IMPACT OF MERGER AND ACQUISITION ON THE SHAREHOLDERS VALUE OF SELECTED COMPANIES IN INDIA – AN EVIDENCE BY NSE

Zohra Bi [1] and Dr. Abdul Hameed [2]

[1] Research Scholar, Finance, Alliance University, Assistant Professor,
Alliance Ascent College, Bangalore, India.
[2] Professor, Research Supervisor, Head of Academic Operations and Area Chair - Finance,
Alliance University, Bangalore, India.
*Corresponding Author Email: zohrayousuf@gmail.com

Abstract

A company grows gradually over time when its products and services provide sufficient utility or satisfaction to its customers. Growth can also occur through inorganic means, such as mergers and acquisitions, leading to an overall increase in the company's revenues. Mergers and acquisitions represent the inorganic growth process and are increasingly significant in the corporate world. These actions demonstrate the existence of a synergy impact that affects the financial performance of companies. Before a company announces its intention to merge or acquire, the stock price reflects the current value of the company. Following the announcement, the stock price not only represents the company's value but also reacts either positively or negatively. This study examines whether there is a significant change in the shareholder value of selected acquiring companies when they first publicly announce their interest or plans for a merger or acquisition. The paper analyses the impact of mergers and acquisitions on shareholder value of selected Indian companies listed on the NSE over the last five years, considering the pre- and post-announcement periods. It calculates abnormal returns, t-statistics of abnormal returns, and cumulative abnormal returns (CAR) for the -2-day, -5-day, and -11-day periods before the merger, and the +2-day, +5-day, and +11-day periods after the merger. The findings indicate that mergers and acquisitions do not significantly impact the wealth of shareholders in these companies. The results provide valuable insights for investors and management to make informed investment decisions.

Keywords: Inorganic, Mergers and Acquisitions, Acquirer Companies, Stock Price, and Synergy.

JEL Classification: G1, G3, G4.

1. INTRODUCTION

Mergers and acquisitions have become a major component in the global economic and financial landscape. They serve as powerful tools for significant growth and are widely recognized by firms as essential elements of business strategy. These practices are utilized across various sectors, including information technology, telecommunications, and business process outsourcing, as well as in traditional industries. Companies engage in mergers and acquisitions to strengthen their position, expand their customer base, reduce competition, or enter new markets or product segments.

The primary motivations behind mergers and acquisitions include accessing markets through established brands, gaining market share, eliminating competition, reducing tax liabilities, acquiring new competencies, or offsetting one entity's accumulated losses against another entity's profits.

A merger can be defined as the combination of two or more companies to form a new, expanded entity, whereas an acquisition involves one company purchasing another.

The common rationale behind mergers and acquisitions (M&A) is to create synergies, where the combined company is more valuable than the individual companies separately.

India witnessed a surge in M&A activity in 2021, reaching an all-time high. According to Bain & Company, the deals were broad-based, with many mid-sized transactions ranging from $500 million to $1 billion. The overall value of M&A in 2021 stood at $5.8 trillion. The leading sectors for M&A in India include Energy, Mining and Utilities, Telecommunications, Consumer Durables, and Pharmaceuticals (IMPA insights 2016).

Mergers and acquisitions significantly impact stock prices, often causing high volatility. This volatility increases trading volumes, which in turn can inflate prices. Upon completion of the merger process, the stock price of the newly formed company is typically higher than the prices of the individual companies' stocks. The stock price of the target company usually rises because the acquiring company pays a premium, recognizing the target company's potential. Conversely, the stock price of the acquiring company may often be negatively affected.

This study examines whether there is a significant change in the shareholder value of the acquiring company when it publicly announces its intention or plans for a merger or acquisition. The paper analyses the stock price reactions of selected Indian companies listed on the NSE over the last five years, focusing on the periods before and after the M&A announcements.

1.1. Motives or Objectives of Mergers and Acquisitions (M&A)

Mergers and Acquisitions (M&A) are strategic choices aimed at maximizing a company's growth by improving its production and marketing activities. Companies engage in M&A for various reasons. There are numerous motives behind the occurrence of mergers and acquisitions. The key drivers or reasons behind M&A that enhance the firm's value and increase shareholder wealth include:
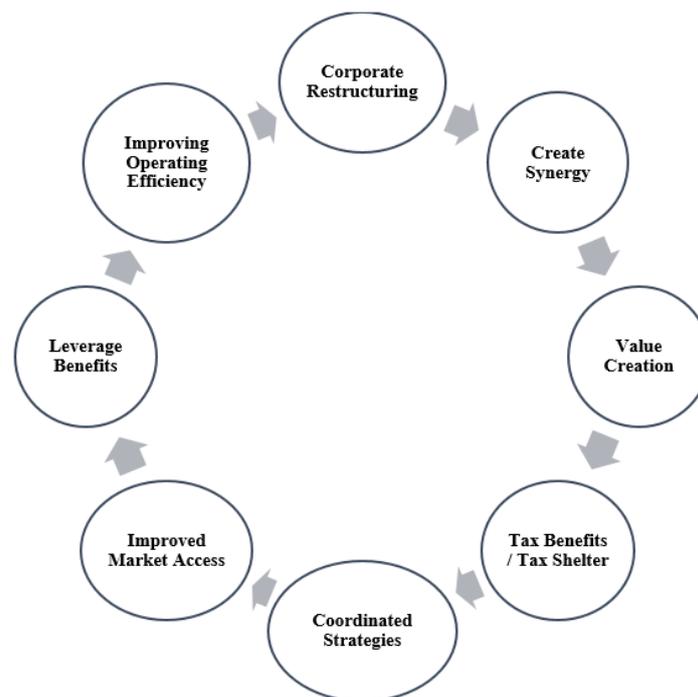

Figure 1: Motives of Mergers and Acquisitions

2. LITERTAURE REVIEW

Various metrics have been used to evaluate mergers and acquisitions. Bruner (2004) identifies four research approaches: event studies, accounting studies, surveys of managers, and clinical studies. Most studies on mergers and acquisitions either follow event studies, which measure the change in a company's value at the time of an announcement by quantifying its impact on the firm's stock price (Konstantinos Papadatos, 2011; Constantine Manasakis, 2009; Fama, Fisher, Jensen & Roll, 1969; Brown & Warner, 1985; Wooldridge & Snow, 1990), or accounting-based studies which measure changes in various financial performance variables over time (K. Ramakrishnan, 2008; Neena Sinha, K.P. Kaushik, Timcy Chaudhary, 2010).

Panagiotis Liargovas and Spyridon Repousis (2011) utilize two methodologies to assess the effects of mergers and acquisitions: the Event Study and Operating Performance Methodology. Their findings reveal that horizontal and diversifying bank deals generate significant positive Cumulative Abnormal Returns (CAARs) following their announcement. However, the study concludes that, overall, bank mergers and acquisitions do not create wealth and show no substantial impact.

Satish Kumar and Lalit K. Bansal (2008) examine recent trends in M&A deals in India and find that acquiring firms often achieve synergies such as increased cash flow and cost savings. Maja Pervan, Josipa Visic, and Kristina Barnjak (2015) study the global M&A market and find no significant difference in profitability between pre- and post-merger companies. Viral Upendrabhai Pandya (2018) analyses M&A trends in India from 1991 to 2010, noting its role in corporate restructuring and market expansion.

