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ลิขสิทธิ์ของจุฬาลงกรณ์มหาวิทยาลัย

# EFFECT OF MEDIA ON STOCK RETURNS IN THAILAND



Miss Nijjirun Teeraphantuvat

A Thesis Submitted in Partial Fulfillment of the Requirements

for the Degree of Master of Science Program in Finance

Department of Banking and Finance

Faculty of Commerce and Accountancy

Chulalongkorn University

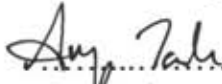
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นางสาวนิวจิรัญญ์ ธีรพันธุ์วัฒน์ : ผลกระทบของสื่อต่อผลตอบแทนหลักทรัพย์ในประเทศไทย. (EFFECT OF MEDIA ON STOCK RETURNS IN THAILAND) อ. ที่ปริกษาวิทยานิพนธ์หลัก : รศ. ดร. สันติ ธีรพันธุ์, 44 หน้า.

การศึกษาเชิงประจักษ์ในอดีตได้ยืนยันให้เห็นว่าสื่อมีผลกระทบที่สำคัญต่อตลาดหลักทรัพย์ สื่อมีประสิทธิภาพในการลดความไม่สมมาตรของสารสนเทศ (information asymmetry) ทำให้มีผลกระทบต่อราคาหลักทรัพย์ในตลาดถึงแม้ว่าสื่ออาจไม่สามารถให้ข้อมูลข่าวที่แท้จริง บทความวิจัยนี้ตรวจสอบสมมุติฐานดังกล่าวโดยการศึกษาเชิงประจักษ์ของผลกระทบของขอบเขตหรือจำนวนบทความของการรายงานข่าวของสื่อหนังสือพิมพ์ (media coverage) ต่อผลตอบแทนหลักทรัพย์ โดยประยุกต์การวิเคราะห์แบบถ้อยเฉลี่ยและการวิเคราะห์การถดถอย (regression) บทความวิจัยคาดหวังที่จะสนับสนุนงานวิจัยในสาขาวิชานี้ในระดับภูมิศาสตร์โดยตรวจสอบข้อมูลในประเทศไทย เพื่อศึกษาผลกระทบของสื่อต่อผลตอบแทนหลักทรัพย์ในประเทศไทย ผลที่ได้จากสองวิธีของการวิเคราะห์นั้นแตกต่างกันอย่างสิ้นเชิง อย่างไรก็ตาม การวิเคราะห์การถดถอยให้หลักฐานของผลกระทบของสื่อที่ชัดเจนกว่า โดยนำปัจจัยความเสี่ยง เช่น ปัจจัยที่เกี่ยวเนื่องกับตลาด (market factor) ขนาด (size factor) และอัตราส่วนมูลค่าบัญชีส่วนมูลค่าตลาด (book-to-market factor) เข้ามาพิจารณา รวมใน CAPM และ Fama-French three-factor model จากการซื้อหลักทรัพย์ที่มีขอบเขตหรือจำนวนบทความของการรายงานข่าวของสื่อหนังสือพิมพ์น้อย และการขายหลักทรัพย์ที่มีขอบเขตหรือจำนวนบทความของการรายงานข่าวของสื่อหนังสือพิมพ์มาก ผลงานวิจัยพบว่าหลักทรัพย์ที่มีขอบเขตหรือจำนวนบทความของการรายงานข่าวในสื่อหนังสือพิมพ์มากให้ผลตอบแทนสูงกว่าหลักทรัพย์ที่มีขอบเขตหรือจำนวนบทความของการรายงานข่าวในสื่อหนังสือพิมพ์น้อย แม้กระทั่งในกรณีที่มีการควบคุมลักษณะเฉพาะของหลักทรัพย์ เช่น ขนาดและอัตราส่วนมูลค่าบัญชีส่วนมูลค่าตลาด ซึ่งผลงานวิจัยนี้ตรงกันข้ามกับผลกระทบของสื่อต่อผลตอบแทนหลักทรัพย์ในประเทศสหรัฐอเมริกาอย่างสิ้นเชิง

ภาควิชา.....การธนาคารและการเงิน.... ลายมือชื่อนิสิต.....*M. Jirapantust*.....  
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It has been empirically confirmed that media has a significant effect on the stock market. Mass media can alleviate information asymmetry as well as informational frictions to a certain extent and affect security pricing even if it does not provide genuine news. The paper investigates this hypothesis by empirically studying the effect of media coverage on stock returns. Using non-regression and regression approaches, this paper also hopes to contribute to the expanding research within specific geographical region by investigating Thai data and examining the media effect in Thai stock market. The media effect found in the non-regression approach is a total opposite to the regression approach. However, the regression approach provides a stronger evidence to the media effect, as risk factors such as market, size and book-to-market factors are properly captured and controlled in CAPM and Fama-French three-factor model. It is found that using a media trading strategy that takes a long position on stocks with low media coverage and short position on stocks with high media coverage, stocks with high media coverage outperform stocks with low media coverage, even after controlling for firm characteristics such as size and book-to-market ratios. The result is a total opposite to the media effect found in the U.S.

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ศูนย์วิจัยทรัพยากร  
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# CHAPTER I

## INTRODUCTION

### 1.1 Background and Problem Review

The question of “What determines stock returns?” has caught the interest of both individual investors and researchers for decades. Many researches attempt to understand the determinants of movements in stock market prices. One of the most basic theories goes back to the Markowitz Portfolio Selection Model, by which Capital Asset Pricing Model (CAPM) was brought up by Sharpe (1964), Lintner (1965) and Mossin (1966). CAPM states that system risk is the only factor that explains cross-sectional expected stock returns on the assumption of perfect information in a perfectly competitive market. In later years, Fama and French (1992) introduce their prominent Fama-French three-factor model that includes two more explanatory variables, which are firm size and book-to-market ratios. Carhart (1997) then adds another risk factor, which is a proxy for momentum, to the three-factor model and proposes a four-factor model. Since then, a large number of studies, including media and stock market, are carried out to explain the dispersion of cross-sectional stock returns.

Among these studies, interest in the relation between media and the market has been increasing among researchers and practitioners. Mass media outlets, such as newspapers, play an important role in distributing information to a broad audience, especially to individual investors. Given its broad reach, mass media is expected to also have a significant effect on securities markets. The studies of the relationship between mass media and stock returns are no longer based on the assumption of a perfect market (perfect information and perfect competition among investors). Two supporting theories are proposed. These include the information incompleteness theory as defined by Merton (1987) and the information asymmetry developed by Easley and O’Hara (2004), which state that information frictions exist in the market and all investors are not informed to the same extent. The two theories are closely related to the well-known efficient-market hypothesis (EMH). According to EMH, financial markets are “informationally efficient”,

or that prices on traded securities, such as stocks, already reflect all known information.<sup>1</sup> These prices tend to change instantly to reflect new information. EMH states that information flow can influence asset pricing patterns. Thus, given mass media as a tool to broadly distribute public information, one might expect the media to have a significant effect on security pricing patterns even if it does not deliver genuine news.

Relating to mass media, many papers study the immediate reactions of stock market to news. For instance, Tetlock (2007) analyze the linguistic content of the media and testifies that pessimism or negative language in a popular Wall Street Journal column predicts short-term downward pressure on overall stock prices followed by a reversal. Some papers such as Chan (2003) and Fang and Peress (2009) focus on the effect of media coverage (numbers of newspaper articles) on stock returns. They find that by carrying out a strategy that goes long on stocks with no media coverage and goes short on stocks with high media coverage and after factoring in the risk factors such as market, size and book-to-market, stocks with no media coverage offer a “no-media premium” of 8-12% annually. Stocks with lower media coverage outperform those with high media coverage, even after controlling for commonly known risk factors, namely market, size, and book-to-market. Subject to this framework, I attempt to empirically examine the relationship between media, specifically media coverage or numbers of newspaper articles, and the stock returns in Thailand, in order to observe whether the same “media effect” still exists.

## **1.2 Statement of Problems**

As we may now see that much attention has been given to the effect of news stories on stock returns. Subject to this framework, some paper studies include those of DeBondt and Thaler (1985), Jegadeesh (1990), Lo and Mackinlay (1990), and Jegadeesh and Titman (1993) who show that stock returns appear to drift over 12-month period and exhibit a reversal at weekly and three- to five-year intervals. In addition, it is also evident

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<sup>1</sup> There have been several studies regarding the Efficient Market Hypothesis. See, Malkiel, Burton G. (2003), “Efficient Market Hypothesis and Its Critics.”

that stock prices drift after important news for several months.<sup>2</sup> Other papers explore the impact of attention-grabbing events and stock reactions, such as Barber and Odean (2007), Meschke (2004), Brandes and Rost (2009), while others like Fang and Peress (2009), Song (2010) and Aman (2010) focus on the effect of media coverage on the cross-sectional expected returns.

My paper is closely related to Fang and Peress (2009) and Song (2010) who study the effect of media coverage on stock returns. Fang and Peress (2009) observe the effect of media coverage on U.S. stock market. Song (2010) studies the same effect in Hong Kong stock market. Fang and Peress (2009) find that by carrying out a strategy that goes long on stocks with no media coverage and goes short on stocks with high media coverage and after factoring in the risk factors, namely market, size and book-to-market factors, stocks with no media coverage offer a “no-media premium” of 8-12% annually. Song (2010) finds support to Fang and Peress (2009) that the same “media effect” persists: stocks with no or low media coverage outperform stocks with high media coverage. The study of Fang and Peress (2009) and Song (2010) suggest that the underlying notion for this media effect is that the stock market is subject to “information incompleteness theory” proposed by Merton (1987). Investors are exposed to different extent of news and information about a stock. As a consequence, stocks with lower investor recognition need to offer high return to compensate their holders for being imperfectly diversified.

More and more studies are carried out within geographical regions to contribute to the study of media coverage and stock returns, and none has been done in Thailand. Moreover, it can be observed that different stock markets of different countries do not exhibit the same media effect. Pertaining to what Fang and Peress (2009) and Song (2010), some interesting questions have been raised. Does the same “media effect” exist and/or persist in the Thai stock market? How can we explain that “media effect” in Thailand? What determines the news coverage of a firm? In order to answer these questions, we do need empirical studies which my paper can contribute for this matter.

---

<sup>2</sup> See, Kothari and Warner (1997), Fama (1998), and Daniel et al. (1998) for review on returns after various corporate events.

