฐานของตลาดที่มีประสิทธิภาพในช่วงสิ้นสุดระยะเวลาห้ามขายหลักทรัพย์ แต่ยังคงพบความไม่มีประสิทธิภาพของตลาดในบางภาคอุตสาหกรรม เช่นในอุตสาหกรรมเทคโนโลยีและ อุตสาหกรรมสินค้าอุตสาหกรรมที่จดทะเบียนในตลาดหลักทรัพย์แห่งประเทศไทย และอุตสาหกรรมเกษตร

และอาหารในตลาดหลักทรัพย์เอ็มเอไอ นอกจากนี้ยังพบอัตราผลตอบแทนเชิงลบในทุกอุตสาหกรรมตลาด หลักทรัพย์แห่งประเทศไทย อย่างไรก็ตามการศึกษาไม่พบการเปลี่ยนแปลงที่มีนัยสำคัญทางสถิติ ที่มีผลต่อการคาดการณ์ราคาหลักทรัพย์ ยกเว้นผลเชิงบวกในอุตสาหกรรมอสังหาริมทรัพย์และการก่อสร้าง ซึ่งโดยรวมแม้ว่าตลาดจะแสดงถึงความมีประสิทธิภาพ แต่ยังพบความไม่มีประสิทธิภาพในบางอุตสาหกรรม เนื่องจากความไม่สมดุลของข้อมูล ที่ส่งผลต่อการตัดสินใจในการลงทุน

คำสำคัญ: ผู้ถือหุ้นที่มีส่วนร่วมในการบริหาร ข้อมูลข่าวสารที่เผยแผ่สู่สาธารณะ ช่วงสิ้นสุดระยะเวลาห้ามขาย หลักทรัพย์ ช่วงระยะเวลาข้อตกลงห้ามขายหลักทรัพย์ อัตราผลตอบแทนผิดปกติ อัตราผลตอบแทนผิดปกติ สะสม

1. INTRODUCTION

The financial system is a crucial mechanism for fundraising capital from investors to those in need of funding. However, capital movement in financial markets involves raising funds by issuing financial instruments to the public. Moreover, this results in a difference in information perception between insider investors and retail investors. To prevent disadvantages from investment following the trading of common stocks in secondary markets. As a result, the initial public offering lockup agreement is employed as one of the tools to address this issue.

Initial public offering lockup agreement (IPO lock-up agreement) is pivotal in the arena of financial markets, particularly concerning shareholders with substantial management stakes, commonly referred to as Strategic Shareholders who are shareholders that typically hold common stock for directorial, managerial or controlling positions in company. Moreover, entities or individual shareholders more than 5% of the equity. The agreement also extends to common shareholders of a firm prior to its entry into the market stock exchange. Initial public offering lockup agreement divide two period. first, first event that exchange in secondary market to 180 days after first exchange and strategic shareholders are allowed to sell 25 percent common stock in condition of the initial public offering lockup agreement. Finally, final event that 360 days after exchange in secondary market and strategic shareholders are allowed to sell 100 percent common stock in condition of the initial public offering lockup agreement. Objective of agreement provide investors with comprehensive

information in order to analysis and make informed decisions. This corresponds with the principle of "Fully Reflect," which is the foundation of the market efficiency hypothesis (EMH) by advocating for investment decisions based on the totality of available information in reflecting asset prices. EMH including to weak form that past trading information is fully reflected in stock prices. Semi strong form that all publicly available information is reflected in stock prices and strong form that all information public and private is reflected in stock prices. moreover, Asymmetric information occurs when one party in a transaction has more or better information than the other, it consist adverse selection that happens before a transaction. One party has more information about the value of the transaction than the other that sellers know more about the quality of a product than buyers and moral hazard that happens after a transaction. One party takes on more risk because they don't bear the full consequences that managers may not act in shareholders' best interests. Asymmetric information can lead to market inefficiencies and prices not reflect true values. Therefore, the sensitivity of security prices are managed by essential information (Hirshleifer, 1970). additionally, Investors efficiently utilize the information which allocated to analysis and decision-making. Furthermore, the market efficiency hypothesis presents that all investors cannot use trading information and significant information disclosed publicly by each company, such as financial statements, executive lists, and investment prospectuses cannot generate abnormal returns (Fama, 1970).

However, empirical research at the market efficiency in lock period of Initial public offering lockup agreement was showed studies by scholars such as Ofek and Richardson (2000), Field and Hanka (2001), and Brav and Gompers (2003) have consistently found a negative trend in stock returns in the lockup period. Additionally, some investors recognize that public information carries implied signals form the behavior of investors who have inside information that can change forecasting in expected return. Moreover, The valuation in securities is forecasted by difference of recognized information between informed investor and uninformed investor Sun (2009). Brav and Gompers (2003), Brau, Carter, Christophe and Key (2004), Jensen and Meckling (1976), Field and Hanka (2001), Chakpaisan (2012), Zhou (2017), Haggard and Xi (2017) and Tabtieng (2020) found relations of negative trend and positive trend in lock period of initial public offering lockup agreement involve many factors such as size of

market, period of lockup agreement, difference of core business and capital structure in each industry and difference of recognized information. In addition, analysis data shows changes in the stock market and various industrial sectors. This difference requires a more detailed approach to understanding the dynamics at play. This study aims to investigate that testing by event study method following Ball and Brown (1968), Fama, Fisher, Jensen and Roll (1969), Bradley, Jordan, Rotan and Yi (2001), Disara (2007), Brown and Warner (1985) and Barber and Lyon (1997) the impact on abnormal stock returns during the expiration lockup period and focusing on a survey of various industries in the Thailand stock exchange especially. The intent is to unravel the difference of these industry-specific impacts and contribute to a more difference understanding of market behavior in the context of IPO lockup agreements.

2. LITERATURE REVIEW

Ofek and Richardson (2000) reported that abnormal returns occur at the end of the IPO lock-up period as investors tend to sell shares to realize profits. These cumulative abnormal returns are significant and impact stock price movements. particularly around the lock-up expiration date. This behavior indicates a short-term inefficiency in the market that response to the large volume of shares being sold in a short period. Additionally, the research highlighted that firms of different sizes exhibit stock price movements at the end of the lock-up period. Larger firms tend to have different market reactions compared to smaller firms. Furthermore, industries with different of core businesses and capital structures show varied sensitivity to price changes during the lock-up expiration. For example, high-risk industries or those requiring substantial capital such as technology are more sensitive to stock price volatility during this period.

Field and Hanka (2001) showed that abnormal returns and cumulative abnormal returns at the end of the IPO lock-up agreement period indicates short-term market inefficiency. The market responsed to the large volume of shares sold in a short period suggests that the market may not fully anticipate the selling pressure. Then, leading to significant stock price adjustments. The cumulative abnormal returns observed around the lock-up expiration were

significant. Additionally, the study found that industries with high risk or substantial capital requirements such as technology especially companies registered in the NASDAQ securities market. Moreover, result in significantly more negative returns statistically compared to investors with insider information in another investors. In contrast, more stable industries showed less sensitivity to price changes. Furthermore, firm size significantly affected stock price movements during the lock-up expiration period. Larger firms tend to experience less volatility and smaller abnormal returns compared to smaller firms.

