Abstract
Demergers were an American invention of the 1920s and became common since the 1950s. Corporate demerger is one of several ways through which a firm may divest a division and improve its focus. A demerger is a pro-rata distribution of the shares of a firm's subsidiary to the shareholders of the firm. There is neither a dilution of equity nor a transfer of ownership from the current shareholders. In American English this process is termed spin-off, in British English, demerger. A Demerger occurs when a company transfers its one or more of its undertakings to another company. The company whose undertaking is transferred is called the De-merged company and the company (or the companies) to which the undertaking is transferred is referred to as the Resulting company. A demerger may also take the shape of a spin-off where, an existing company is split into two (or more) companies. CAR of Indiabulls Financial Service Limited is negative, insignificant. We can conclude that CAR of Indiabulls Financial Service Limited got negative abnormal returns after announcement and have created not significant shareholder wealth. CAR of Indiabulls Financial Service Limited is negative and insignificant positive returns so demerger has not created significant shareholder wealth in this company.

1. INTRODUCTION
Demergers were an American invention of the 1920s and became common since the 1950s. Corporate demerger is one of several ways through which a firm may divest a
division and improve its focus. A demerger is a pro-rata distribution of the shares of a firm’s subsidiary to the shareholders of the firm. There is neither a dilution of equity nor a transfer of ownership from the current shareholders. In American English this process is termed spin-off, in British English, demerger. A De-merger occurs when a company transfers one or more of its undertakings to another company. The company whose undertaking is transferred is called the De-merged company and the company (or the companies) to which the undertaking is transferred is referred to as the Resulting company.

2. OBJECTIVES OF THE STUDY
To study the impact of demerger on the shareholders’ wealth with special reference to one company that demerged in India during the calendar year 2006.

3. SCOPE OF THE STUDY
The scope of the study is confined to one company which filed their Scheme of Demerger with Registrar of Companies during the calendar year 2006 i.e. 1st January 2006 to 31st December 2006.

4. REVIEW OF LITERATURE
   ➢ Roni and Shaw (1995) in their findings analyzed how firms choose between a spin-off and an equity carve-out as a way to divest assets. A sample of 91 master limited partnerships that were issued to the public was used. They found that riskier, more leveraged, less profitable firms choose to divest through a spin-off. The spin-off firms are smaller and less profitable than the carve-out firms. This suggested that the choice was affected by a firm’s access to the capital market: Greater scrutiny and more stringent disclosure are required in carve-out relative to spin-offs.

   ➢ Kaiser Kavin (1995) presented preliminary evidence on stock market reaction to divestiture announcement by European firms. Firms included in their sample are divestitures by French, German and UK firms. Kevin reviewed the literature of many researchers. On basis of review of literature in the following table their findings include: (1) stock price reaction during initial announcements of domestic subsidiary sell-offs is positive and consistent (in size and direction) with the US evidence. (2) in contrast to evidence for sellers in US, the European evidence indicates the seller performance improves substantially for the 60 trading days following the event, (3) there appeared to be substantial information leakages in Continental European countries many trading days prior to the initial announcement of the event to the Press,

<table>
<thead>
<tr>
<th>Study</th>
<th>Sample Size</th>
<th>Time Period</th>
<th>Methodology</th>
<th>CAAR (-1, 0)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alexander, et al. (1984)</td>
<td>53</td>
<td>1964-73</td>
<td>Mean adjusted returns</td>
<td>0.17%</td>
</tr>
<tr>
<td>Rosenfeld (1984)</td>
<td>62</td>
<td>1969-81</td>
<td>Mean adjusted returns</td>
<td>2.33%</td>
</tr>
<tr>
<td>Jain (1985)</td>
<td>1,062</td>
<td>1976-78</td>
<td>Portfolio-based adjusted</td>
<td>0.53%</td>
</tr>
</tbody>
</table>
(4) there appeared to be differences across countries in the way cumulative abnormal returns are distributed between sellers divesting domestic subsidiaries (positive effect) and sellers divesting foreign subsidiaries (ambiguous effect), and (5) the relative size of the divested unit explained a considerable portion of the variation in stock-price effects across firms.

