

**The Impact of Merger and Acquisition Announcements
on Indian Firms in the IT&ITES sector**

by

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Abstract

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This study examines the impact of M&A on the stock prices of the acquiring firms in the Indian Information Technology and Information Technology Enabled Services (IT&ITES) sector and tests whether the shareholders of these firms can earn abnormal returns on M&A announcements. In order to determine these, the study uses 37 acquiring firms in the period 2010 to 2012 as the research sample and applies the Event Study Methodology. The Average Abnormal Returns (AAR) are compared across the ex-event, event and post-event windows to assess the impact of M&A announcements and also the post-event effects. The results indicate that the shareholders of the acquiring firms cannot earn significant abnormal returns based on the informational value of the M&A announcements and M&A do not have a positive impact on the stock prices of these firms.

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Chapter 1

Introduction

1.1 Purpose of study

Mergers and Acquisitions (M&A) are widely used by firms across the globe as a strategy for achieving growth. After 2003, the M&A activities increased significantly in India and it corresponded with the growth in the Indian economy. The focus of this paper is to test whether M&A by firms in the Indian Information Technology and Information Technology Enabled Services sector have an impact on the firms' stock price. This study examines whether the shareholders of these acquiring firms can earn abnormal returns based on the informational value of such M&A announcements. To determine these, Event study Methodology and Hypothesis tests are used in this study.

1.2 Mergers and Acquisitions (M&A)

A merger is an amalgamation of two firms. In other words, two firms combine to form a new company so as to have business growth, increased market share or to achieve other strategic gains. An acquisition is different from a merger. It is one in which the acquirer aims to gain a controlling stake in the share capital of the company that is acquired. The acquisition of Compaq by HP in 2002 is an example for one of the biggest acquisitions in the technology driven sector. Companies can make the deal through cash and/or stock transactions.

Mergers may happen in several forms such as horizontal merger, vertical merger or conglomerate merger. If two firms that belong to the same industry merge, then it is a horizontal merger. For example, the merger that happened between Glaxo Wellcome and Smithkline Beecham, is one of the biggest horizontal mergers in the pharmaceutical industry.

A vertical merger can occur either through backward integration or forward integration. That is, either when a company seeks a merger with the supplier or distributor so as to acquire the source of supply or when a company seeks a merger with its customers or market outlets. The merger between Time-Warner and Turner Corporation was one of the biggest vertical mergers in the media industry. It significantly enhanced Time-Warner's capabilities and standing as the world's largest entertainment and media company.

In a conglomerate merger, two firms engaged in different businesses merge together to form a new company to become more stable by having a diversified product portfolio. For example, companies like General Electric (GE) and Wipro have diversified their product portfolios through M&A activities and evolved as successful conglomerates over a period of years. GE has a long history of M&A involving companies in different industries and that is why, today, it has a wide range of product and services ranging from aircraft engines, home appliances, water processing and power generation to business and consumer financing, medical imaging and industrial products. In the Indian context, the merger between Larsen and Toubro (L&T) and Voltas Ltd is a good example for a conglomerate merger.

There can be a wide range of motives for a firm to merge with or acquire another firm. For example, the motive for M&A could include expanding the firm's reach into new markets, gaining economies of scale, increasing market power, gaining access to additional resources and making use of the synergy between the firms upon completion of the M&A deal. Due to rapid changes and advancements in technology, firms in the Information technology industry are in a fast paced environment. They can have several additional motives for a merger or an acquisition. For instance, obtaining products and technologies, adding strategic valuable resources, taking advantage of the innovative capabilities of younger firms, accessing complex knowledge and eliminating current or future competitors could all be strong motivations for a technological firm to go for a M&A.

M&A can also have some disadvantages. Logistic problems, negativism, divergent goals, low motivational levels of the staff and differences in the corporate cultures of the firms are some of the challenges that can arise out of M&A.

1.3 M&A developments in Indian IT&ITES sector

There has been a lot of variation in the M&A activity in India in the past two decades. After the sharp decline due to the bursting of the dot com bubble, the Indian stock markets started recovering in 2003. The upward trend continued and then peaked at the beginning of 2008. M&A transactions also increased during this period in which the stock market indexes were increasing and 2007 registered the largest number of M&A deals in a span of 11 years since 1999.