Hakim (2010) found that studied the middle east and north africa region (MENA) followed diverse regulations and cultures. Moreover, found that companies entering the securities market during this period remained family firms with shareholders holding onto their shares to retain management rights. Although statistically significant abnormal returns were not found during the end of the prohibition period for stock sales, The study found that firm size significantly affects stock price movements at the end of the IPO lock-up agreement period. Larger firms tend to experience less volatility and smaller abnormal returns compared to smaller firms. Additionally, industries with high risk or substantial capital requirements, such as technology and energy, exhibit more pronounced stock price movements than stable industries, such as banking and services. However, the presence of abnormal returns and cumulative abnormal returns indicates short-term market inefficiency.

Chakpaisan (2012) examined that the Thailand stock market from 2003 to 2012. During the end of the prohibition period for common stock sales. Investors in first event recognized difference information and affected to common stock return. additionally, cumulative average abnormal returns were significantly negative and was found that holding shares with managerial participation and announcing the intention to sell common stock served as an advance signal to the company's performance. However, final event that 360 days after exchange in secondary market and strategic shareholders can sell 100 percent common stock in condition of the initial public offering lockup agreement were also no statistically significant cumulative average abnormal returns observed.

Zameni and Yong (2017) found that malaysia during 2001 to 2011. Investors who desired voting rights for corporate bought common stock by their information. nevertheless, affection of return was significantly decreased by strategic shareholders that analyzed in difference of recognized information by their information for exchange common stock.

Talans and Mimardi (2020) showed that the study in the brazil stock market from 2004 to 2019. Additionally, two events both the first event and the final event. All investors similarly recognized information and decided to exchange common stock.

3. METHODOLOGY

3.1 Research Questions

The stock market in Thailand is divided two markets such as the stock exchange of Thailand (SET) and the market for alternative investment (MAI) which differ in size of market firm. Additionally, various industries that core business and capital structure are difference. Are abnormal returns and cumulative abnormal returns found at the end of the lockup period and do these abnormal returns impact the stock market. Moreover, are information asymmetries around the Initial Public Offerings Silent Period different between SET and MAI, especially across industries?

3.2 Methodology

The methodology of this study divide the methods into two parts. First, descriptive statistics that involves analyzing general statistical data on the common stock returns of companies that initially offer shares to the public during the silent period.as well as It includes minimum, maximum, median, mean and standard deviation. Second, event study that method involves comparing the average values of sample. Additionally, the study focuses on abnormal returns and cumulative average abnormal returns for testing the hypothesis of market efficiency. According to this hypothesis, stock return should reflect publicly available information and trend in the same direction.

The event study method involves the following process. First, selecting the topic or event of interest for the study. In this case, the event is the end of the silent period. Second, Define the estimation period. This period starts from the date the IPO shares begin trading in the secondary market until one day before the event window begins. Moreover, the estimation period is divided into two events depend on the regulation. First, the first event covers the period after 90 trading days, 190 trading days and depending on additional voluntary lockup agreement period extensions that strategic shareholders are allowed to sell 25 percent common stock in condition of the initial public offering lockup agreement. lastly, the final event covers the period after 190 trading days, 290 trading days and depending on additional voluntary lockup extensions by strategic shareholders. Additionally, strategic shareholders are allowed to sell 100 percent common stock in condition of the initial public offering lockup agreement. Third, define the event window is 10 days before to 10 days after the end of the lockup Period.

The abnormal returns are examined form the mean-adjusted return. The calculation of stock returns for the sample using the event study method is done using the following equation.

$$R_{i,t} = \frac{P_1 - P_0}{P_0}$$

 P_i The closing price of company i on day t

 P_0 = The closing price of company i on day t-1

Calculating the expected return using the mean-adjusted return method involves using the average return during the estimation period.

$$E(R)_{i, t} = \frac{1}{N} \sum_{i=0}^{N} R_{i, t}$$

 $R_{i, t}$ = Return of security i on day t

N = Number of days in the Estimation Period

To calculate the abnormal return for each security during the end of the lockup Period. This can be done by finding the difference between the actual return during the Event Window and the expected return.

51 วารสารการวิจัยนวัตกรรมการจัดการธุรกิจ

$$AR_{i,t} = R_{i,t} - E(R_{i,t})$$

For Calculating the cumulative abnormal return (CAR) for each company by summing the abnormal returns over the event window from 10 days before to 10 days after the end of the Silent Period that is summed a total of 21 days. The equation is as follows.

$$CAR_{i,t} = \sum_{t=n}^{t=1} AR_{i,t}$$

To test the statistical significance of the average abnormal return (AAR) and the cumulative average return (CAR) used the t-statistic. Moreover, the statistical significance of the daily abnormal returns can be tested using the following equation and hypothesis.

t-statistic
$$_{AAR} = \frac{\frac{1}{N} \sum_{i=1}^{n} AR_{i,t}}{\sigma_{AR}/\sqrt{N}}$$

AR =The abnormal return of security i on date t

N = The number of abnormal returns for security i

 $\sigma AR_{i,t}$ = standard deviation of abnormal return for secutity i

The statistical confidence level test of the average abnormal return is as follows. H_0 equal zero, that it means the changes in the price of the security does not lead to an average abnormal return during the period of lockup. However, H_0 not equal zero that it means the changes in the price of the security does lead to an average abnormal return during the period of lockup.

For testing the statistical significance level of the cumulative average return of securities during the event window, the equation is as follows.

t-statistic _{CAAR} =
$$\frac{\frac{1}{N} \sum_{t=n}^{t=1} \text{CAR}_i}{\sigma_{CAR} / \sqrt{N}}$$

CAR = The cumulative abnormal return of security i on date t

N = The number of abnormal returns for security i

 σ CAR_{i,t} = standard deviation of cumulative abnormal return for security i

The statistical confidence level test of the cumulative average abnormal return is as follows. H_0 equal zero, that it means the changes in the price of the security does not lead to a cumulative average abnormal return during the period of lockup. Nevertheless, H_0 not equal zero that it means the changes in the price of the security does lead to a cumulative average abnormal return during the period of lockup.

3.3 Data

This research employs a comprehensive company data that initiated public offerings of common stocks between 2003 and June 30, 2021. The data includes 232 companies listed on the stock exchange of Thailand (SET) 201 companies and the market for alternative investment (MAI) 433 companies. These companies are categorized eight different industry groups such as Agriculture and Food Industry 30 companies, Consumer Products 21 companies, Financials 33 companies, Industrials 86 companies, Property & Construction 77 companies, Resources 49 companies, Services 104 companies, and Technology 33 companies. comprising companies under a 90 days and 190 days of first event in condition of the initial public offering lockup agreement are 152 firms and under a 190 days and 290 days of first event in condition of the initial public offering lockup are 279 firms. Additionally, additional voluntary lockup extensions by strategic shareholders are under 190 days of first event that are 2 firms.