### 1.3 Objectives of the Study

This study is carried out to investigate the effect of media coverage on stock returns in Thailand. Using data of Thai stock market and following methodology of Fang and Peress (2009), the purpose of this paper is as follows:

1. To examine some, if not all, determinants of media coverage.
2. To test whether the same “media effect” found by Fang and Peress (2009) in the U.S. stock market still persists in Thailand.
3. To explain the media effect found in Thai stock market.

### 1.4 Research Hypotheses

To gain a better understanding of the effect of media on financial markets, I investigate the potential relationship between media coverage and stock returns. The empirical hypotheses are as follows:

*H<sub>1</sub>: Media coverage is positively correlated to size and book-to-market ratios of a company.*

This hypothesis is motivated by Ren (2009). He observes Thai stocks in the Stock Exchange of Thailand and concludes that vast majority of business news as well as local and international broker research and other reports focus almost exclusively on large capitalized stocks and more speculative sectors of the local market. Hence, it is hypothesized that bigger companies are more featured in the press media. When talking about size, book-to-market is the other factor that is greatly discussed in any literatures concerning firm characteristics. Fama and French (1992) show that book-to-market factor is one of the strongest explanatory variables for stock returns and so is the size factor. If book-to-market factor reacts in the same way as size factor, then it is expected that book-to-market factor would also exhibit a positive relationship with media coverage.

*H<sub>2</sub>: There is a positive relationship between media coverage, or the number of news articles, and stock returns.*

One strong motivation to this hypothesis is aroused by Barber and Odean (2008) and De Bondt and Thaler (1985) who claim that individual investors are net buyers of

attention-grabbing stocks and that investors overreact to past returns, respectively. Higher media coverage increases investor recognition and higher investor recognition leads investors to focus on those stocks. Once more and more investors buy the stock, stock price may rise greatly, producing great future returns. Moreover, media coverage of companies in Thailand could highly be driven by some force such as managers' marketing effort. This could suspiciously be the case especially in a country where corruption is evidently present, like Thailand. McCargo (2000) believes that newspapers in Thailand have been vehicles for political lobbying, backstabbing and rabbleroxing, used by all manner of groups. Many newspaper companies in Thailand are independently owned. The purpose of owning a newspaper has been to advance your views, to talk up the prices of shares in companies you own, to bring your enemies into disrepute, and to support the interests of a politician. Given that, the companies' managers may be willing to pay a substantial amount of fee to newspaper companies in Thailand to release more news about the company. If they are successful and investor recognition of the firm is high, the firm is very likely to gain interest and become more popular among investors. Once more and more investors buy the stock, the market price of that stock is likely to increase, which in turn benefit investors with higher return.

### **1.5 Scope of the Study**

This paper aims to observe the relationship between media coverage and stock returns in Thailand. Media coverage refers to the number of newspaper articles found on each sample firm from the chosen time period. The term "media coverage" and "number of newspaper articles" are used interchangeably throughout the study. Observations are 159 listed companies on SET100 of the Stock Exchange of Thailand during the years 2005-2008. However, I observe media coverage of all 159 firms starting from year 2004-2008. The chosen time period is appropriate for SET100 was established in 2005 and there is a limitation of data on media coverage. Two of the selected newspaper companies, namely *Post Today* and *The Manager*, released their first publications in late 2003. All delisted companies are excluded from the sample to limit the bias in the numbers of newspaper articles. I do not attempt to categorize coverage as "good" or "bad". The reason is not only Gong (2008) found that quantity of news coverage has a greater impact

on stock price than the quality of news coverage, but also all mentions of news, regardless of its linguistic content, contribute to and increase investor's recognition. The study is a case study of Thailand to empirically investigate and explain the media effect in Thai stock market. This paper is the first to observe the effect of media coverage on stock returns in Thailand.

### **1.6 Motivation and Contribution**

This study is motivated by the findings of Fang and Peress (2009) and Song (2010), relating to media coverage and stock returns. They study the same media effect but their findings are different among different countries. They document the same “media effect” in the U.S. and Hong Kong stock markets. In U.S and Hong Kong stock markets, stocks with no media coverage earn higher returns than stocks with high media coverage. This paper hopes to make two main contributions to the literature. Firstly, it hopes to contribute to the rapidly expanding area of research on the effect of media coverage on financial markets in geographical region by examining the effect of media coverage on Thai stock market. Secondly, information flows are a key factor driving asset pricing patterns, and thus a case study of a simple measure of such flows could have many uses in that specific country, for instance Thailand. By testing the effect of media coverage on Thai stocks, I hope that this paper will be useful to many Thai and perhaps foreign financial professionals and investors, especially in asset allocation and selection of securities.

### **1.7 Organization of the Study**

There are a total of six chapters, which are organized as follows. Chapter II is Literature Review which shows prior studies of the various media effects on stock returns. Chapter III is Sample and Data Description which describes data's statistical information and my developed hypotheses. Methodology is found in Chapter IV. This chapter explains fully in details of my methods constructed to study the effect of media coverage on stock returns as well as the determinants of media coverage. Chapter V includes Empirical Evidences, while Conclusion is found in the last chapter, Chapter VI.



## CHAPTER II

### LITERATURE REVIEWS

#### 2.1 The Media and the Stock Market

Media literature beginning with Mitchell and Mulherin (1994) and continued as well as extended by Klibanoff, Lamont, and Wizman (1998), Tetlock (2007), Tetlock, Saar-Tsechansky and Macskassy (2007) have examine the relation between the media and its effect on securities prices. Klibanoff, Lamong and Wizman (1998) shows that country-specific news reported on *New York Times*' front pages reveal an effect on the pricing of closed-end country fund. During weeks of front page news, price movements are more closely related to the fundamentals. They also argue that news events lead to overreaction of some investors. Tetlock (2007) analyze the linguistic content of the media and testifies that pessimism or negative language in a popular Wall Street Journal column predicts short-term downward pressure on overall stock prices followed by a reversal. Tetlock, Saar-Tsechansky and Macskassy (2008) analyze firm-specific news stories and reports that the tone of news stories captures "hard-to-quantify information" about a firm's true value, which immediately integrates in stock prices. In consistent with Tetlock, Saar-Tsechansky and Macskassy (2007), Liu, Sherman, and Zhang (2008) also assert that firm-specific media coverage predicts aftermarket prices for IPOs. These findings imply that the linguistic content of information, both optimistic and pessimistic, embedded in news stories contributes to the efficiency of stock prices.

In the study of media coverage and stock returns, my paper is strongly related to Fang and Peress (2009). They examine companies listed on the New York Stock Exchange and 500 randomly-selected companies listed on the NASDAQ and focus on media coverage of stocks by four American national daily publications (the *New York Times*, *USA Today*, *Wall Street Journal*, and *Washington Post*). The study found that investors stand to gain comparatively high returns by investing in stocks that have no media coverage than stocks with high media coverage. Portfolios of stock with no media coverage outperform portfolios of stocks with high media coverage by 3% annually, and

after factoring in the risk factors (market, size, and book-to-market factors), such stocks offer a “no-media premium” of 8-12% per year.

In addition, my paper relates closely to but distinct from Chan (2003), which examines momentum and reversal patterns following large price moves with and without accompanying news. Firstly, using data obtained mainly from the Dow Jones Newswire, Chan (2003) focuses on headline news, but I count articles, not necessarily headlines, in mass-circulation newspapers and focus on coverage. Certainly, “news” and “coverage” are different: many stocks with news (headlines in the Dow Jones Newswire) remain neglected by mass media. In addition, while newswires are released in real time and contain genuine news, this is unlikely to be the case for mass print media due to publication lags. Secondly, Chan (2003) observes market reactions to news in the time dimension and the difference between winners and losers, whereas this paper examines the cross-sectional differences between stocks with and without coverage.

The study is also related to Barber and Odean (2007), who show that individual investors are net buyers of attention-grabbing stocks, or stocks that appear in the news. They argue that individuals face difficulties when choosing which stocks to buy from a large pool of candidates; thus attention-grabbing stocks such as those in the news are more likely to enter their choice set. Individuals’ buying pressure temporarily pushes up the prices of attention-grabbing stocks, but such pressure subsequently reverses.

Other relating media literatures include those of analyst forecasts. Diether, Malloy, and Scherbina (2002) document that stocks with high analyst coverage yield lower future returns. Kelly and Ljungqvist (2007) and Kecskes and Womack (2008) find support for Diether, Malloy, and Scherbina. They report that firms that experience an exogenous reduction in analyst coverage have higher required rates of return, as well as less efficient pricing and lower liquidity and assert that firms that experience a drop in analyst coverage have higher ongoing rates of return, respectively. Khorana, Mola and Rau (2007) claim that firms are more likely to lose analyst coverage if they have lower institutional ownership. The companies that lose analyst coverage are more likely to be de-listed although they may not have significantly worse operating performance than other companies in the same industry.

## 2.2 Practice of Thai Media

Pravichai (2009) states that Thailand has a well-developed media sector, especially by Southeast Asian standards. The Thai media is considered relatively free, although the government continues to exercise considerable control especially over broadcast media. Print media in Thailand are not subject to close government supervision. Readers have a choice of numerous papers, ranging from mass-circulation dailies, like Daily News and Thai Rath, to newspapers specializing in coverage of political and business, like Krungtep Turakij and Thann Settakij. The mainstream print media are represented by Thai Rath and Daily News, which together account for half of Thailand's newspaper sales. Because both papers were founded while the country was still under military rule, they had to cultivate good relationships with the army and elite bureaucracy. This has led them to develop an editorial outlook that tends to lean in favor of the status-quo. This is consistent with McCargo (2000), who believes that newspapers in Thailand have been vehicles for political lobbying, backstabbing and rabbleroising, used by all manner of groups. The purpose of owning a newspaper has been to advance your views, to get your voice heard, to talk up the prices of shares in companies you own, to discredit your enemies, to promote the interests of a friendly politician. These findings imply that news appear in the papers could be certainly be influenced by certain forces from certain groups.

Findings of Pravichai (2009) have also implied that Thai people tend to read less compared to people in the U.S. He interviews 2,246 people in Thailand and find that only 23.3% of the total sample read newspapers everyday, spending approximately 16 to 20 minutes each day. Only 6.4% read more than one hour. Most people read just one newspaper. Only 2.4% read more than 3 newspapers. Also, Thai people seem to be more interested in entertainment news much more than investment and business news. While only 8.9% read about investment and business, 20.3% read entertainment news.

