

# AN EMPIRICAL STUDY OF THE EFFECT OF ACQUISITIONS ON SHAREHOLDER WEALTH IN THAILAND

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## ABSTRACT

The purpose of this study was to examine the impact of domestic acquisitions on shareholder wealth for both acquiring and target firms in Thailand. In addition, the study investigated the financial characteristics of companies that were involved in acquisition activities. The study explored domestic acquisitions in the form of tender offers of the companies listed on the Stock Exchange of Thailand (SET) during the period 1993 to 1999. The sample consisted of 33 acquiring firms and 40 target firms. The event study methodology was used to assess the impact of domestic acquisitions on shareholder wealth for both acquiring and target firms. The Pearson correlation test was employed to analyze the pairwise relationship between average abnormal returns accruing to shareholders of both acquiring and target firms on the event date and each financial variable: percentage of acquisition, assets, equity, income, profit, earning per share, debt ratio, and net profit margin. The cross-sectional regression analysis was applied to determine the relationship between event day returns of shareholders of firms involved in acquisitions and various financial variables. The study showed that the shareholders of acquiring firms obtained statistically significant negative abnormal returns from acquisitions. On the other hand, the shareholders of target firms earned statistically significant positive abnormal returns from acquisitions. Furthermore, the study found that the more percentage the acquiring firms made a tender offer, the less abnormal returns the shareholders of acquiring firms realized from acquisitions. In addition, the larger the firm as measured by its assets and the higher the proportion of equity with which the assets were financed, the greater the abnormal returns of target firm shareholders.

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## INTRODUCTION

Acquisitions have become common practices for contemporary business environments. Theoretically, the market for corporate acquisitions can be viewed as the market for corporate control. Jensen and Ruback (1983) defined "corporate control" as the right to control the management of the corporate resources. There are basically three types of acquisitions: a merger, a share acquisition, and an asset acquisition (Ross, Westerfield, and Jaffe, 1993).

Furthermore many researchers have examined the effect of acquisitions on shareholder wealth of the involved companies. Numerous empirical studies show a consensus that the target firms obtain positive abnormal returns from the acquisitions (e.g., Asquith, 1983; Asquith, Bruner, and Mullins, 1983; Cheung and Shum, 1993; Dennis and McConnell, 1986; Dodd, 1980; Firth, 1980; Frank and Harris, 1989; Keown and Pinkerton, 1981; Limmack, 1991; Ocana, Pena, and Robles, 1997).

In contrast, there is the appearance of mixed empirical findings for the impact of acquisitions on shareholder wealth of the acquiring firms. Mandelker (1974) and Langetieg (1978) reveal that the acquiring shareholders realize normal returns from acquisitions. Other researchers, on the other hand, discover that acquisitions generate negative abnormal returns to stockholders of acquiring firms (Asquith, 1983; Bradley, 1980; Bradley, Desai, and Kim, 1983; Cheung and Shum, 1993; Dodd, 1980; Dodds and Quek, 1985; Firth, 1980; Gregory, 1997; Limmack, 1991; and Malatesta, 1983). Several studies, nevertheless, report that shareholders of acquiring companies experience positive abnormal returns (Asquith, Bruner, and Mullins, 1983; Dennis and McConnell, 1986; Dodd and Ruback, 1977; Ellert, 1976; Frank and Harris, 1989; Kummer and Hoffmeister, 1978). Moreover, there is evidence that various financial variables such as leverage, liquidity, size, and valuation ratio are crucial characteristics of the acquiring and target firms (e.g., Bruner, 1988; Hayes and Taussig, 1967; Melicher and Rush, 1973; Merjos, 1978; Shrieves and Pashley, 1984; Simkowitz and Monroe, 1971; Stevens, 1973).

The above discussions present that there is an abundance of research on the subject of acquisitions; however, the findings of these studies cannot be generalized to acquisitions in other countries that have different regulatory frameworks. In Thailand, for instance, if a person acquires or holds securities in a firm breaking through the 25 percent, 50 percent, and 75 percent trigger points, or if a person acquires more than a further 5 percent in any 12-month period when holding more than 25 percent of the outstanding shares of a company, that person is required by law to file a tender offer for the rest of the outstanding shares. The trigger points are different in various countries, such as 30 percent in the United Kingdom, 35 percent in Hong Kong, and 20 percent in Australia (Cheung and Shum, 1993). In addition, there is no such rule for acquisitions in the United States.

## Background of the Problem

Although there is extensive literature currently existing on the shareholder wealth effect of acquisitions, most research has focused on companies listed on the stock exchange of developed countries such as the United States and the United Kingdom. Acquisitions of companies listed on the stock exchange of developing countries, however, remain unexplored.

In order to enhance the understanding of acquisitions, an extended empirical study of acquisitions in other countries is needed because different countries may contain different institutions, different investor behaviors, different regulations, and different cultures. These unique features may provide different results from the existing findings. For example, the recent studies of acquisitions in the Hong Kong and Spain stock market provided results different from those of the United States and the United Kingdom market. Cheung and Shum (1993) analyzed the effect of acquisitions on shareholder wealth in Hong Kong, and Ocana, Pena, and Robles (1997) investigated the effect in Spain. They both found that acquiring firm shareholders obtained normal returns from acquisitions. On the other hand, most research regarding the impact of acquisitions on shareholder wealth in the United States and the United Kingdom revealed that acquiring firm shareholders either received significant negative or positive abnormal returns from acquisitions. Consequently, this study is essential because it examines the impact of acquisitions on shareholder wealth in the market that has never been explored previously. The present research focuses on acquisitions of companies listed on the Stock Exchange of Thailand. Error! Reference source not found. shows the statistics of acquisitions in the form of tender offers in Thailand during the period 1993 to 1999. As demonstrated in Error! Reference source not found., the value of tender offer had increased from 5,422.8 million baht in 1993 to 11,036.3 million baht in 1999. However, the highest values of tender offer were 23,079

million baht and 19,218.6 million baht in 1994 and 1995, respectively. The rise of tender offer value in these particular years might arise from Thailand's financial liberalization effort.

The government of Thailand started to liberalize financial capital flows in the 1990s in order to attract foreign funds required for driving Thailand's fast growing economy. The vast amounts of cheap foreign capital inflows had moved into Thailand as a result of the establishment of the Bangkok International Banking Facility (BIBF) in 1993. The BIBF allowed foreign and local banks to provide foreign currency loans to local companies at lower interest rates, compared to those of baht loans. Nidhiprabha (1998) indicated that bank credit increased more than 30 percent in 1994 and 1995. Massive loans with low interest rate were used to fuel the Thai economy, which was growing rapidly

during these periods. From IMF Staff Country Report (2000), real GDP growths of Thailand increased from 8.5 percent in 1993 to 9.0 percent in 1994 and 8.9 percent in 1995. Fixed investment rates were 4.0 percent in 1993, 4.6 percent in 1994, and 4.5 percent in 1995.

However, Kawai (1998) argued that large portions of cheap borrowings were spent on unproductive sectors such as the stock market and real estate. Thus, in 1996 the economic growth began to slow down, the stock market began to collapse, and the real estate sector became oversupplied (Kawai, 1998). In 1996, real GDP growth and fixed investment rate decreased from previous years to 5.9 percent and 3.1 percent, respectively (IMF Staff Country Report, 2000).

The findings of the present study will provide an insight into the acquisition impact on shareholder wealth in Thailand.