4. RESULTS AND DISCUSSION

Table 1 reports the summary statistic for our sample of IPO lockup agreement period return. We report the mean, standard deviation, minimum and maximum. at the first event of overall sample, the mean is -0.1789% and standard deviation is 3.341% with the minimum of -28.0262% and the maximum of 15.6028%. at the final event of overall sample, the mean is approximately 0.0657% and standard deviation is 3.1543% with the minimum of -12.2951% and the maximum of 29.36%.

Table 1 Descriptive statistics of IPO Lockup Agreement Period Return

		First		Final				
	All	SET	MAI	All	SET	MAI		
N	433	232	201	433	232	201		
Minimum	-28.0262%	-16.8104%	-28.0262%	-12.2951%	-11.7647%	-12.2951%		
Maximum	15.6028%	15.6028%	14.4578%	29.36%	6.66%	29.36%		
Mean	-0.1789%	-0.3077%	-0.0301%	0.0657%	-0.3334%	0.5263%		
SD	3.341%	2.9311%	3.7611%	3.1543%	2.1832%	3.9482%		

Table 2 reports the results for the average abnormal returns at the end of the lockup agreement period in first event. The results in first event found at expiration date (day 0) no statistically significant evidence of entire sample both SET and MAI. However, statistically significant negative evidence was found from the technology group and industrials group in SET.

Table 2 Average Abnormal Returns at the End of the Initial Public Offering (IPO) Lockup Agreement Period in First Event

		Average Abn	ormal Returns			
Al	LL	SI	ĒΤ	MAI		
ALL (N=434)	-0.0599%	SET (N=232)	-0.2503%	MAI (N=201)	0.1598%	
t-stat	-0.3981	t-stat	-1.4810	t-stat	0.6178	
AGRO (N=30)	-0.2623%	AGRO (N=22)	-0.0075%	AGRO (N=8)	-0.9630%	
t-stat	-0.4697	t-stat	-0.0109	t-stat	-1.0358	
CONSUMP	-0.2768%	CONSUMP	0.6016%	CONSUMP	-0.8173%	
(N=21)		(N=8)		(N=13)		
t-stat	-0.1924	t-stat	1.3134	t-stat	-0.3507	
FINANCIAL	0.2046%	FINANCIAL	0.4883%	FINANCIAL	-0.5520%	
(N=33)		(N=24)		(N=9)		
t-stat	0.4394	t-stat	1.0172	t-stat	-0.4816	
INDUS (N=86)	-0.0148%	INDUS (N=42)	-0.7579%	INDUS (N=44)	0.6945%	
t-stat	-0.0499	t-stat	-2.0552*	t-stat	1.5784	

		Average Abn	ormal Returns			
A	ALL		ΞT	MAI		
PROPCON	0.1070%	PROPCON	-0.3517%	PROPCON	0.5540%	
(N=77)		(N=38)		(N=39)		
t-stat	0.4070	t-stat	-1.0860	t-stat	1.3726	
RESOURC	-0.2515%	RESOURC	0.0873%	RESOURC	-0.7033%	
(N=49)		(N=28)		(N=21)		
t-stat	-0.6759	t-stat	0.1673	t-stat	-1.3606	
SERVICE	0.0246%	SERVICE	-0.3028%	-0.3028% SERVICE (N=49)		
(N=104)		(N=55)				
t-stat	0.0720	t-stat	-0.7453	t-stat	0.6964	
TECH (N=33)	-0.4914%	TECH (N=15)	-1.0015%	TECH (N=18)	-0.0662%	
t-stat	-1.0559	t-stat	-1.9961*	t-stat	-0.0892	

^{*} and ** indicate statistical significance levels at 0.05 and 0.01

Table 3 reports the results for the average abnormal returns at the end of the lockup agreement period in final event. although statistically significant evidence wasn't found in final event at expiration date (day 0), companies operating in the agriculture and food industries showed statistically significant negative abnormal return rate of -0.5046% and the agriculture and food industries that operate in MAI. Moreover, evidence of negative expected return rates across all industry groups that lead to a statistically significant negative abnormal return rate of -0.3912% for companies listed on SET.

Table 3 Average Abnormal Returns at the End of the Initial Public Offering (IPO) Lockup Agreement Period in Final Event

Average Abnormal Returns										
ALL		SI	ΞΤ	MAI						
ALL (N=434)	0.01%	SET (N=232)	-0.3912%	MAI (N=201)	0.4731%					
t-stat	0.0686	t-stat	-2.9243**	t-stat	1.7471					
AGRO (N=30)	-0.5046%	AGRO (N=22)	-0.2396%	AGRO (N=8)	-1.2334%					
t-stat	-2.0634*	t-stat	-0.9956	t-stat	-2.0914*					

		Average Abn	ormal Returns			
A	LL	SI	ΞΤ	MAI		
CONSUMP	-0.2313%	CONSUMP	-0.2568%	CONSUMP	-0.2156%	
(N=21)		(N=8)		(N=13)		
t-stat	-0.6952	t-stat	-0.4726	t-stat	-0.4921	
FINANCIAL	-0.2757%	FINANCIAL	-0.2127%	FINANCIAL	-0.4436%	
(N=33)		(N=24)		(N=9)		
t-stat	-0.7466	t-stat	-0.5285	t-stat	-0.5114	
INDUS (N=86)	0.4674%	INDUS (N=42)	-0.0503%	INDUS (N=44)	0.9615%	
t-stat	1.2070	t-stat	-0.1704	t-stat	1.3760	
PROPCON	-0.0295%	PROPCON	-0.5634%	PROPCON	0.4907%	
(N=77)		(N=38)		(N=39)		
t-stat	-0.1345	t-stat	-1.9264	t-stat	1.6002	
RESOURC	0.3504%	RESOURC	-0.5591%	RESOURC	1.5629%	
(N=49)		(N=28)		(N=21)		
t-stat	0.4775	t-stat	-1.2096	t-stat	0.9881	
SERVICE	-0.0658%	SERVICE	-0.4670%	SERVICE (N=49)	0.3845%	
(N=104)		(N=55)				
t-stat	-0.2679	t-stat	-1.3939	t-stat	1.0854	
TECH (N=33)	-0.4490%	TECH (N=15)	-0.8976%	TECH (N=18)	-0.0751%	
t-stat	-0.7196	t-stat	-1.8652	t-stat	-0.0695	

^{*} and ** indicate statistical significance levels at 0.05 and 0.01

These results are interesting because no statistically significant evidence was found regarding abnormal return rates at the expiration of lockup agreements for common stocks date that indicate results related to the efficient market hypothesis. however, it remains unable to fully support all hypotheses because of difference of recognized information around event date that considering results in table 5 to 12 show sensitivity of daily average return.