## CHAPTER III

### SAMPLE AND DATA DESCRIPTION

#### 3.1 Sample Selection

The sample consists of all companies listed in SET100 of the Stock Exchange of Thailand from January 1, 2005 to December 31, 2008. However, media coverage of each sample firm is collected from January 2004 to December 2008. Companies that are delisted and underwent acquisition are excluded from the sample to ensure unbiasedness in the numbers of news articles. A high number of news articles may only be induced in certain periods, such as financial distressed periods, for delisted companies. The total number of the companies in the sample sums up to 159 companies. These are from eight major industries: Agro & Food, Consumer Products, Industrials, Property and Construction, Resources, Services, and Technology.

#### 3.2 Sources of Data

Information on stock returns, market capitalizations, book-to-market ratios, and stock prices are obtained from Thomson Reuter DataStream. Newscenter, an online database that provides the full texts of many news sources, is used to quantify the amount of media coverage of each stock, restricting the media sources to four major Thailand's local newspapers. The selected papers are *Bangkok Post*, *Post Today*, *Thann Settakij*, and *The Manager*. These newspapers are chosen according to their characteristics: (1) They are published daily (2) They contain mostly business news and reports on the financial markets of Thailand (3) They are distributed to all six regions in Thailand. The full company names are used as the search criteria. The search is carried out in both Thai and English characters. To assure accuracy of the search, common terms such as “บริษัท”, “มหาชน”, and “จำกัด” or terms referring to “Co.”, “Corp.”, “Inc.”, “Ltd.” and “Grp.” are excluded. Each month, news articles are carefully counted for each firm. To obtain a time-series of coverage of a specific company, I take the weighted sum of articles published about each company in each month.

Newscenter may currently be the most effective news database for Thailand. However, there appears to be some disadvantages. Unlike LexisNexis, which is an online database used to collect news articles by Fang and Peress (2009), it does not propose a “relevance score system” that systematically measures the quality of the match between an article and the indexing word. Hence, human classification approach is carried out in the news collecting process. That is, each article must be carefully examined and browsed through to categorize whether the news found is purely the news of the firm, and not names of other entities.

In addition, I do not attempt to categorize whether the article is primarily about the company. All mentions of a company’s name in the news are relevant to the overall measure of media coverage. All mentions of a company’s name in an article, regardless of its linguistic content, contribute to investor’s recognition of the company. Hence, articles that contain the names of the company in the headlines or in any paragraphs of an article are collected.

### **3.3 Data Descriptive**

Following exactly the criteria described above, each company has at least one or more news articles during January 1, 2004 to December 31, 2008 collected from *Bangkok Post*, *The Manager*, *Post Today*, and *Thann Settakij*. Table 1 provides summary statistics on newspaper coverage or media coverage patterns of the sample stocks. Several interesting observations can be made about the media coverage patterns of sample stocks from Table 1. First, the breadth of coverage differs considerably across newspapers. Panel A presents yearly fraction of media coverage of each newspaper in percentage. Coverage is calculated by dividing the number of articles collected from each newspaper each year by the total number of articles collected from all newspapers each year, and multiply it by one hundred. It is observed that *Post Today* and *The Manager* have the most comprehensive coverage, featuring 39.1% and 27.4%, respectively, while *Bangkok Post* and *Thann Settakij* have less coverage, 20.3% and 13.1%, respectively. Second, the statistics in Panel B reveal that coverage is highly skewed. The average number of articles published about a stock in the sampling years is 938, while the median is 442, and the maximum is 8472. Coverage of each newspaper is also highly skewed. Panel C

analyses summary statistics of media coverage by each newspapers. For *Bangkok Post*, the average number of articles published about a stock is 184, while the median is 93, and the maximum is 1505. For *The Manager*, the average number of articles published about a stock is 262, while the median is 112, and the maximum is 2501. For *Post Today*, the average number of articles published about a stock is 367, while the median is 144, and the maximum is 3685. For *Thann Settakij*, the average number of articles published about a stock is 123, while the median is 58, and the maximum is 852.

Third, overall newspaper coverage is surprisingly low among SET100 stocks, which are large stocks. Panel D analyses fraction of media coverage by each industry group. Sample firms are grouped into eight main industry groups. These include Agro & Food, Consumer Products, Financials, Industrials, Property & Construction, Resources, Services, and Technology. Among the sample stocks, stocks of financial and property & construction industry groups reveal the most coverage of news articles, with the percentage of 40.9% and 17.7%, respectively. Figure 1 represents distribution of media coverage among all 159 firms. Media coverage of each firm in our sample firms ranges from 63 to 8472 newspaper articles from 2004 to 2008. Bangkok Bank, Siam Commercial Bank, Krungthai Bank, Kasikorn Bank, and Thai Military Bank, out of all firms in the sample, have the most news coverage of 8472 articles, 7210 articles, 6910 articles, 6099 articles, and 4549 articles, respectively. Thitikorn Public Company Limited has the least coverage of 63 articles. Other industries in the sample stocks, including Agro & Food, Consumer Products, Industrials, Resources, Services, and Technology, have coverage of 2.2%, 0.2%, 2.7%, 10.8%, 14.1%, and 11.3%, respectively. Panel E shows descriptive statistics of media coverage by each industry group and supports that coverage is highly skewed, even among each industry group.

From observation, it seems that companies with higher book-to-market ratios tend to have more news coverage, while those with smaller market capitalization or size tend to have lower news coverage. In addition, there is a considerable overlap in different newspapers' coverage. This overlap together with the low marginal contribution of widely circulated newspapers such as our four sample newspapers indicate that even though the focus is only on four newspapers, the data collected is a representative of

newspaper media. Finally, media coverage has a persistent phenomenon. Stocks with low media coverage in a given month continue to have low media coverage the following month, while stocks with high media coverage continue to have high media coverage. Persistent is even stronger among smaller stocks.



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**Table 1: Newspaper Statistics**

This table presents summary statistics for media coverage collected on 159 firms listed on SET100 between January 2005 and December 2008 from four newspapers: *Bangkok Post*, *The Manager*, *Post Today* and *Thann Settakij*. Articles of all sample firms are collected from 2004 to 2008. Panel A shows fraction of media coverage (%) of all firms by each newspaper each year. BP represents *Bangkok Post*. MNG refers to *The Manager*. PT is *Post Today*, and TSK is abbreviated for *Thann Settakij*. The row “All Years” refers to the total number of articles collected on all firms from 2004 to 2008. Panel B shows descriptive statistics for all newspaper articles collected on sample firms each year. Minimum number, mean, median, maximum number and standard deviation are tabulated. Panel C also provides descriptive statistics. It analyses each newspaper individually and yearly from 2004 to 2008. Panel D analyses fraction of media coverage (%) by industries. Panel E presents descriptive statistics of media coverage by each industry group.

<b>Panel A: Fraction of Coverage of Each Paper</b>							
Year	Observation	Total	Fraction of Coverage Coverage (%)				
			<u>BP</u>	<u>MNG</u>	<u>PT</u>	<u>TSK</u>	
2004	159	18793	24.58	20.79	41.31	13.31	
2005	159	21709	21.55	28.38	37.07	12.99	
2006	159	38759	18.46	28.57	40.25	12.72	
2007	159	36378	19.15	28.50	38.73	13.62	
2008	159	33582	17.66	30.59	38.40	13.34	
All Years	159	149221	20.28	27.37	39.15	13.19	

<b>Panel B: Descriptive Statistics of Media Coverage</b>							
Year	<u>Observation</u>	<u>Total</u>	<u>Min</u>	<u>Mean</u>	<u>Median</u>	<u>Max</u>	<u>S.D.</u>
2004	159	18793	0	118	52	1399	190
2005	159	21709	0	136	55	1277	207
2006	159	38759	2	243	107	2196	373
2007	159	36378	8	228	108	2023	330
2008	159	33582	5	211	93	1900	313
All Years	159	149221	63	938	442	8472	1370

<b>Panel C: Descriptive Statistics by Newspapers</b>							
Year	<u>Observation</u>	<u>Total</u>	<u>Min</u>	<u>Mean</u>	<u>Bangkok Post</u>		
					<u>Median</u>	<u>Max</u>	<u>S.D.</u>
2004	159	4620	0	29	12	303	47
2005	159	4678	0	29	11	321	49
2006	159	7155	0	45	18	771	87
2007	159	6966	0	43	21	350	65
2008	159	5932	0	37	18	355	60
All Years	159	29351	2	184	93	1505	287

Year	<u>Observation</u>	<u>Total</u>	<u>Min</u>	<u>Mean</u>	<u>The Manager</u>		
					<u>Median</u>	<u>Max</u>	<u>S.D.</u>
2004	159	3908	0	24	10	267	41
2005	159	6161	0	38	16	360	61
2006	159	11073	1	69	29	634	108
2007	159	10368	2	65	29	629	99
2008	159	10272	0	64	25	678	108
All Years	159	41782	16	262	112	2501	406



	<i>Post Today</i>						
	<u>Observation</u>	<u>Total</u>	<u>Min</u>	<u>Mean</u>	<u>Median</u>	<u>Max</u>	<u>S.D.</u>
2004	159	7763	0	48	19	688	92
2005	159	8048	0	50	19	538	88
2006	159	15599	0	98	41	992	159
2007	159	14091	0	88	38	897	142
2008	159	12897	0	81	33	763	128
All Years	159	58398	6	367	144	3685	591
	<i>Thann Settakij</i>						
	<u>Observation</u>	<u>Total</u>	<u>Min</u>	<u>Mean</u>	<u>Median</u>	<u>Max</u>	<u>S.D.</u>
2004	159	2502	0	15	6	141	24
2005	159	2822	0	17	8	145	27
2006	159	4932	0	31	14	218	47
2007	159	4953	0	31	15	269	47
2008	159	4481	0	28	12	210	39
All Years	159	19690	2	123	58	852	176