**Table 1**  
Acquisitions of Companies Listed on the Stock Exchange of Thailand

	1993	1994	1995	1996	1997	1998	1999 <sup>1/</sup>
Tender Offer Value <sup>2/</sup> (million Baht)	5422.8	23078.6	19218.6	8254.8	6192.6	7662.7	11036.3
Actual Purchasing Value (million Baht)	4561.8	17341.5	11168.6	6930.8	3456.3	6229.5	6713.6
Percentage to Tender Offer Value (%)	84	75	58	84	56	81	61
Number of Companies Being Offered	8	27	14	6	9	13	23

Note. <sup>1/</sup>Preliminary data

<sup>2/</sup>Tender offer value is the minimum offer value

Source: Corporate Finance Department of the SEC, 2000

## Purpose of the Study

The primary objective of this research was to examine the impact of domestic acquisitions on shareholder wealth for both acquiring and target firms in Thailand. Thus, the study was conducted to determine whether there was abnormal return accruing to shareholders of both acquiring and target firms when an acquisition occurred.

The study, furthermore, attempted to investigate the financial characteristics of companies involved in acquisition activities. It was designed to identify the relationship between abnormal returns realized by acquiring and target firms and certain financial characteristics such as percentage of acquisition, assets, equity, income, profit, earning per share, debt ratio, and net profit margin.

## Research Questions

This study attempted to answer the following questions:

1. Do shareholders of the participating firms earn significant positive or negative abnormal returns from acquisitions?
2. What are the relationships between event day returns accruing to acquiring firm shareholders and each of the following: percentage of acquisition, assets, equity, revenue, profit, earning per share, debt ratio, and net profit margin?
3. What are the relationships between event day returns accruing to target firm shareholders and each of the following financial characteristics: assets, equity, revenue, profit, earning per share, debt ratio, and net profit margin?
4. What is the relationship between event day returns accruing to acquiring firm shareholders and various financial variables?
5. What is the relationship between event day returns accruing to target firm shareholders and various financial variables?

## Research Methods

The study investigated domestic acquisitions in the form of tender offers of the companies listed on the Stock Exchange of Thailand (SET) covering the period 1993 to 1999. The sample was composed of 33 acquiring firms and 40 target firms. To be included in the sample, there must have been at least 60 observations of daily stock prices for an estimation period, a period beginning 220 days to 21 days preceding the event date. Furthermore, if the same company was involved in several tender offers during the examination period, the firm was counted separately for each tender offer.

In the analysis, the study applied three statistical methods, the event study methodology, the Pearson correlation test, and the cross-section regression analysis. The event study methodology first applied by Fama et al. (1969) was employed to assess the impact of domestic acquisitions on shareholder wealth for both acquiring and target firms in Thailand. The Pearson correlation test was used to determine the pairwise relationship between average abnormal returns accruing to shareholders of both acquiring and target firms on the event date and each of the following financial variables: percentage of acquisition, assets, equity, income, profit, earning per share, debt ratio, and net profit margin. Finally, the cross-sectional regression analysis was applied to explore the relationship between event day returns of shareholders of firms involved in acquisitions and various financial variables. In order to minimize the multi-collinearity problem, the study applied the correlation matrix to examine the relationships among various financial variables. The financial variables that were highly related at the 10 percent significance were excluded from the regression equation.

The study attempted to extend the research by investigating the abnormal returns of shareholders of the firms that operated in different sectors. The sample companies were divided into two categories: service

and non-service industry. The results from the t-test analysis showed that for both acquiring firms and target firms, there were no significant differences between the average abnormal returns of the firms in serviced industry and those of the firms in non-serviced industry. In addition, the study examined whether there was a significant relationship between event day returns of shareholders and the length of business operation started from the establishment date to the tender offer date. The finding from the Pearson correlation test indicated statistically insignificant relationship. Thus, the length of business operation variable was finally eliminated from the analysis.

## Research Findings

The following summary of research findings from the statistical analysis conducted in the study are:

1. During the event period, the shareholders of acquiring firms obtained statistically significant negative abnormal returns from acquisitions. On the other hand, the shareholders of target firms earned statistically significant positive abnormal returns from acquisitions.
2. No significant relationships between event day returns to acquiring firms and each financial variable were found in the study.
3. Event day returns to target firms were found to be significantly related to assets and equity. However, there were insignificant pairwise relationships between event day returns to target firms and profit, earning per share, debt ratio, and net profit margin.
4. The cross-sectional regression result of the relationship between event day returns accruing to acquiring firm shareholders and various financial characteristics was as follows:

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$$\begin{aligned} \text{Event day returns of acquiring firm shareholders} \\ = & - 0.09 - 0.03 \text{ Percentage of acquisition} \\ & - 2.65 \text{ Equity} + 0.01 \text{ Net profit margin} \end{aligned}$$


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The results reported that only partial coefficient of percentage of acquisition was statistically significant different from zero.

5. The cross-sectional regression result of the association between event day returns accruing to target firm shareholders and various financial characteristics was as follows:

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$$\begin{aligned} \text{Event day returns of target firm shareholders} \\ = & - 0.54 + 1.53 \text{ Equity} - 5.42 \text{ Revenue} \\ & + 0.02 \text{ Earning per share} \end{aligned}$$


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From the findings, only partial coefficient of equity variable was statistically significant different from zero.

## Discussion

The discussion of the research findings is organized into two sections. The first section discusses the impact of acquisitions on shareholder wealth of both acquiring and target firms. The second section presents the discussion of financial characteristics of the firms involved in acquisitions.

### The Effect of Acquisitions on Shareholder Wealth

This section describes the effect of domestic acquisitions on shareholder wealth in Thailand. The wealth of acquiring firm shareholders will be discussed first, following by a discussion of target firm shareholders.

#### Acquiring firms.

Previous research on the wealth effects of acquisitions on shareholders of acquiring firms reveals conflicting results. Mandelker (1974) and Langetieg (1978) report that the acquiring firm shareholders earn normal returns from acquisitions. Several researchers find that stockholders of acquiring firms suffer losses from acquisitions (Asquith, 1983; Bradley, 1980; Bradley, Desai,

and Kim, 1983; Cheung and Shum, 1993; Dodd, 1980; Dodds and Quek, 1985; Firth, 1980; Gregory, 1997; Limmack, 1991; Malatesta, 1983). In contrast, other empirical studies discovered that acquiring firm shareholders gain from acquisitions (Asquith, Bruner, and Mullins, 1983; Dennis and McConnell, 1986; Dodd and Ruback, 1977; Ellert, 1976; Frank and Harris, 1989; Kummer and Hoffmeister, 1978).

Nevertheless, the empirical findings from domestic acquisitions in Thailand suggested that the shareholders of acquiring firms, on average, experienced negative abnormal returns from acquisitions. This evidence is consistent with the agency theory.

The agency problem arises from the separation of ownership and control (Jensen and Meckling, 1976). Managers act as the agents of the stockholders and are expected to perform in the best interest of the shareholders. However, managers sometimes are concerned more with their personal wealth than with shareholder wealth, so they might be involved in activities that decrease shareholder wealth. Baker, Jensen, and Murphy (1988) asserted that managers are motivated to enlarge the size of the firm because the compensation and promotion of managers are related to the size of the firm. The fact that the shareholders of firms engaged in acquisitions obtain negative abnormal returns is the evidence of the existence of the agency problem in Thailand. The management of the acquiring firms makes a decision to acquire another firm, whereas the shareholders view the acquisition as a poor investment in which the company should not become involved.