Neelam Rani, Surendra S. Yadav, and P.K. Jain (2013) link better corporate governance practices to positive short- and long-term performance outcomes post-M&A. Stefano Rossi and Paolo F. Volpin (2004) find that stronger investor protection correlates with more M&A activity and higher takeover premiums. S. Beena (2006) examines M&A dynamics in the pharmaceutical industry, highlighting impacts on performance and market structure. Godfred Yaw Koi-Akrofi (2014) reviews motives for M&A in telecommunications, emphasizing factors like synergy and wealth creation.

Ferdinand Magar and Martin Meyer Fackler (2017) observe historical variations in M&A activity and deal sizes. John Goddard, Philip Molyneux, and Tim Mi Zhou (2011) analyze diversification's impact on shareholder value in bank M&As across Asia and Latin America, finding positive effects for target firms. George Giannopoulos, Alexandra Lianou, and Mahmoud Elmarzouky (2023) study M&A in Greece, finding negative abnormal returns during economic crises, affecting bidder firms' value negatively.

3. RESEARCH APPROACH

The study analyses mergers and acquisitions (M&A) activities within the Indian industry to assess their impact on the shareholder wealth of acquiring firms. It utilizes a descriptive approach to comprehensively investigate these dynamics. Specifically, the study evaluates the effect of M&A announcements on the stock prices of selected companies in India. The event under scrutiny is the date of the merger or acquisition announcement. The research aims to determine whether there are abnormal returns in stock prices, essentially examining how the market reacts to M&A announcements. The study primarily focuses on the stock price movements of the acquiring companies.

3.1. Objectives of the study

- To investigate the effect of mergers and acquisitions on shareholders' value.

- To offer valuable insights to investors and management for making informed investment decisions.

3.2. Hypothesis

H_{01}: There is no significant difference in shareholders' value among the selected companies when comparing the pre-merger and post-merger periods.

3.3. Terminologies in Event Study

The study considers the following components of event study methods which are:

Event Time: The announcement day is designated as "t = 0".

Event Window: The event window is defined as (-30, +30), where:

"t = -30" refers to thirty days before the merger announcement day.

"t = +30" refers to thirty days after the merger announcement day.

Event/Window Estimation: The event window spans 200 trading days.

Abnormal Returns: refers to the difference between the actual return of a stock and the expected return over a specified period.

Cumulative Abnormal Returns (CAR): CAR is the sum of abnormal returns over the event window, providing a cumulative measure of the stock price movement relative to expectations.

Market Model: refers to a benchmarking approach used to estimate a stock's expected return by examining its historical relationship with a market index.

3.4. Methodology

The study analyses the impact of stock prices on the firm value of selected mergers and acquisitions (M&A) involving Indian companies using t-statistics and event study approach to determine statistically significant changes in the overall performance of acquiring companies. The research employs the market method to assess the effects of sample events and utilizes stock price data to evaluate stock returns during these transactions.

Abnormal returns (AR) and cumulative abnormal returns (CAR) of the stock are employed to measure the effects of events on stock prices before and after the announcement of M&As. The event day is defined as the day when the firm announces the M&A.

The t-statistic for abnormal returns is used to ascertain whether the event resulted in significantly positive or negative abnormal returns on the event day and during the window periods: Pre-Merger Period (from -30 days to 0 days) and Post-Merger Period (from 0 days to +30 days) around the announcement date.

The significance of abnormal returns indicates whether the event had a meaningful impact on the firms values. Cumulative abnormal returns (CAR) and their t-statistics are examined for each M&A event at specific intervals such as -2 days, -5 days, and -11 days (Pre-Merger Period) as well as +2 days, +5 days, and +11 days (Post-Merger Period) within the event window of 200 trading days from the event date.

These metrics indicate whether there was a positive reaction in stock prices following the merger and acquisition announcement.

Additionally, the study reports Average Abnormal Returns (AAR), Cumulative Average Abnormal Returns (CAAR), and their respective t-statistics for the same intervals in both Pre-Merger and Post-Merger periods. These analyses provide insights into how stock prices responded to M&A announcements over time, offering a comprehensive view of the market's reaction to these events.

3.5. Sample Size

Sample of the Study				
Event	**Acquirer Company**	**Target Company**	**Date of M&A**	**Merger and Acquisition**
E1	WIPRO	CAPCO	March 4th 2021	Acquisition
E2	Tech Mahindra	Thirdware Solutions Limited	12th March 2022	Acquisition
E3	Infosys	Digital Experience and Marketing Agency, Oddity	March 22, 2022	Acquisition
E4	HCL technologies	Gesellschaft fur Banksysteme GmbH (GBS).	December 8, 2021	Acquisition
E5	PVR	INOX	March 27, 2022	Merger
E6	Piramal Enterprise Limited	Dewan Housing Finance (DHFL)	September 29, 2021	Acquisition
E7	JSW Steel	Neotrex Steel	October 2, 2021	Acquisition

3.6. Research Questions

The study aimed to address the following research questions:

- What motivates companies to pursue Mergers & Acquisitions?
- What impact does M&A activity have on shareholders' wealth?

4. RESULT

Based on the analysis provided in the attached annexures, the findings can be summarized as follows:

Annexures

Table 1: Summary of Abnormal Returns, t-Statistics of AR, CAR, t-Statistics of CAR during the Pre-Merger Period and Post -Merger Period for Wipro Ltd

Period	Stocks Returns	Market return Nifty 50	Normal Return	Abnormal returns	t-statistics of AR	Window	CAR	t (No of days in Window)	t-statistics of CAR
-30	0.0336	0.0085	0.0078	0.0258	1.2122				
-29	0.0019	-0.0037	-0.0002	0.0021	0.0988				
-28	-0.0024	-0.0151	-0.0077	0.0053	0.2490				
-27	-0.0170	-0.0093	-0.0039	-0.0132	-0.6181				
-26	0.0208	-0.0192	-0.0104	0.0312	1.4669				
-25	-0.0331	-0.0108	-0.0048	-0.0283	-1.3299				
-24	-0.0330	-0.0133	-0.0065	-0.0264	-1.2432				
-23	0.0086	0.0463	0.0327	-0.0241	-1.1318				
-22	0.0161	0.0253	0.0189	-0.0028	-0.1299				
-21	0.0120	0.0097	0.0086	0.0034	0.1583				
-20	-0.0083	0.0071	0.0069	-0.0153	-0.7172				
-19	-0.0102	0.0019	0.0035	-0.0137	-0.6428				
-18	0.0227	0.0128	0.0106	0.0120	0.5658				