Table 4 presents the cumulative average abnormal returns around the end of the Initial lockup period both first event and final event. Although evidence found not statistically significant in this study, the real estate and construction industries listed on MAI exhibited a positive cumulative average abnormal return throughout the estimation period at first event. Moreover, considering results in table 9 found daily average returns that continuous accumulation lead positive significant. Thus, the study found significant findings about using of public information along with implicit information which changes in valuation.

Table 4 Cumulative Abnormal Returns around the End of the Initial Public Offering (IPO) Lockup Agreement Period Both First Event and Final Event. (-10,10 day)

		FIRS	ST.			
AL	L	SE	Т	MAI		
ALL	0.3098%	ALL	-1.0638%	ALL	1.8952%	
t-stat	0.4613	t-stat	-1.2747	t-stat	1.7697	
AGRO	1.2145%	AGRO	1.9341%	AGRO	-0.7646%	
t-stat	0.5376	t-stat	0.6507	t-stat	-0.3217	
CONSUMP	-2.0395%	CONSUMP	-4.8585%	CONSUMP	-0.3047%	
t-stat	-0.4519	t-stat	-1.2939	t-stat	-0.0435	
FINANCIAL	-0.4972%	FINANCIAL	-1.2472%	FINANCIAL	1.5029%	
t-stat	-0.2249	t-stat	-0.4558	t-stat	0.4070	
INDUS	-0.1326%	INDUS	-0.0905%	INDUS	-0.1729%	
t-stat	-0.1139	t-stat	-0.0633	t-stat	-0.0941	
PROPCON	1.3776%	PROPCON	-0.7449%	PROPCON	3.4457%	
t-stat	1.1561	t-stat	-0.4570	t-stat	2.0380*	
RESOURC	-1.2361%	RESOURC	-4.3518%	RESOURC	2.9180%	
t-stat	-0.4118	t-stat	-1.1699	t-stat	0.5952	
SERVICE	1.6434%	SERVICE	-0.5126%	SERVICE	4.0635%	
t-stat	1.1201	t-stat	-0.3025	t-stat	1.6664	
TECH	-1.4569%	TECH	-2.5600%	TECH	-0.5378%	
t-stat	-0.8536	t-stat	-1.0043	t-stat	-0.2296	

	FINAL									
AL	L	SE	Т	MAI						
ALL	-0.1535%	ALL	-0.8566%	ALL	0.658%					
t-stat	-0.2627	t-stat	-1.0276	t-stat	0.8123					
AGRO	-2.9719%	AGRO	-3.7234%	AGRO	-0.9052%					
t-stat	1.8385	t-stat	-1.8883	t-stat	-0.3265					
CONSUMP	-9.3502%	CONSUMP	-20.7947%	CONSUMP	-2.3074%					
t-stat	-1.8799	t-stat	-1.8598	t-stat	-0.6996					
FINANCIAL	-1.5535%	FINANCIAL	-1.9135%	FINANCIAL	-0.5935%					
t-stat	-0.9557	t-stat	-0.9816	t-stat	-0.1929					
INDUS	1.3809%	INDUS	1.0456%	INDUS	1.7010%					
t-stat	1.5471	t-stat	0.7217	t-stat	1.5772					
PROPCON	-0.4679%	PROPCON	-2.8399%	PROPCON	1.8432%					
t-stat	-0.3534	t-stat	-1.4043	t-stat	1.1096					
RESOURC	1.5627%	RESOURC	1.2141%	RESOURC	2.0275%					
t-stat	0.8741	t-stat	0.6474	t-stat	0.5966					
SERVICE	1.3038%	SERVICE	2.2713%	SERVICE	0.2177%					
t-stat	1.0194	t-stat	1.3229	t-stat	0.1135					
TECH	-0.7452%	TECH	0.0361%	TECH	-1.3963%					
t-stat	-0.3562	t-stat	0.015	t-stat	-0.4191					

^{*} and ** indicate statistical significance levels at 0.05 and 0.01 $\,$

J I B M R

Table 5 Daily Average Abnormal Returns of the Initial Public Offering Lockup Agreement Period both First event and Final Event

	First Event		Final Event			First Event		Final Event	
Date	AAR	t-value	AAR	t-value	Date	AAR	t-value	AAR	t-value
-10	0.23%	1.7881	0.05%	0.4895	1	-0.02%	-0.1943	0.00%	-0.0247
-9	0.30%	2.2629*	0.07%	0.5017	2	-0.02%	-0.1943	-0.13%	-0.9113
-8	0.03%	0.2573	0.27%	2.0542*	3	0.04%	0.2831	-0.08%	-0.7222
-7	-0.07%	-0.5178	0.11%	0.8477	4	0.15%	1.163	0.06%	0.4317
-6	0.04%	-0.278	-0.03%	-0.2243	5	-0.17%	-1.039	0.02%	0.165
-5	0.04%	0.3044	0.06%	0.4326	6	0.09%	0.5859	-0.16%	-1.3883
-4	-0.14%	-0.9082	0.00%	0.0032	7	0.02%	0.1553	-0.07%	-0.4872
-3	-0.13%	-0.8463	0.08%	0.6151	8	0.11%	0.8303	0.11%	0.8647
-2	0.30%	2.0655*	-0.18%	-1.3885	9	-0.01%	-0.0645	-0.28%	-2.1034*
-1	-0.13%	-0.8239	0.01%	0.0807	10	-0.12%	-1.1255	-0.06%	-0.4542
0	-0.06%	-0.3981	0.01%	0.0686					

^{*} and ** indicate statistical significance levels at 0.05 and 0.01

Table 6 Daily Average Abnormal Returns of the Initial Public Offering Lockup Agreement Period for Each Exchange Market both First Event and Final Event