Moreover, the hubris hypothesis proposed by Roll (1986) can be used to describe domestic acquisitions in Thailand. Roll (1986) argued that the hubris of the managers of the acquiring firms causes them to pay a premium for the target firms. According to the hubris hypothesis, the value of the acquiring firm should decrease, and the value of the target firms should rise.

This is exactly the explanation for acquisitions in Thailand, where there were significant negative abnormal returns accruing to the acquiring firm shareholders.

Jensen (1988: 28) argued that free cash flow is one of the causes of acquisitions: "Free cash flow is cash flow in excess of that required to fund all of a firm's projects that have positive net present values when discounted at the relevant cost of capital." Managers are supposed to pay out all free cash flow to the shareholders to maximize shareholder wealth. Nevertheless, the payment of the unused cash back to shareholders would decrease the manager's power since they would have fewer resources under their control. Instead of distributing the extra cash to the shareholders, the free cash flow theory suggests that managers tend to spend the free cash flows on low-benefit or even value-decreasing projects. Applying the free cash flow theory to the empirical findings of acquisitions in Thailand, the acquiring firm might have large free cash flows available. Hence, the management of the acquiring firm might choose to use the excess cash to acquire another company even though the acquisitions reduce the wealth of the firm shareholders.

### **Target firms.**

Halpern (1983: 306) stated that "since target firms' shareholders must be given an enticement to accept the acquisition, they will earn abnormal return regardless of the motivation for the acquisition." Similar to the findings of other empirical studies (e.g. Bradley, 1980; Bradley, Desai and Kim, 1982; Dodd and Ruback, 1977), the results from the present study provide the support for the above argument. The study found that shareholders of target firms in Thailand, on average, earned positive abnormal returns from the acquisitions. Based on the hubris hypothesis proposed by Roll (1986), the target firm shareholders may benefit from the premium overpaid by the acquiring firms.

Furthermore, the study discovered the upward trend of cumulative abnormal returns accruing to the target firm shareholders. This evidence illustrates that the share prices of the target firms revalue positively. Bradley, Desai, and Kim (1983) argued that there are two forms of information hypothesis that could be used to describe the positive revaluation of target stocks. The first explanation is the "sitting-on-a-gold-mine" theory. The acquisition attempt of the acquiring firm may guide the market to believe that the acquiring firm has superior information about the true value of the target firm. Hence, the acquisition activity would signal the stock market to revalue the target shares previously viewed as undervalued shares. The other is the "kick-in-the-pants" explanation. The new information that the target management obtains from the announcement of an acquisition offer induces the existing target management to apply a higher-valued operating strategy.

The evidence from the above discussion indicates that the acquisition in Thailand is a value-creating event for the target firms.

### **Financial Characteristics of the Firms Involved in Acquisitions**

This section discusses the findings of the relationships between financial characteristics and the event day returns of both acquiring and target firms separately. The association between financial attributes and the event day returns of acquiring firms will be described first, followed by a discussion of target firms.

#### **Financial characteristics of acquiring firms.**

The results from the Pearson correlation tests showed no significant relationships between event day returns to acquiring firms and tested financial variables: percentage of acquisitions, assets, equity, revenue, profit, earning per share, debt ratio, and net profit margin. Nevertheless, the findings from the cross-sectional regression analysis revealed that percentage of

acquisition was a statistically significant variable in explaining the variability of abnormal returns accruing to the acquiring firm shareholders on the event day.

The above evidence might be compatible with the agency theory. No matter what the financial characteristics of the firms are, the managers of the acquiring firms may engage in acquisitions anyway if those investments increase their own personal wealth. In addition, the more percentage the acquiring firms made the offer to acquire another company, the less abnormal returns the shareholders of acquiring firms realized because the acquiring firm shareholders perceived the acquisition as a value-decreasing activity.

#### **Financial characteristics of target firms.**

The Pearson correlation test indicated that event day returns of target firms were positively related to assets and equity variable. Thus, the shareholders of the target firms with the higher value of assets would receive the larger abnormal returns from acquisitions. Moreover, the target firms financed more with equity would realize greater abnormal returns than those financed with debt when acquisitions take place. It may also indicate that firms that do not maximize their value through leverage in accordance with MM theory are more susceptible to takeover. Lewellen (1971) and Lintner (1971) asserted that an increase in debt capacity generates benefits for the acquiring firms. Hence, the target firms with less leverage will enhance the acquiring firm's ability to borrow additional funds.

In addition, the results from the cross-sectional regression analysis indicated that equity was a statistically significant variable in explaining event day abnormal returns accruing to the target firm shareholders. When acquisitions occur, therefore, the shareholders of the firms with low level of debt will have higher gains than those with high level of debt.

## Conclusions

The following conclusions can be drawn based on the empirical findings of the present study:

1. Domestic acquisitions in Thailand had a negative impact on the wealth of acquiring firm shareholders.
2. Domestic acquisitions in Thailand provided a positive impact on the wealth of target firm shareholders.

## Implications

The present study provided a better understanding of the domestic acquisition activities in Thailand. The findings of the study showed that there was an agency problem, a conflict of interest between the shareholders and the management of the firm, when the firm made a tender offer to acquire another company. The acquisition decisions by managers decrease the wealth of acquiring firm shareholders. Thus, the results of the study suggested that the shareholders should implement strategies that could reduce the agency problem. One alternative is to provide compensation packages to managers who correspond with share price maximization. For instance, the stock option plan allowing the manager to be the owner of the firm will induce the manager to act in the best interests of the shareholders.

3. The more percentage the acquiring firms made a tender offer, the less abnormal returns the shareholders of acquiring firms realized from acquisitions.
4. The target firms with high value of assets obtained large abnormal returns from acquisitions.
5. The target firms with high proportion of equity finance earned high abnormal returns from acquisitions.

Furthermore, the results of the study indicated that target firm shareholders perceived acquisitions in Thailand as value-increasing transactions. Therefore, the management actions that would prevent the firm from being acquired may be harmful to the wealth of target firm shareholders.

In addition, the present research may benefit speculators. The findings of the present research revealed that the abnormal returns of target firms were associated with assets and equity. Hence, speculators may search for the companies with considerable value of assets and large proportion of equity because these firms would provide large abnormal returns when they become the targets of acquisitions.