-17	0.0093	-0.0004	0.0020	0.0073	0.3430				
-16	-0.0008	-0.0002	0.0021	-0.0029	-0.1373				
-15	-0.0046	0.0044	0.0051	-0.0097	-0.4563				
-14	0.0114	-0.0007	0.0018	0.0096	0.4495				
-13	-0.0052	0.0099	0.0088	-0.0140	-0.6573				
-12	-0.0049	-0.0001	0.0022	-0.0071	-0.3334				
-11	-0.0169	-0.0069	-0.0023	-0.0147	-0.6905	-11	-0.0265	11	-0.4207
-10	0.0064	-0.0059	-0.0016	0.0080	0.3769				
-9	-0.0070	-0.0091	-0.0037	-0.0032	-0.1512				
-8	-0.0265	-0.0206	-0.0113	-0.0152	-0.7151				
-7	-0.0077	0.0022	0.0037	-0.0114	-0.5336				
-6	0.0181	0.0185	0.0144	0.0038	0.1766				
-5	-0.0043	0.0077	0.0073	-0.0115	-0.5426	-5	0.0062	5	0.1463
-4	-0.0265	-0.0384	-0.0229	-0.0035	-0.1656				
-3	0.0099	0.0159	0.0127	-0.0027	-0.1278				
-2	0.0379	0.0106	0.0092	0.0287	1.3475	-2	0.0240	2	0.8938
-1	0.0118	0.0216	0.0165	-0.0047	-0.2198				
0	0.0075	-0.0109	-0.0049	0.0124	0.5847				
1	-0.0418	-0.0095	-0.0040	-0.0378	-1.7755				
2	-0.0094	0.0012	0.0030	-0.0125	-0.5862	2	-0.0502	2	-1.8717
3	0.0055	0.0095	0.0085	-0.0030	-0.1389				
4	0.0177	0.0050	0.0056	0.0122	0.5722				
5	-0.0035	-0.0095	-0.0040	0.0005	0.0228	5	-0.0405	5	-0.9552
6	0.0027	-0.0068	-0.0022	0.0049	0.2303				
7	0.0069	-0.0013	0.0014	0.0055	0.2579				
8	-0.0227	-0.0128	-0.0061	-0.0166	-0.7803				
9	-0.0229	-0.0112	-0.0051	-0.0178	-0.8374				
10	0.0009	0.0127	0.0106	-0.0097	-0.4575				
11	0.0096	-0.0005	0.0019	0.0077	0.3605	11	-0.0666	11	-1.05844
12	0.0025	0.0053	0.0057	-0.0032	-0.1502				
13	-0.0109	-0.0181	-0.0096	-0.0013	-0.0598				
14	-0.0280	-0.0156	-0.0080	-0.0200	-0.9421				
15	0.0106	0.0127	0.0106	0.0000	0.0013				
16	0.0346	0.0230	0.0174	0.0172	0.8084				
17	-0.0095	-0.0105	-0.0046	-0.0049	-0.2292				
18	0.0054	0.0120	0.0101	-0.0047	-0.2197				
19	0.0215	-0.0156	-0.0080	0.0295	1.3851				
20	0.0040	0.0031	0.0043	-0.0003	-0.0143				
21	0.0251	0.0092	0.0083	0.0168	0.7900				
22	0.0093	0.0037	0.0047	0.0047	0.2186				
23	0.0179	-0.0026	0.0005	0.0174	0.8183				
24	-0.0397	-0.0360	-0.0214	-0.0183	-0.8600				
25	-0.0321	0.0135	0.0111	-0.0431	**-2.0280***				
26	0.0277	0.0053	0.0057	0.0220	1.0320				
27	0.0856	0.0025	0.0039	0.0817	**3.8418***				
28	0.0075	-0.0178	-0.0095	0.0170	0.7990				
29	-0.0056	-0.0044	-0.0006	-0.0050	-0.2340				
30	0.0346	0.0076	0.0073	0.0273	1.2848				

Source: Calculations based upon the stock price data extracted from: Capitaline databases - Nifty 50.

*Significant at 5% level.

Table 2: Summary of Abnormal Returns, t-Statistics of AR, CAR, t-Statistics of CAR during the Pre-Merger Period and Post -Merger Period for Tech Mahindra Ltd

Period	Stocks Returns	Market return Nifty 50	Normal Return	Abnormal returns	t-statistics of AR	Window	CAR	t (No of days in Window)	t-statistics of CAR
-30	0.0073	-0.0006	0.0019	0.0054	0.3495				
-29	-0.0052	0.0087	0.0106	-0.0159	-1.0199				
-28	-0.0032	0.0155	0.0171	-0.0204	-1.3078				
-27	0.0028	0.0101	0.0120	-0.0092	-0.5924				
-26	-0.0296	0.0067	0.0088	-0.0384	**-2.4662***				
-25	-0.0265	-0.0101	-0.0072	-0.0193	-1.2425				
-24	0.0069	0.0038	0.0060	0.0010	0.0614				
-23	0.0071	0.0106	0.0125	-0.0054	-0.3467				
-22	0.0122	0.0029	0.0052	0.0071	0.4554				
-21	-0.0039	0.0086	0.0106	-0.0145	-0.9287				
-20	-0.0068	0.0025	0.0048	-0.0115	-0.7396				
-19	0.0110	-0.0001	0.0023	0.0087	0.5572				
-18	-0.0089	0.0029	0.0051	-0.0140	-0.8982				
-17	-0.0364	-0.0107	-0.0078	-0.0287	-1.8411				
-16	0.0056	-0.0097	-0.0068	0.0124	0.7978				
-15	-0.0019	-0.0102	-0.0073	0.0053	0.3431				
-14	-0.0450	-0.0079	-0.0051	-0.0399	**-2.5613***				
-13	-0.0518	-0.0269	-0.0232	-0.0286	-1.8358				
-12	-0.0083	0.0075	0.0095	-0.0178	-1.1452				
-11	-0.0373	-0.0098	-0.0069	-0.0305	-1.9564	-11	-0.0658	11	-1.4228
-10	-0.0245	-0.0005	0.0019	-0.0264	-1.6962				
-9	0.0473	0.0138	0.0155	0.0318	**2.0420***				
-8	0.0179	0.0136	0.0153	0.0026	0.1692				
-7	-0.0153	0.0115	0.0133	-0.0286	-1.8346				
-6	-0.0195	-0.0124	-0.0094	-0.0101	-0.6478				
-5	-0.0042	-0.0025	0.0000	-0.0042	-0.2710	-5	-0.0047	5	-0.1514
-4	-0.0027	-0.0174	-0.0142	0.0115	0.7364				
-3	-0.0070	0.0031	0.0053	-0.0123	-0.7925				
-2	0.0143	0.0113	0.0132	0.0011	0.0698	-2	0.0004	2	0.0188
-1	0.0094	0.0081	0.0101	-0.0007	-0.0460				
0	-0.0301	-0.0132	-0.0102	-0.0200	-1.2833				
1	-0.0247	-0.0311	-0.0271	0.0025	0.1575				
2	0.0350	0.0298	0.0307	0.0043	0.2746	2	0.0067	2	0.3411
3	0.0030	-0.0017	0.0007	0.0023	0.1464				
4	0.0025	-0.0010	0.0014	0.0010	0.0659				
5	-0.0067	-0.0016	0.0008	-0.0075	-0.4812	5	0.0025	5	0.0815
6	-0.0138	-0.0040	-0.0014	-0.0124	-0.7955				
7	-0.0040	-0.0067	-0.0039	0.0000	-0.0030				
8	0.0005	-0.0017	0.0008	-0.0003	-0.0163				
9	-0.0585	-0.0490	-0.0441	-0.0144	-0.9236				
10	0.0417	0.0249	0.0261	0.0156	0.9994				
11	0.0145	0.0081	0.0101	0.0044	0.2833	11	-0.0046	11	-0.0984
12	-0.0112	-0.0113	-0.0083	-0.0029	-0.1840				
13	0.0229	-0.0065	-0.0038	0.0267	1.7145				
14	0.0187	-0.0154	-0.0123	0.0310	**1.9896***				
15	-0.0205	-0.0238	-0.0202	-0.0003	-0.0181				
16	0.0262	0.0094	0.0114	0.0149	0.9555				
17	0.0289	0.0205	0.0219	0.0070	0.4478				
18	-0.0130	0.0152	0.0168	-0.0298	-1.9114				
19	0.0010	0.0021	0.0044	-0.0035	-0.2217				
20	0.0108	0.0144	0.0161	-0.0052	-0.3350				
21	-0.0300	-0.0124	-0.0094	-0.0206	-1.3216				
22	0.0212	0.0186	0.0200	0.0012	0.0768				

23	0.0024	0.0182	0.0197	-0.0173	-1.1087				
24	-0.0092	-0.0099	-0.0070	-0.0023	-0.1447				
25	0.0387	0.0115	0.0133	0.0254	1.6306				
26	0.0026	-0.0040	-0.0014	0.0040	0.2575				
27	0.0170	-0.0013	0.0011	0.0158	1.0173				
28	-0.0245	-0.0041	-0.0015	-0.0231	-1.4811				
29	-0.0040	0.0040	0.0062	-0.0102	-0.6551				
30	-0.0014	0.0060	0.0081	-0.0095	-0.6071				

Source: Calculations based upon the stock price data extracted from: Capitaline databases - Nifty 50.