		First	Event			Final	Event	
Date	SE	Т	MA	I	SI	ĒΤ	М	Al
Date	AAR	t-value	AAR	t-value	AAR	t-value	AAR	t-value
-10	0.1229%	0.7694	0.3456%	1.7201	0.0070%	0.0557	0.1044%	0.5838
-9	0.0325%	0.2217	0.6081%	2.6659*	-0.2646%	-1.9016	0.4492%	1.9114
-8	-0.0477%	-0.3178	0.1261%	0.5866	-0.0213%	-0.1340	0.6030%	2.8479**
-7	-0.1136%	-0.7859	-0.0121%	-0.0549	0.1618%	1.1502	0.0448%	0.2036
-6	0.0324%	0.1636	-0.1197%	-0.6342	-0.0384%	-0.2498	-0.0265%	-0.1013
-5	-0.1311%	-0.9114	0.2276%	1.2168	0.0720%	0.4659	0.0438%	0.1877
-4	-0.1334%	-0.796	-0.1545%	-0.5523	0.0536%	0.3667	-0.0611%	-0.3649
-3	-0.2092%	-1.2289	-0.0441%	-0.1604	0.2075%	1.3280	-0.0670%	-0.3120
-2	0.2656%	1.3387	0.3336%	1.5937	0.1824%	0.9223	-0.6063%	-3.6476**
-1	-0.2257%	-1.4659	-0.0140%	-0.0495	0.1100%	0.5232	-0.1023%	-0.5506
0	-0.2503%	-1.481	0.1598%	0.6178	-0.3912%	-2.9243**	0.4731%	1.7471
1	-0.2260%	-1.5419	0.2097%	1.0434	-0.0699%	-0.3950	0.0737%	0.3793
2	0.1395%	0.7599	-0.0696%	-0.2858	-0.3261%	-2.2333*	0.1010%	0.4036
3	0.2212%	1.3356	0.0662%	0.331	-0.2850%	-1.8276	0.1473%	0.8429
4	-0.0661%	-0.3208	-0.1540%	-0.7699	0.1347%	0.8300	-0.0349%	-0.1684
5	-0.1436%	-0.7514	-0.2009%	-0.7279	0.0035%	0.0241	0.0343%	0.2128
6	-0.0734%	-0.4679	0.2884%	0.9718	-0.0106%	-0.0670	-0.3344%	-1.9756*
7	-0.1791%	-1.0122	0.2554%	1.0764	-0.1537%	-0.7367	0.0343%	0.2032
8	0.1227%	0.6099	0.0935%	0.575	0.1608%	1.0816	0.0561%	0.2539
9	0.0264%	0.1844	-0.0462%	-0.2547	-0.2101%	-1.0533	-0.3529%	-2.1380*
10	-0.2276%	-1.5555	-0.0036%	-0.0219	-0.1790%	-1.1258	0.0785%	0.3660

^{*} and ** indicate statistical significance levels at 0.05 and 0.01

Table 7 Daily Average Abnormal Returns of the Initial Public Offering Lockup Agreement Period at First Event

Date	AGRO	CONSUMP	FINANCIAL	INDUS	PROPCON	RESOURC	SERVICE	TECH
-10	-0.0987%	1.0082%	-0.0735%	0.1040%	0.6109%	0.3927%	-0.1399%	-0.2912%
-9	0.1988%	-0.0329%	-0.6426%	0.4726%	0.3649%	0.4706%	0.6108%**	-0.2912%
-8	0.6920%	0.0511%	-0.0396%	-0.3374%	-0.0169%	0.1979%	0.0915%	0.1470%
-7	-0.0930%	0.2229%	0.1647%	-0.1183%	0.3042%	-0.6625%*	-0.1307%	-0.1006%
-6	0.0553%	-0.1107%	0.8150%	-0.4797%	0.0933%	-0.4627%	0.1870%	-0.1663%
-5	-0.0682%	-0.0577%	-0.1022%	0.1606%	-0.3376%	-0.1188%	0.3518%	0.1024%
-4	-0.0223%	-0.2528%	-0.1151%	0.1710%	-0.3764%	0.7467%	-0.5263%*	-0.6005%
-3	0.0880%	0.2211%	-0.6305%	-0.3890%	-0.1669%	-0.2100%	0.0160%	0.3355%
-2	0.1057%	-1.3355%	0.0862%	0.4452%	0.1944%	0.3718%	0.7453%*	0.0522%
-1	-0.0814%	-0.9022%	-0.4014%	0.0689%	-0.0614%	0.0168%	-0.2782%	0.1931%
0	-0.2623%	-0.2768%	0.2046%	-0.0148%	0.1070%	-0.2515%	0.0246%	-0.4914%
1	-0.4055%	0.3340%	0.1280%	0.2125%	-0.3856%	0.1642%	0.0952%	-0.4817%
2	-0.3631%	0.5586%	0.2398%	-0.5637%	0.0605%	0.2434%	0.4715%	-0.2281%
3	0.2594%	0.1451%	0.0156%	0.5228%	0.2890%	-0.4820%*	0.0744%	0.0585%
4	-0.2485%	-0.5360%	-0.1259%	0.0884%	-0.2655%	0.0028%	-0.0699%	-0.1042%
5	-0.1482%	-0.3924%	-0.1287%	-0.1102%	0.5322%	-1.2958%*	-0.0659%	-0.5434%
6	0.2430%	0.8659%	0.1346%	-0.0731%	-0.1013%	0.0554%	0.0588%	0.4934%

61 วารสารการวิจัยนวัตกรรมการจัดการธุรกิจ

Date	AGRO	CONSUMP	FINANCIAL	INDUS	PROPCON	RESOURC	SERVICE	TECH
7	-0.1396%	-1.1734%	-0.7884%**	0.0876%	0.2980%	-0.0488%	0.2662%	0.2688%
8	1.0624%*	-0.3916%	0.2446%	0.3031%	-0.0609%	-0.1974%	0.0790%	-0.1330%
9	-0.1020%	-0.0928%	0.2783%	-0.2574%	0.2583%	-0.0700%	0.2200%	-0.7441%
10	0.5426%	0.1086%	0.2392%	-0.4257%*	0.0376%	-0.0988%	-0.4380%	0.1248%

^{*} and ** indicate statistical significance levels at 0.05 and 0.01

Table 8 Daily Average Abnormal Returns of the Initial Public Offering Lockup Agreement Period in The Stock Exchange of Thailand at First Event

Date	AGRO	CONSUMP	FINANCIAL	INDUS	PROPCON	RESOURC	SERVICE	TECH
-10	-0.0539%	0.1740%	0.0444%	0.1093%	0.7119%	0.1423%	-0.2862%	0.4904%
-9	-0.1834%	-0.3391%	-0.9863%	-0.0644%	0.6124%	0.2788%	0.4704%*	-1.0855%**
-8	0.4746%	-0.7143%	-0.3095%	-0.1888%	0.1279%	0.2795%	-0.3538%	0.4223%
-7	0.4459%	0.4531%	0.4374%	0.2045%	-0.1979%	-1.0331%*	-0.1900%	-0.7986%
-6	0.0583%	0.6715%	1.1281%*	-0.3965%	-0.2767%	-0.5359%	0.3290%	0.1427%
-5	0.1485%	0.2245%	-0.3948%	-0.2753%	-0.3582%	-0.2365%	0.1826%	-0.2841%
-4	0.0043%	-0.6629%	-0.1604%	0.4332%	-0.6702%	0.4755%	-0.3932%	-0.4208%
-3	0.1657%	0.7181%	-0.1261%	-0.6569%*	-0.0610%	-0.9965%	-0.0255%	0.2885%
-2	0.0159%	-1.4177%	-0.3482%	0.1400%	0.4727%	0.6681%	0.6368%	0.2265%