## APPENDIX

**Table 2: Summarized Results of Empirical Studies of the Impact of Acquisition  
on Acquiring Firm Shareholder Wealth**

	Data	Methodology	Event Date	Period Covered	Abnormal Returns to Acquiring Firms
<b>The United States</b>					
Asquith (1983)	Daily	A control portfolio approach	The announcement date and the outcome date	1962-1976	Negative
Asquith, Bruner, and Mullins (1983)	Daily	A control portfolio approach	The announcement date	1963-1979	Positive
Bradeley	Daily	Theoretical model of interfirm tender offer	The announcement date expiration date	1962-1977	Negative
Bradley, Desai, and Kim (1983)	Monthly and Daily	The market model	The announcement date	1963-1980	Negative
Dennis and McConnell (1986)	Daily	The market-adjusted return	The announcement date	1962-1980	Positive
Dodd (1980)	Daily	The market model	The announcement date	1971-1977	Negative
Dodd and Ruback (1977)	Monthly	The market model	The announcement date	1958-1976	Positive
Ellert (1976)	Monthly	The CAPM model	The effective merger date	1926-1972	Positive
Kummmner and Hoffmeister (1978)	Monthly	The CAPM model	The announcement date	1956-1974	Positive
Langestieg (1978)	Monthly	The CAPM model the zero-beta model	The effective merger date	1929-1969	Normal
Malatesta (1983)	Monthly	The market model	The announcement date and the approval date	1969-1974	Negative
Mandelker (1974)	Monthly	The CAMP model	The effective merger date	1941-1962	Normal
<b>Australia</b>					
Dodd (1976)	Monthly	The CAMP model	The announcement date	1960-1970	Negative
<b>Hong Kong</b>					
Cheung and Shum (1993)	Daily	The market model	The announcement date	1986-1991	Normal
<b>Spain</b>					
Ocana, Pena, and Robles (1997)	Daily	The market model	The announcement date	1990-1994	Normal

Table 2: (Continued)

	Data	Methodology	Event Date	Period Covered	Abnormal Returns to Acquiring Firms
<i>The United Kingdom</i>					
Firth (1980)	Monthly	The market model	The announcement date	1969-1975	Negative
Dodds and Quek (1985)	Monthly	The market model	The announcement date	1974-1976	Negative
Frank and Harris (1989)	Monthly	The market model	The announcement date	1955-1985	Positive
Limmack (1991)	Monthly	The market model, the market model using adjusted beta, and the index model	The announcement date and the outcome date	1977-1986	Negative
Gregory (1997)	Monthly	Six different models: the CAPM model, the Dimson-Marsh risk and size adjustment model, the Dimson-Marsh simple size adjustment model, the multi-index model using the average of the smallest five deciles minus largest decile returns, the multi-index model using the Hoare-Govett Index as the measure of smaller firm performance, and the Fama and French three-factor model	The announcement date	1984-1992	Negative

**Table 3: Average Abnormal Returns (AR) for Acquiring Firm Shareholders**

Days	Average Abnormal Returns	t-statistic	Probability
-20	-0.172973995	-0.362511	0.7194
-19	-0.779228151	-2.049462	0.0487**
-18	-0.199407624	-0.590319	0.5591
-17	-0.052976514	-0.120359	0.9050
-16	0.331896532	0.585975	0.5620
-15	0.349290627	1.035473	0.3082
-14	-0.553918018	-1.113520	0.2738
-13	0.121919581	0.281733	0.7800
-12	-0.036399839	-0.084570	0.9331
-11	-1.113166454	-2.124057	0.0415**
-10	0.305851838	0.680975	0.5008
-9	-0.022899439	-0.040282	0.9681
-8	-0.333056558	-0.582792	0.5641
-7	0.207797184	0.479544	0.6348
-6	0.048662044	0.096328	0.9239
-5	-0.452698179	-1.119930	0.2711
-4	0.111757647	0.240340	0.8116
-3	-0.273437935	-0.426528	0.6726
-2	-0.183154551	-0.306486	0.7612
-1	-0.488256838	-0.972622	0.3380
0	-0.769404788	-2.061095	0.0475**
1	-0.621892965	-1.140408	0.2626
2	-0.332854936	-0.523436	0.6043
3	0.179012168	0.369459	0.7142
4	0.280931571	0.569374	0.5731
5	0.211306239	0.559642	0.5796
6	-0.442185734	-1.339055	0.1900
7	-0.785842396	-1.716747	0.0957*
8	0.276405755	0.569840	0.5728
9	0.271374293	0.608295	0.5437
10	-0.210535645	-0.449366	0.6562
11	-0.343947631	-1.255611	0.2183
12	-0.220070243	-0.564385	0.5764
13	0.270107105	0.895412	0.3773
14	0.340238851	0.903395	0.3731
15	-0.133525646	-0.391860	0.6978
16	-0.179226148	-0.502810	0.6185
17	0.545409936	1.318200	0.1968
18	0.239284674	0.858319	0.3971
19	0.589765036	1.573587	0.1254
20	-0.206782472	-0.544380	0.5900

\*\*Significant at the 5% level

\*Significant at the 10% level

**Table 4: Cumulative Abnormal Returns (CAR) for Acquiring Firm Shareholders**

Days	Cumulative Abnormal Returns	t-statistic	Probability
-20	-0.172973995	-0.362511	0.7194
-19	-0.952202146	-1.465245	0.1526
-18	-1.151609770	-1.485770	0.1471
-17	-1.204586284	-1.093812	0.2822
-16	-0.872689752	-0.636889	0.5287
-15	-0.523399125	-0.366306	0.7165
-14	-1.077317143	-0.770026	0.4469
-13	-0.955397562	-0.714073	0.4804
-12	-0.991797401	-0.715869	0.4793
-11	-2.104963855	-1.371725	0.1797
-10	-1.799112017	-1.215764	0.2330
-9	-1.822011457	-1.143977	0.2611
-8	-2.155068014	-1.328537	0.1934
-7	-1.947270830	-1.133249	0.2655
-6	-1.898608787	-1.014540	0.3179
-5	-2.351306966	-1.251870	0.2197
-4	-2.239549619	-1.155061	0.2566
-3	-2.512987554	-1.167975	0.2514
-2	-2.696172106	1.110118	0.2752
-1	-3.184428943	-1.105949	0.2770
0	-3.953833731	-1.366792	0.1812
1	-4.575726696	-1.560507	0.1285
2	-4.908581632	-1.812467	0.0793*
3	-4.729569464	-1.821969	0.0778*
4	-4.448637893	-1.588393	0.1220
5	-4.237331654	-1.477108	0.1494
6	-4.679517388	-1.541778	0.1330
7	-5.465359784	-1.821527	0.0779*
8	-5.188954029	-1.720065	0.0951*
9	-4.917579736	-1.648177	0.1091
10	-5.128115380	-1.749469	0.0898*
11	-5.472063011	-1.913750	0.0646*
12	-5.692133255	-1.954043	0.0595*
13	-5.422026149	-1.856413	0.0726*
14	-5.081787298	-1.673748	0.1039
15	-5.215312944	-1.675880	0.1035
16	-5.394539092	-1.697056	0.0994*
17	-4.849129156	-1.490352	0.1459
18	-4.609844482	-1.377822	0.1778
19	-4.020079446	-1.196744	0.2402
20	-4.226861918	-1.247556	0.2212