**Panel D: Fraction of Coverage by Industries**

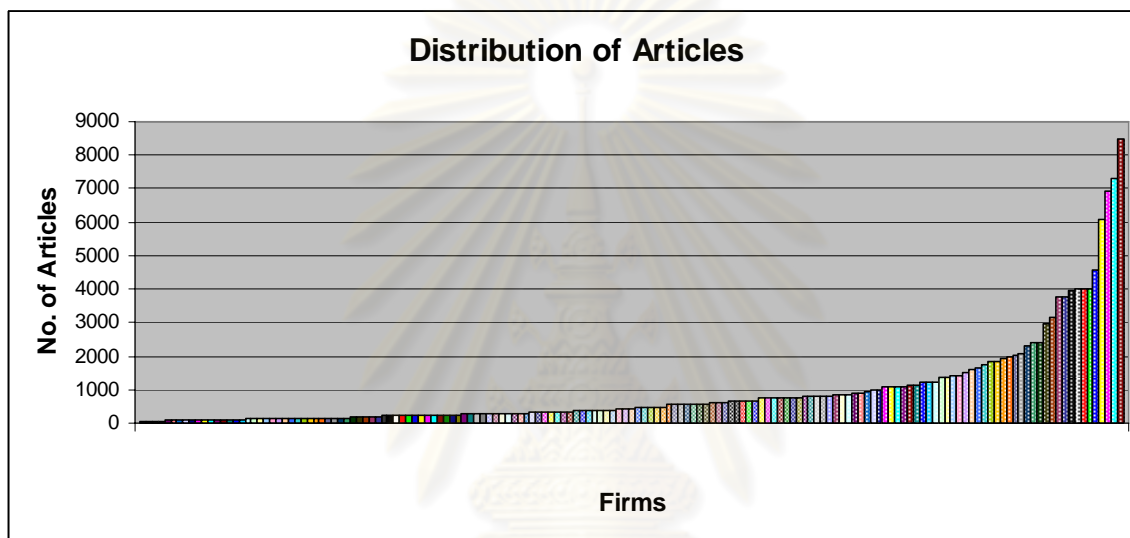
	<u>Observation</u>	<u>Total</u>	<u>Articles</u>	<u>Fraction of Coverage (%)</u>
Agro & Food	8	149221	3330	2.23
Consumer Products	2	149221	290	0.19
Financials	28	149221	61105	40.95
Industrials	16	149221	4061	2.72
Property & Construction	46	149221	26400	17.69
Resources	18	149221	16091	10.78
Services	24	149221	21077	14.12
Technology	17	149221	16867	11.30

**Panel E: Descriptive Statistics of Coverage by Each Industry**

	<u>Observation</u>	<u>Total</u>	<u>Min</u>	<u>Mean</u>	<u>Median</u>	<u>Max</u>	<u>S.D.</u>
Agro & Food	8	3330	89	416	232	1495	479
Consumer Products	2	290	100	129	129	158	41
Financials	28	61105	63	2180	1165	8472	2406
Industrials	16	4061	85	253	163	593	175
Property & Construction	46	26400	66	572	365.5	2389	499
Resources	18	16091	104	891	494	4002	985
Services	24	21077	95	916	621	3787	1027
Technology	17	16867	70	989	450	4016	1282

**Figure 1: Distribution of Articles**

This histogram shows distribution of media coverage of 159 firms listed on SET100 from January 2004 to December 2008 from four newspapers: *Bangkok Post*, *The Manager*, *Post Today* and *Thann Settakij*. The articles of sample firms are collected from 2004 to 2008. The number of articles ranges from 63 articles to 8472 articles. The first 5 firms with the lowest number of articles are Thitikorn Plc., Tycoon Worldwide Group Plc., Thai Yuan Metal Plc., KCE Electronics Plc., and Polyplex (Thailand) Plc. The last 5 firms with highest number of articles are TMB Bank, Kasikorn Bank, Siam Commercial Bank, KrungThai Bank, and Bangkok Bank.



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## CHAPTER IV

### METHODOLOGY

#### 4.1 Determinants of Media Coverage

Following Fang and Peress (2009), I explore what drives media coverage (the determinants), through regression setting. The dependent variable is the dummy variable for media coverage (MEDIA). It is equal to 1 if a stock has media coverage of more than the median number during the year and zero if stock has newspaper coverage less than the median number during the year. For example, in year 2004, Bangkok Bank has 1076 newspaper articles, while Thitikorn has only 16 newspaper articles. The median number of newspaper articles is then calculated for all 159 firms in 2004, and is equal to 55. Hence, dummy variable is equal to 1 for Bangkok Bank and zero for Thitikorn in the year 2004. Explanatory variables include firm size, book-to-market ratio (B/M), price and past return. Like Fang and Peress (2009), Fama-Macbeth regression method is applied, and Newey-West procedure with one lag is used to adjust the standard errors for autocorrelation since media coverage is persistent. Four regressions are examined, adding more factors to each regression.

$$\text{MEDIA} = \beta_0 + \beta_1 (\text{size}) + e_i \quad (1)$$

$$\text{MEDIA} = \beta_0 + \beta_1 (\text{size}) + \beta_2 (\text{B/M}) + e_i \quad (2)$$

$$\text{MEDIA} = \beta_0 + \beta_1 (\text{size}) + \beta_2 (\text{B/M}) + \beta_3 (\text{price}) + e_i \quad (3)$$

$$\text{MEDIA} = \beta_0 + \beta_1 (\text{size}) + \beta_2 (\text{B/M}) + \beta_3 (\text{price}) + \beta_4 (\text{past return}) + e_i \quad (4)$$

MEDIA is a dummy variable for media coverage, equaling 1 if stock has a number of newspaper articles equal to or more than the median number during the year and zero if lower. Size is defined as the natural log of the average market capitalization of equity over the previous calendar year. B/M refers to the natural log of book-value of equity over market value of equity as of the previous year end. Price is the price of stock measured each year. Past return is the stock's total return measured each year.

## 4.2 Media coverage and Stock Returns

This section examines the effect of media coverage on Thai stock market. Each month, sample stocks are sorted into groups of media-sort portfolios. Details are provided in the following sub-sections. I investigate the media effect controlling for both firm characteristics and risk factors following methodology used in Fang and Peress (2009). First, raw returns is examined in univariate analysis, and then abnormal returns is examined using multivariate analysis to account for risk factors.

### 4.2.1 Univariate analysis

To examine raw returns, each month, all sample stocks are sorted into three media portfolios: low, medium, and high. Note here that in Fang and Peress (2009), stocks are sorted into portfolios of no, low, and high media coverage. However, for the case of Thai stock market, sorting stocks into no, low, and high media coverage is not an appropriate method. In some months, there is none or only one stock not featured in the press media. This then leads to extreme loss or gain of the portfolio in that month, which could generate a bias in the resulting return on portfolio. Hence, in my study, stocks are sorted into portfolios of low, medium, and high media coverage each month by the median numbers of coverage. First, median of coverage is calculated. This can be referred to as the initial median. Then, medians are calculated again for the two groups separated by the initial median. These medians are referred to top and bottom medians. Finally, stocks are sorted into portfolios of low, medium, and high according to the top and bottom medians. Portfolios are equally weighted and average monthly returns are calculated for each portfolio from the stock prices obtained from Datastream. Repeating the methodology each month from 2004-2008, 60 monthly returns from each of the media portfolios are presented. Then an average is taken on all monthly returns for comparison across all media portfolios.

The media effect observed could be driven by other factors such as firm characteristics, namely size and book-to-market ratios. This could really be the case if size and book-to-market ratios are positively correlated to media coverage. Moreover, Banz (1981), Basu (1983) and Keim (1983) provide empirical evidence to show that on

average, small size firms yield high stock returns than large size firms. Hence, it is necessary to investigate whether the resulting media effect is robust after controlling for size and book-to-market ratios. Size is measured as the market capitalization of equity over the previous calendar year. Book-to-market ratio is book-value of equity divided by market value of equity, as of the end of previous year. I repeat the univariate and multivariate analyses described above with slight alterations to control for size and book-to-market ratios.

Similar to earlier analyses, sample stocks are sorted into media portfolios of low, medium, and high. However, to control for firm characteristics, stocks are double-sorted: first by firm characteristics and second by the amount of media coverage. This double-sort is done separately for firm size and book-to-market ratio. For example, for firm size, stocks are first divided equally into terciles of small, medium, and big according to their market capitalization. Then, stocks within each size-based tercile are sorted into three media portfolios of low, medium, and high media coverage, using the median numbers in the same manner as before. Finally, equal-weighted average return is then computed for all media portfolios grouped by size. This double-sort is carried out in the same manner for book-to-market ratios.

#### ***4.2.2 Multivariate analysis***

This section examines whether the media effect observed in the univariate analysis exists after controlling for risk factors, namely market, size, and book-to-market factors. Using a zero-sum trading strategy that takes a long position on stocks with low media coverage and a short position on stocks with high media coverage, the return differential between low media coverage stocks and high media coverage stocks can be examined through a time-series regression setting.

To create long-short portfolios of stocks, each month all sample stocks are sorted into three media portfolios of low, medium, and high in the same manner as univariate analysis. The portfolios are equally weighted, held for one month, and rebalanced monthly. The return on a long-short portfolio is computed using stock prices in the next month. After being rebalanced monthly, time-series returns for the long-short portfolios

are yield. These returns are then regressed on three risk factors: the market factor (RM-RF), the size factor (SMB), the book-to-market factor (HML). CAPM and Fama-French three-factor models are examined, and regression equations are as follows:

Model 1: CAPM

$$R_p - R_f = \beta_0 + \beta_1(R_m - R_f) + e_i \quad (5)$$

Model 2: Fama-French three-factor model

$$R_p - R_f = \beta_0 + \beta_1(R_m - R_f) + \beta_2(SMB) + \beta_3(HML) + e_i \quad (6)$$

$R_p$  refers to return on portfolio, while  $R_f$  is return on 1-month T-Bill.  $R_m - R_f$  refers to the market return minus return on 1-month T-Bill.  $SMB$  denotes the return of a portfolio of small stocks minus the return of a portfolio of large stocks.  $HML$  indicates the return on a portfolio of stocks with highest book-to-market ratio minus the return of portfolio of stocks with low book-to-market ratio.

Alphas and p-values from regressing the resulting time-series of zero-sum investment portfolio returns on CAPM, Fama-French three-factor model are tabulated. If the return difference between low and high media portfolios is fully explained by known factors, then the estimated alpha is expected to be insignificant.

Abnormal returns are also examined in multivariate setting, with firm characteristics such as size and book-to-market are controlled. To control for firm characteristics, stocks are double-sorted in the same manner as before. Long-short portfolios are created as explained above. The long and short legs of the portfolio invest an equal amount in each underlying stock, and portfolios are rebalanced monthly. Time-series returns are obtained and are then regressed on three risk factors: market, size, and book-to-market factors. Again, two models (CAPM and Fama-French three-factor models) are examined. Alphas and p-values from regressing the resulting time-series of long-short portfolio returns on CAPM and Fama-French three- model are recorded.