The contribution of Indian Information Technology and Information Technology Enabled Services (IT&ITES) sector to India's GDP has increased in the past decade. It rose from 4.8 percent in 2005-2006 to 7.5 percent in 2011-2012 signifying the important role of this sector in the Indian economy. This sector also had the highest number of M&A in India between 2006 and 2008 and was one of the most active sectors in both domestic and cross border deals.

Amano (2009) states that favourable government policies, buoyancy in economy, additional liquidity in the corporate sector, and dynamic attitudes of the Indian entrepreneurs are the key factors behind the changing trends of mergers and acquisitions in India.

Despite this increasing trend of M&A in India, the impact of M&A in the IT&ITES sector is not yet fully explored. Most of the studies are based on American or European context due to the availability of reliable data in these economies. But the research on the wealth effects of M&A in the Indian context is also showing an increasing trend in the last decade. Most of the studies in this area are showing evidence that shareholders of the target firm tend to gain in all types of M&A deals whereas the wealth effect on the acquiring firms is ambiguous. Rani (2012) states that M&A generate statistically significant abnormal returns on the announcement as well as higher post M&A returns for shareholders of the acquiring firms. But Smita and Rao (2013) states that Merger announcements resulted in wealth losses for acquirers and are perceived negatively by the market. Thus, the wealth effect of M&A on the acquiring firms seems to be divided and hence this paper focuses on studying the impact of M&A on the acquiring firms.

Assuming semi-strong form of EMH and based on the review of literature, the research hypothesis is stated as:

H₀: M&A announcements do not have any significant impact on the wealth of the shareholders of the acquiring firm.

H_a: M&A announcements do have a significant impact on the wealth of the shareholders of the acquiring firm.

Event study Methodology is used to test the research hypothesis. Chapter 2 provides a review of the concept of Efficient Market Hypothesis and also covers some of the previous studies on M&A. The data and the methodology used are elaborated in the Chapter 3. The results of the tests and the analysis are presented in the Chapter 4 and the conclusions are detailed in the Chapter 5.

1.4 CNX IT INDEX

As this paper focuses on the Indian IT&ITES sector, the CNX IT Index is used as the market index. CNX IT index provides investors and market intermediaries with an appropriate benchmark that captures the performance of the IT segment of the market. It is a market capitalization weighted index with the base period being December 1995 and base date 1st January 1996. The initial base index value of the index was 1000. The Base Value of the index is being revised to 100 with effect from 28 May 2004. It is comprised of 20 companies that belong to the IT&ITES sector and are listed on the National Stock Exchange (NSE), India.

The Market representation data stated by the NSE website indicates that the CNX IT Index represents about 10.99 percent of the free float market capitalization of

the stocks listed on the National Stock Exchange, India and 94.90 percent of the free float market capitalization of the stocks forming part of the IT sector as on March 28, 2013. The total traded value for the last six months ending March 2013 of all index constituents is approximately 6.96 percent of the traded value of all stocks on the National Stock Exchange, India and 91.11 percent of the traded value of the stocks forming part of the IT sector. CNX IT Index is comprised of the most liquid and large capitalization IT stocks, traded on the NSE, engaged in the business of software or hardware and hence it serves as a good benchmark for the Indian IT&ITES sector.

Chapter 2

Literature Review

2.1 Efficient Market Hypothesis

According to the theory of Efficient Market Hypothesis (EMH), financial markets are efficient. As per Fama (1976), a market is said to be efficient with respect to an information set if the price fully reflects that information set. Fama not only defined an efficient market, but also undertook an event study, Fama et al (1969), which provides substantial evidence to support its conclusion that a stock market is efficient. The study leads to the inference that securities would not be over priced or under priced in the market as the market fully reflects the information. This implies that the investors cannot earn any abnormal returns and stock prices cannot be predicted by analysing historical data or trends.

The Efficient Market Hypothesis has been further classified into weak, semi-strong and strong forms. The weak form of EMH implies that the stock prices reflect all the market data such as trading volumes and trading prices. It poses considerable challenge for the proponents of technical analysis. The semi-strong form of EMH implies that the stock price not only reflects the past data, but also incorporates all the public information. This means that fundamental analysis cannot be a useful tool for making decisions under the semi-strong form. The strong form of EMH indicates that the stock prices not only reflect the market data and all the public information, but also

incorporates the insider information. This means that all securities are fairly priced and no investors can earn any abnormal return in the stock market even if they are insiders. If the insiders can earn abnormal returns the implication is that the market is not strong form efficient.