*Significant at 5% level.

Table 3: Summary of Abnormal Returns, t-Statistics of AR, CAR, t-Statistics of CAR during the Pre-Merger Period and Post -Merger Period for Infosys Ltd

Period	Stocks Returns	Market return Nifty 50	Normal Return	Abnormal returns	t-statistics of AR	Window	CAR	t (No of days in Window)	t-statistics of CAR
-30	0.0015	-0.0025	-0.0016	0.0030	0.2867				
-29	-0.0151	-0.0174	-0.0139	-0.0012	-0.1128				
-28	0.0013	0.0031	0.0030	-0.0017	-0.1603				
-27	0.0116	0.0113	0.0099	0.0017	0.1613				
-26	0.0184	0.0081	0.0072	0.0112	1.0595				
-25	-0.0276	-0.0132	-0.0104	-0.0172	-1.6241				
-24	-0.0230	-0.0311	-0.0252	0.0022	0.2064				
-23	0.0328	0.0298	0.0251	0.0077	0.7219				
-22	-0.0029	-0.0017	-0.0009	-0.0019	-0.1795				
-21	-0.0049	-0.0010	-0.0003	-0.0046	-0.4309				
-20	-0.0104	-0.0016	-0.0009	-0.0095	-0.9000				
-19	0.0138	-0.0040	-0.0028	0.0167	1.5713				
-18	0.0021	-0.0067	-0.0050	0.0071	0.6721				
-17	0.0049	-0.0017	-0.0009	0.0058	0.5466				
-16	-0.0378	-0.0490	-0.0400	0.0021	0.2004				
-15	0.0098	0.0249	0.0211	-0.0113	-1.0703				
-14	0.0123	0.0081	0.0072	0.0051	0.4838				
-13	-0.0075	-0.0113	-0.0088	0.0013	0.1241				
-12	0.0105	-0.0065	-0.0049	0.0154	1.4557				
-11	0.0014	-0.0154	-0.0123	0.0137	1.2902	-11	0.0381	11	1.077
-10	0.0096	-0.0238	-0.0192	0.0287	**2.7096***				
-9	0.0218	0.0094	0.0083	0.0135	1.2748				
-8	0.0196	0.0205	0.0174	0.0021	0.2012				
-7	0.0069	0.0152	0.0130	-0.0061	-0.5766				
-6	-0.0021	0.0021	0.0023	-0.0044	-0.4149				
-5	0.0370	0.0144	0.0124	0.0246	**2.3236***	-5	-0.0094	5	-0.395
-4	-0.0276	-0.0124	-0.0098	-0.0178	-1.6778				
-3	0.0269	0.0186	0.0158	0.0110	1.0409				
-2	-0.0186	0.0182	0.0155	-0.0341	**-3.2172***	-2	-0.0273	2	-1.808
-1	-0.0008	-0.0099	-0.0076	0.0068	0.6421				
0	0.0184	0.0115	0.0100	0.0084	0.7900				
1	-0.0080	-0.0040	-0.0028	-0.0051	-0.4841				
2	0.0076	-0.0013	-0.0006	0.0082	0.7745	2	0.0031	2	0.204
3	-0.0054	-0.0041	-0.0029	-0.0025	-0.2391				
4	-0.0014	0.0040	0.0038	-0.0052	-0.4926				
5	0.0064	0.0060	0.0054	0.0010	0.0945	5	-0.0037	5	-0.154
6	0.0095	0.0099	0.0087	0.0008	0.0729				
7	0.0015	-0.0019	-0.0011	0.0026	0.2463				
8	-0.0017	0.0117	0.0102	-0.0119	-1.1221				
9	-0.0109	0.0214	0.0182	-0.0291	**-2.7430***				
10	-0.0117	-0.0053	-0.0039	-0.0078	-0.7318				

11	-0.0175	-0.0084	-0.0064	-0.0111	-1.0425	11	-0.06009	11	-1.697
12	-0.0098	-0.0095	-0.0073	-0.0025	-0.2325				
13	0.0020	0.0082	0.0072	-0.0053	-0.4962				
14	-0.0268	-0.0062	-0.0046	-0.0222	**-2.0965***				
15	-0.0137	-0.0082	-0.0063	-0.0074	-0.7017				
16	0.0035	-0.0031	-0.0021	0.0056	0.5263				
17	-0.0755	-0.0174	-0.0139	-0.0616	**-5.8080***				
18	-0.0373	-0.0126	-0.0099	-0.0274	**-2.5847***				
19	0.0163	0.0104	0.0091	0.0072	0.6794				
20	0.0194	0.0148	0.0127	0.0067	0.6274				
21	-0.0208	-0.0128	-0.0101	-0.0108	-1.0149				
22	-0.0155	-0.0128	-0.0101	-0.0054	-0.5107				
23	0.0127	0.0145	0.0124	0.0002	0.0218				
24	-0.0180	-0.0095	-0.0073	-0.0107	-1.0047				
25	0.0190	0.0121	0.0105	0.0086	0.8069				
26	-0.0096	-0.0083	-0.0064	-0.0032	-0.3012				
27	-0.0171	-0.0020	-0.0011	-0.0160	-1.5049				
28	-0.0035	-0.0232	-0.0187	0.0151	1.4271				
29	0.0318	0.0003	0.0007	0.0310	**2.9278***				
30	-0.0270	-0.0164	-0.0131	-0.0140	-1.3193				

Source: Calculations based upon the stock price data extracted from: Capitaline databases - Nifty 50.

*Significant at 5% level.

Table 4: Summary of Abnormal Returns, t-Statistics of AR, CAR, t-Statistics of CAR during the Pre-Merger Period and Post -Merger Period for HCL Technologies Ltd

Period	Stocks Returns	Market return Nifty 50	Normal Return	Abnormal returns	t-statistics of AR	Window	CAR	t (No of days in Window)	t-statistics of CAR
-30	-0.0242	0.0006	0.0006	-0.0248	-1.6942				
-29	0.0012	0.0079	0.0063	-0.0051	-0.3482				
-28	0.0088	-0.0031	-0.0023	0.0112	0.7603				
-27	-0.0216	-0.0196	-0.0152	-0.0064	-0.4347				
-26	-0.0072	-0.0104	-0.0080	0.0009	0.0580				
-25	0.0390	0.0145	0.0115	0.0275	1.8725				
-24	-0.0157	-0.0023	-0.0016	-0.0141	-0.9607				
-23	0.0049	-0.0033	-0.0025	0.0073	0.4998				
-22	0.0057	0.0049	0.0040	0.0017	0.1181				
-21	-0.0002	0.0084	0.0068	-0.0070	-0.4752				
-20	-0.0085	-0.0013	-0.0009	-0.0076	-0.5200				
-19	-0.0031	-0.0015	-0.0010	-0.0021	-0.1425				
-18	-0.0073	-0.0080	-0.0061	-0.0011	-0.0772				
-17	0.0100	0.0127	0.0101	-0.0001	-0.0098				
-16	-0.0013	0.0004	0.0004	-0.0017	-0.1172				
-15	-0.0064	-0.0061	-0.0046	-0.0017	-0.1191				
-14	-0.0095	-0.0056	-0.0042	-0.0052	-0.3556				
-13	-0.0284	-0.0075	-0.0057	-0.0226	-1.5443				
-12	-0.0091	-0.0198	-0.0154	0.0063	0.4301				
-11	0.0022	0.0050	0.0040	-0.0018	-0.1224	-11	0.0442	11	0.9874
-10	0.0061	-0.0051	-0.0038	0.0100	0.6786				
-9	0.0048	0.0069	0.0056	-0.0008	-0.0556				
-8	-0.0132	-0.0295	-0.0230	0.0098	0.6661				
-7	0.0206	0.0016	0.0014	0.0192	1.3080				
-6	0.0048	-0.0042	-0.0031	0.0080	0.5421				
-5	0.0157	0.0108	0.0086	0.0071	0.4874	-5	0.0000	5	-0.0002
-4	0.0239	0.0136	0.0108	0.0131	0.8950				