### ***4.2.3 Explanatory variables of CAPM and Fama-French three-factor model***

The construction of explanatory variables of CAPM and Fama-French three-factor model is repeated after Fama and French (1992). The three important variables to be constructed are  $R_m - R_f$ , SMB, and HML.  $R_m - R_f$  refers to the market return minus return on 1-month T-Bill. SMB denotes the return of a portfolio of small stocks minus the return of a portfolio of large stocks, and HML indicates the return on a portfolio of stocks with highest book-to-market ratio minus the return of portfolio of stocks with low book-to-market ratio.

Constructing SMB and HML are not as simple as the  $R_m - R_f$ . First, stocks are ranked on size or their market capitalization. Median number is used to split sample stocks into two groups: small and big. Secondly, the size-sort portfolios are grouped into three book-to-market-sort portfolios: low, medium, and high. The result is six portfolios of size/book-to-market-sort. These are S/L, S/M, S/H, B/L, B/M, and B/H. Finally, SMB is the difference, each month, between the simple average of the returns on the three small-stock portfolios (S/L, S/M, and S/H), and the simple average of returns on the three big-stock portfolios (B/L, B/M, and B/H). Similarly, HML is the difference, each month, between the simple average of returns on the two high book-to-market portfolios (S/H, B/H) and the average of the returns on the two low book-to-market portfolios (S/L, B/L). SMB is meant to imitate the risk factor in returns related to size while HML is meant to imitate the risk factor related to book-to-market.

### **4.3 Robustness Checks**

In this section, robustness check is conducted to the results presented in Table 4 and Table 5. In particular, this is to alleviate the concern that the media effect could be driven by sector or industry bias. Financial firms are suspected to have a significant effect to the media effect documented. Their coverage is suspiciously high. They have the most coverage among all industries. One possible reason is some banks do release daily reports, for example reports on the foreign exchange rates. To check that the results are not driven by the financial sector, financial firms are excluded from the sample, and the same method in multivariate setting is repeated, to account for risk factors.

## **CHAPTER V**

### **EMPIRICAL RESULTS AND DISCUSSION**

#### **5.1 Determinants of Media Coverage**

Results in Table 2 support my hypothesis ( $H_1$ ) that size and book-to-market ratios are positively correlated to media coverage. The magnitude of the coefficient for size factor gradually decreases as more factors are added to the regression, and remain statistically significant at the significance level of 1%. The p-value is, in fact, zero for size factor. The regression result implies that media coverage and size moves in the same direction, and size has a very strong correlation to media coverage. In other words, the bigger the size, the more coverage a firm has. Similarly for book-to-market ratios, the magnitude of the coefficient is 0.0031 and is statistically significant at 1% significance level. The p-value is 0.009. The magnitude decreases to 0.003 and is significant at 1% level when price and past return are added to the equation. The result reveals that book-to-market ratio also moves in the same direction as media coverage. Price and past return are not significant in the regression. The magnitude of R-squared increases gradually from 0.073 to 0.077 as more factors are added. It can be concluded that value stocks or high book-to-market firms and firms that are large in size are more likely to be featured in the media. This result supports by hypothesis and is consistent with Fang and Peress (2009).

#### **5.2 Evidence of the Media Effect**

Average monthly returns for the three media portfolios of low, medium, and high are tabulated in Table 3. Panel A shows the average monthly returns of stocks that are sorted by media coverage. The average monthly returns for portfolios of stocks with low, medium, and high coverage are -0.25%, -0.58%, and -1.05%, respectively. The negative monthly returns show that there is no profit across all three media portfolios. Instead, all media portfolios are at loss. However, the difference between return on low media portfolio and high media portfolio (low minus high) is 0.8% per month, which corresponds to a loss differential of approximately 9.6% per year. Hence, stocks with low



media coverage seem to have some kind of premium, which could be referred to as a “loss premium”. The positive difference of 0.8% between returns of low and high media portfolios suggests that even though stocks with low media coverage do not yield any profits, they generate a loss lower than stocks with high media coverage.

However, this media effect could be an effect of other factors, namely size and book-to-market ratios. This could really be the case as result in Table 2 suggests that media coverage is highly and positively correlated to firm size and book-to-market ratios. Panels B and C of Table 3 show that the resulting media effect is still robust, even after controlling for size and book-to-market ratios. It can be observed that by controlling for size and book-to-market, the media portfolios also give negative monthly returns. The difference between returns on low media portfolios and high media portfolios remain positive across all portfolios. There is a robust “loss premium” related to stocks with low media coverage, even holding firm characteristics constant. The return differences in Table 3 suggest that the media effect is stronger in stocks lower in size and book-to-market ratios. The loss premium of portfolio of small stocks is 0.28% per month, while the loss premium of portfolio of large stocks is 0.16% per month. The loss premium of portfolio of low book-to-market stocks is 1.32% per month, while the loss premium of portfolio of high book-to-market stocks is 0.17% per month. At this point, it can be concluded that stocks with low media coverage outperform stocks with high media coverage by 9.6% annually, assuming that there are no factors that could affect the cross-section of returns.

This unprofitability of media-sort portfolios observed in the non-regression approach could be explained by the global financial crisis in 2008. In 2008, stock markets around the world have fallen, and several financial institutions have collapsed. The crisis has lead to a significant damage to Thailand’s economic position and the stock market. In addition, the anti-government protests and political turmoil have worsened economic position of Thailand as there has been a subsequent fall in tourism and foreign investment. National income of Thailand relies heavily on tourism, and in 2008, Chomthongdi (2009) states that the number of tourists fell by 21%. Moreover, he also asserts that political

situations in Thailand have led to a poor response with no clear direction of Thai authorities to the global financial crisis.

Figure 2 represents a 4-year performance of SET100 November 2005 to November 2010. It can be seen that, beginning in late 2007 and throughout 2008, there was a steady decline in the SET100 stock market. It is assumed that the sharp decline in 2008 leads to the poor performance with negative returns found in the three media portfolios. To prove this, I perform a quick test by eliminating year 2008 from the study and compare the returns on three media portfolios from 2004 to 2007. Results in Table 4 confirm that the loss is triggered when year 2008 is included in the analysis. Most portfolios are not at loss when year 2008 is excluded from the sampling years. Panel A shows the average monthly returns of stocks that are sorted by media coverage. The average monthly returns for stocks with low, medium, and high media coverage are 0.66%, 0.19%, and -0.22%, respectively. The difference between returns of low media portfolio and high media portfolio (low minus high) is 0.88% per month, which corresponds to a return premium of 10.56% per year. Panel B and C confirm that the media effect is still strong when firm characteristics such as size and book-to-market ratios are controlled. The differences between returns of low media portfolios and high media portfolios remain positive for all portfolios, except for portfolio of high book-to-market stocks. The media effect is stronger among stocks with lower market capitalization and book-to-market ratios.

In addition, risk factors that are known to affect the cross-section of stock returns are taken into account to observe whether the same media effect exists. Table 5 shows result of multivariate analysis that regresses the time-series returns of long-short portfolios on CAPM and Fama-French three-factor model, to control for market, size, and book-to-market factors. The alpha from CAPM is -0.23 or -23%. The magnitude of alpha decreases as more risk factors are added into the regression model. The alpha from Fama-French three-factor is -25%. The alphas from both CAPM and Fama-French three-factor model are negative and remain statistically significant at the significance level of 1%. R-squared increases from 13% to 30% as more risk factors are added to the regression model.

The result in Table 5 does not provide a strong support to the media effect observed in the univariate analysis. After risk factors are taken in account, the result of the media effect is reverse. There are no excess returns found from this media trading strategy that takes a long position on stocks with low media coverage and a short position on stocks with high media coverage. Table 6 records the resulting media effect after controlling for firm characteristics and the risk factors, and provides a strong support that no excess are found from this media trading strategy, even after controlling for firm characteristics. Alphas are significant and negative across all media portfolios grouped by size and book-to-market ratios. The negative alphas suggest that returns of the long-short portfolios are lower than the expected return at beta of 1, and are primarily driven by the long positions in the stocks with low media coverage. It must be that stocks with high media coverage outperform those with low media coverage, after factoring in the various risk factors. Comparing both media effects from univariate analysis and multivariate analysis, the media effect observed in multivariate analysis provides stronger evidence. This is because risk factors, namely market, size, and book-to-market factors are being controlled in the multivariate analysis. These are factors that are empirically proven to be affecting the cross-section of stock returns. Univariate analysis examines only raw returns and does not take into account of other factors. In conclusion, low coverage stocks do not give excess returns and do not outperform high coverage stocks, even after controlling for firm characteristics and risk factors. My hypothesis is, hence, supported.

### **5.3 Media Effect Excluding Financial Firms**

Robustness check is conducted to alleviate the concern that the media effect could be driven by sector or industry bias. Financial firms are suspected to have a significant effect to the media effect documented. These firms are highly covered in the news because some banks do release daily reports, such as reports on their foreign exchange rates. As a result, financial firms have the most coverage among all industries. Results in Table 7 confirm that the media effect that high coverage stocks outperform low coverage stocks is still robust and is not affected by financial sector bias. The media trading strategy still generates significant and negative alphas. The negative alphas suggest that returns of the long-short portfolios are lower than the expected return at beta of 1, and are

primarily driven by the long positions in the stocks with low media coverage. There are no excess returns found to low media coverage portfolios in Thai stock market, even after controlling for financial sector bias, firm characteristics and the commonly known risk factors.

#### **5.4 Discussion of the Media Effect**

This section discusses the possible causes of the media effect. Unlike the U.S. stock market, the study shows that the media effect found in U.S. stock market is reverse in Thai stock market. In Thai stock market, stocks with low media coverage do not give excess returns. Stocks with high media coverage outperform those with low media coverage. The documented media effect speaks strongly against the perfect market model, where market is informationally efficient. Malkiel (1992) states that:

*“A capital market is said to be efficient if it fully and correctly reflects all relevant information in determining security prices. Formally, the market is said to be efficient with respect to some information set if security prices would be unaffected by revealing that information to all participants. Moreover, efficiency with respect to an information set implies that it is impossible to make economic profits by trading on the basis of that information set.”*

In a perfect market, the amount of media coverage is not relevant because media coverage does not reveal any information about the firms. Arbitrage opportunity or the opportunity for easy money cannot exist in a perfect market. Any coverage-related premium represents an arbitrage opportunity that investors whom are rational can quickly spot, seize, and eliminate. The result from the study provides that there is a coverage-related premium to stocks with high media coverage. As a result, this study of the media coverage and stock returns do not give a strong support to the perfect market model. There seems to be an arbitrage opportunity and a coverage-related premium to stocks with high media coverage Thai stock market.