- **Daley, Mehrotra, and Sivakumar’s** (1997) analyzed spin-offs came through 1991 and advocated that cross-industry spin-offs lead to a small decline in the leverage ratio of the combined assets in the period between the spin-off and the ensuing fiscal year-end, but there was no change in leverage associated with own-industry spin-offs. This pattern is consistent with the argument that spin-offs that undo diversification, and therefore are likely to increase the variability of cash flows, lead to declines in financial leverage.

- **James and Jefferey** (1997) investigated the capital market’s pricing of the most significant cash flow producing activities of U.S. banks. The evidence reported in this paper is important both because it provides a test of a fundamental principle of economics and finance and because it provides insight into how banks have responded to the changing banking and regulatory environments.

- **Ronald, Roger and Agapos** (1998) in their research examined 72 firms which have gone for spin off from 1979 to 1993 which showed that spin off announcement abnormal returns are significantly related to the firm’s information environment. The result also indicated that analysts significantly increase their estimates of short-term earnings for spinoff firms at the time of separation, but do not significantly revise their long-term earnings forecasts. Further, it was also shown that neither the short-term nor long-term earnings revisions are significantly different across prediction error groups. The existence of a differential earnings prediction error based abnormal announcement period stock returns and the lack of a difference in earnings forecast revisions across prediction error groups supports the assertions of earlier studies that spinoff wealth effects cannot be attributed solely to expected performance gains.

- **Kumar** (2004) analyzed the RPL merger with RIL - the largest ever merger in India. The study examined the effect of the merger on the wealth of the shareholders of RIL and also on post merger corporate performance. The increase in the equity value of the acquiring firm in the wake of a successful merger is a compelling evidence for the synergy theory of mergers. The results fail to support the capitalization hypothesis that
merger gains are captured at the beginning of the merger programs. They find that the stockholders suffer loss for different time window period around the announcement period. The announcement day return was found to be 4.78%. But the average abnormal return from 20 days before until 20 days after the announcement period was found to be – 0.17 %. Merged firm did not show improved operating performance in term of per share ratio. Net profit increased by 26.51% in the post merger period. Sales increased by only 13.93 % in the post merger period compared to 37.96 % in the pre merger period. The merged firm had not shown significant improvement in asset productivity based on percentage changes of comparison between the pre merger and post merger period.

- **Veld and Merkoulova (2004)** in their research studied wealth effects of spin offs for a sample of 156 spin offs. These spin offs were announced between the period January 1987 to September 2000. All European countries have been taken into account in the study with the exception of the Eastern European, formerly Socialist, countries. The spin offs have been taken from 15 different European countries. The announcement dates were obtained from the Securities Data Company (SDC) Mergers and Acquisitions Database whereas the data on stock prices, market values of equity and market indices were derived from Data Stream. The announcement effects of the spin-offs have been measured using an event study methodology. The market index chosen is the Data Stream total return index for the individual European countries. The estimation period in the study ranges from day -220 to day -21 and the event window has been taken as day -1 to day +1. The results for all countries show a cumulative average abnormal return of 2.62% (significant at 1 % level) for the event window from day -1 to day +1.

- **Rajesh Kumar** (2004) analyzes the RPL merger with RIL - the largest ever merger in India. The study examines the effect of the merger on the wealth of the shareholders of RIL and also on post merger corporate performance. The increase in the equity value of the acquiring firm in the wake of a successful merger is a compelling evidence for the synergy theory of mergers. The results fail to support the capitalization hypothesis that merger gains are captured at the beginning of the merger programs. They find that the stockholders suffer loss for different time window period around the announcement period. The announcement day return was found to be 4.78%. But the average abnormal return from 20 days before until 20 days after the announcement period was found to be – 0.17%. Merged firm did not show improved operating performance in term of per share ratio. Net profit increased by 26.51% in the post merger period. Sales increased by only 13.93 % in the post merger period compared to 37.96 % in the pre merger period. The merged firm has not shown significant improvement in asset productivity based on percentage changes of comparison between the pre merger and post merger period.

- **Basanna and Basavaraj** (2006) the authors have restricted the study to ten cases, consisting of 21 companies on their means of payment for merger/ acquisition in
relation to equity and preference share capital of the transferor company. Debentures and secured and unsecured loans are not considered, because these are generally assumed by the transferee company.

