

# Impact of Mergers on Stock Performance and Risk of Acquiring Firms: Evidence from India

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## ABSTRACT

*This study examines the wealth effects of merger announcements on acquirer firms in India, by primarily focusing on two stock characteristics i.e. stock return and stock volatility. Sample of 429 merger announcements in India from 2008 to 2015 are examined and an event window of 21 days is taken to analyses the impact of such announcements on acquirer's stock return and stock volatility. It is found that there is change in return and a jump in spread of returns after event day, and it continues up to two days post event. These findings imply that shareholders of acquirer firms generate average abnormal returns from merger events during and after announcement and returns become negative in long run in context to India. These results are similar with the results by Rani et al. (2013); Karels et al. (2011); Khanal et al. (2011); Mulherin and Boone (2011). In case of return volatility, a sharp increase in fluctuations is observed on the day of merger announcement. These findings are consistent with the findings by studies conducted by Kamerschen; (2008); Bharath and Wu (2005); Langetieg et al. (1980).*

**Keywords:** *Shareholder's Wealth, Volatility, Stock Return, Average Abnormal Return, Event Study*

## INTRODUCTION

A phenomenal tendency for Mergers and Acquisitions has been witnessed by Indian economy over last three decades (Pandya, 2018). Recently M&A have grown at a rapid pace and number of these deals in 2017 has reached to 1022 deals with the value of 46.8 US dollars, while the deal volume

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reached highest since 2010. Oil and gas, financial services, cement and building products, pharmaceuticals and infrastructure are major leaders contributing in the growth of mergers and acquisitions (Ernest & Young, 2017). Due to increased importance of M&As, the research on M&A has been done in almost all fields, whether it is finance, law, business, organization theory, sociology, human resource management, economics or strategy formulation. Due to the attention M&A activities receive, it becomes a real time phenomenon (Bashir et al. 2011).

Firstly, research papers explores the qualitative measures of M&A deals like: type of industry, changes in ownership, payment method, efficiency of human resources, pre-event performance, managerial capabilities of bidder, free cash flows and cultural issues (Changqi and Ningling, 2010; Ghosh and Dutta, 2016). Secondly, another strand of literature examines the possible reasons behind the rapid increase in the number and value of domestic as well as international merger and acquisition deals (Reddy 2015). Trautwein (1990), classifies the motives behind merger and acquisition deals into seven theories i.e. efficiency theory, raider theory, monopoly theory, empire-building theory, valuation theory, process theory and disturbance theory. Rani et al; 2012 reported that Indian companies go for merger and acquisition deals to achieve synergies.

Thirdly, existing literature explores the post event effects of these M&A deals on the acquirer's and target's financial as well as stock performance. Current published literature is conflicting in concluding the real benefits to the shareholders in the post-merger era. Several researchers obtained varied results by exploring M&A and their performance in post-merger period. Ismail et al. (2011); Mantravadi & Reddy (2008); Williams (2010); Hu (2009) found scope of study, time frames covered in study, industry taken for analysis are the possible reasons responsible for the conflicts in the results of performance analysis of acquirer in post-merger period. To the best of our knowledge, in India wealth effects of M&A in short run has not been studied in depth. In developed markets, like United States, Japan, European Nations and Canada plethora of literature is available on M&A. The studies evaluating M&A impact on stock prices and volatility in Indian security market are very few and are industry specific only (Rani et al 2015).

Hence, in the light of above, this study aims to check the effects of merger announcements on stock return and stock volatility in merger period. Only Indian acquirer companies are taken as sample to conduct this

study. Merger events took place between 2008-2015 are taken for analysis. Further, V sections are formed for discussion in this paper. Section I deals with introduction of research problem. Existing literature is reviewed in Section II. Section III provides details of data and methodology used to conduct this analysis. Section IV reveals the results of the analysis. Section V concludes the study and gives implications of the results found.

## LITERATURE REVIEW

Plethora of literature is arguing possible effects of merger and acquisition deals on value of firm in India, but still evidences regarding resultant position of the bidder firm are not conclusive (Rahim and Pok, 2013; Mohanty and Mishra, 2014). Some researchers reported negative returns to bidder firm's shareholders (Chatterjee, 2011; Kemal, 2011; Yen and Andre, 2010; Hu, 2009; Girma, 2008; Paliwal, 2008; Kiyamaz and Baker, 2008; Chong et al., 2006; Gondhalekar and Bhagwat, 2003; Andrade et al., 2001; Kaplan and weisbach, 1992; Servaes, 1991) some researchers observed positive returns for bidder's shareholders (Khanal et al., 2014; Ramakrishnan, 2012; Martynova and Renneboog, 2011; Vaziri, 2011; Altunbas and Albanes, 2004; Gubbi et al., 2010; Pervan at al., 2010; Amporn, 2009; Wong et al., 2009; Ma et al., 2009; Mangold and Lippok, 2008; Lowinski et al., 2004; Goergen and renneboog, 2004; Da Silva Rosa et al., 2004) while other claimed mixed results for bidder firm's shareholders (Bris and Cabolis, 2004; Bradley et al., 1983; Andrade et al., 2001; Dennis and McConnell, 1986; Brekovitch & Naraynam, 1993).