Furthermore, the opportunity for easy money could be explained by the recognition hypothesis and behavior finance theory. Barber and Odean (2007) study investors' reaction to news media and find that investors are more likely to buy than sell

attention-grabbing stocks. Attention-grabbing stocks, for instance, are stocks that are frequently featured in the news media, including the print media. Investors who overly rely on familiarity in making investment decisions would actively react to media attention.<sup>3</sup> Newspaper articles increase investors' recognition and familiarity of a stock even if they are not informative. All mention of stocks in the news increase investors' recognition of those stocks. If these investors over-weight those recognized and familiarized stocks in their portfolios, prices of those stocks are likely to rise relative to those that are not frequently featured in the media. Furthermore, some studies, such as Coval and Sumway (2005) and Tetlock (2007), suggest that investors overreact to media attention. Investors often react positively to good news and negatively to bad news. As a result, people buy the stocks with positive news, driving up the stock prices. Returns on those stocks are driven up as prices of these stocks increase relative to those that are not featured in the media.

The media effect has led us to think that the print media in Thailand may not be as active as the media in the U.S. The Thai media is unable to keep managers from secretly keeping negative news of their firms. Note that the media effect documented in Thai stock market is reverse to the media effect observed by Fang and Peress (2009) in the U.S stock market. In Thailand, stocks with high media coverage outperform those with low media coverage. If the media effect is a result of overreaction of investors to positive news, then it is very likely that the managers try to keep negative news away from the print media. This could really be the case, especially for country like Thailand, where corruption is evidently present. World Association of Newspapers (2009) confirms these influences on Thai media. While U.S. newspapers have detached stance towards politics, that Thai newspapers are generally or explicitly supportive of particular political parties. According to World Association of Newspapers (2009), U.S. newspapers pride themselves on their independence from political dispute. Journalists are trained to seek objectivity in their reporting and are warned against taking positions on issues, persons, or events they cover. U.S. newspapers observe strict separation between news and editorial pages and maintain a strict separation of powers between the newsroom and

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<sup>3</sup> See, Huberman (2001) for review on types of investors.

business office. Their separation of powers is meant to express papers' editorial independence and to avoid even the appearance of influences on the paper from advertisers or political parties. Hence, news articles released about each company are free from any influences of the powerful forces.

In contrast to the U.S. media, Thai media is not as independent. Many news media take a strong position towards one political party. Lewis (2006) studies media and cultural politics in Malaysia, Singapore, and Thailand. He states that Thai media has been greatly influenced by politics. For example, in 2002, ex-Prime Minister Thaksin Shinawatra acquired the only non-state-owned broadcaster ITV. Many ITV employees were subsequently fired if they do not conform to take a more pro-government and non-critical position. A Thai radio station that included news broadcasts critical of the ex-prime minister was prohibited by the government and denied access to Nation Multimedia Group, one of Thailand's few independent news sources. It was suspected that ex-Prime Minister Thaksin instructed companies to spend their advertising budgets on only friendly publications. Many powerful businessmen were friendly to the ex-prime minister. Grammy Co., Ltd., for example, acquired *Matichon* newspapers, and also transformed it to a more pro-government and non-critical position. These situations suggest that content of the news could greatly be influenced by some powerful sources. It could also be suspected that powerful managers are able to control of both the quantity and the quality of the news released about their firms. As a result, more good news is perhaps released more frequently than bad news in the Thai print media. This, in turn, allows investors to react positively to the news, buy the stocks and drive up the prices of those stocks, resulting in higher future returns.

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**Table 2: Determinants of Media Coverage**

This table represents the regression results of determinants of media coverage. Fama-Macbeth regression method is applied, and Newey-West procedure is used to adjust the standard errors for autocorrelation since media coverage is persistent. The dependent variable is a dummy variable for media coverage. It is equal to 1 if the stock has number of articles higher than the median of number of articles of all 159 firms listed in SET100 from 2005-2008 in that year and zero if the stock has newspaper coverage lower than the median number. Four regressions are examined, adding more factors to each regression. Size is defined as the natural log of the average market capitalization of equity over the previous calendar year. B/M refers to the natural log of book-value of equity over market value of equity as of the previous year end. Price is the price of stock measured each year. Past return is the stock's total return measured each year. R-squared is shown in the last row of the table. P-values are in parenthesis. \*,\*\*,\*\*\* indicate that the coefficient is statistically significant at 10%, 5% and 1% levels, respectively. From the table below, it can be observed that media coverage is highly positively related to size and book-to-market ratios.

Dependent Variable: MEDIA				
Constant	0.4642	0.4615	0.4554	0.4578
	[0]***	[0]***	[0]***	[0]***
Size	1.79E-06	1.80E-06	1.58E-06	1.56E-06
	[0]***	[0]***	[0]***	[0]***
B/M	--	0.0031	0.0031	0.003
	--	[0.009]***	[0.0069]***	[0.0145]**
Price	--	--	0.0006	0.0005
	--	--	[0.2038]	[0.2326]
Past return	--	--	--	-0.0047
	--	--	--	[0.7857]
R-squared	0.073	0.074	0.076	0.077

**Table 3: Returns of Media Portfolios**

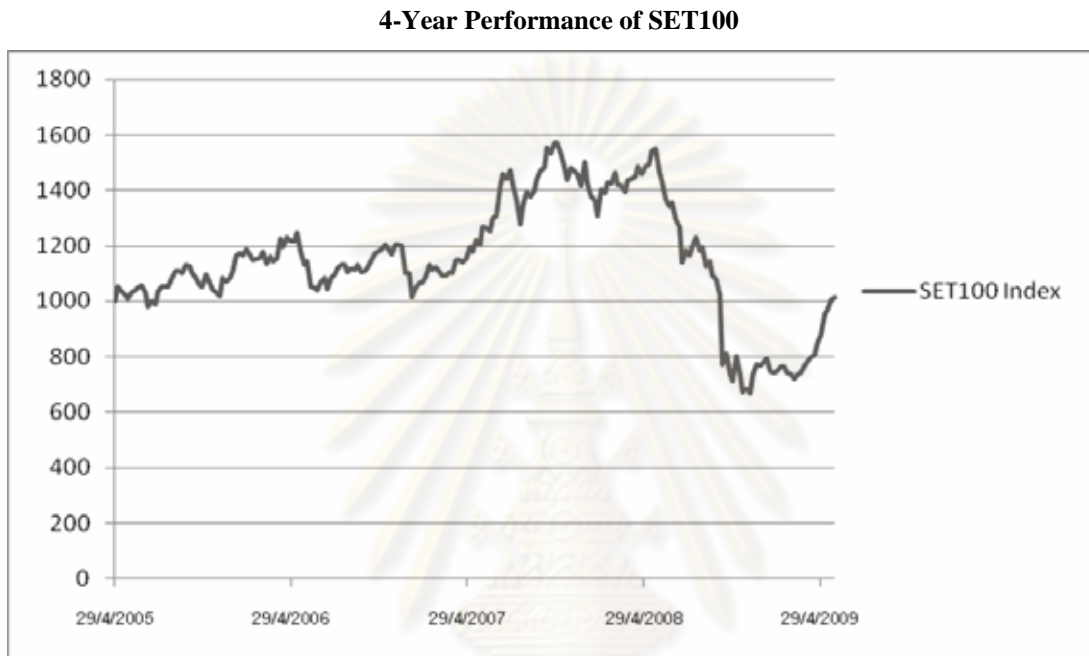
This table presents average monthly returns on portfolios of stocks sorted by media coverage and firm characteristics. Sample firms are firms listed on SET100 from 2005 to 2008. However, media coverage is collected from 2004 to 2008 from four newspapers: *Bangkok Post*, *Post Today*, *The Manager*, and *Thann Settakij*. Media coverage is measured by the number of newspaper articles written about the firm. Average return numbers are in percentage. Panel A provides average monthly returns of sample firms divided into three media portfolios of low, medium, and high. Panel B presents average monthly returns of stocks sorted by size and media coverage. Panel C presents average monthly returns of stocks sorted by book-to-market ratios and media coverage. The median is used to divide stocks into different portfolios. Equal weighted average return is computed for each portfolio using stock prices in the next month. The column “Low-High” indicates the difference between average returns of low media portfolio and high media portfolio. T-stat for Low-High is also tabulated. The row S.D. is standard deviation of returns of each portfolio.

Average monthly return					
Panel A: Media coverage					
	Low	Medium	High	Low-High	t-stat for Low-High
<b>All Stocks</b>	-0.25	-0.58	-1.05	0.80	1.35
<u>S.D.</u>	7.09	6.75	7.35	4.88	
Panel B: Size					
	Low	Medium	High	Low-High	t-stat for Low-High
<b>Small</b>	0.22	-1.12	-0.06	0.28	0.43
<u>S.D.</u>	8.25	6.93	8.73	5.09	
<b>Medium</b>	-0.88	-0.51	-1.79	0.91	1.56
<u>S.D.</u>	6.27	6.49	8.41	4.47	
<b>Large</b>	-0.63	-0.72	-0.79	0.16	0.34
<u>S.D.</u>	7.10	6.83	6.93	3.62	
Panel B: By book-to-market					
	Low	Medium	High	Low-High	t-stat for Low-High
<b>Small</b>	-0.14	-0.79	-1.46	1.32	2.04
<u>S.D.</u>	5.83	6.14	7.36	5.02	
<b>Medium</b>	-0.6	-0.37	-0.91	0.31	0.64
<u>S.D.</u>	7.51	6.79	7.41	3.81	
<b>Large</b>	-0.77	-0.83	-0.94	0.17	0.31
<u>S.D.</u>	8.22	8.13	8.26	4.46	



**Figure 2: 4-Year Performance of SET100**

This graph plots stock market index return to demonstrate 4-year performance of SET100 from April 2005 to April 2009. It can be observed that stock market declines steadily throughout year 2008 due to the Financial Crisis in 2008, in which many banks have collapsed. It could be suspected that year 2008 was the reason behind the unprofitability of the media portfolios in univariate analysis.