-3	-0.0113	-0.0118	-0.0091	-0.0022	-0.1469				
-2	-0.0302	-0.0167	-0.0129	-0.0173	-1.1783	-2	-0.0181	2	-0.9489
-1	0.0115	0.0155	0.0123	-0.0008	-0.0577				
0	0.0189	0.0169	0.0134	0.0055	0.3756				
1	-0.0026	0.0027	0.0023	-0.0049	-0.3317				
2	-0.0054	-0.0003	-0.0001	-0.0053	-0.3647	2	-0.0102	2	-0.5347
3	-0.0027	-0.0082	-0.0063	0.0036	0.2460				
4	0.0028	-0.0025	-0.0018	0.0046	0.3143				
5	-0.0116	-0.0060	-0.0045	-0.0071	-0.4836	5	-0.0091	5	-0.3009
6	0.0094	0.0016	0.0014	0.0080	0.5471				
7	0.0100	-0.0154	-0.0119	0.0219	1.4930				
8	-0.0099	-0.0221	-0.0172	0.0073	0.4971				
9	0.0381	0.0094	0.0075	0.0306	**2.0894***				
10	0.0147	0.0109	0.0087	0.0059	0.4048				
11	0.0038	0.0069	0.0055	-0.0017	-0.1192	-11	0.0630	11	1.4052
12	0.0303	-0.0040	-0.0030	0.0333	**2.2712***				
13	0.0016	0.0048	0.0039	-0.0024	-0.1610				
14	0.0131	0.0086	0.0069	0.0062	0.4249				
15	0.0062	-0.0011	-0.0007	0.0070	0.4744				
16	0.0193	-0.0006	-0.0003	0.0196	1.3344				
17	0.0016	0.0087	0.0070	-0.0054	-0.3682				
18	0.0053	0.0155	0.0123	-0.0070	-0.4766				
19	0.0055	0.0101	0.0081	-0.0026	-0.1774				
20	-0.0172	0.0067	0.0054	-0.0226	-1.5397				
21	-0.0199	-0.0101	-0.0077	-0.0122	-0.8310				
22	0.0044	0.0038	0.0031	0.0013	0.0883				
23	-0.0019	0.0106	0.0085	-0.0104	-0.7084				
24	0.0422	0.0029	0.0024	0.0398	**2.7133***				
25	0.0063	0.0086	0.0069	-0.0006	-0.0416				
26	-0.0133	0.0025	0.0021	-0.0154	-1.0520				
27	0.0022	-0.0001	0.0001	0.0021	0.1465				
28	-0.0605	0.0029	0.0024	-0.0629	**-4.2855***				
29	-0.0315	-0.0107	-0.0082	-0.0232	-1.5838				
30	-0.0170	-0.0097	-0.0074	-0.0095	-0.6510				

Source: Calculations based upon the stock price data extracted from: Capitaline databases - Nifty 50.

*Significant at 5% level.

Table 5: Showing the Summary of Abnormal Returns, t-Statistics of AR, CAR, t-Statistics of CAR during the Pre-Merger Period and Post -Merger Period for PVR Ltd

Period	Stocks Returns	Market return Nifty 50	Normal Return	Abnormal returns	t-statistics of AR	Window	CAR	t (No of days in Window)	t-statistics of CAR
-30	0.0132	0.0081	0.0120	0.0012	0.0626				
-29	-0.0299	-0.0132	-0.0185	-0.0114	-0.5851				
-28	-0.0143	-0.0311	-0.0441	0.0298	1.5336				
-27	0.0301	0.0298	0.0431	-0.0130	-0.6678				
-26	-0.0219	-0.0017	-0.0021	-0.0198	-1.0174				
-25	-0.0081	-0.0010	-0.0010	-0.0070	-0.3609				
-24	-0.0174	-0.0016	-0.0019	-0.0155	-0.7959				
-23	-0.0052	-0.0040	-0.0054	0.0001	0.0074				
-22	0.0074	-0.0067	-0.0092	0.0166	0.8505				
-21	0.0038	-0.0017	-0.0020	0.0059	0.3010				
-20	-0.0423	-0.0490	-0.0697	0.0275	1.4106				
-19	0.0530	0.0249	0.0361	0.0168	0.8652				
-18	0.0242	0.0081	0.0120	0.0122	0.6259				
-17	0.0127	-0.0113	-0.0157	0.0284	1.4615				

-16	-0.0172	-0.0065	-0.0089	-0.0082	-0.4233			
-15	-0.0394	-0.0154	-0.0217	-0.0177	-0.9104			
-14	-0.0439	-0.0238	-0.0337	-0.0102	-0.5244			
-13	0.0642	0.0094	0.0139	0.0503	**2.5855***			
-12	0.0293	0.0205	0.0298	-0.0005	-0.0242			
-11	0.0172	0.0152	0.0221	-0.0049	-0.2508	-11	0.0283	11	0.4972
-10	0.0078	0.0021	0.0035	0.0043	0.2206			
-9	0.0219	0.0144	0.0210	0.0009	0.0458			
-8	-0.0310	-0.0124	-0.0174	-0.0136	-0.6969			
-7	0.0303	0.0186	0.0270	0.0033	0.1710			
-6	-0.0096	0.0182	0.0265	-0.0361	-1.8534			
-5	0.0273	-0.0099	-0.0137	0.0410	**2.1089***	-5	0.0743	5	1.9377
-4	-0.0028	0.0115	0.0169	-0.0197	-1.0124			
-3	0.0044	-0.0040	-0.0054	0.0098	0.5023			
-2	0.0112	-0.0013	-0.0015	0.0127	0.6513	-2	0.0432	2	1.7801
-1	0.0251	-0.0041	-0.0054	0.0305	1.5660			
0	0.0333	0.0040	0.0062	0.0271	1.3938			
1	-0.0138	0.0060	0.0090	-0.0228	-1.1714			
2	0.0062	0.0099	0.0146	-0.0084	-0.4323	-2	-0.0312	2	-1.2875
3	0.0281	-0.0019	-0.0023	0.0304	1.5637			
4	-0.0032	0.0117	0.0172	-0.0204	-1.0463			
5	-0.0033	0.0214	0.0311	-0.0344	-1.7699	-5	-0.0556	5	-1.4503
6	0.0040	-0.0053	-0.0072	0.0112	0.5756			
7	-0.0079	-0.0084	-0.0116	0.0037	0.1920			
8	-0.0052	-0.0095	-0.0132	0.0080	0.4092			
9	-0.0065	0.0082	0.0121	-0.0186	-0.9551			
10	-0.0011	-0.0062	-0.0084	0.0073	0.3745			
11	0.0230	-0.0082	-0.0114	0.0343	1.7646	-11	-0.0096	11	-0.1697
12	-0.0091	-0.0031	-0.0041	-0.0051	-0.2612			
13	-0.0423	-0.0174	-0.0246	-0.0178	-0.9134			
14	-0.0209	-0.0126	-0.0176	-0.0032	-0.1659			
15	0.0137	0.0104	0.0154	-0.0016	-0.0841			
16	-0.0175	0.0148	0.0217	-0.0392	**-2.0123***			
17	-0.0055	-0.0128	-0.0179	0.0124	0.6354			
18	-0.0224	-0.0128	-0.0179	-0.0045	-0.2290			
19	0.0134	0.0145	0.0211	-0.0077	-0.3955			
20	0.0182	-0.0095	-0.0132	0.0314	1.6115			
21	0.0159	0.0121	0.0177	-0.0018	-0.0914			
22	0.0070	-0.0083	-0.0115	0.0184	0.9480			
23	-0.0100	-0.0020	-0.0024	-0.0076	-0.3893			
24	-0.0183	-0.0232	-0.0328	0.0145	0.7465			
25	-0.0004	0.0003	0.0008	-0.0012	-0.0635			
26	-0.0446	-0.0164	-0.0231	-0.0215	-1.1046			
27	0.0036	-0.0067	-0.0092	0.0128	0.6570			
28	0.0382	-0.0038	-0.0050	0.0432	**2.2194***			
29	0.0086	-0.0045	-0.0060	0.0146	0.7508			
30	-0.0180	-0.0225	-0.0318	0.0138	0.7088			