\*\*Significant at the 5% level

\*Significant at the 10% level

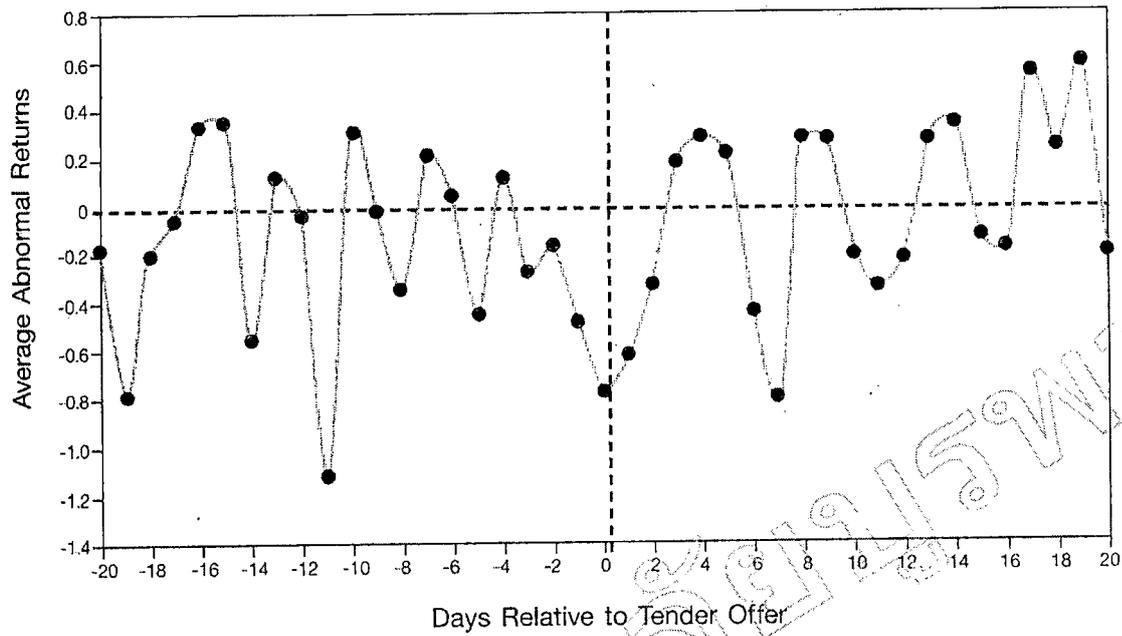


Figure 1

Average Abnormal Returns (AR) for Acquiring Firm Shareholders

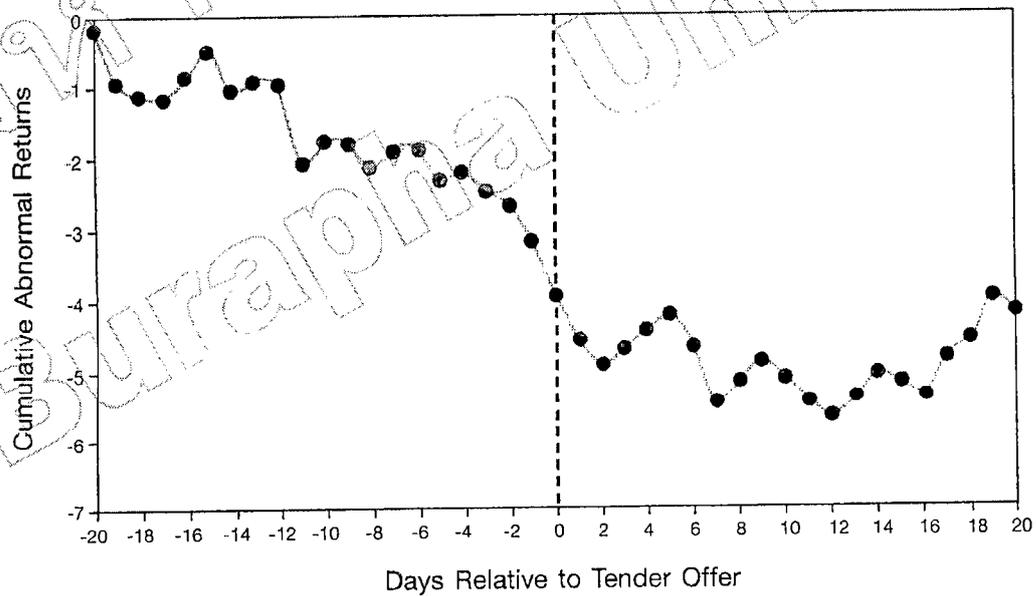
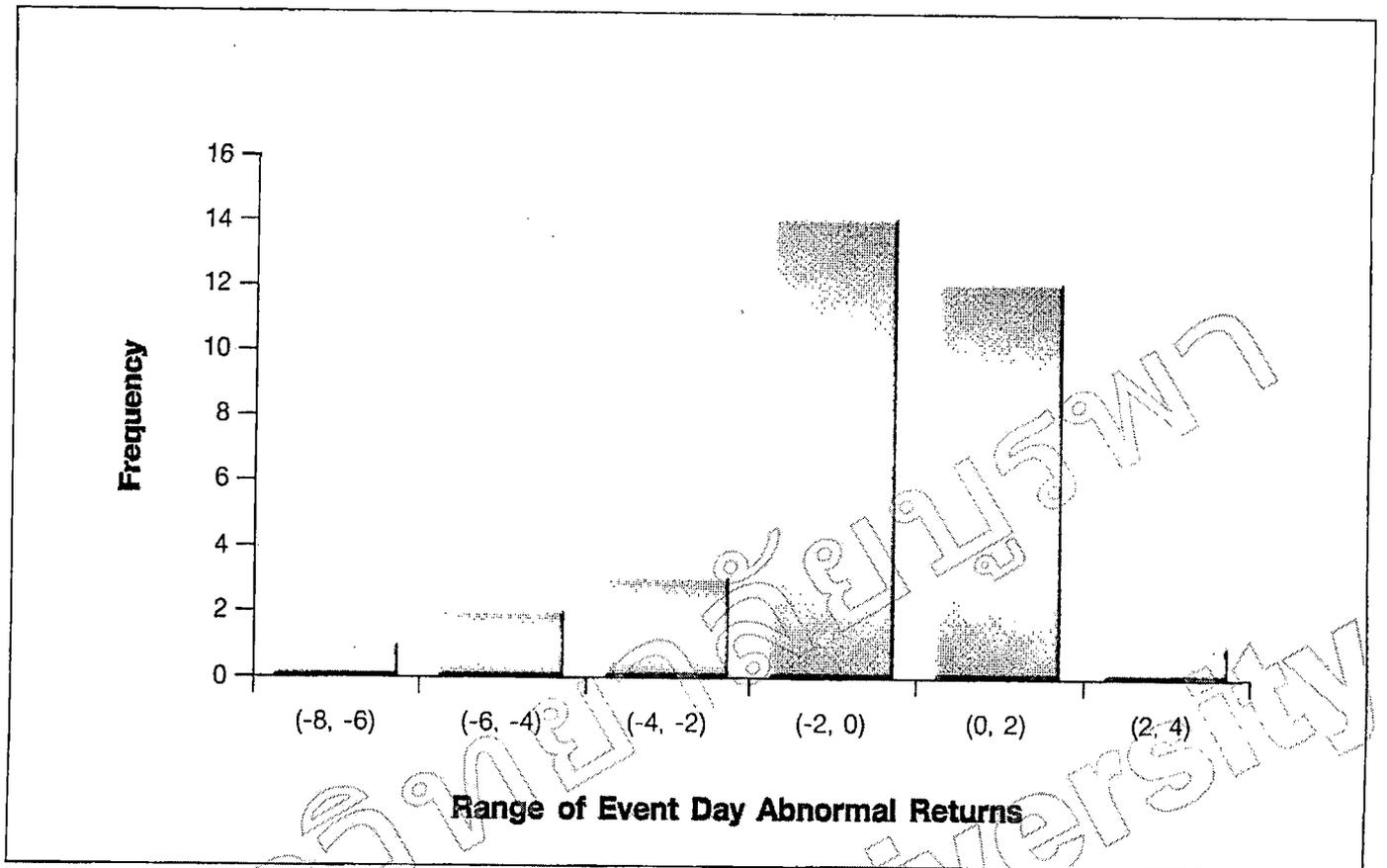