To have a deep insight of these vague results, the existing literature can be divided in to two parts i.e. (i) merger announcements and stock return; (ii) merger announcements and stock volatility. In light of these two stock Characteristics literature is reviewed in detail as below:

### ***i) Merger Announcements and Stock Return***

Previous studies conducted the analysis to check the impact of merger announcements on stock return have reported positive, negative and mixed returns for acquirer firm's shareholder in post-merger period (Rani et al. 2015). Despite of being a well research area, many questions regarding post event benefits of M&A deals are still unanswered (Mohanty and Mishra 2014).

Khanal et al. (2014) reported that market reacted positively to merger announcements as the CAAR of acquiring firm after merger is positive. Some investigators claim that acquirer companies are able to generate

long-term value after a merger event (Vaziri 2011; Sinha et al. 2010; Hernando et al. 2009; Vergos and Christopoulos 2008) and some reported that acquirer firm's shareholders gain positive CAAR after merger (Ghosh and Dutta 2015; Khurana and Warne 2014; Mallikarjunappa and Nayak 2013; Kalra et al. 2013; Ramakrishnan 2012; Karel et al. 2011; Kohli and Mann 2011; Gubbi et al. (2010); Barai and Mohanty 2010) etc.

On the other hand negative returns are also reported by Chatterjee 2011; Kemal 2011; Yen and Andre 2010; Hu 2009; Girma 2008; Srinivasan et al. 2006; Goergen and Renneboog 2004; Doukas et al. 2002; DeLong 2001; Walker 2000; Corhay and Rad 2000; Mitchell and Stafford 2000; Dutta and Puia 1995) etc. One of the reasons for these negative returns to bidder firms is the excess cost of acquisition.

Apart from this, the studies also throw light on the analysis of studies, which claimed mixed results for the acquirer after merger announcement. Andrade et al. (2001); Brekovitch & Narayanam (1993); Dennis and McConnell (1986); Bradley et al. (1983) claimed that after a merger announcement the stock prices of acquirer company may rise or fall. Adnan and Hossain, (2016); Magenheim & Muller, (1988) observed that post-merger results depend upon the time frame taken to conduct the analysis and reported positive returns in short-term and positive gains in long term analysis. Saboo and Gopi (2009) observed that deal type decides the future gain or loss from a merger deal. Cross border merger and acquisition deals are more successful to generate value for the bidder firm as compare to domestic mergers (Kohli and Mann 2011; Franceour 2005). Moeller et al. (2004) opine that small acquirer generates higher cumulative abnormal returns around merger announcements as compare to big acquirers.

### ***ii) Merger Announcements and Stock Volatility***

Variability of prices due to unexpected or sudden change (generally related to financial information) is defined as volatility (Slimane 2012). To know the details about the speed an information has taken to reflect in prices, volatility examination is necessary (Louhichi 2008). Though, numerous papers have studied the impact of merger announcements or information arrival on price volatility, like Kamerschen; (2008); Bharath and Wu (2005); Smith et al. (1997); Levy and Yoder (1993); Jayaraman et al. (1991); Barclay et al. (1990); French and Roll (1986); Langetieg et al. (1980), which concluded that merger announcements leads to statistically significant increase in stock return volatility, but actual impact of merger announcements on stock return volatility are ambiguous (Hennart and

Slangen; 2014). Any public information like merger announcement can cause changes in market expectation of investors and as a result, the investors can revise their portfolios. Hence, higher market activity can be expected during and around the time of announcement or arrival of any such information (Beaver, 1968).

Langnetieg et al. (1980) found that merger announcements lead to increase in total, systematic and idiosyncratic risks and as a result volatility rises. These findings are similar with the findings by Bharath and Wu (2005), in reference to intra as well as inter industry mergers. The Merger and acquisition announcements are regarded as a financial signal, which signifies the forthcoming benefit for the shareholder. Another study claims that merger waves are result of industry shocks due to unpredicted changes in demand, technology, movements in market or entry barriers etc. and are the main reasons for increase in long-term volatility in pre-merger era (Hsu et al. 201); and Mitchell and Mulherin; 1996). Dimopoulos and Sacchetto (2017) conducted a similar study in oil industry and claimed that because of merger announcement, the prices of underlying asset becomes stable and cost of production declines which further leads to changes in return and volatility.

Acker et al. (2002), Patell and Wolfson (1984) concluded in their studies that earning announcements leads to increase in the price volatility and it is more pronounced in the post-merger period. They also claimed that the volatility remain high throughout the announcement day. Patell and Wolfson (1984) shows that price volatility remains abnormally high for 30 minutes in case of good news announcement and it remain abnormally high for 55 minutes in case of bad news announcement. These results are similar to findings given by Louhichi, 2008. This hike in return volatility in the post-merger period confirms that any public information can change investor's expectations regarding the value of company in the market (Verrecchia, 2001).

Kumar et al. (2013) said that merger announcements may lead to medium and long term inference for the stock price volatility. They also claim that pre-merger volatility should be higher than post-merger volatility, because whatever uncertainty and non-disclosure in the announcement is only in pre-announcement period and automatically settled down after the happening of such event.