2.2 Literature on M&A

The increasing trend and the profitability of M&A activities across the globe has contributed to the significant growth of research in this area. Abundant financial literature is available with research and analysis done on various aspects of M&A including the wealth effects, type of transaction and motives of M&A. Most of the research papers that analyse whether M&A creates value for the firms are based on event studies. In spite of the common methodology, the event studies measuring the impact of M&A differ widely in terms of their results. Some studies conclude that M&A announcements have a positive impact on the stock prices and yield significant positive abnormal returns. Some studies provide evidence for significant negative abnormal returns upon M&A announcements. There are also research papers which could not arrive at a clear conclusion as to whether M&A creates or destroys value of the firms. Bruner (2002) extensively covers such studies on M&A in each of the categories, which differ in their conclusions as stated above. The paper summarises more than 100 scientific studies from 1971 to 2000. This research paper suggests that the shareholders of the acquiring and target firms earn positive adjusted returns and thereby indicates the beneficial wealth effects of M&A.

There are many empirical studies that provide evidence for significant abnormal returns for the acquiring firms. For example, Gopaldaswamy (2008) investigates the differences in stock price reaction of target and acquiring companies due to merger announcements and also empirically tests the role of insider information before merger announcements. Based on the evidence, the paper reveals that the returns are higher for the acquiring companies around the announcement period and an upward trend in cumulative abnormal returns for companies in the pre-announcement period which is indicative of insider information. Ma (2009) investigates abnormal returns to shareholders of the acquiring firms around the day of M&A announcement by analysing 1477 M&A deals in ten emerging Asian markets. The study also leads to a similar conclusion that the shareholders of the acquiring firms reap financial benefits due to M&A announcements.

On the contrary, there are also many studies on M&A which provide evidence and suggests negative abnormal returns for the shareholders of the acquiring firms. For example, Sara (2003) samples 12,023 acquisitions for the period 1980 to 2001 and examines the cross-sectional variation in the announcement returns of acquisitions. Based on the evidence, the paper indicates that M&A announcements destroyed the value for the acquiring firms. Also, Smita and Rao (2013) provide similar evidence in their analysis and comparison of the wealth impact of M&A announcements by Indian firms. The study covers different periods of deal activity for the period 1999 to 2009. It indicates that the merger announcements generate wealth losses for the shareholders of the acquiring firms whereas the acquisition announcements resulted in an increase in wealth for both acquiring and the target firms.

A wide range of empirical studies are available that assess the impact of cash transactions and stock transactions in M&A and analyse their effects on the stock prices of the acquiring firms. For example, Rani (2012) investigate the effect of method of financing employed in the acquisition by analysing 398 acquisitions in the Indian economy for the period 2003 to 2008. They also evaluate the impact of the type of the acquired firm on the stock returns for the shareholders of the acquiring companies. The study concludes that the M&A financed with cash, experience higher returns than the acquisitions financed with stock and that the acquirers acquiring listed firms resulted in positive abnormal returns for the shareholders of the acquiring firms.

As described above, a wide spectrum of research studies are available testing the different characteristics of M&A due to the abundant availability of data especially for the developed economies. However, this paper limits its research to a specific sector in the Indian economy, the IT&ITES sector, and investigates the impact of M&A announcements on the acquiring firms.

Chapter 3

Data and Methodology

3.1 Sample Design

In order to evaluate whether the investors can earn abnormal returns based on the informational value of M&A announcements and to assess the impact of M&A on the stock price of the firms in the IT&ITES sector, the following datasets are used in this study :

(1) The list of companies in the IT&ITES sector in India that acquired or merged with other companies during the three year period, from January 2010 to December 2012. The list consists of 149 M&A deals during the said period. This list is analysed and deals which did not have the data for the date of announcement of the M&A are excluded. Also, those companies that are not listed in the National Stock Exchange (NSE), India, are not included in the sample. For firms with more than one M&A event, only the first event is considered so as to avoid overlapping events in the estimation and event windows. Finally, only those companies for which historical stock price data are available, are included in the sample for this research. These filters narrowed down the deal list to 37 Indian firms in the IT&ITES sector with M&A during the said three year period. The list of firms, along with the tickers and event announcement dates, is detailed in the Appendix.