Figure 2

Cumulative Abnormal Returns (CAR) for Acquiring Firm Shareholders

**Table 5: Frequency of Negative and Positive Values of Average Abnormal Returns of 33 Acquiring Firms**

Days	Positive	Percentage	Negative	Percentage
-20	13	39.39%	20	60.61%
-19	10	30.30%	23	69.70%
-18	12	36.36%	21	63.64%
-17	11	33.33%	22	66.67%
-16	14	42.42%	19	57.58%
-15	17	51.52%	16	48.48%
-14	15	45.45%	18	54.55%
-13	15	45.45%	18	54.55%
-12	16	48.48%	17	51.52%
-11	11	33.33%	22	66.67%
-10	16	48.48%	17	51.52%
-9	17	51.52%	16	48.48%
-8	16	48.48%	17	51.52%
-7	18	54.55%	15	45.45%
-6	18	54.55%	15	45.45%
-5	15	45.45%	18	54.55%
-4	17	51.52%	16	48.48%
-3	10	30.30%	23	69.70%
-2	15	45.45%	18	54.55%
-1	15	45.45%	18	54.55%
0	13	39.39%	20	60.61%
1	12	36.36%	21	63.64%
2	13	39.39%	20	60.61%
3	16	48.48%	17	51.52%
4	18	54.55%	15	45.45%
5	21	63.64%	12	36.36%
6	10	30.30%	23	69.70%
7	12	36.36%	21	63.64%
8	18	54.55%	15	45.45%
9	11	33.33%	22	66.67%
10	13	39.39%	20	60.61%
11	14	42.42%	19	57.58%
12	18	54.55%	15	45.45%
13	21	63.64%	12	36.36%
14	17	51.52%	16	48.48%
15	14	42.42%	19	57.58%
16	13	39.39%	20	60.61%
17	19	57.58%	14	42.42%
18	22	66.67%	11	33.33%
19	21	63.64%	12	36.36%
20	15	45.45%	18	54.55%



**Figure 3**

Bar Chart of Frequency Distribution of Event Day  
Abnormal Returns of Acquiring Firms

**Table 6: Average Abnormal Return (AR) for Target Firm Shareholders**

Days	Cumulative Abnormal Returns	t-statistic	Probability
-20	0.182084118	0.276577	0.7836
-19	-0.084204617	-0.179693	0.8583
-18	-0.356082685	-0.726641	0.4718
-17	0.139423383	0.244088	0.8084
-16	0.554876333	1.026786	0.3108
-15	0.289316111	0.614454	0.5425
-14	0.062996014	0.113766	0.9100
-13	0.674605807	1.157572	0.2541
-12	0.633230114	0.947104	0.3494
-11	1.505245441	1.864351	0.0698*
-10	1.757293024	1.808623	0.0782*
-9	1.352400951	2.366222	0.0230**
-8	0.232270155	0.443067	0.6602
-7	1.040247543	1.660797	0.1048
-6	-0.266644210	-0.445182	0.6586
-5	0.371139965	0.834956	0.4088
-4	0.716092248	1.599104	0.1179
-3	0.688160147	1.275357	0.2097
-2	1.051585682	1.705364	0.0961*
-1	0.779702884	1.415856	0.1648
0	1.039337265	1.874792	0.0683*
1	0.978252013	1.836684	0.0739*
2	1.192186890	1.478957	0.1472
3	-0.845559792	-1.147168	0.2583
4	0.107152786	0.217503	0.8290
5	-0.282966899	-0.709937	0.4820
6	-0.230652764	-0.628041	0.5336
7	-0.478459922	-1.349232	0.0881
8	0.118876182	0.377211	0.7081
9	-0.003789393	-0.010809	0.9914
10	-0.077939473	-0.274151	0.7854
11	0.316747892	0.897448	0.3750
12	-0.714875065	-1.487500	0.1449
13	0.095426076	0.309495	0.7586
14	0.148105558	0.475488	0.6371
15	0.471900623	1.336792	0.1890
16	0.314314666	0.800326	0.4284
17	0.359582727	0.882873	0.3827
18	0.389126064	0.829556	0.4118
19	0.109936734	0.301613	0.7645
20	0.636831186	0.933742	0.3562