Source: Calculations based upon the stock price data extracted from: Capitaline databases - Nifty 50.

*Significant at 5% level.

Table 6: Showing the Summary of Abnormal Returns, t-Statistics of AR, CAR, t-Statistics of CAR during the Pre-Merger Period and Post -Merger Period for Piramal Enterprise Limited

Period	Stocks Returns	Market return Nifty 50	Normal Return	Abnormal returns	t-statistics of AR	Window	CAR	t (No of days in Window)	t-statistics of CAR
-30	0.0156	0.0021	0.0042	0.0114	0.5100				
-29	-0.0242	0.0031	0.0058	-0.0300	-1.3421				
-28	0.0000	-0.0028	-0.0029	0.0029	0.1293				
-27	-0.0244	-0.0072	-0.0095	-0.0149	-0.6672				
-26	-0.0324	0.0028	0.0053	-0.0378	-1.6887				
-25	0.0222	0.0077	0.0127	0.0096	0.4277				
-24	-0.0178	0.0006	0.0021	-0.0198	-0.8871				
-23	0.0013	0.0001	0.0014	-0.0001	-0.0032				
-22	0.0016	0.0041	0.0073	-0.0057	-0.2543				
-21	0.0110	0.0134	0.0211	-0.0101	-0.4537				
-20	0.0027	0.0118	0.0187	-0.0160	-0.7150				
-19	-0.0046	-0.0033	-0.0037	-0.0010	-0.0429				
-18	0.0055	0.0092	0.0149	-0.0094	-0.4196				
-17	0.0023	0.0052	0.0089	-0.0065	-0.2922				
-16	0.0098	0.0031	0.0058	0.0039	0.1765				
-15	-0.0229	-0.0009	-0.0002	-0.0228	-1.0180				
-14	-0.0005	-0.0005	0.0004	-0.0009	-0.0411				
-13	-0.0015	0.0009	0.0025	-0.0040	-0.1790				
-12	-0.0020	-0.0008	0.0000	-0.0019	-0.0867				
-11	0.0299	0.0014	0.0033	0.0266	1.1916	-11	-0.0032	11	-0.0478
-10	0.0005	0.0080	0.0131	-0.0126	-0.5625				
-9	-0.0005	0.0063	0.0105	-0.0110	-0.4910				
-8	-0.0053	-0.0025	-0.0026	-0.0027	-0.1213				
-7	-0.0511	-0.0108	-0.0148	-0.0362	-1.6206				
-6	0.0426	0.0094	0.0152	0.0274	1.2250				
-5	0.0098	-0.0009	-0.0001	0.0099	0.4418	-5	0.0052	5	0.1145
-4	0.0522	0.0156	0.0244	0.0278	1.2457				
-3	-0.0044	0.0017	0.0037	-0.0081	-0.3605				
-2	-0.0057	0.0001	0.0013	-0.0070	-0.3132	-2	-0.0244	2	-0.8452
-1	-0.0252	-0.0060	-0.0077	-0.0174	-0.7797				
0	-0.0155	-0.0021	-0.0020	-0.0136	-0.6074				
1	-0.0177	-0.0053	-0.0067	-0.0110	-0.4934				
2	0.0227	-0.0049	-0.0061	0.0288	1.2885	2	0.0178	2	0.6149
3	0.0481	0.0090	0.0146	0.0335	1.4980				
4	0.0477	0.0074	0.0121	0.0356	1.5915				
5	-0.0279	-0.0099	-0.0136	-0.0143	-0.6379	5	0.0726	5	1.5879
6	0.0161	0.0081	0.0133	0.0028	0.1248				
7	-0.0540	0.0059	0.0099	-0.0639	**-2.8603***				
8	0.0066	0.0028	0.0054	0.0012	0.0540				
9	0.0132	0.0026	0.0050	0.0082	0.3685				
10	0.0022	0.0094	0.0151	-0.0130	-0.5802				
11	0.0137	0.0097	0.0156	-0.0018	-0.0818	11	0.0061	11	0.0896
12	-0.0067	0.0075	0.0124	-0.0191	-0.8535				
13	-0.0252	-0.0032	-0.0035	-0.0217	-0.9687				
14	-0.0313	-0.0083	-0.0112	-0.0201	-0.9003				
15	0.0079	-0.0049	-0.0060	0.0139	0.6233				
16	-0.0361	-0.0035	-0.0040	-0.0321	-1.4340				
17	0.0050	0.0006	0.0020	0.0030	0.1347				
18	0.0273	0.0079	0.0129	0.0144	0.6456				
19	0.0012	-0.0031	-0.0035	0.0047	0.2094				
20	-0.0301	-0.0196	-0.0280	-0.0021	-0.0955				
21	0.0018	-0.0104	-0.0144	0.0162	0.7247				
22	0.0051	0.0145	0.0227	-0.0176	-0.7872				

23	0.0320	-0.0023	-0.0022	0.0342	1.5277				
24	0.0108	-0.0033	-0.0038	0.0146	0.6549				
25	0.0068	0.0049	0.0085	-0.0017	-0.0763				
26	0.0064	0.0084	0.0137	-0.0073	-0.3267				
27	0.0026	-0.0013	-0.0008	0.0034	0.1532				
28	0.0168	-0.0015	-0.0011	0.0178	0.7967				
29	-0.0393	-0.0080	-0.0107	-0.0285	-1.2765				
30	-0.0212	0.0127	0.0201	-0.0413	-1.8463				

Table 7: Showing the Summary of Abnormal Returns, t-Statistics of AR, CAR, t-Statistics of CAR during the Pre-Merger Period and Post -Merger Period for JSW Steel Ltd