(2) The second set of data consists of the daily stock prices of the acquiring firms for four year period, from 2009 to 2012.

(3) The third data set consists of the daily price list for the CNX IT index for four years, from January 2009 to December 2012.

3.2 Data Sources

(1) The M&A list for the acquiring firms in the IT&ITES sector for the three year period, 2009 to 2012, is obtained from Bloomberg along with the transaction details.

(2) The daily stock prices of the acquiring companies are obtained from Yahoo finance, from the following website:

<http://ca.finance.yahoo.com/>

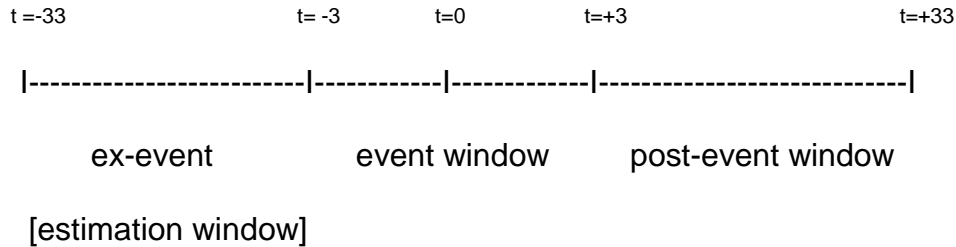
(3) The daily price list for the CNX IT index is obtained from the following website:

http://www.nseindia.com/products/content/equities/indices/historical_index_data.htm

3.3 Event Study Methodology:

To determine whether M&A announcements create value for the shareholders of the acquiring firms, event study methodology is used as described below. The date of announcement of the M&A is defined as the event date ($t=0$). Event window comprises of 6 days surrounding the event date, that is, 3 days before the M&A announcement and 3 days after the M&A announcement. A clean period of 30 days prior to the event window is defined as the estimation window and a period of 30 days after the event window forms the post-event window. This is to ensure that the estimation and event windows do not overlap so that the estimates of the return model are not influenced by event related returns. The following figure depicts the event study approach that is used in this study.

Figure 3.1



R_e , R_{e-} and R_{e+} represent the return on the event, ex-event and post-event windows respectively. The returns on the stock are calculated by using the following formula:

$$R_t = (P_t - P_{t-1}) / P_{t-1} \quad (\text{Equation 3.1})$$

where R_t denotes return on stock at time t . P_t and P_{t-1} are the stock prices at time t and $t-1$ respectively.

The Market Model is used for estimating the expected returns, that is, the returns assuming that the event does not occur. The expected returns are then subtracted from the actual returns to get the abnormal returns. These are then cumulated across firms and event windows to obtain the average cumulative abnormal returns which indicate the behaviour of stock prices to the M&A announcement.

3.4 Data Models

3.4.1 Market Model:

The Market Model is defined by the following equation:

$$E(R_{i,t}) = \alpha_i + \beta_i R_{m,t} + \varepsilon_{i,t} \quad (\text{Equation 3.2})$$

where, $E(R_{i,t})$ is the expected return on security i during period t ,

α_i is the Ordinary Least Square (OLS) estimate of the Intercept of straight line,
 β_i is the Ordinary Least Square (OLS) estimate of the coefficient of CNX IT index
 $R_{m,t}$ is the return on the market index (CNX IT index) during period t &
 $\varepsilon_{i,t}$ is the error term with mean zero and constant variance (σ square) at time t.

The parameters of the market model are estimated by using the time-series data from the estimation period that precedes each event window. These parameters are then used in the calculation of abnormal returns for each day in the event window.

3.4.2 Average Abnormal Returns (AAR)

The Abnormal Return ($AR_{i,t}$) for stock 'i' on day 't' is given by the following equation:

$$AR_{i,t} = R_{i,t} - (\alpha_i + \beta_i R_{m,t}) \quad (\text{Equation 3.3})$$

Where $AR_{i,t}$ indicates the abnormal return on security i during period t,
 $R_{i,t}$ is the actual return of stock i on day t, α_i and β_i are estimated from Equation 3.2
and $R_{m,t}$ is the return on the CNX IT index during period t.