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**Table 4: Returns of Media Portfolios, Excluding Year 2008**

This table presents average monthly returns on portfolios of stocks sorted by media coverage and firm characteristics. Sample firms are firms listed on SET100 from 2005 to 2007. However, media coverage is collected from 2004 to 2007 from four newspapers: *Bangkok Post*, *Post Today*, *The Manager*, and *Thann Settakij*. Media coverage is measured by the number of newspaper articles written about the firm. Average return numbers are in percentage. Panel A provides average monthly returns of sample firms divided into three media portfolios of low, medium, and high. Panel B presents average monthly returns of stocks sorted by size and media coverage. Panel C presents average monthly returns of stocks sorted by book-to-market ratios and media coverage. The median is used to divide stocks into different portfolios. Equal weighted average return is computed for each portfolio using stock prices in the next month. The column “Low-High” indicates the difference between average returns of low media portfolio and high media portfolio. T-stat for Low-High is also tabulated. The row S.D. is standard deviation of returns of each portfolio.

Average monthly return					
Panel A: Media coverage					
	Low	Medium	High	Low-High	t-stat for Low-High
<b>All Stocks</b>	0.66	0.19	-0.22	0.88	1.22
<u>S.D.</u>	5.03	4.62	5.58	4.95	
Panel B: Size					
	Low	Medium	High	Low-High	t-stat for Low-High
<b>Small</b>	0.97	-0.4	0.28	0.69	0.92
<u>S.D.</u>	5.92	5.23	7.54	5.19	
<b>Medium</b>	-0.06	0.18	-1.13	1.07	1.66
<u>S.D.</u>	4.29	4.37	6.97	4.48	
<b>Large</b>	0.38	0.21	0.17	0.21	0.39
<u>S.D.</u>	4.33	4.42	5.10	3.64	
Panel B: By book-to-market					
	Low	Medium	High	Low-High	t-stat for Low-High
<b>Small</b>	0.84	-0.19	-0.84	1.68	2.75
<u>S.D.</u>	4.19	4.19	5.74	4.25	
<b>Medium</b>	0.51	0.52	-0.19	0.70	1.31
<u>S.D.</u>	5.19	5.32	5.17	3.71	
<b>Large</b>	-0.19	-0.12	0.15	-0.34	-0.54
<u>S.D.</u>	5.74	5.47	6.68	4.44	

**Table 5: Media-Related Trading Profits**

This table examines profitability of a trading strategy that longs stocks with low media coverage and shorts stocks with high media coverage. The dependent variable is the time-series returns of long-short portfolios. Each month, stocks are sorted by media coverage. Media coverage is the number of newspapers articles published about a stock. Median is used to group sample stocks into three media portfolios of low, medium, and high. Portfolios are rebalanced each month and are equally weighted. Time-series returns are regressed on the two models: CAPM and Fama-French three-factor model. Rm-Rf is the market return, minus return on 1-month Thai Treasury Bond. SMB is return of a portfolio of small stocks, minus the return of a portfolio of large stocks. HML is return on a portfolio of stocks with high book-to-market ratio, minus return on a portfolio of stocks with low book-to-market ratio. P-values are shown in the parenthesis. \*, \*\*, \*\*\* indicates that the coefficient is statistically significant at 10%, 5% and 1% levels, respectively. R-squared are shown in the last row.

	Model 1: CAPM	Model 2: FF 3-Factors	
Rm-Rf	0.0095 [0.3780]	0.0147 [0.2671]	0.014102 [0.2468]
SMB	-- --	0.01741 [0.2671]	0.011036 [0.6303]
HML	-- --	-- --	-0.00968 [0.5038]
Intercept	-0.2293 [0.0041]***	-0.225 [0.0051]***	-0.2526 [0.0008]***
Observations	60	60	60
R-Squared	0.0134	0.0216	0.03

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**Table 6: Media-Related Trading Profits by Firm Characteristics**

This table examines profitability of a trading strategy that longs stocks with low media coverage and shorts stocks with high media coverage. The dependent variable is the time-series returns of long-short portfolios. Panel A presents profitability of the media trading strategy in subsamples of firms sorted by size. Panel B shows profitability of media trading strategy in subsamples of firms sorted by book-to-market ratios. Each month, stocks are sorted into media portfolios of low, medium, and high using the median. Then, stocks in each media portfolio are sorted again by size or book-to-market ratios. The portfolio then takes a long position on stocks with low media coverage and short position on stocks with high media coverage. Portfolios are equally weighted and rebalanced monthly. Numbers shown in the table are alphas from regressing the time-series returns of long-short portfolios on CAPM and Fama-French three-factor model. P-values are shown in the parenthesis. \*, \*\*, \*\*\* indicate that the coefficient is statistically significant at 10%, 5% and 1% levels, respectively.

<b>Panel A: By size</b>		
<u>CAPM</u>		<u>FF 3-Factor</u>
	Small	
-0.1081 [0.52]		-0.0719 [0.754]
	Medium	
-0.3486 [0.0064]***		-0.5212 [0.0171]**
	Big	
-0.2582 [0.0018]***		-0.3387 [0.0046]***
<b>Panel B: By book-to-market</b>		
<u>CAPM</u>		<u>FF 3-Factor</u>
	Low	
-0.2162 [0.0012]***		-0.2606 [0.0037]***
	Medium	
-0.2516 [0.0042]***		-0.3957 [0.0296]**
	High	
-0.3354 [0.0009]***		-0.2924 [0.0138]**

**Table 7: Robustness Checks**

This table examines profitability of media trading strategy that longs stocks with low media coverage and shorts stocks with high media coverage, after excluding financial firms from the sample. The dependent variable is the time-series returns of long-short portfolios. Panel A presents profitability of the media trading strategy in subsamples of firms sorted by size. Panel B shows profitability of media trading strategy in subsamples of firms sorted by book-to-market ratios. Each month, stocks are sorted into media portfolios of low, medium, and high using the median. Then, stocks in each media portfolio are sorted again by size or book-to-market ratios. The portfolio then takes a long position on stocks with low media coverage and short position on stocks with high media coverage. Portfolios are equally weighted and rebalanced monthly. Numbers shown in the table are alphas from regressing the time-series returns of long-short portfolios on CAPM and Fama-French three-factor model. P-values are shown in the parenthesis. \*, \*\*, \*\*\* indicate that the coefficient is statistically significant at 10%, 5% and 1% levels, respectively.

<b>Panel A: By media coverage</b>		
<u>CAPM</u>		<u>FF 3-Factor</u>
-0.295		-0.3857
[0.046]**		[0.0827]*
<b>Panel B: By size</b>		
<u>CAPM</u>		<u>FF 3-Factor</u>
	Small	
-0.3125		-0.3328
[0.0417]**		[0.1237]
	Medium	
-0.3737		-0.3487
[0.0010]***		[0.0062]***
	Big	
-0.3303		-0.3808
[0.0053]***		[0.0612]*
<b>Panel C: By book-to-market</b>		
<u>CAPM</u>		<u>FF 3-Factor</u>
	Low	
-0.278		-0.3725
[0.0357]**		[0.0037]***
	Medium	
-0.3796		-0.4529
[0.0089]***		[0.0694]*
	High	
-0.3897		-0.3689
[0.0026]***		[0.0891]*

## **CHAPTER VI**

### **CONCLUSION**

#### **6.1 Conclusion**

Mass media is an important tool in disseminating information to the public. This role of media has the effect of reducing information asymmetries, increasing transparency, and providing useful information to various stakeholders. Given this, one might expect the mass media to impose a significant effect on securities markets. Interest in the relation between the news media and the market has been increasing among researchers. This paper aims to contribute to this strand of research by examining the relation between media coverage and stock returns in Thailand. The paper hopes to contribute to the rapidly expanding area of research on the effect on media coverage on financial markets. Information flows are a key factor driving asset pricing patterns, and thus a simple measure of such flows could have many uses. Stock prices are based on forecasts of future performance, and optimal forecasts require weighing both hard and soft information about the company, the industry and the overall economy. Given the many factors that must be weighed, it is difficult to find a quantifiable measure of the market's consensus at any one time, or of how that consensus changes over time. One possible measure, however, is based on media attention, since financial journalists are professionals that attempt to reflect and report (and perhaps shape) this consensus. Thus, it is not surprising that so much attention recently has been given to the media and its effect on the financial markets.

The paper is strongly related to Fang and Peress (2009), who study the effect of media coverage on stock returns in the U.S. Fang and Peress (2009) finds a no-media related premium of 8-12% annually, suggesting that stocks with no media coverage outperforms those with high media coverage in the U.S. stock market. However, the media effect is hypothesized to be reversed for Thai stock market. The main reason for this is because media in Thailand and the U.S., each, has its own unique aspect. Thai media is generally or explicitly supportive of particular political parties, while U.S. media pride itself on their independence from political fray. Media in Thailand could suspiciously be affected greatly by the powerful forces, and might not be able to prevent

powerful managers from secretly keeping negative news about their companies. More positive news implies better performance of that company. Hence, stock price of the firm rises, offering higher future returns.

There are two main objectives to this paper. Following methodology of Fang and Peress (2009), the first objective is to examine some determinants of media coverage in Thailand, such as firm size, book-to-market ratios, past returns, and prices. The second objective is to examine the effect of media coverage on stock returns in Thai stock markets, and to prove the hypothesis that the media effect found by Fang and Peress (2009) in the U.S. stock market is reverse in Thai stock market. That is, in Thai stock market, media coverage and stock returns are positively correlated. Stocks with high media coverage offer higher returns than stocks with low media coverage. Sample consists of companies listed on SET100 of the Stock Exchange of Thailand from January 2005 to December 2008. However, news articles are collected on these sample stocks from January 2004 to December 2008 from four selected local Newspapers in Thailand, namely *Bangkok Post*, *Post Today*, *Thann Settakij* and *The Manager*.