- It is observed that most of merger cases are equity biased. The acquiring companies believe that the internal cash resources can be used for future growth. Another reason as to why most of the cases are equity biased is that, in most of the cases subsidiary companies have been merged with its holding companies, and therefore, holding company did not seem to hesitate to exchange equity in discharging claims of the minority shareholders. Further observation: the pre-merger reserves and surplus of merged entity has substantially increased immediately after merger in the cases of profitable company merging with another profitable company. The reason for such increase is attributable to the combined effect of two profitable companies. The study also reveals that loss making or sick acquired company upsets the pre-merger leverage of the acquiring company.

- Ramakrishnan (2008) indicated that the long-term post-merger performance of 414 mergers between 1993 and 2005. He has carried out statistical analyses of financial data pertaining to 87 pairs of merged firms. These mergers took place in the period 1996 to 2002. It is found that the merged firms demonstrate improvement in long-term financial performance after controlling for pre-merger performance, with increasing cash flow returns post merger, at an annual rate of 4.3%. This improved operating cash flow return is on account of improvements in the post-merger operating margins of the firms, though not of the efficient utilization of the assets to generate higher sales. Increase in market power also appears to be driving gains through mergers in India. As far as wealth gains on merger announcement are concerned, only the shareholders of the acquired firms appear to be enjoying significant positive share price returns of 11.6%. The shareholders of the acquiring firms and the combined firms do not seem to be witnessing any significant change in returns. With regard to the strategic factors affecting long-term post-merger financial performance, related mergers seem to be performing 5.4% lower than unrelated mergers. Both the transfer of corporate control from the acquired firm to the acquiring firm, and the business health of the acquired firm are positively related to the long-term post-merger performance of the firms. The wealth gains to acquired firm shareholders on announcement of a merger are positively influenced by the relative size and the pre-merger performance of the acquired firm. The transfer of corporate control from the acquired firm to the acquiring firm is negatively associated with these abnormal share price returns. The level of industry-relatedness of the acquired and the acquiring firms, the method of payment for the acquired firm and the business health of the acquired firm do not appear to be playing a role in affecting the share price returns to the acquired firm shareholders, on announcement of a merger.

- Anand and Singh (2008) used event study methodology to analyze five mergers in Indian Banking Sector to capture the returns to shareholders as a result of the merger
announcement during the period of 1999 to 2005. They explored the short-term shareholder wealth effects of the Indian Bank mergers. The merger of Times Bank with HDFC Bank (1999), The Bank of Madura with the ICICI Bank (2000), the ICICI Ltd. with ICICI Bank (2001), the Global Trust Bank (GTB) with the Oriental Bank of Commerce (OBC) (2004), and the Bank of Punjab (BOP) merger with the Centurian Bank (2005) have been studied. The findings of the study were in agreement with the European and the US bank mergers and acquisitions except for the fact that the value to the shareholders of the bidder banks has been destroyed in the US context. From the study, it emerged that merger announcement in the Indian banking industry has positive and significant shareholders’ wealth affect both for the bidder and target banks.

➢ Vyas Pavak (2015) examines that the demergers and the announcement period price reaction of demergers during the year 2012-2014. He studied total 51 demergers of companies listed in India and tried to establish that demergers results into abnormal returns for the shareholders of the parent company. Using event study methodology the authors have analyzed the security price performance of the announcement day effect 10 days prior to the announcement to 10 days post demerger announcement. He found significant out-performance of the security over the benchmark index post demerger announcement ranging from 1.74% average abnormal return for a demerger announcement to 0.16% average abnormal return 10 days following the announcement.

➢ In the review of literature it is found that the studies has mainly concentrated on the issues concerning motives of Demergers and their empirical investigation, examination of financial characteristics of demerged firms and performance measure of demerged firms using share price data and accounting data.

5. RESEARCH METHODOLOGY

The first objective of this part is to discuss in detail the methodology used for the research. Before conducting actual research work, the researcher prepares a full detail of information about the overall work to be done. This enables the researcher to save time and energy and to conduct the study step-wise and systematically. Such sequential steps adopted by the researcher in studying a problem with certain objectives are called research methodology. Discussion of research methodology at this stage is appropriate as it has a direct bearing on the collection, analysis, interpretation of the data and reporting of results about various aspects of phenomenon under study. Accordingly the following issues have been discussed.