Date	AGRO	CONSUMP	FINANCIAL	INDUS	PROPCON	RESOURC	SERVICE	TECH
-1	0.0306%	0.2785%	-0.6330%	-0.0364%	-0.0262%	-0.6414%	-0.5394%	0.6717%
0	-0.0075%	0.6016%	0.4883%	-0.7579%*	-0.3517%	0.0873%	-0.3028%	-1.0015%*
1	-0.3192%	-0.1238%	0.3176%	-0.1259%	-0.6618%*	0.0034%	-0.2382%	-0.5729%
2	-0.5972%*	-0.5547%	-0.1537%	-0.1093%	0.8033%	-0.4397%	0.7254%	0.0068%
3	0.4586%	0.0015%	0.2419%	0.5571%	0.2015%	-0.1598%	0.3439%	-0.6732%
4	-0.0894%	-0.8046%	-0.3029%	0.4653%	-0.4387%	0.0605%	-0.2292%	0.5583%
5	-0.1353%	0.9151%	0.0419%	-0.0883%	0.4700%	-0.8947%*	-0.2428%	-0.9611%
6	-0.1160%	-1.9880%	-0.3205%	0.2875%	-0.2201%	0.0773%	-0.1995%	0.9481%
7	-0.0435%	-1.8489%	-0.6110%	-0.0665%	-0.2483%	0.2073%	-0.1674%	0.2990%
8	1.1395%	-0.8767%	-0.3615%	0.9098%*	-0.4514%	-0.3612%	0.3597%	-0.7764%
9	-0.0977%	0.6565%	0.0749%	-0.0547%	0.0391%	-0.6194%*	0.3415%	0.0393%
10	0.6353%	-0.2220%	0.6861%	-0.3762%	-0.2214%	-0.7138%	-0.7340%*	0.2060%

^{*} and ** indicate statistical significance levels at 0.05 and 0.01 $\,$

Table 9 Daily Average Abnormal Returns of the Initial Public Offering Lockup Agreement Period in The Market for Alternative Investment at First Event

Date	AGRO	CONSUMP	FINANCIAL	INDUS	PROPCON	RESOURC	SERVICE	TECH
-10	-0.2217%	1.5215%	-0.3878%	0.0989%	0.5125%	0.7265%	0.0244%	0.7867%
-9	1.2500%	0.1555%	0.2742%	0.9851%	0.1237%	0.7263%	0.7684%*	0.3707%
-8	1.2900%	0.5221%	0.6801%	-0.4793%	-0.1580%	0.0891%	0.5914%	-0.0824%
-7	-1.5748%	0.0813%	-0.5624%*	-0.4264%	0.7935%	-0.1684%	-0.0641%	0.4811%
-6	0.0470%	-0.5920%	-0.0198%	-0.5591%	0.4539%	-0.3652%	0.0276%	-0.1860%
-5	-0.6643%	-0.2314%	0.6780%	0.5766%	-0.3174%	0.0380%	0.5418%	0.4245%
-4	-0.0954%	-0.0004%	0.0056%	-0.0793%	-0.0901%	1.1084%	-0.6757%	-0.7504%
-3	-0.1258%	-0.0848%	-1.9758%	-0.1332%	-0.2701%	0.8386%	0.0150%	0.3746%
-2	0.3524%	-1.2849%	1.2448%	0.7365%	-0.0768%	-0.0234%	0.8672%	-0.0930%
-1	-0.3894%	-1.6287%	0.2163%	0.1694%	-0.0958%	0.8945%	0.0150%	-0.2057%
0	-0.9630%	-0.8173%	-0.5520%	0.6945%	0.5540%	-0.7033%	0.3921%	-0.0662%
1	-0.6427%	0.6157%	-0.3776%	0.5356%	-0.1165%	0.3785%	0.4695%	-0.4057%
2	0.2806%	1.2437%	1.2891%	-0.9973%**	-0.6633%	1.1540%	0.1864%	-0.4239%
3	-0.2884%	0.2335%	-0.5881%	0.4901%	0.3743%	-0.9116%*	-0.2281%	0.6683%
4	-0.6861%	-0.3707%	0.3459%	-0.2714%	-0.0968%	-0.0741%	0.1089%	-0.6563%

Date	AGRO	CONSUMP	FINANCIAL	INDUS	PROPCON	RESOURC	SERVICE	TECH
5	-0.1837%	-1.1971%	-0.5835%	-0.1310%	0.5928%	-1.8307%	0.1326%	-0.1952%
6	1.2303%	2.6221%	1.3482%	-0.4174%	0.0145%	0.0262%	0.3488%	0.1145%
7	-0.4040%	-0.7578%	-1.2614%	0.2346%	0.8302%	-0.3902%	-0.1674%	0.2436%
8	0.8506%	-0.0931%	1.8609%	-0.2761%	0.3195%	0.0211%	0.3597%	0.4031%
9	-0.1139%	-0.5539%	0.8208%	-0.4508%	0.4719%	0.6624%	0.0837%	-1.3970%**
10	0.2876%	0.3120%	-0.9526%	-0.4729%	0.2898%	0.7212%	-0.1058%	0.0571%

^{*} and ** indicate statistical significance levels at 0.05 and 0.01

Table 10 Daily Average Abnormal Returns of the Initial Public Offering Lockup Agreement Period at Final Event

Date	AGRO	CONSUMP	FINANCIAL	INDUS	PROPCON	RESOURC	SERVICE	TECH
-10	-0.1748%	-0.5499%	0.2082%	0.2195%	0.1222%	-0.0498%	-0.2418%	0.9640%*
-9	0.3154%	-0.3241%	0.3083%	0.3609%	-0.3273%	0.1470%	0.0824%	-0.1678%
-8	-0.3737%	0.0849%	0.0939%	0.4399%	0.0361%	0.0875%	0.6570%*	0.2837%
-7	-0.2560%	-0.4427%	0.1895%	-0.2652%	0.2558%	1.1077%*	-0.0678%	0.3987%
-6	0.7531%	-0.8999%*	0.0118%	0.2269%	-0.7020%	0.4424%	-0.1085%	0.1766%
-5	0.0805%	0.2515%	-0.7808%*	0.0836%	0.2904%	-0.1462%	0.2513%	-0.1502%
-4	-0.2222%	-0.9797%	0.4000%	0.0123%	0.2056%	-0.1698%	0.3128%	-0.8154%