Existing literature on M&A performance analysis of acquirer firms is vague in nature (Stunda, 2014). Despite a plethora of literature on the post-merger results, the empirical evidence on impact of merger events on stock prices and stock volatility of bidder firms is not conclusive. These

mixed results observed by several researchers make it more complex to draw a final conclusion in this regard (Rani et al., 2015). This leads the researchers to study this issue in detail and make an attempt to plug this literature gap.

## RESEARCH OBJECTIVE AND SAMPLE SELECTION

In the light of above literature gaps, the present study examines two objectives. First is to analyze the effect of merger announcements on the shareholders returns and second is, to examine the impact of merger announcements on stock volatility of bidder companies. To conduct this study, merger data of Indian acquirer companies from the year 2008 and 2015 is taken. A sample of 429 acquirer companies, listed on NSE (National Stock Exchange) have been finalized and their 21 days close prices, high prices and low prices data have been extracted to obtain the abnormal returns and abnormal spread or volatility of these stock returns for this study. Secondary data which is taken from Ace-Equity database has been utilize in this paper.

Following steps were taken to filter the data:

- (i) Total 1108 complete merger deals were identified that took place between “2008-2015”.
- (ii) Merger events that occur in the financial and banking sector were excluded from the sample due to the divergent accounting policies followed by banks and financial sector firms.
- (iii) Merger events that occur in the agricultural region were also excluded from the sample.
- (iv) This study identifies the companies registered on National Stock Exchange of India (NSE) during sample period to finalize the sample for analysis. The companies which are not registered with NSE were excluded from the sample of this study.
- (v) Due to inaccessibility of required data on NSE and other data restrictions, the final sample size was shrunked to 429 merger deals.

## BENCHMARK DATA

In order to calculate the average abnormal returns for the shareholders of acquiring firms during merger and in post-merger period, current study urges to compare the returns obtained by author with some standard

portfolio returns. The comparison is required to predict the normal returns a bidder firm would have earned without occurrence of any merger deal. Therefore, Nifty data have been taken as benchmark data. Nifty closing prices, high prices and low prices data from 2008 to 2015 have been taken to calculate benchmark return and abnormal return volatility.

## METHODOLOGY

Event study methodology has been widely used to document wealth effects of M&A deals (Adnan & Hussain 2016). Hence, in this paper, Stock return and stock volatility are taken as dependent variables and an event study methodology has been applied to examine the effect of merger events, which are treated as independent variable. Basic fundamental to use event study methodology in such analysis is based on the efficient market hypothesis given by Fama, 1976.

Particularly, the objective of the study is to check whether the shareholders of bidder company enjoys abnormal returns during and after merger, and to examine the impact of merger announcements on return volatility. This can be done by comparing the actual returns with the happening of such merger events with some expected returns without any major event like merger. Abnormal spread of returns can also be seen by comparing return volatility in absence of merger event with the return volatility with merger events. A event window of twenty one days (-10 to +10) is taken to conduct this research. The day of merger announcement is prescribed as day zero, and further ten days pre- merger and ten days post-merger NSE returns are taken to complete the event window of 21 days and for calculating the abnormal returns for this study.

Firstly, close prices for all the 429 firms including in sample, were taken from national stock exchange separately. Then following formula is applied to calculate stock returns:

$$SR_{jt} = (P_{jt} - P_{jt-1}) / P_{jt-1} \quad \text{(Equation 1)}$$

Where:

$SR_{jt}$  = Stock return of firm j at time t

$P_{jt}$  = Price of firm j on day t

Further, nifty data for the period from 2008-2015 were taken and following formula was applied to obtain nifty returns:

$$NR_{jt} = (P_{jt} - P_{jt-1}) / P_{jt-1} \quad \text{(Equation 2)}$$

Where:  $NR_{jt}$  = Nifty return at time t

$P_{jt}$  = Price for Nifty

In next step, to calculate abnormal returns, nifty returns were subtracted from the stock returns. Following formula was applied to get abnormal returns:

$$AR_{jt} = SR_{jt} - NR_{jt} \quad \text{(Equation 3)}$$

Where:

= Abnormal stock return for firm j at time t

S = Stocks realized return for firm j and time t,

= Expected return at time t, in absence of a merger event.

From the calculated abnormal returns, average abnormal returns (AAR) were calculated for each day separately. Further from these mean values cumulative average abnormal returns (CAAR) were generated. To show the pattern of these calculated returns i.e. AAR and CAAR a graph is inserted. Similarly, to calculate spread of returns, high prices data and low prices data is taken and spread is calculated by applying following formula:

$$SS_{jt} = SHP_{jt} / SLP_{jt} \quad \text{(Equation 4)}$$

Where:

$SS_{jt}$  = Stock spread for firm j at time t,

$SHP_{jt}$  = Stocks high price for firm j and time t,

$SLP_{jt}$  = Stocks low price for firm j at time t,

$$NS_{jt} = NHP_{jt} / NLP_{jt} \quad \text{(Equation 5)}$$

Where:

$NS_{jt}$  = Nifty spread at time t,

$NHP_{jt}$  = Nifty high price at time t,

$NLP_{jt}$  = Nifty low price at time t,

$$AS_{jt} = SS_{jt} - NS_{jt} \quad \text{(Equation 6)}$$

Where:

$AS_{jt}$  = Abnormal stock spread for firm j at time t

$SS_{jt}$  = Stocks realized spread for firm j and time t,

$NS_{jt}$  = Nifty/expected spread at time t, in absence of a merger event.