6. ANALYSIS AND INTERPRETATION

The whole analysis is divided into three main sections namely financial position based analysis, stock market data based analysis and event study based analysis. The research tools used are as under:
Mean
Standard Deviation
Regression
Event Study.

6.1 Detail of company
- **Demerged Company**: Indiabulls Financial Services Limited
- **Resulting Company**: Indiabulls Real Estate Limited
- **Effective Date**: 20th December 2006
- **Scheme of Demerger**: The shareholders will get the Equity shares of the Resulting Company i.e. Indiabulls Real Estate Limited in the ratio of 1 equity share each credited as fully paid-up in cash for every 1 equity shares each held by the members of the company.
- **Eligibility Date**: 29th December 2006

6.2 Event Definition and Date of Announcement
For the purpose of this study the first date of media announcement of the demerger has been taken as the event date (day zero). Table 1 enumerates the date of announcement of the demergers. The first possible date when the news of the demerger was made public has been used. The same has been obtained from PROWESS 3.1; the data based software developed by Center for Monitoring Indian Economy (CMIE), web sites of Securities and Exchange Board of India (SEBI), Bombay Stock Exchange (BSE) and National Stock Exchange (NSE)

<table>
<thead>
<tr>
<th>Sr. No</th>
<th>Company Name</th>
<th>First Media Announcement date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Indiabulls Financial Services Limited</td>
<td>29 June 2006</td>
</tr>
</tbody>
</table>

Window Period and Clean Period Data
Seiler (2004) explained that event study is composed of three frames.
- Estimation Window (-240 to -41)
- **EVENT WINDOW** (-40 to +40)
- Post Event Window (41 to 240)

<table>
<thead>
<tr>
<th>Window Period</th>
<th>Clean Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>-40 to 40 days</td>
<td>-240 days to- 41 days</td>
</tr>
<tr>
<td></td>
<td>41 days to 240 days</td>
</tr>
</tbody>
</table>

Table 2: Clean period

The share price data and market index (BSE 200) has been taken from Prowess 3.1 the database Software developed by CMIE. Table 3 gives the date wise data used for clean and window periods for the demerged companies.
Table 3: Clean Period and Window Period Data for Demerged Companies

<table>
<thead>
<tr>
<th>Sr.No</th>
<th>Name of Company</th>
<th>Data Available</th>
<th>Window Period</th>
<th>Clean Period</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Indiabulls Financial Service Limited</td>
<td>12-Jul-05</td>
<td>18-Jun-07</td>
<td>-40 to 40</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-240 to -41 and 41 to 240</td>
</tr>
</tbody>
</table>

6.3 Estimating CAR Using the Market Model

Fama and MacBeth (1973) market model assumes that all inter-relationships among the returns on individual assets arise from a common market factor that affects the return on all assets. The following model generates the expected returns on individual assets.

\[
R_j = \alpha_j + (\beta_j \times R_{mt}) + \epsilon_{jt}
\]

\[
t = -240 \text{ to } -41 \text{ (estimation window/period)}
\]

\[
r_{jt} = R_{jt} - (\alpha_j + \beta_j \times R_{mt})
\]

Where \(r_{jt}\) = Abnormal Return for company stock \(j\) at time \(t\)

\(R_{jt}\) = Actual Return for company stock \(j\) at time \(t\)

\(\alpha_j\) = The intercept term which measure the return over a particular period not explained by market

\(\beta_j\) = Measures the risk of the security or the sensitivity of firm \(j\)’s return to that of market

\(R_{mt}\) = The return on the BSE 200 index on the day \(t\).

\(\epsilon_{jt}\) = The unsystematic component of firm \(j\)’s return.

Furthermore, the daily average abnormal returns (\(AR_t\)) of demerger announcement in a 40 days window are estimated for merged company by taking arithmetic average of the residual returns of respective companies of that group.

\[
AR_t = \frac{\sum_i r_{jt}}{N}
\]

\(AR_t\) = Average abnormal returns of demerger announcement

\(N\) = Number of firms in the sample.