The Average Abnormal Return (AAR) is cumulated across firms as shown below:

$$AAR_t = (1/N) \sum_{i=1}^N AR_{i,t} \quad (\text{Equation 3.4})$$

where N denotes the number of securities.

3.4.3 Average Cumulative Abnormal Returns (ACAR)

Cumulative Abnormal Return is given by the following equation:

$$CAR_{it} = CAR_{it-1} + AR_{it} \quad (\text{Equation 3.5})$$

Average Cumulative Abnormal Return is given by the following equation:

$$ACAR_t = (1/N) \sum_{i=1}^N CAR_{i,t} \quad (\text{Equation 3.6})$$

where N denotes the number of securities.

3.5 Hypothesis Tests

Null hypothesis is stated as $H_0: AAR_t=0$ and Alternative hypothesis is stated as $H_a: AAR_t \neq 0$. A statistical t- test is used to test the hypothesis. If the Null hypothesis is true, then we can conclude that the market is efficient and the investors cannot earn excess returns due to the M&A announcement. If the Alternative hypothesis is true, then we can infer that the market is not efficient and the investors can earn excess returns due to the M&A announcement.

The hypotheses can also be stated as $H_0: ACAR_t=0$ and $H_a: ACAR_t \neq 0$ and tested by using a statistical t- test. If the Null hypothesis is true, the inference is that the market is efficient. Rejection of Null would lead us to conclude that the market is not efficient and the investors can earn abnormal returns due to M&A announcements.

The differences between the Average Abnormal Returns in the event window (aar_0) and the ex-event window (aar_1) are analysed. If this difference is found to be positive and statistically significant, it will lead to the conclusion that shareholders of the acquiring firms can earn abnormal returns on M&A announcements.

The differences between the average abnormal returns in the post-event window (aar_2) and ex-event (aar_1) window are analysed using statistical tests. If this difference is found to be positive and statistically significant, it will lead to the

conclusion that M&A do have a significant impact on the stock prices of the acquiring firm.

STATA software is used for doing the Market Model regression. The data are also sorted and analysed using Excel spreadsheets. The required data are then imported into STATA for performing the statistical tests.

Chapter 4

Analysis of Results

4.1 Regression Analysis for the Market Model

The market model posits that the return on the market index at time t is the only factor determining the return on stock i , at time t . The linear relationship is given by the model as described in Equation (3.2). The return on the CNX IT index is used as the market index return since it is the appropriate benchmark for the IT&ITES sector. The regression output for the Market Model is shown in the Table 4.1.

Table 4.1

. regress stock_retn index_retn

Source	SS	df	MS	Number of obs = 2479
Model	.094202796	1	.094202796	F(1, 2477) = 153.50
Residual	1.52016925	2477	.000613714	Prob > F = 0.0000
				R-squared = 0.0584
				Adj R-squared = 0.0580
Total	1.61437205	2478	.000651482	Root MSE = .02477

stock_retn	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
index_retn	.4866877	.0392827	12.39	0.000	.4096574 .563718
_cons	-.0006578	.0004977	-1.32	0.186	-.0016337 .0003181

For the Market Model given by Equation (3.2), the output shows that the intercept (α) is -0.0006578 and the slope (β) is 0.4866877. β is the coefficient and is a measure of sensitivity of the security to the CNX IT index. The P-value is observed as zero at the five percent level of significance. Looking at the sign and the significance, the output indicates that β is positive and statistically significant at 95 percent confidence level.

The Market Model assumes that the CNX IT index return is the only factor that can fully explain the variation in security returns. The R-squared of this regression is the fraction of the variation in the stock return that is accounted for by the index return. The regression output shows that R-squared value is 0.0584 and the adjusted R-squared value is 0.0580. This implies that the Market Model can explain only less than six percent of the variations in the stock returns.

The R-squared values are too low and indicate that the model cannot sufficiently explain the variations in the security returns. In other words, this leads to the inference that the performance of the securities of the 37 firms chosen in this sample do not follow the CNX IT index pattern.