## RESULTS AND DISCUSSION

To discuss the results in briefly this section can be divided into two sub-sections:

- Impact of Merger Announcements on Stock Returns and
- Impact of Merger Announcements on Stock Volatility.

• *Impact of Merger Announcements on Stock Returns*

Using Equation (1, 2, 3), average abnormal returns and cumulative average abnormal returns were calculated and figures of these returns from -10 day to +10 day are presented in table no: 1. Some interesting trends from above table, can be observed that the average abnormal returns to bidder firms in India are continues to be positive in the pre-merger phase and till the day 0 i.e. merger announcement date and after four days of event window in post-merger time period. These results are consistent with the results drawn by Rani et al. (2013); Karels et al. (2011); Khanal et al. (2011); Mulherin and Boone (2011); Kumar et al. (2011); Rani et al. (2010); Gubbi et al. (2010); Barai and Mohanty (2010); Mann & Kohli (2009); Anand and Singh (2008); Zhu and Malhotra (2008).

The average abnormal returns starts to decrease and become negative from fifth day in the post-merger period. Though acquirer firm's shareholders generate cumulative average abnormal returns but any type of sudden and sharp hikes in stock prices during event window are not observed. Chakraborty (2010) observed that mergers and acquisitions deals do not excite market reaction. The results of this study are similar with the findings by the studies like: Shleifer & Vishney, (2003); Muller & Yurtoglu, (2007); Khan (2011); and Kemal (2011); and are contrary to results found by Sharma & Warne (2012). A graph of average abnormal returns and cumulative average abnormal returns is plotted to depict the pattern of stock returns in pre-merger period, during the merger announcements and in the post-merger period. (See: Graph 1 and Graph 2)

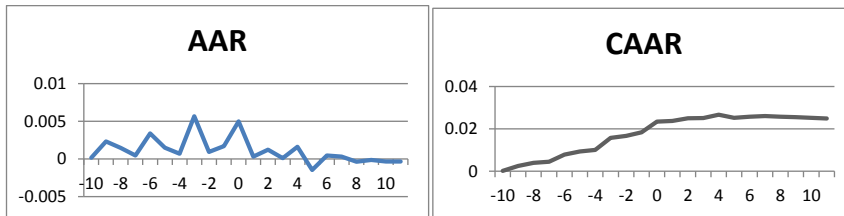
**Table 1: Showing Calculations of Average Abnormal Return and Cumulative Average Abnormal Return from Day -10 to day +10**

Day	AAR	CAAR
-10	0.000181	0.000181
-9	0.002345	0.002526
-8	0.001473	0.003999
-7	0.000472	0.004472
-6	0.003402	0.007874
-5	0.001505	0.009378
-4	0.000711	0.0010089
-3	0.005688	0.015777
-2	0.00094	0.016717
-1	0.001719	0.018436

Day	AAR	CAAR
0	0.004984	0.02342
1	0.000332	0.023753
2	0.001236	0.024989
3	0.00011	0.025098
4	0.001624	0.026723
5	-0.00145	0.025274
6	0.000471	0.025744
7	0.000332	0.026076
8	-0.00038	0.0257
9	-0.00012	0.025584731
10	-0.00035	0.024918

Source: Author’s calculations based on secondary data

Graphs showing average abnormal return and cumulative average abnormal return during event window from -10 to +10 days



**Graph: 1**

**Graph: 2**

Source: Author’s Calculations based on secondary data

• *Impact of Merger Announcements on Stock Volatility*

Similarly, by using equation (4, 5, 6) average abnormal spread and cumulative average abnormal spread of stock returns are calculated and the calculation is shown in the table no: 2. These figures depict that in the pre-merger period the spread of returns is normal and this trend continues in post-merger period also. But a sharp increase in volatility can be observed on the day 0 of event window that is the day of announcement. Theoretically, there will be value creation for the shareholders when there is reduction in volatility of share prices and an increase in share price volatility will result in value destruction for shareholders (Kumar et al. 2013). Though results shows sharp increase in volatility but that

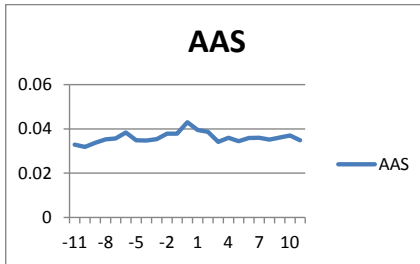
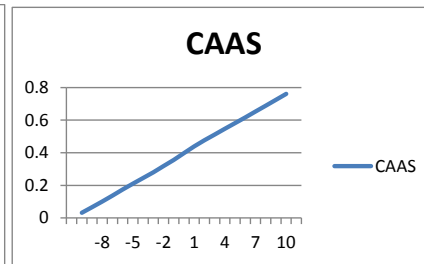
is observed on the day of announcement only and in long run these fluctuations are normal. These conclusion are consistent with the studies like Kamerschen (2008); Bharath and Wu (2005); Jayaraman et al. (1991); French and Roll (1986). Graphs are plotted to exhibit the fluctuations of stock volatility and to clear a picture of merger announcement results in pre-merger period, during merger announcement and in post-merger period. (See Graph 3 and 4)