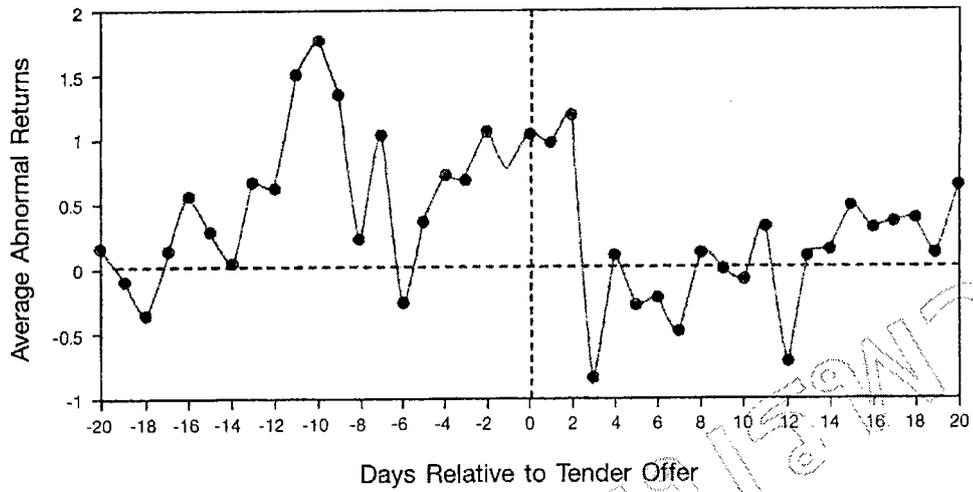
\*\*Significant at the 5% level

\*Significant at the 10% level

Table 7: Cumulative Abnormal Returns (CAR) for Target Firm Shareholders

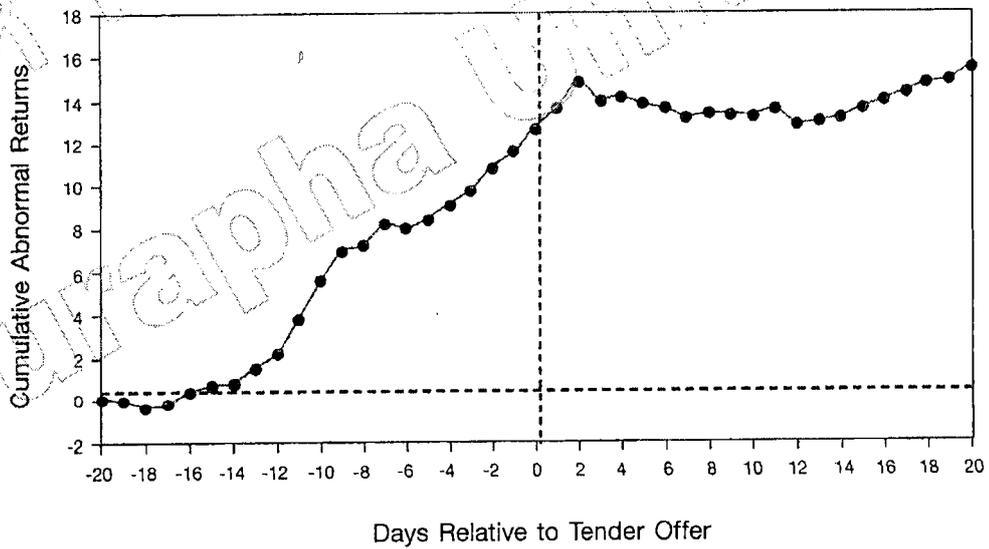
Days	Cumulative Abnormal Returns	t-statistic	Probability
-20	0.182084118	0.276577	0.7836
-19	0.097879501	0.100894	0.9202
-18	-0.258203185	-0.196001	0.8456
-17	-0.118779802	-0.081927	0.9351
-16	0.436096531	0.335319	0.7392
-15	0.725412642	0.481873	0.6326
-14	0.788408657	0.455830	0.6510
-13	1.463014463	0.700802	0.4876
-12	2.096244577	0.921481	0.3625
-11	3.601490018	1.348519	0.1853
-10	5.358783042	1.708685	0.0955*
-9	6.711183993	2.050710	0.0471**
-8	6.943454148	2.013059	0.0510*
-7	7.983701691	2.291756	0.0274**
-6	7.717057481	2.334043	0.0248**
-5	8.088197447	2.464906	0.0182**
-4	8.804289694	2.570941	0.0141***
-3	9.492449841	2.882923	0.0064***
-2	10.54403552	3.039436	0.0042***
-1	11.32373841	3.068652	0.0039***
0	12.36307567	3.180096	0.0029***
1	13.34132769	3.464708	0.0013***
2	14.53351458	3.378660	0.0017***
3	13.68795478	3.287032	0.0021***
4	13.79510757	3.241843	0.0024***
5	18.21042907	3.113044	0.0035***
6	13.28148791	2.956900	0.0053***
7	12.80302798	2.829823	0.0073***
8	12.92190417	2.849471	0.007***
9	12.91811477	2.894051	0.0062***
10	12.8401753	2.815424	0.0076***
11	13.15692319	2.864138	0.0067***
12	12.44204813	2.660421	0.0113**
13	12.5374742	2.590770	0.0134**
14	12.68557976	2.623328	0.0124**
15	13.15748038	2.714038	0.0098***
16	13.47179505	2.763278	0.0087***
17	13.83137778	2.851924	0.0069***
18	14.22050384	2.854323	0.0069***
19	14.33044058	2.812325	0.0077***
20	14.96727176	2.915010	0.0059***

\*\*\*Significant at the 1% level \*\*Significant at the 5% level \*Significant at the 10% level



**Figure 4**

Average Abnormal Returns (AR) for Target Firm Shareholders

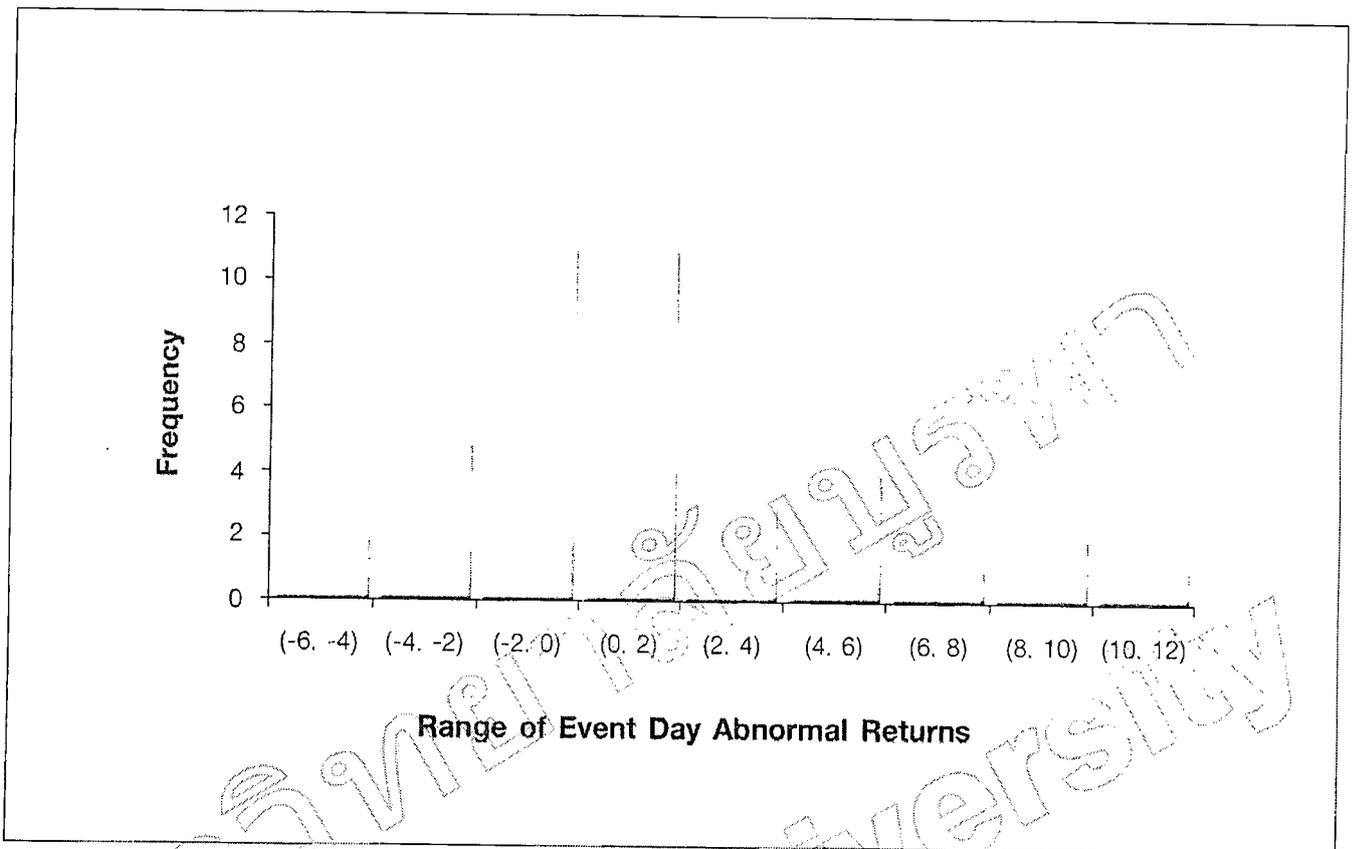


**Figure 5**

Cumulative Abnormal Returns (CAR) for Target Firm Shareholders

**Table 8:** Frequency of Negative and Positive Values of Average Day Abnormal Returns of 40 Target Firms

Days	Positive	Percentage	Negative	Percentage
-20	20	50.00%	20	50.00%
-19	16	40.00%	24	60.00%
-18	17	42.50%	23	57.50%
-17	20	50.00%	20	50.00%
-16	22	55.00%	18	45.00%
-15	17	42.50%	23	57.50%
-14	20	50.00%	20	50.00%
-13	21	52.50%	19	47.50%
-12	20	50.00%	20	50.00%
-11	23	57.50%	17	42.50%
-10	21	52.50%	19	47.50%
-9	22	55.00%	18	45.00%
-8	18	45.00%	22	55.00%
-7	27	67.50%	13	32.50%
-6	19	47.50%	21	52.50%
-5	21	52.50%	19	47.50%
-4	21	52.50%	19	47.50%
-3	25	62.50%	15	37.50%
-2	23	57.50%	17	42.50%
-1	22	55.00%	18	45.00%
0	22	55.00%	18	45.00%
1	22	55.00%	18	45.00%
2	20	50.00%	20	50.00%
3	20	50.00%	20	50.00%
4	22	55.00%	18	45.00%
5	15	37.50%	25	62.50%
6	18	45.00%	22	55.00%
7	11	27.50%	29	72.50%
8	22	55.00%	18	45.00%
9	22	55.00%	18	45.00%
10	19	47.50%	21	52.50%
11	20	50.00%	20	50.00%
12	16	40.00%	24	60.00%
13	18	45.00%	22	55.00%
14	22	55.00%	18	45.00%
15	22	55.00%	18	45.00%
16	18	45.00%	22	55.00%
17	17	42.50%	23	57.50%
18	20	50.00%	20	50.00%
19	21	52.50%	19	47.50%
20	19	47.50%	21	52.50%