65 วารสารการวิจัยนวัตกรรมการจัดการธุรกิจ

Date	AGRO	CONSUMP	FINANCIAL	INDUS	PROPCON	RESOURC	SERVICE	TECH
-3	-0.0425%	0.6536%	-0.3217%	-0.0057%	0.0775%	0.2630%	0.0081%	0.4131%
-2	-0.1243%	-1.5294%*	-0.3476%	-0.0591%	-0.2570%	-0.3184%	0.0732%	0.0192%
-1	0.0192%	0.5311%	0.5602%	-0.4733%*	-0.4212%	-0.1955%	0.4482%	0.3284%
0	-0.5046%*	-0.2313%	-0.2757%	0.4674%	-0.0295%	0.3504%	-0.0658%	-0.4490%
1	-0.3926%	-0.7107%	0.1227%	-0.0367%	0.2886%	-0.3629%	0.3359%	-0.4534%
2	-0.4922%	-1.0467%	0.2813%	0.3202%	-0.0696%	-0.0362%	-0.4176%	-0.1474%
3	-0.2766%	0.8025%	-0.5021%	-0.4462%	-0.0211%	0.4631%	-0.1081%	0.0013%
4	0.2554%	-0.8261%**	-0.1321%	0.0527%	0.3732%	-0.0305%	0.1114%	-0.1542%
5	-0.4674%	-0.1074%	-0.4459%	0.0895%	0.1358%	0.0915%	0.0686%	0.2705%
6	-0.2921%	-1.0417%*	-0.8341%	0.1240%	-0.1268%	-0.2225%	0.1196%	-0.4229%
7	-0.2087%	-0.1901%	-0.0685%	0.2255%	-0.0644%	-0.0570%	-0.2271%	-0.1296%
8	-0.3258%	-0.5776%	1.4053%*	0.2374%	-0.1660%	-0.1378%	0.1354%	0.2773%
9	-0.3267%	-2.0791%	-0.2928%	-0.3211%	-0.1825%	0.2049%	-0.2179%	-0.0680%
10	0.0846%	-0.1374%	-1.1334%	0.1284%	0.1141%	0.1319%	0.1545%	-0.9203%

^{*} and ** indicate statistical significance levels at 0.05 and 0.01

Table 11 Daily Average Abnormal Returns of the Initial Public Offering Lockup Agreement Period in The Stock Exchange of Thailand at Final Event

Date	AGRO	CONSUMP	FINANCIAL	INDUS	PROPCON	RESOURC	SERVICE	TECH
-10	-0.3835%	-1.1443%*	0.4083%	0.1223%	0.0670%	-0.0457%	-0.0758%	0.4783%*
-9	0.3264%	-2.6710%*	0.0315%	0.2828%	-0.7932%	-0.6894%	-0.1936%	0.0181%
-8	-0.5315%	-0.0892%	-0.7282%	0.4433%	-0.2064%	0.0863%	0.2818%*	-0.2497%
-7	-0.0804%	-0.6890%	0.5317%	-0.3029%	0.7376%*	0.8247%	-0.2110%	0.3510%
-6	-0.1521%	-1.3374%**	0.1386%	0.3290%	-0.2278%	0.3636%	-0.2327%	-0.0489%
-5	0.2894%	0.7805%	-0.5971%	0.0321%	0.1449%	-0.0294%	0.3031%	-0.2862%
-4	-0.1920%	-1.5983%	0.6653%	-0.2196%	-0.2731%	0.2210%	0.6655%	-0.6474%
-3	0.0051%	0.8833%	-0.4230%	0.1318%	0.1406%	0.0171%	0.5117%	0.7736%
-2	0.3283%	-0.9520%*	-0.0494%	0.1274%	0.0919%	0.1321%	0.4752%	0.3482%
-1	-0.0913%	0.0218%	0.7781%	-0.7686%*	-0.2116%	-0.0144%	0.8341%	0.2354%
0	-0.2396%	-0.2568%	-0.2127%	-0.0503%	-0.5634%	-0.5591%	-0.4670%	-0.8976%
1	-0.2647%	-2.9262%	-0.1305%	-0.1071%	-0.0724%	-0.5239%	0.6482%	0.1609%
2	-0.6546%	-2.4930%	-0.6338%	0.2074%	-0.6079%	-0.0157%	-0.2531%	0.1761%
3	-0.3571%	1.8373%	-0.8071%*	-0.4406%	-0.5539%	0.1016%	-0.3615%	0.1995%
4	0.4733%	-0.8453%**	0.4374%	-0.1722%	0.4603%	0.0420%	-0.0214%	0.4560%

67 วารสารการวิจัยนวัตกรรมการจัดการธุรกิจ

Date	AGRO	CONSUMP	FINANCIAL	INDUS	PROPCON	RESOURC	SERVICE	TECH
5	-0.5738%	-0.5209%	-0.1457%	0.2111%	-0.2349%	0.0879%	0.4296%	-0.3288%
6	-0.4577%	-1.5605%*	-1.0812%	0.3770%	0.2338%	0.2127%	0.2669%	0.0452%
7	-0.6387%*	-0.5232%	-0.1726%	0.5689%	-0.7711%	0.7542%	-0.5303%	0.0120%
8	-0.2937%	-0.7907%	1.0543%	0.2008%	0.0744%	0.2299%	-0.1069%	0.8650%
9	-0.1868%	-5.4065%	-0.1484%	-0.2441%	0.0795%	0.3139%	0.2287%	-0.7968%
10	-0.0487%	-0.5134%	-0.8291%**	0.3170%	-0.3542%	-0.2953%	0.0797%	-0.8278%

^{*} and ** indicate statistical significance levels at 0.05 and 0.01 $\,$

Table 12 Daily Average Abnormal Returns of the Initial Public Offering Lockup Agreement Period in The Market for Alternative Investment at Final Event

Date	AGRO	CONSUMP	FINANCIAL	INDUS	PROPCON	RESOURC	SERVICE	TECH
-10	0.3990%	-0.1841%	-0.3252%	0.3122%	0.1761%	-0.0554%	-0.4281%	1.3687%
-9	0.2853%	1.1202%	1.0465%	0.4355%	0.1267%	1.2622%	0.3923%	-0.3228%
-8	0.0603%	0.1921%	2.2862%	0.4366%	0.2724%	0.0891%	1.0782%*	0.7281%
-7	-0.7387%	-0.2912%	-0.7231%	-0.2293%	-0.2136%	1.4850%	0.0928%	0.4385%
-6	3.2422%	-0.6307%	-0.3263%	0.1294%	-1.1641%	0.5474%	0.0310%	0.3646%