Firstly, to examine determinants of media coverage following methodology used by Fang and Peress (2009), Fama-Macbeth (1973) regression is carried out, using Newey-West adjusted standard errors for autocorrelation since media coverage is persistent. Dependent variable is media coverage or the number of articles published about a stock in a given year. Size and book-to-market ratios are found to be positively correlated to media coverage, while past return and prices are not significant. Secondly, univariate and multivariate analyses are carried out to examine the media effect in Thai stock market. In univariate analysis, average monthly returns for stocks that are sorted by media coverage are compared. Each month, stocks are divided into three media portfolios of low, medium, and high media coverage, using the median. Equal-weighted average returns are computed for all portfolios, using individual stock prices in the next month. When these returns are compared, it can be observed that all media portfolios are not profitable. However, there is a “loss premium” of 9.6% annually related to low media coverage stocks. This “loss premium” still exists after controlling for firm characteristics, such as size and book-to-market ratios. Multivariate analysis is then carried out to test

whether this low media-related premium exists after controlling for the risk factors that are known to affect the cross-section of stock returns. In multivariate analysis, profitability of a trading strategy that longs stocks with low media coverage and shorts stocks with high media coverage is observed. Each month, stocks are sorted by their media coverage into three media portfolios of low, medium, and high, using the median. Both the long and short positions are equally weighted, held for one month, and rebalanced monthly. The resulting time-series returns on the long-short portfolio are regressed on CAPM and Fama-French three-factor models, to control for market, size, and book-to-market factors. Negative and significant alphas from CAPM and Fama-French three-factor models indicate that there are no excess returns associated to the media trading strategy. The resulting negative alphas are primarily driven by the long positions in the stocks with low media coverage. Hence, after factoring in the risk factors, it is found that stocks with high media coverage seem to outperform stocks with low media coverage. The media effect is robust, even after controlling for firm characteristics and financial sector bias. The two analyses offer two different results of the media effect in Thai stock market. Because risk factors are taken into account, multivariate analysis offers a stronger evidence of the media effect it documents. The hypothesis that media coverage and stock returns are positively correlated is supported.

Explanation to the media effect found in Thai stock market, after controlling for firm characteristics and risk factors, can be related to the investors' recognition theory, behavior finance theory and other significant influences on the Thai media. In the investors' recognition theory context, there are studies, for instance Barber and Odean (2007), that observe that investors buy "attention-grabbing" stocks. Mass media plays an important role of information provider, either by distribution or redistributing information from other sources to the public. If investors buy and over-weight stocks that they are familiarized in their portfolios, prices of these stocks are likely to increase relative to the prices of other stocks. As a result, stocks that have higher media coverage give higher future returns than those that have lower media coverage. For behavior finance theory, studies suggest that investors overreact to media attention. Investors often react positively to good news and negatively to bad news. This has led us to think that the print media in



Thailand may not be as active as the media in the U.S. As a result, the media is unable to keep managers from secretly keeping negative news of the firms.

To expand the discussion of Thai media and U.S. media, World Association of Newspapers (2009) has documented that Thai newspapers are generally or explicitly supportive of particular political parties. Take *The Manager*, for instance, it is owned independently by the leader of a group of political protestors who refer themselves as “Yellow”. Moreover, ITV was acquired by ex-Prime Minister Thaksin Shinawatra, and was transformed to take a more pro-government and non-critical position. Those that did not were asked to leave the company. *Matichon*, too, was transformed after being acquired by Grammy Co., Ltd. All these instances suggest the media in Thailand can easily be influenced and ruled by the powerful businessmen and politicians. If news content released by the Thai media could be greatly influenced by some powerful forces, then powerful managers are suspected to have control over the quality (content) and perhaps the quantity of the news released about their firms. There is extensive evidence from the behavioral finance literature of overreaction. Many studies document that investors tend to overreact to media attention. If investors react positively to good news, the media effect found in Thai stock market may imply that media cannot prevent managers from secretly keeping negative news about their firms. As a result, more good news is perhaps released more frequently than bad news in the Thai print media. This, in turn, allows investors to react positively to the news, buy the stocks and drive up the prices of those stocks, resulting in higher future returns.

The media effect found in Thai and U.S. stock markets may be different but they speak strongly against the perfect market model, where market is informationally efficient. In a perfect market, prices fully reflect all information available and arbitrage opportunity does not exist. The media effect suggests that there is coverage-related premium to the amount of media coverage of stocks. This premium represents an opportunity for easy money, in which rational investors are quick to spot and seize.

## 6.2 Implications and Suggestions for Future Research

Practical implication of the results is that coverage by mass media can play a role in alleviating information problems even if it does not give genuine news. Further, this implies that companies' media relations activities can affect their cost of capital. Managers may want to release more news to increase recognition to investors that prefer to over-weight familiarized stocks. Also, many firms in Thai stock market are still left without analyst coverage. The result suggests that mass media may offer a supplement, or perhaps a substitute, to the traditional channels of corporate information such as analyst coverage.

In addition, the result of this study has led to an interesting question, which can be useful for future research of this area. That is, can media be a return factor? In a perfect market, the amount of media coverage is not relevant because media coverage does not reveal any information about the firms, and existing risk factors fully explain the cross-sectional pattern of returns. Result of the media effect speaks strongly against the perfect market model. From the market factor of CAPM to size and book-to-market factors of Fama-French three-factor model to the momentum factor of Carhart four-factor model, media factor can perhaps add to the commonly known risk factors to help explain the cross-sectional pattern of returns. There are two main points on the media factor that should be taken into account. First is quantity of the news or coverage. Second is quality of the news or the linguistic content of the news. More and more studies are carried out to observe the effect of media coverage on stock returns. It would be interesting to observe whether the media effect exists when linguistic contents of the news are controlled. If both coverage and content factors significantly affect the stock returns, it would also be interesting to observe whether quantity (media coverage) or quality (content) has a more significant impact on stock returns.

## References

- Banz, Rolf W. The relationship between return and market value of common stocks. Journal of Economics 9, (1981): 3-18.
- Barber, Brad, and Terry Odean. All that glitters: The effect of attention and news on the buying behavior of individual and institutional investors. Review of Financial Studies 21, (2008): 785-818.
- Bhattacharya, Utpal, Neal Galin, Rina Ray and Xiaoyun Yu. The role of the media in the Internet IPO Bubble. Journal of Financial and Quantitative Analysis 44, (2009): 657-682.
- Brandes, L., and K. Rost. Media, limited attention, and the propensity of individuals to buy stocks. University of Zurich Working Paper (2009).
- Carhart, Mark. On persistence in mutual fund performance. Journal of Finance 52, (1997): 57-82.
- Chan, Wesley. Stock price reaction to news and no-news: drift and reversal after headlines. Journal of Financial Economics (2003): 223-260.
- Diether, Karl B., Christopher J. Malloy, and Anna Scherbina. Differences of opinion and the cross section of stock returns. Journal of Finance 57, (2002): 2113-2141.
- De Bondt, W., Thaler, R. Do the stock market overreact? The Journal of Finance 70, (1985): 793.
- Easley, David, Soeren Hvidjaer, and Maureen O'Hara. Is information risk a determinant of asset returns? Journal of Finance 57, (2002): 2185-2221.
- Fama, Eugene, F. Market Efficiency, long-term returns, and behavioral finance. Journal of Financial Economics 49, (1998): 238-306.
- Fang, Lily H. and Joel Peress. Media coverage and the cross-section of stock returns. Journal of Finance 64, (2009): 2023-2052.
- Huberman, Gur. Familiarity breeds investment. Columbia University (2001).
- Islam, Sardar M.N., Watanapalachaikul, Sethapong, and Colin Clark. Are emerging financial markets efficient: some evidence from the models on Thai stock markets. Victoria University (2005).
- Kecskes, Ambrus and Kent Womack. Adds and drops of coverage by equity research analysts. Dartmouth College (2008).

- Kelly, Bryan and Alexander Ljungqvist. The value of research. New York University Stern School of Business (2007).
- Khorana, Ajay, Simona Mola and P. Raghavendra Rau. Is there life after loss of analyst coverage? Pardue University (2007).
- Kilbanoff, Peter, Owen Lamont, and Thierry A. Wizman. Investor reaction to salient news in closed-end country funds. Journal of Finance 53, (1998): 673-699.
- Lewis, Glen. Virtual Thailand: the media and cultural politics in Thailand, Malaysia and Singapore. Routledge (2006): 80-124
- Litner, J. The valuation of risk assets and the selection of risky investments in stock portfolios and capital budgets. Review of Economics and Statistics 47, (1965): 13-37.
- Liu, Xiaolei L., Ann E. Sherman, and Yong Zhang. The role of the media in initial public offerings. DePaul University and Hong Kong University of Science and Technology (2008).
- Loeb, Thomas F. Is there a gift from investing in small stocks? Financial Analysis Journal 47, (1991): 39-44.
- McCargo, Duncan. Politics and the Media in Thailand: Media Mechanitions. Routledge, (2000): 3 – 21.
- Markowitz, H. Portfolio selection. Journal of Finance 7, (1952): 77-91.
- Merton, Robert C. A simple model of capital market equilibrium with incomplete information. Journal of Finance 42, (1987): 483-510.
- Meschke, Felix J. CEO interviews on CNBC. Arizona State University Working Paper (2004).
- Pastor, Lubos, and Robert F. Stambaugh. Liquidity risk and expected stock returns. Journal of Political Economy 111, (2003): 642-685.
- Pravichai, Sunisa. บทบาทที่พึงประสงค์ของหนังสือพิมพ์ (The roles of newspapers). The National Press Council of Thailand 0201, (2009): 1-15.
- Reinganum, Marc R. The anomalous stock market behavior of small firms in January. Journal of Financial Economics 12, (1983): 84-104.
- Ren, Paul. Thailand stocks: A brief introduction. Stock Exchange of Thailand (2009).

- Sharpe, W.F. Capital asset prices: A theory of market equilibrium under conditions of risk. Journal of Finance 19, (1964): 425-442.
- Song, Xian. Media Coverage and Stock Returns in Hong Kong. Institut für schweizerisches Bankwesen der Universität Zurich (2010).
- Tetlock, Paul C. Giving content to investor sentiment: The role of media in the stock market. Journal of Finance 62, (2007): 1139-1168.
- Tetlock, Paul C., Maytal Saar-Tsechansky, and Sofus Macskassy. More than words: quantifying language to measure firms' fundamentals. Journal of Finance 63, (2008): 1437-1467.
- World Association of Newspapers. World Press Trend 2009. WAN-IFRA: The World Association of Newspapers and News Publishers (2009)



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My name is Nijjirun Teeraphantuvat. I was born on May 4<sup>th</sup>, 1986 in Bangkok, Thailand. In 2008, I graduated from University of Southern California with Bachelor of Arts in Mass Communication. Then, in 2009, I attended Chulalongkorn University for Master of Science in Finance Program.



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