**Table 2: Showing Calculations of Average Abnormal Spread and Cumulative Average Abnormal Spread from Day -10 to day +10**

Days	Average Abnormal Spread	Cumulative Average Abnormal Spread
-10	0.031833	0.031833
-9	0.033702	0.065536
-8	0.035305	0.100841
-7	0.035674	0.136516
-6	0.038384	0.1749
-5	0.034835	0.209735
-4	0.034751	0.244486
-3	0.035347	0.279833
-2	0.037865	0.317698
-1	0.037869	0.355567
0	0.042991	0.398557
1	0.039487	0.438044
2	0.03863	0.476674
3	0.034114	0.510789
4	0.035984	0.546773
5	0.034462	0.581236
6	0.035883	0.617118
7	0.035984	0.653102
8	0.035123	0.688225
9	0.036096	0.72432
10	0.037051	0.761372

Source: Author's Calculations based on secondary data

Graphs showing average abnormal return and cumulative average abnormal return during event window from -10 to +10 days

**Graph: 3****Graph: 4**

Source: Author's Calculations based on secondary data

## IMPLICATIONS

This study seeks to check the impact of mergers announcements on stock return and volatility. These findings would be beneficial to various stockholders, investment managers, corporate houses, market regulators and researchers. These findings will help to predict the reaction of investors following merger announcements. Large sample and fairly long sample period may assist the fund managers to design strategies accordingly. Corporate managers may find these results helpful in formulating policies regarding announcement of such unexpected events, to predict the post event impact in market as well as on rival companies.

This study also contributes to the existing theoretical as well as empirical literature of merger impacts in pre-and post-merger era. This contribution will be in literature of merger & stock returns and merger & stock volatility and literature of behavioral finance. The market regulators who monitor these types of earning announcement and their after effects to check the presence of insider trading, can find these results helpful. Moreover the study will assist researchers to have a deep insight in to the journey of merger waves and literature evidences till now.

## CONCLUSION

The study shows that after merger announcements shareholders of acquirer companies in India experiences positive abnormal returns in pre-merger phase and continues to have positive returns during and up to four days after such announcements. But these returns become negative from the fifth day and then become neutral. It can be concluded that shareholders can generate positive average abnormal returns before and during merger

but these returns falls and become negative in long run. As far as return volatility is concerned, it is found that there is a sharp rise in fluctuations on the day zero i.e. event day. In the post-merger period this spread of returns is normal and positive. It can be concluded that volatility rises on the day of merger and in the post-merger era these fluctuations are normal, while this spread remains positive in both pre- and post- merger era.

## REFERENCES

- Acker, D., Stalker, M., & Tonks, I. (2002). Daily closing inside spreads and trading volumes around earnings announcements. *Journal of Business Finance & Accounting*, 29(9-10), 1149-1179.
- Adnan, A. T. M., & Hossain, A. (2016). Impact of M&A announcement on acquiring and target firm's stock price: An event analysis approach. *International Journal of Finance and Accounting*, 5(5), 228-232.
- Anand, M., & Singh, J. (2008). Impact of merger announcements on shareholders' wealth: Evidence from Indian private sector banks. *Vikalpa*, 33(1), 35-54.
- Andrade, G., Mitchell, M. L., & Stafford, E. (2001). New evidence and perspectives on mergers. *Journal of Economic Perspectives*, 15(2), 103-120.
- Barai, P., & Mohanty, P. (2010). Short term performance of Indian acquirers—effects of mode of payment, industry relatedness and status of target. Retrieved from SSRN: <http://ssrn.com/abstract=1697564>
- Barclay, M. J., Litzenberger, R. H., & Warner, J. B. (1990). Private information, trading volume, and stock-return variances. *The Review of Financial Studies*, 3(2), 233-253.
- Bashir, A., Sajid, M. R., & Sheikh, S. (2011). The Impact of Mergers and Acquisitions on Shareholders Wealth: Evidence from Pakistan. *Middle-East Journal of Scientific Research*, 8(1), 261-264.
- Beaver, W. H. (1968). The information content of annual earnings announcements. *Journal of Accounting Research*, 6, 67-92.
- Berkovitch, E., & Narayanan, M. P. (1993). Motives for takeovers: An empirical investigation. *Journal of Financial and Quantitative Analysis*, 28(3), 347-362.
- Bharath, S. T., & Wu, G. (2005). Long-run volatility and risk around mergers and acquisitions. University of Michigan, Department of Finance. <https://pdfs.semanticscholar.org/0750/c87c78abd1f9682f06e58aa89a3bbc614b36.pdf>