Date	AGRO	CONSUMP	FINANCIAL	INDUS	PROPCON	RESOURC	SERVICE	TECH
-5	-0.4940%	-0.0740%	-1.2709%**	0.1327%	0.4322%	-0.3020%	0.1930%	-0.0368%
-4	-0.3053%	-0.5991%	-0.3073%	0.2336%	0.6721%	-0.6910%	-0.0830%	-0.9554%
-3	-0.1736%	0.5122%	-0.0518%	-0.1368%	0.0160%	0.5909%	-0.5573%*	0.1127%
-2	-1.3691%*	-1.8847%*	-1.1430%	-0.2371%	-0.5969%	-0.9189%	-0.3780%	-0.2549%
-1	0.3230%	0.8446%	-0.0207%	-0.1914%	-0.6254%*	-0.4369%	0.0150%	0.4059%
0	-1.2334%*	-0.2156%	-0.4436%	0.9615%	0.4907%	1.5629%	0.3845%	-0.0751%
1	-0.7442%	0.6527%	0.7978%	0.0304%	0.6403%	-0.1482%	-0.0147%	-0.9652%
2	-0.0455%	-0.1567%	2.7214%	0.4278%	0.4549%	-0.0634%	-0.6024%	-0.4169%
3	-0.0552%	0.1657%	0.3112%	-0.4516%	0.4982%	0.9451%	0.1763%	-0.1638%
4	-0.3437%	-0.8143%	-1.6507%	0.2674%	0.2883%	-0.1270%	0.2604%	-0.6627%
5	-0.1751%	0.1472%	-1.2463%*	-0.0265%	0.4970%	0.0962%	-0.3367%	0.7699%
6	0.1633%	-0.7224%	-0.1752%	-0.1175%	-0.4781%	-0.8028%	-0.0458%	-0.8130%
7	0.9737%	0.0148%	0.2090%	-0.1024%	0.6242%	-1.1386%	0.1133%	-0.2475%
8	-0.4141%	-0.4465%	2.3414%*	0.2724%	-0.4003%	-0.6281%	0.4075%	-0.2124%
9	-0.7116%**	-0.0315%	-0.6780%	-0.3945%	-0.4379%	0.0595%	-0.7192%	0.5393%
10	0.4513%	0.0941%	-1.9448%	-0.0516%	0.5705%	0.7015%	0.2385%	-0.9975%

^{*} and ** indicate statistical significance levels at 0.05 and 0.01 $\,$

69 วารสารการวิจัยนวัตกรรมการจัดการธุรกิจ

5. CONCLUSIONS AND RECOMMENDATIONS

In this study demonstrates the asymmetry of information in the initial public offerings (IPO) lockup agreement period, highlighting differences between the first event and the final event. The results indicate that the maximum and minimum values in the final event show that investors have better access to information compared to the first event, as evidenced by the gap in Table 1. Additionally, it was found that smaller companies listed on MAI have a larger gap compared to larger companies listed on SET, consistent with the findings of Ofek and Richardson (2000) and Field and Hanka (2001). Moreover, the study found that the sample's responses are consistent with the efficient market hypothesis. During the initial public offerings lockup agreement period. However, inefficiencies are observed in the response that should be avoided in investments that specifically in technology and industrial companies listed on the SET during both the first and final events and particularly agricultural and food industry companies which listed on the MAI. Additionally, investments should be avoided in companies listed SET as negative return rates are found across all industry groups. Overall, the study did not find statistically significant changes that would affect forecasting, consistent with Chakpaisan (2012), except for the positive findings in the property and construction industries.

Alternatively, limitations of the study that utilizes daily return data of companies listed in Thailand and derived from transactions made by all types of investors. Moreover, the data does not distinguish between orders from different types of investors. Additionally, other data is used for study and comparison purposes such as the examination of common stockholder structures in various industry groups which may significantly impact the analysis results and the sale of common stock by shareholders involved in management. Thus, this idea is explored in future research.

REFERENCES

Ball, R., & Brown, P. (1968). An Empirical Evaluation of Accounting Income Numbers. *Journal* of Accounting Research, 6(2), 159-78.

Barber, B. M., & Lyon, J. D. (1997). Detecting Long-run Abnormal Stock Return: The Empirical Power and Specification of Test Statistics. Journal of Financial Economics, *43*(3), 341-372.

- Bradley, D. J., Jordan, B. D., Rotan, I., & Yi, H. (2001). Venture Capital and IPO Lockup Expiration: An Empirical Analysis. *Journal of Financial Research*, *24*(4), 465-492.
- Brau, J. C., Carter, D. A., Christophe, S. E., & Key, K. G. (2004). Market Reaction to The Expiration of IPO Lockup Provisions. *Managerial Finance*, *30*(1), 75-91.
- Brav, A., & Gompers, P. A. (2003). The Role of Lockups in Initial Public Offerings. *Review of Financial Studies*, *16*(1), 1-29.
- Brown, J., & Warner, B. (1985). Using Daily Stock Return: The Case of Event Studies. *Journal of Financial Economics*, *14*(1), 3-31.
- Chakpaisan, P. (2012). Stock Reaction to the expiration of silent period evidence from the stock exchange of Thailand (Independent study, Thammasat University). Retrieved January 22, 2024, from https://digital.library.tu.ac.th/tu_dc/frontend/Info/item/dc:110136
- Disara, S. (2007). Stock Reaction to the Expiration of IPO Lockup Period: Evidence in Thailand (Master thesis, Thammasat University). Retrieved January 22, 2024, from https://digital.library.tu.ac.th/tu/dc/frontend/Info/item/dc:125556
- Fama, E. F. (1970). Efficient Capital Market: A Review of Theory and Empirical Work. *The Journal of Finance*, *25*(2), 28-30.
- Fama, E. F., Fisher, L., Jensen, M. C., & Roll, R. (1969). The Adjustment of Stock Prices to New Information. *International Economic Review, 10*(1), 1-21.
- Field, L. C., & Hanka, G. (2001). The Expiration of IPO Share Lockups. *The Journal of Finance*, 56(2), 471-500.
- Haggard, K. S., & Xi, Y. (2017). IPO Overvaluation and Returns Prior to Lockup Expiration. *Managerial Finance*, *43*(12), 1392-1410.
- Hakim, T. (2010). *IPO Lockup Expiration in the Middle East and North Africa Region* (Master thesis, Concordia University). Retrieved January 22, 2024, from https://spectrum.library.concordia.ca/id/eprint/979199/
- Hirshleifer, J. (1970). Investment, Interest, and Capital. New York: Prentice-Hall.
- Jensen, M. C., & Meckling, W. H. (1976). Theory of the Firm, Managerial Behavior, Agency Costs and Ownership Structure. *Journal of Financial Economics*, *3*(4), 305-360.

- Ofek, E., & Richardson, M. (2000). The IPO Lock-up Period: Implications for Market Efficiency and Downward Sloping Demand Curves (Stern School of Business, New York University Working Papers 99-054). New York: New York University.
- Sum, M. Y. (2009). Information Flow and Trading Dynamics: A Theoretical Approach. *Journal* of Business and Economics Research, 7(4), 33-50.
- Tabtieng, N. (2020). A Survey of Capital Reduction to Compensate the Deficitin Retained Earnings and its Impact on Financial Statements of Listed Companies in Thailand. NIDA Business Journal, 27, 28-59.
- Talans, L., & Minardi, A. M. A. F. (2020). Behavior of Stock Prices due to the Lock-up Period Expiration in IPOs and Follow-ons. Revista Contabilidade & Finanças, 32(86), 331-344.
- Zameni, A., & Yong, O. (2017). Substantial Shareholders and Their Trading Behaviour around Lock-Up Expiry: Evidence from Emerging Markets. Capital Markets Review, 25(1), 1-18.
- Zhou, L. (2017). The Empirical study on the Relationship of IPO Lockup, Earnings Management and Venture Capital. Modern Economy, 8, 1082-1097.