Period	Stocks Returns	Market return Nifty 50	Normal Return	Abnormal returns	t-statistics of AR	Window	CAR	t(No of days in Window)	t-statistics of CAR
-30	-0.0744	-0.0072	-0.0055	-0.0689					
-29	-0.0006	0.0028	0.0056	-0.0062	-0.3135				
-28	0.0108	0.0077	0.0111	-0.0003	-0.0134				
-27	-0.0113	0.0006	0.0032	-0.0145	-0.7367				
-26	-0.0175	0.0001	0.0026	-0.0201	-1.0222				
-25	0.0082	0.0041	0.0070	0.0011	0.0565				
-24	0.0133	0.0134	0.0174	-0.0042	-0.2115				
-23	0.0015	0.0118	0.0156	-0.0141	-0.7167				
-22	-0.0161	-0.0033	-0.0012	-0.0149	-0.7569				
-21	0.0123	0.0092	0.0127	-0.0004	-0.0197				
-20	0.0085	0.0052	0.0082	0.0003	0.0133				
-19	-0.0062	0.0031	0.0060	-0.0121	-0.6164				
-18	-0.0042	-0.0009	0.0015	-0.0056	-0.2862				
-17	0.0047	-0.0005	0.0019	0.0028	0.1431				
-16	0.0028	0.0009	0.0035	-0.0007	-0.0369				
-15	0.0079	-0.0008	0.0016	0.0063	0.3201				
-14	-0.0011	0.0014	0.0041	-0.0051	-0.2614				
-13	0.0043	0.0080	0.0114	-0.0071	-0.3589				
-12	-0.0104	0.0063	0.0094	-0.0198	-1.0085				
-11	-0.0104	-0.0025	-0.0003	-0.0101	-0.5133	-11	-0.0434	11	-0.7443
-10	-0.0747	-0.0108	-0.0095	-0.0652	**-3.3134***				
-9	0.0549	0.0094	0.0130	0.0419	**2.1315***				
-8	0.0142	-0.0009	0.0015	0.0127	0.6479				
-7	-0.0019	0.0156	0.0199	-0.0218	-1.1078				
-6	-0.0271	0.0017	0.0044	-0.0315	-1.5991				
-5	-0.0161	0.0001	0.0026	-0.0187	-0.9483	-5	0.0305	5	0.7755
-4	0.0186	-0.0060	-0.0042	0.0228	1.1599				
-3	0.0283	-0.0021	0.0001	0.0281	1.4303				
-2	-0.0171	-0.0053	-0.0034	-0.0137	-0.6948	-2	-0.0018	2	-0.0735
-1	0.0089	-0.0049	-0.0030	0.0118	0.6019				
0	0.0102	0.0090	0.0125	-0.0024	-0.1200				
1	-0.0026	0.0074	0.0107	-0.0133	-0.6782				
2	-0.0300	-0.0099	-0.0086	-0.0214	-1.0901	2	-0.0348	2	-1.3997
3	0.0110	0.0081	0.0115	-0.0005	-0.0273				
4	-0.0011	0.0059	0.0090	-0.0101	-0.5120				
5	0.0098	0.0028	0.0056	0.0042	0.2114	5	-0.0412	5	-1.0494
6	0.0020	0.0026	0.0053	-0.0033	-0.1689				
7	0.0114	0.0094	0.0129	-0.0016	-0.0799				
8	0.0166	0.0097	0.0133	0.0033	0.1691				
9	0.0326	0.0075	0.0109	0.0217	1.1048				
10	-0.0345	-0.0032	-0.0010	-0.0334	-1.6992				
11	-0.0093	-0.0083	-0.0068	-0.0025	-0.1291	11	-0.0570	11	-0.9786
12	-0.0163	-0.0049	-0.0029	-0.0133	-0.6776				
13	-0.0094	-0.0035	-0.0014	-0.0080	-0.4062				
14	0.0096	0.0006	0.0031	0.0065	0.3299				

15	0.0294	0.0079	0.0112	0.0181	0.9226				
16	-0.0137	-0.0031	-0.0010	-0.0127	-0.6443				
17	-0.0258	-0.0196	-0.0194	-0.0064	-0.3278				
18	0.0025	-0.0104	-0.0092	0.0117	0.5947				
19	0.0292	0.0145	0.0186	0.0105	0.5361				
20	-0.0236	-0.0023	-0.0001	-0.0236	-1.1994				
21	0.0109	-0.0033	-0.0012	0.0122	0.6195				
22	-0.0024	0.0049	0.0079	-0.0103	-0.5231				
23	0.0106	0.0084	0.0119	-0.0013	-0.0668				
24	-0.0135	-0.0013	0.0010	-0.0145	-0.7363				
25	-0.0213	-0.0015	0.0008	-0.0221	-1.1231				
26	0.0075	-0.0080	-0.0064	0.0140	0.7093				
27	0.0059	0.0127	0.0167	-0.0108	-0.5470				
28	-0.0148	0.0004	0.0029	-0.0177	-0.8983				
29	0.0051	-0.0061	-0.0043	0.0094	0.4803				
30	-0.0038	-0.0056	-0.0038	-0.0001	-0.0042				

1) Wipro Ltd:

No positive abnormal returns were observed on the Event Day ('0' day). Significant impacts were observed in the Post-Event Period (0 to +30 days), specifically on the +25th and +27th days with t-values of -2.0280 and 3.8418, respectively.

2) Tech Mahindra Ltd:

Significant impacts during the Pre-Event Period (0 to -30 days) were noted on the -9th, -14th, and -26th days with t-values of 2.0420, -2.5613, and -2.4662, respectively. In the Post-Event Period (0 to +30 days), a significant impact was observed on the +14th day with a t-value of 1.9896.

3) Infosys Ltd:

Significant impacts during the Pre-Event Period (0 to -30 days) were noted on the -2nd, -5th, and -10th days with t-values of -3.2172, 2.3236, and 2.7096, respectively. In the Post-Event Period (0 to +30 days), significant impacts were observed on the +9th, +14th, +17th, +18th, and +29th days with t-values of -2.7430, -2.0965, -5.8080, 2.5847, and 2.9278, respectively.

4) HCL Technologies Ltd:

Significant impacts in the Post-Event Period (0 to +30 days) were noted on the +9th, +12th, +24th, and +28th days with t-values of 2.0894, 2.2712, 2.7133, and -4.2855, respectively.

5) PVR Ltd:

Significant impacts during the Pre-Event Period (0 to -30 days) were noted on the -5th and -13th days with t-values of 2.1089 and 2.5855, respectively. In the Post-Event Period (0 to +30 days), significant impacts were observed on the +16th and +28th days with t-values of -2.0123 and 2.2194, respectively.

6) Piramal Enterprise Limited:

Significant impact in the Post-Event Period (0 to +30 days) was noted on the +7th day with a t-value of -2.8603.

7) JSW Steel Ltd:

Significant impacts during the Pre-Event Period (0 to -30 days) were noted on the -30th, -10th, and -9th days with t-values of -3.5006, -3.3134, and 2.1315, respectively.