- Boone, A. L., & Mulherin, J. H. (2011). Do private equity consortiums facilitate collusion in takeover bidding? *Journal of Corporate Finance*, 17(5), 1475-1495.
- Bradley, M., Desai, A., & Kim, E. H. (1983). The rationale behind interfirm tender offers: Information or synergy? *Journal of financial economics*, 11(1-4), 183-206.
- Bris, A., & Cabolis, C. (2008). The value of investor protection: Firm evidence from cross-border mergers. *The Review of Financial Studies*, 21(2), 605-648.
- Chakraborty, M. (2010). The wealth effects of takeover announcement for firms in the financial services sector in India. *Journal of Emerging Market Finance*, 9(2), 199-227.
- Changqi, W., & Ningling, X. (2010). Determinants of cross-border merger & acquisition performance of Chinese enterprises. *Procedia-Social and Behavioral Sciences*, 2(5), 6896-6905.
- Chatterjee, R. (2011). Mergers and acquisitions: The impact on share price. *Journal of Institute of Management Studies*, 11, 123-148.
- Chong, B. S., Liu, M. H., & Tan, K. H. (2006). The wealth effect of forced bank mergers and cronyism. *Journal of Banking & Finance*, 30(11), 3215-3233.
- Corhay, A., & Rad, A. T. (2000). International acquisitions and shareholder wealth Evidence from the Netherlands. *International Review of Financial Analysis*, 9(2), 163-174.
- da Silva Rosa, R., Limmack, R., Supriadi, & Woodliff, D. (2004). The equity wealth effects of method of payment in takeover bids for privately held firms. *Australian Journal of Management*, 29(1), 93-110.
- Datta, D. K., & Puia, G. (1995). Cross-border acquisitions: An examination of the influence of relatedness and cultural fit on shareholder value creation in US acquiring firms. *MIR: Management International Review*, 35, 337-359.
- DeLong, G. L. (2001). Stockholder gains from focusing versus diversifying bank mergers. *Journal of Financial Economics*, 59(2), 221-252.
- Dennis, D. K., & McConnell, J. J. (1986). Corporate mergers and security returns. *Journal of Financial Economics*, 16(2), 143-187.
- Dimopoulos, T., & Sacchetto, S. (2017). Merger activity in industry equilibrium. *Journal of Financial Economics*, 126(1), 200-226.
- Doukas, J. A., Holmen, M., & Travlos, N. G. (2002). Diversification, Ownership and Control of Swedish Corporations. *European Financial Management*, 8(3), 281-314.

- Ernest and Young 2017: <https://economictimes.indiatimes.com/news/company/corporate-trends/why-2018-may-become-a-blockbuster-year-for-mergers-and-acquisitions/articleshow/63446545.cms>
- Fama, E. F (1976). *Foundation of finance, basic books*. New York, NY.
- Franceour, C. (2005). The long run performance of cross border merger and acquisition: The Canadian evidence. *Corporate Ownership and Control*, 4(2), 312-323.
- French, K. R., & Roll, R. (1986). Stock return variances: The arrival of information and the reaction of traders. *Journal of Financial Economics*, 17(1), 5-26.
- Geppert, G., & Kamerschen, D. R. (2008). The effect of mergers on implied volatility of equity options. *International Review of Financial Analysis*, 17(2), 330-344.
- Ghosh, S., & Dutta, S. (2015). Mergers and acquisitions in Indian banking sector: Pre-Post Analysis of Performance Parameters. *International Organization of Scientific Research in Journal of Business and Management*, 17(3), 1-9.
- Ghosh, S., & Dutta, S. (2016). Mergers and acquisitions: A comparative review of literature. *Industrija*, 44(1), 187-208.
- Girma, S. (2008). The Impact of Mergers and Acquisitions on Earnings and Stock Prices. *J. Globalization and Labor Markets (Spring)*, 63-82.
- Goergen, M., & Renneboog, L. (2004). Shareholder wealth effects of European domestic and cross-border takeover bids. *European Financial Management*, 10(1), 9-45.
- Gondhalekar, V., & Bhagwat, Y. (2003). Motives in the acquisitions of NASDAQ targets during the aftermath of the 1987 crash. *Financial Review*, 38(4), 553-569.
- Gubbi, S. R., Aulakh, P. S., Ray, S., Sarkar, M. B., & Chittoor, R. (2010). Do international acquisitions by emerging-economy firms create shareholder value? The case of Indian firms. *Journal of International Business Studies*, 41(3), 397-418.
- Hennart, J. F., & Slangen, A. H. (2015). Yes, we really do need more entry mode studies! A commentary on Shaver. *Journal of International Business Studies*, 46(1), 114-122.
- Hernando, I., Nieto, M. J., & Wall, L. D. (2009). Determinants of domestic and cross-border bank acquisitions in the European Union. *Journal of Banking & Finance*, 33(6), 1022-1032.
- Hsu, K. C., Wright, M., & Zhu, Z. (2017). What motivates merger and acquisition activities in the upstream oil & gas sectors in the US?. *Energy Economics*, 65, 240-250.