4.2 Results for Average Abnormal Returns (AAR)

Null hypothesis is stated as $H_0: AAR_t=0$ and Alternative hypothesis is stated as $H_a: AAR_t \neq 0$. If the P-value is greater than 0.05, it means that the Null hypothesis should not be rejected. It indicates that the investors cannot earn excess returns due to the M&A announcement. If the P-value is less than 0.05, it implies that the Null hypothesis should be rejected and the investors can earn excess returns due to the M&A announcement. The results for the statistical test on AAR are shown in the following table:

Table 4.2

One-sample t test

Variable	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf. Interval]	
aar	2479	-.0002295	.0004976	.0247739	-.0012052	.0007462

mean = mean(aar) t = -0.4613
 Ho: mean = 0 degrees of freedom = 2478

Ha: mean < 0 Ha: mean != 0 Ha: mean > 0
 Pr(T < t) = 0.3223 Pr(|T| > |t|) = 0.6446 Pr(T > t) = 0.6777

The preceding table shows that the P-value is 0.6446. This indicates that the Null hypothesis, $H_0: AAR_t=0$, should not be rejected as the P-value is greater than 0.05. The inference is that the investors cannot earn abnormal returns due to the M&A announcements and the market is efficient in the semi strong form.

4.3 Comparison of AAR in the Event window and Ex-event window

For the 37 firms in the sample, the Average Abnormal returns in the event window (aar_0) and the Average Abnormal returns in the ex-event window (aar_1) are calculated and the difference in their values are analysed. The results are shown in the following table:

Table 4.3

One-sample t test

Variable	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf. Interval]	
aar_0_1	37	.0007451	.0016975	.0103254	-.0026976	.0041878

mean = mean(aar_0_1) t = 0.4389
 Ho: mean = 0 degrees of freedom = 36

Ha: mean < 0 Ha: mean != 0 Ha: mean > 0
 Pr(T < t) = 0.6683 Pr(|T| > |t|) = 0.6633 Pr(T > t) = 0.3317

The results show the relation between AAR in the event window (aar_0) and AAR in the ex-event window (aar_1). The difference is observed to be 0.0007451. The P-value is greater than 0.05 and this indicates that the Null hypothesis, $H_0 : \text{mean} = 0$, should not be rejected. This result indicates that the shareholders of the acquiring firms cannot earn abnormal returns based on the informational value of M&A announcements. In other words, the result leads to the inference that the M&A announcements do not have a positive impact on the stock prices of the acquiring firms.

4.4 Comparison of AAR in the Ex-event window and Post-event window

As given by the Equation (3.4), the Average Abnormal returns (AAR) are calculated across the 37 firms in the sample for each day in ex-event window of 30 days and for each day in the post-event window of 30 days. These values are compared by executing a paired t test and the results are displayed in the following table:

Table 4.4 `

Paired t test					
Variable	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf. Interval]
aar2	30	-.0006864	.0008745	.0047899	-.002475 .0011021
aar1	30	-1.12e-11	.0007643	.0041862	-.0015631 .0015631
diff	30	-.0006864	.0010635	.0058251	-.0028616 .0014887
mean(diff) = mean(aar2 - aar1)				t =	-0.6454
Ho: mean(diff) = 0				degrees of freedom =	29
Ha: mean(diff) < 0		Ha: mean(diff) != 0		Ha: mean(diff) > 0	
Pr(T < t) = 0.2619		Pr(T > t) = 0.5237		Pr(T > t) = 0.7381	

The above table shows the comparison between the Average Abnormal returns for each day in the post-event window (aar_2) and the Average Abnormal returns for each day in the ex-event window (aar_1). The output shows that the difference in means

between aar_2 and aar_1 is negative 0.0006864. It is observed that the P-value is 0.5237 which is greater than 0.05. This indicates that the Null hypothesis should not be rejected. That is, $H_0: \text{mean}(aar_2 - aar_1) = 0$, cannot be rejected. The inference is that the shareholders of the acquiring firms cannot earn significant abnormal returns and M&A does not create value for the acquiring firms.

Chapter 5

Conclusion

This study examines the impact of M&A on the stock prices of the acquiring firms in the IT&ITES sector for the period 2010 to 2012. The scope of this research is limited to 37 firms due to constraints on the availability and completeness of data.

The paper uses the Event Study Methodology and answers the following questions:

- (1) Does M&A have a positive impact on the stock prices of the acquiring firms and create value for these firms and their shareholders?
- (2) Can the shareholders of the acquiring firms earn significant abnormal returns due to the M&A announcements?