These findings indicate the timing and magnitude of abnormal returns for each company around the event periods studied

5. DISCUSSION

Table 1: Showing the Average Abnormal Return, , Cumulative Average Abnormal return and t-statistics of Cumulative Average Abnormal return

Period	AAR	Window	CAAR	Days in t - Statistics	t - statistics of CAAR
-30	-0.00852				
-29	-0.00726				
-28	0.002793				
-27	-0.01132				
-26	0.001473				
-25	-0.00678				
-24	-0.011				
-23	-0.00547				
-22	0.002614				
-21	-0.00307				
-20	-0.00015				
-19	-0.00032				
-18	0.001885				
-17	0.002164				
-16	0.000856				
-15	-0.00483				
-14	-0.00495				
-13	-0.00341				
-12	-0.00553				
-11	-0.00751	-11	-0.01992	11	-0.901300333
-10	-0.0038				
-9	0.013886				
-8	0.000711				
-7	-0.00479				
-6	-0.0115				
-5	0.004052	-5	-0.00691	5	-0.463785397
-4	0.00097				
-3	0.005879				
-2	-0.00309	-2	-0.01781	2	-1.890081106
-1	-0.01472				
0	0.006499				
1	-0.01246				
2	-0.00854	2	-0.02101	2	**-2.229127234***
3	0.008622				
4	-0.00262				
5	-0.0088	5	-0.02381	5	-1.597974168
6	0.0036				
7	0.007155				
8	-0.00364				
9	-0.00292				
10	-0.00527				
11	0.003349	11	-0.02154	11	-0.974380147
12	0.001386				
13	-0.0037				
14	-0.00181				
15	0.001852				
16	0.002883				
17	-0.00818				

18	-0.01539				
19	0.008897				
20	0.000782				
21	0.000123				
22	0.002461				
23	-0.00487				
24	-0.00239				
25	-0.00402				
26	-0.0008				
27	0.014793				
28	-0.00439				
29	0.002639				
30	0.001554				

Source: Calculations based upon the stock price data extracted from: Capitaline databases - Nifty 50.

*Significant at 5% level.

The summary of Company's t-statistics of Cumulative Average Abnormal return (CAAR) shows the significant impact at 5% level for Pre Event Period -2, -5, -11 days and Post Event Period +2, +5, +11 days. The event is the M&A announcement date. CAAR is computed for Pre Event Period and Post Event Period for the Window period of 61 days and shows the significant impact at 5% for Pre Event Period -2, -5, -11 days and Post Event Period +2, +5, +11 days.

The analysis examines the behaviour of selected acquirer companies CAARs during this period, showing a consistent range-bound movement throughout the 61 days. Notably, the t-statistics indicate a significant market reaction on the +2 days post-event (t-value of -2.2291), reflecting market sentiment towards merger deals.

The overall results indicate a favourable market reaction towards the merger deals on +2 days post event period and CAAR values and t-statistics of CAAR before and after the merger have not been found significant throughout the period and have been moving in moderate range.

Significant impacts during the Pre-Event Period (0 to -30 days) were noted on the -2nd, -5th, and -10th days with t-values of -3.2172, 2.3236, and 2.7096, respectively and in the Post-Event Period (0 to +30 days), significant impacts were observed on the +9th, +14th, +17th, +18th, and +29th days with t-values of -2.7430, -2.0965, -5.8080, 2.5847, and 2.9278, respectively for Infosys Ltd.

Consequently, based on these results, it is concluded that merger announcements do not significantly impact shareholder wealth in the short term, indicating that shareholder wealth remains largely unaffected by merger activity during this observed period.

References

1) Amewu, G., & Alagidede, P. (2018). Do mergers and acquisitions announcements create value for acquirer shareholders in Africa. *International Journal of Finance & Economics*, *23*(4), 606-627.

2) Beena, P. L., & Sahoo, S. R. (2022). Mergers and acquisitions and antitrust implications: evidence from the high-tech manufacturing sector. In *Indian Economy and Neoliberal Globalization* (pp. 206-229). Routledge India. antitrust implications: evidence from the high-tech manufacturing sector. In *Indian Economy and Neoliberal Globalization* (pp. 206-229). Routledge India.

3) Bruner, R. F., & Perella, J. R. (2004). *Applied mergers and acquisitions* (Vol. 173). John Wiley & Sons.

4) Dahal, M., & Das, J. (2022). Merger And Acquısıtıon Announcement Of Indıan Bankıng Sector: A Pre! Post Analysıs Of Stock Market Reactıon. *The Review of Finance and Banking*, *14*(2), 89-105.

5) Giannopoulos, G., Lianou, A., & Elmarzouky, M. (2023). The Impact of M&As on Shareholders' Wealth: Evidence from Greece. *Journal of Risk and Financial Management*, *16*(3), 199.

6) HALDER, A. (2021). Value creation through mergers and acquisitions in selected indian companies in 21st century. *International journal of research in Commerce, Economics and Management*, *11*(2), 25-32.

7) Harefa, F. A., & Rasid, S. Z. A. (2021). Pre and Post-Merger and Acquisition Performance of Companies in the Malaysian Energy Sector. *Journal of Advanced Research in Business and Management Studies*, *24*(1), 49-63.

8) Juma, O. N., Wawire, P. T., Byaruhanga, J., Okaka, O., & Odera, O. (2012). Impact of bank mergers on shareholders' wealth. *International journal of business and social research*, *2*(6), 162-177.

9) Koi-Akrofi, G. Y. (2014). Motives for telecom mergers and acquisitions. *International Journal of Innovation and Applied Studies*, *9*(4), 1809.

10) Kumar, S., & Bansal, L. K. (2008). The impact of mergers and acquisitions on corporate performance in India. *Management Decision*, *46*(10), 1531-1543.

11) Li, T. (2016). A study on the impact of mergers & acquisitions on shareholders' wealth and efficiency. In *SHS Web of Conferences* (Vol. 25, p. 02013). EDP Sciences.

12) Liargovas, P., & Repousis, S. (2011). The impact of mergers and acquisitions on the performance of the Greek banking sector: An event study approach. *International Journal of Economics and Finance*, *3*(2), 89-100.

13) Narayanan, S. (2019). *Analysis of merger & acquisition frameworks from a deal rationale perspective in technology sector* (Doctoral dissertation, Massachusetts Institute of Technology).

14) Pandya, V. U., Street, L., & Street, L. (2018). Mergers and Acquisitions Trends—The Indian Experience. *International journal of Business administration*, *9*(1), 44-54.

15) Pervan, M., Višić, J., & Barnjak, K. (2015). The impact of M&A on company performance: Evidence from Croatia. *Procedia Economics and Finance*, *23*, 1451-1456.

16) Rani, N., Yadav, S. S., & Jain, P. K. (2013). Impact of Corporate Governance on Short-term Performance of Mergers and Acquisitions. *Amity Global Business Review*, *8*.

17) Rossi, S., & Volpin, P. (2007). The governance motive in cross-border mergers and acquisitions. In *Corporate governance and regulatory impact on mergers and acquisitions* (pp. 43-69). Academic Press.

18) Sherman, A. (2010). *Mergers and Acquisitions from A to Z*. Amacom.

19) SHUKLA, A., & GEKARA, M. G. (2012). Creating Shareholders' Value through Mergers and Acquisitions. *Finance India*, *26*(3).

20) Teti, E., & Tului, S. (2020). Do mergers and acquisitions create shareholder value in the infrastructure and utility sectors? Analysis of market perceptions. *Utilities Policy*, *64*, 101053.

21) Veena, N. M., & Sreelakshmi, P. (2019). An Analysıs Of Vısıonary Archıtecture Of Icıcıbank Through Mergers And Acquısıtıons-A Case Of Merger Of Bank Of Rajasthan Wıth Icıcı Bank. *Journal of Services Research*, *19*(2), 7-29.

22) VENUGOPAL, A., BERLY, A., & PIUS, A. (2023). *Impact Of Mergers And Acquısıtıons On The Fınancıal Performance Of Hul Ltd* (Doctoral dissertation, St Teresa's College (Autonomous), Ernakulam).