- Hu, Y. (2009). The long-term performance of acquiring firms. *Journal of International Business*, 22, 66-83.
- Ismail, T. H., Abdou, A. A., & Annis, R. M. (2011). Review of literature linking corporate performance to mergers and acquisitions. *The Review of Financial and Accounting Studies*, 1, 89-104.
- Jayaraman, N., Mandelker, G., & Shastri, K. (1991). Market anticipation of merger activities: An empirical test. *Managerial and Decision Economics*, 12(6), 439-448.
- Singh, B., & Kohli, R. (2011). Target shareholders' wealth creation in domestic and crossborder acquisitions in India. *International Journal of Commerce and Management*, 21(1), 63-81.
- Kalra, N., Gupta, S., & Bagga, R. (2013). A wave of mergers and acquisitions: Are Indian banks going up a blind alley? *Global Business Review*, 14(2), 263-282.
- Karels, G. V., Lawrence, E., & Yu, J. (2011). Cross-border mergers and acquisitions between industrialized and developing countries: US and Indian merger activity. *International Journal of Banking and Finance*, 8(1), 35-58.
- Kemal, M. U. (2011). Post-merger profitability: A case of royal Bank of Scotland (RBS). *International Journal of Business and Social Science*, 2(5), 157-162.
- Khanal, A. R., Mishra, A. K., & Mottaleb, K. A. (2014). Impact of mergers and acquisitions on stock prices: The US ethanol-based biofuel industry. *Biomass and Bioenergy*, 61, 138-145.
- Khan, A. A. (2011). Merger and Acquisitions (M&As) in the Indian banking sector in post liberalization regime. *International Journal of Contemporary Business Studies*, 2(11), 31-45.
- Khurana, R., & Warne, D. P. (2014). Mergers, acquisitions and firms' performance: experience of TATA industry. *International Journal of Entrepreneurship and Small Business Management*, 1(1), 33-50.
- Kiyamaz, H., & Baker, H. K. (2008). Short-term performance, industry effects, and motives: Evidence from large M&As. *Quarterly Journal of Finance and Accounting*, 47(2), 17-44.
- Kumar, M., Kumar, S., & Deisting, F. (2013). Wealth effects of bank mergers in India: a study of impact on share prices, volatility and liquidity. *Banks and Bank Systems*, 8(1), 127-133.
- Kumar, M., Kumar, S., & Morandiere, L. (2011). Relationship between merger announcement and stock returns: Evidence from Indian banking. *Banks and Bank Systems*, 6(4), 23-32.

- Langetieg, T. C., Haugen, R. A., & Wichern, D. W. (1980). Merger and stockholder risk. *Journal of Financial and Quantitative Analysis*, 15(3), 689-717.
- Levy, H., & Yoder, J. A. (1993). The behavior of option implied standard deviations around merger and acquisition announcements. *Financial Review*, 28(2), 261-272.
- Louhichi, W. (2008). Adjustment of stock prices to earnings announcements: Evidence from euronext Paris. *Review of Accounting and Finance*, 7(1), 102-115.
- Lowinski, F., Schiereck, D., & Thomas, T. W. (2004). The effect of cross-border acquisitions on shareholder wealth: Evidence from Switzerland. *Review of Quantitative Finance and Accounting*, 22(4), 315-330.
- Magenheim, E. B., & Mueller, D. C. (1988). Are acquiring firm shareholders better off after an acquisition?, In J. Coffee, Jr., L. Lowenstein, and S. Rose-Ackerman, eds., *Knights, Raiders and Targets*, Oxford, UK, Oxford University Press.
- Mallikarjunappa, T., & Nayak, P. (2013). A study of wealth effects of takeover announcements in India on target company shareholders. *Vikalpa*, 38(3), 23-50.
- Mann, B. J. S., & Kohli, R. (2009). Impact of mode of payment and insider ownership on target and acquirer's announcement returns in India. *Vikalpa*, 34(4), 51-66.
- Mangold, N. R., & Lippok, K. (2008). The effect of cross-border mergers and acquisitions on shareholder wealth: Evidence from Germany. *Journal of International Business and Economics*, 8(3), 29-55.
- Mantravadi, D. P., & Reddy, A. V. (2008). Post-merger performance of acquiring firms from different industries in India. *International Research Journal of Finance and Economics*, 22, 192-204.
- Martynova, M., & Renneboog, L. (2011). The performance of the European market for corporate control: Evidence from the fifth takeover wave. *European Financial Management*, 17(2), 208-259.
- Marques-Ibanez, D., & Altunbas, Y. (2004). Mergers and acquisitions and bank performance in Europe: The role of strategic similarities, 60(3), 204-222.
- Mat Rahim, N., & Ching Pok, W. (2013). Shareholder wealth effects of M & As: The third wave from Malaysia. *International Journal of Managerial Finance*, 9(1), 49-69.