The analysis of results described in the preceding chapter, leads to the following conclusions:

- (i) The regression result of the Market Model indicates that the performance of the securities do not follow the pattern of the CNX IT index.
- (ii) The Average Abnormal Return (AAR) result shows that the Null hypothesis, $H_0: AAR_t = 0$, should not be rejected. This implies that the market is efficient in the semi-strong form and the shareholders of the acquiring firms cannot earn significant abnormal returns due to the M&A announcements.
- (iii) Comparison of AAR in the event window and ex-event window shows that the Null hypothesis, $H_0: \text{mean} = 0$, should not be rejected. This leads to the inference that the M&A announcements do not have a positive impact on the stock prices of the acquiring firms and the shareholders of these firms cannot earn abnormal returns on M&A announcements.

(iv) Comparison of AAR in the ex-event and post-event window also indicates that the Null hypothesis should not be rejected and therefore the M&A does not create value for the acquiring firms and their shareholders.

Hence, based on the evidence gathered from 37 firms in the IT&ITES sector for the period 2010 to 2012, the study concludes that the shareholders of the acquiring firms cannot earn significant abnormal returns based on the informational value of the M&A announcements. The study, through empirical research, shows that M&A do not have a positive impact on the stock prices of the acquiring firms. The assumption used in the development of the research hypothesis, that is, the Indian markets are efficient in the semi-strong form, stands valid and cannot be rejected.

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Appendix

Companies with M&A Announcements

S.No.	Date	Acquirer Name	Ticker
1	09/08/2011	Accel Frontline Ltd	ACFL : IN
2	01/02/2010	Zylog Systems Ltd	ZSL : IN
3	10/01/2011	Allied Digital Services Ltd	ALDS : IN
4	01/02/2011	Allsec Technologies Ltd	ALLT : IN
5	14/06/2012	AurionPro Solutions Ltd	AUPS : IN
6	04/06/2010	Bharat Forge Ltd	BHFC : IN
7	22/06/2012	Blue Star Infotech Ltd	BLSI:IN
8	13/06/2011	Cerebra Integrated Technologies Ltd	CIT : IN
9	13/04/2012	eClerx Services Ltd	ECLX : IN
10	22/11/2010	Zensar Technologies Ltd	ZENT : IN
11	02/03/2010	EdServ Softsystems Ltd	EDSS : IN
12	05/02/2010	Educomp Solutions Ltd	EDSL : IN
13	12/05/2010	Glodyne Technoserve Ltd	GLOT : IN
14	08/07/2010	HCL Infosystems Ltd	HCLI : IN
15	21/06/2010	Hinduja Global Solutions Ltd	HGSL : IN
16	13/02/2010	Hinduja Ventures Ltd	HVL : IN
17	08/06/2011	Infosys Ltd	INFO : IN
18	18/01/2010	Infotech Enterprises Ltd	INFTEC : IN
19	27/09/2010	KPIT Cummins Infosystems Ltd	KPIT : IN
20	20/01/2010	Mastek Ltd	MAST : IN
21	22/04/2010	MindTree Ltd	MTCL : IN
22	08/04/2010	Mphasis Ltd	MPHL : IN
23	23/12/2010	NIIT Ltd	NIIT : IN
24	06/01/2011	Omnitech InfoSolutions Ltd	OMIS : IN
25	01/04/2011	Wipro Ltd	WPRO : IN
26	02/02/2011	Persistent Systems Ltd	PSYS : IN
27	26/03/2010	Polaris Financial Technology Ltd	POL : IN
28	11/05/2010	Prithvi Information Solutions Ltd	PRIS : IN
29	27/01/2011	R Systems International Ltd	RSYS : IN
30	22/09/2010	Redington India Ltd	REDI : IN
31	12/04/2010	Rolta India Ltd	RLTA : IN
32	20/06/2011	Saksoft Ltd	SAK : IN
33	05/01/2011	TAKE Solutions Ltd	TAKE : IN
34	22/04/2010	Tanla Solutions Ltd	TANS : IN
35	01/09/2010	Tata Consultancy Services Ltd	TCS:IN
36	21/03/2012	Tech Mahindra Ltd	TECHM:IN
37	18/08/2010	Tricom India Ltd	TRCF : IN