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Figure 6

Bar Chart of Frequency Distribution of Event Day  
Abnormal Returns of Target Firms

**Table 9:** Descriptive Statistics of Financial Characteristics of Acquiring Firms

	Range Statistic	Minimum Statistic	Maximum Statistic	Mean Statistic	Std. Error	Std. Deviation Statistic	Skewness Statistic	Std. Error
Percentage of Acquisition (%)	99	1	100	29.3476	4.9742	28.5744	1.355	0.
Assets (Baht)	782,238,561,000	631,824,000	782,870,385,000	86,896,527,818	33,884,815,604	194,653,446,003	2.938	0.
Equity (Baht)	66,410,596,000	435,284,000	66,845,880,000	9,047,651,333	2,918,612,076	17,128,057,359	2.826	0.
Revenue (Baht)	110,715,523,000	188,285,000	110,903,808,000	13,669,009,212	4,666,225,263	26,805,423,348	2.814	0.
Profit (Baht)	22,498,320,000	-3,152,000,000	19,346,320,000	1,976,770,879	723,506,355	4,156,227,579	3.158	0.
Earning Per Share (Baht)	185.74	-24.52	161.22	18.263	6.5053	37,3702	2.843	0.
Debt Ratio (%)	79.3	19.55	98.85	63.1797	4.0805	23,4409	0.033	0.
Net Profit Margin (%)	115.7	-49.93	65.77	18.5118	3.3073	18.9993	-0.861	0.

**Table 10:** Correlations between Event Day Returns of Acquiring Firm Shareholders and Financial Characteristics

Financial Characteristics	N	r	Probability
Percentage of Acquisition	33	-0.27355	0.123
Assets	33	-0.02059	0.909
Equity	33	-0.16517	0.358
Revenue	33	-0.19598	0.274
Profit	33	-0.05842	0.747
Earning per Share	33	-0.20379	0.255
Debt Ratio	33	0.12193	0.499
Net Profit Margin	33	0.15545	0.388

**Table 11:** Descriptive Statistics of Financial Characteristics of Target Firms

	Range Statistic	Minimum Statistic	Maximum Statistic	Mean Statistic	Std. Error	Std. Deviation Statistic	Skewness Statistic	Std. Error
Percentage of Acquisition (%)	85	15	100	51.94875	3.9086388	24.7204026	0.776	0.374
Assets (Baht)	14,821,079,790	176,920,210	14,998,000,000	2,788,003,724	545,834,010	3,452,157,391	2.362	0.374
Equity (Baht)	4,417,864,000	-73,684,000	4,344,180,000	1,046,596,659	164,085,966	1,037,770,768	1.599	0.374
Revenue (Baht)	21,279,280,000	102,720,000	21,382,000,000	1,372,315,428	531,242,487	3,359,872,495	5.705	0.374
Profit (Baht)	1,039,022,000	-645,122,000	393,900,000	3,166,048	24,862,993	157,247,375	-1.849	0.374
Earning Per Share (Baht)	57	-46	11	0	1	9	-3.86	0.378
Debt Ratio (%)	113.52	5.36	118.88	53.373	3.9156	24.7644	0.249	0.374
Net Profit Margin (%)	607.88	-463.03	144.85	-4.5738	12.525	79.2151	-5.041	0.374

**Table 12:** Correlations between Event Day Returns of Target Firm Shareholders and Financial Characteristics

Financial Characteristics	N	r	Probability
Percentage of Acquisition	40	0.14543	0.371
Assets	40	0.28835	0.071*
Equity	40	0.43555	0.005**
Revenue	40	-0.01128	0.945
Profit	40	-0.04261	0.794
Earning per Share	39	0.09497	0.565
Debt Ratio	40	-0.05933	0.716
Net Profit Margin	40	0.00785	0.926

\*\*Significant at the 5% level

\*Significant at the 10% level

**Table 13:** Multiple Regression Analysis of Event Day Returns of Acquiring Firm Shareholders and Financial Characteristics

Dependent Variable : Event Day Returns of Acquiring Firm Shareholders				
Method : Least Squares				
Sample : 1,33				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.098365	0.628881	-0.156413	0.8768
Percentage of Acquisition	-0.026202	0.013172	-1.989227	0.0562*
Equity	-2.65E-11	2.17E-11	-1.223500	0.2310
Net Profit Margin	0.013106	0.011294	1.160476	0.2553
R-squared	0.161753	F-statistic		1.865339
Adjusted R-squared	0.075038	Prob (F-statistic)		0.157554

\*\*Significant at the 5% level

\*Significant at the 10% level

**Table 14:** Summary of the Statistical Findings for the Research Hypotheses

Hypotheses	Statements	Results
<b>pothesis 1</b>		
H1.1	There is no abnormal return to acquiring firm shareholders in the event of acquisition.	Rejected
H1.2	There is no abnormal return to target firm shareholders in the event of acquisition.	Rejected
<b>pothesis 2</b>		
H2.1	Event day returns accruing to acquiring firm stockholders are not related to percentage of acquisition.	Failed to rejected
H2.2	Event day returns accruing to acquiring firm stockholders are not related to assest.	Failed to rejected
H2.3	Event day returns accruing to acquiring firm stockholders are not related to equity.	Failed to rejected
H2.4	Event day returns accruing to acquiring firm stockholders are not related to revenue.	Failed to rejected
H2.5	Event day returns accruing to acquiring firm stockholders are not related to profit.	Failed to rejected
H2.6	Event day returns accruing to acquiring firm stockholders are not related to earning per share.	Failed to rejected
H2.7	Event day returns accruing to acquiring firm stockholders are not related to debt ratio.	Failed to rejected
H2.8	Event day returns accruing to acquiring firm stockholders are not related to net profit margin.	Failed to rejected
<b>pothesis 3</b>		
H3.1	Event day returns accruing to target firm stockholders are not related to percentage of acquisition.	Failed to rejected
H3.2	Event day returns accruing to target firm stockholders are not related to assest.	Rejected
H3.3	Event day returns accruing to target firm stockholders are not related to equity.	Rejected
H3.4	Event day returns accruing to target firm stockholders are not related to revenue.	Failed to rejected
H3.5	Event day returns accruing to target firm stockholders are not related to profit.	Failed to rejected
H3.6	Event day returns accruing to target firm stockholders are not related to earning per share.	Failed to rejected
H3.7	Event day returns accruing to target firm stockholders are not related to debt ratio.	Failed to rejected
H3.8	Event day returns accruing to target firm stockholders are not related to net profit margin.	Failed to rejected
<b>pothesis 4</b>	There is no relationship between event day returns accruing to acquiring firm shareholders and various financial characteristics.	Rejected
<b>pothesis 5</b>	There is no relationship between event day returns accruing to target firm shareholders and various financial characteristics.	Rejected

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