- Mitchell, M. L., & Mulherin, J. H. (1996). The impact of industry shocks on takeover and restructuring activity. *Journal of Financial Economics*, 41(2), 193-229.
- Mitchell, M. L., & Stafford, E. (2000). Managerial decisions and long-term stock price performance. *The Journal of Business*, 73(3), 287-329.
- Moeller, S. B., Schlingemann, F. P., & Stulz, R. M. (2004). Firm size and the gains from acquisitions. *Journal of Financial Economics*, 73(2), 201-228.
- Mohanty, P., & Mishra, S. (2014). NSE WORKING PAPER. [https://nseindia.com/research/content/res\\_WorkingPaper12.pdf](https://nseindia.com/research/content/res_WorkingPaper12.pdf)
- Paliwal, R. (2008). Pre-acquisition characteristics of the acquirers. *Review of Business Research*, 8(2), 169-177.
- Pandya, V. U. (2018). Mergers and acquisitions trends - The Indian experience. *International Journal of Business Administration*, 9(1), 44-54.
- Patell, J. M., & Wolfson, M. A. (1984). The intraday speed of adjustment of stock prices to earnings and dividend announcements. *Journal of Financial Economics*, 13(2), 223-252.
- Pervan, I., Pervan, M., & Kljaic, N. (2010). Financial characteristics of acquired companies – Case of Croatia. *The Business Review*, 16(1), 209-216.
- Ramakrishnan, R. (2012). Mergers & Acquisitions in India, The Long-Term Post-Merger Performance Of Firms And The Strategic Factors Leading To M&A Success. Retrieved from <http://www.docstoc.com/docs/32303745/Mergers-acquisitions-in-India-the-long-term-post-merger>.
- Rani, N., Yadav, S. S., & Jain, P. K. (2012). Corporate merger practices in India: An empirical study. Available at SSRN: <https://ssrn.com/abstract=2043698>
- Rani, N., Yadav, S. S., & Jain, P. K. (2012). The impact of domestic mergers and acquisitions on acquirer shareholders' wealth in India. *Global Journal of Flexible Systems Management*, 13(4), 179-193.
- Rani, N., Yadav, S. S., & Jain, P. K. (2013). Market response to the announcement of mergers and acquisitions: An empirical study from India. *Vision*, 17(1), 1-16.
- Rani, N., Yadav, S. S., & Jain, P. K. (2015). Financial performance analysis of mergers and acquisitions: Evidence from India. *International Journal of Commerce and Management*, 25(4), 402-423.

- Reddy, K. S. (2015). Why do cross-border merger/acquisition deals become delayed, or unsuccessful?—A cross-case analysis in the dynamic industries. Retrieved from [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2685546](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2685546)
- Saboo, S., & Gopi, S. (2009). Comparison of Post-Merger performance of Acquiring Firms (India) involved in Domestic and Cross-border acquisitions. Retrieved from <https://mp.ra.ub.uni-muenchen.de/19274/>
- Servaes, H. (1991). Tobin's Q and the Gains from Takeovers. *The Journal of Finance*, 46(1), 409-419.
- Sharma, P., & Warne, D. P. (2012). Banks perspective in mergers: A case study on merger of Bank of Rajasthan Ltd with ICICI Bank Ltd. *International Journal of Marketing, Financial Services and Management Research*, Vol. 1, Issue 10, ISSN: 22773622
- Shleifer, A., & Vishny, R. W. (2003). Stock market driven acquisitions. *Journal of Financial Economics*, 70(3), 295-311
- Sinha, N., Kaushik, K. P., & Chaudhary, T. (2010). Measuring post-merger and acquisition performance: An investigation of select financial sector organizations in India. *International Journal of Economics and Finance*, 2(4), 190-200.
- Soongswang, A. (2009). Shareholder wealth effects: Successful vs. unsuccessful bidders. *Journal of Accounting, Business & Management*, 16(1), 45-64.
- Smith, B. F., White, R., Robinson, M., & Nason, R. (1997). Intraday volatility and trading volume after takeover announcements. *Journal of Banking & Finance*, 21(3), 337-368.
- Srinivasan, S., Thenmozhi, M., & Vijayaraghavan, P. (2006). Impact of Diversification Strategy on Firm Performance: Entropy Approach. *ICFAI Journal of Applied Finance*, 12(11), 27-48.
- Stunda, R. (2014). The market impact of mergers and acquisitions on acquiring firms in the US. *Journal of Accounting and Taxation*, 6(2), 30-37.
- Vaziri, M. T. (2011). Stock price reaction to acquisitions in banking sector: An empirical analysis on selected Asia Pacific countries. *Journal of America Academy of Business*, 17, 51-61.
- Vergos, K. P., & Christopoulos, A. G. (2008). The effects of acquisitions on the market value of the banking sector: An empirical analysis from Greece. *European Journal of Scientific Research*, 24(3), 410-419.

- Verrecchia, R. E. (2001). Essays on disclosure. *Journal of Accounting and Economics*, 32(1-3), 97-180.
- Walker, M. M. (2000). Corporate takeovers, strategic objectives, and acquiring-firm shareholder wealth. *Financial Management*, 29(1), 53-66.
- Williams, J. D. (2010, January). A case of a merger and acquisition mega blind spot. In *Academy of Marketing Studies*, 15(1), 75-85.
- Wong, A., & Cheung, K. Y. (2009). The effects of merger and acquisition announcements on the security prices of bidding firms and target firms in Asia. *International Journal of Economics and Finance*, 1(2), 274-283.
- Yen, T., & Andre, P. (2010). The effects of ownership structure on operating performance of acquiring firms in emerging markets. *Journal of Business and Policy Research*, 5(2), 217-236.
- Zhu, P., & Malhotra, S. (2008). Announcement effect and price pressure: An empirical study of cross-border acquisitions by Indian firms. *International Research Journal of Finance and Economics*, 13(1), 24-41.