The reason for averaging across firms is that stock returns are noisy but the noise tends to cancel out when averaged across a large number of firms. Therefore, more firms in the sample, the better ability to distinguish the effect of an event. The cumulative average returns (\(CAR\)) of demerger announcement in a 40 days window are estimated for merging companies by submission of the average abnormal returns (\(AR_t\)) in the respective window.

\[
CAR = \sum_{t=-40}^{40} AR_t \quad t = -40 \text{ to } 40
\]

Where \(CAR\) = Cumulative Average Abnormal Returns of demerger announcement.
\[
t - statistic of Abnormal Returns = \frac{r_{jt}}{S(r_j)}
\]
Where \( S(r_j) \) = Standard deviation of residual of company j for the clean period.

\[
t - statistic of Average Abnormal Returns = \frac{AR}{S(AR)}
\]
Where \( S(AR) \) = Standard deviation of average abnormal returns of demerged company during clean period.

\[
t - statistic of CAR = \frac{CAR}{S(AR)\sqrt{t}}
\]
Where \( t \) = respective window period.

### 6.4 Statistical Significance of Event Returns
The null hypothesis that there are no abnormal returns associated with the demerger announcement needs to be statistically tested. The statistical significance of the daily residual returns of each company \((r_{jt})\), daily average abnormal returns \((AR)\) of merging and cumulative abnormal return \((CAR)\), has been examined using the \( t \)-statistic. If the estimated value of \( t \)-statistic is greater than 1.64 but less than 1.96, it is significant at 10per cent level. If estimated value of \( t \) statistics is greater than 1.96 and less than 2.58, it is significant at 5per cent level. If its value exceeds 2.58, it is significant at 1per cent level. In the event of the \( t \)-statistic being significant, it implies that there are abnormal returns associated with the demerger announcements in India. The results of the event study using market model with respect to company demerger announcement are as under.

### 6.5 CAR estimates during the window period
The estimates of cumulative abnormal returns of the demerged company in the different windows are reported in following tables.

<table>
<thead>
<tr>
<th>Window</th>
<th>CAR</th>
<th>DAYS</th>
<th>t-statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAR 1 Day Window</td>
<td>0.00144</td>
<td>3</td>
<td>0.022</td>
</tr>
<tr>
<td>CAR 2 Day Window</td>
<td>0.02143</td>
<td>5</td>
<td>0.258</td>
</tr>
<tr>
<td>CAR 5 Day Window</td>
<td>-0.0306</td>
<td>11</td>
<td>-0.25</td>
</tr>
<tr>
<td>CAR 10 Day Window</td>
<td>-0.1444</td>
<td>21</td>
<td>-0.85</td>
</tr>
<tr>
<td>CAR 15 Day Window</td>
<td>-0.0162</td>
<td>31</td>
<td>-0.08</td>
</tr>
<tr>
<td>CAR 25 Day Window</td>
<td>-0.0426</td>
<td>51</td>
<td>-0.16</td>
</tr>
<tr>
<td>CAR 40 Day Window</td>
<td>0.10709</td>
<td>81</td>
<td>0.32</td>
</tr>
</tbody>
</table>
Table 4 shows that CAR is negative in all windows except 1 and 2 day window. In nutshell demergers has not created shareholders wealth. Table shows that the CAR of Indiabulls Financial Service Limited is negative, insignificant. CAR of 40 day window shows the highest CAR and positive result i.e. 10.7 per cent and proves statistically significant at 10 per cent level of insignificance. CAR of 5 day window is significant at 10 per cent level of significance and 2 day window is at 10 per cent level of significance. CAR in run-up window is positive as showing in 1, 2, 5, 10, 15, 40 days before announcement. CAR is continuously increasing, but is negative in 25 day window before announcement. CAR after announcement is negative in 1, 2, 5, 10, 15, 25, 40 days after announcement and not statistically significant.

### 7. CONCLUSION

In nutshell we can conclude that CAR of Indiabulls Financial Service Limited got negative abnormal returns after announcement and have created not significant shareholder wealth. CAR of Indiabulls Financial Service Limited is negative or

<table>
<thead>
<tr>
<th>Run up window</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>(-1 Day)</td>
<td>0.02975</td>
<td>1</td>
</tr>
<tr>
<td>(-2 TO -1 Day)</td>
<td>0.07091</td>
<td>2</td>
</tr>
<tr>
<td>(-5 TO -1 Day)</td>
<td>0.0339</td>
<td>5</td>
</tr>
<tr>
<td>(-10 TO -1 Day)</td>
<td>0.0267</td>
<td>10</td>
</tr>
<tr>
<td>(-15 TO -1 Day)</td>
<td>0.13252</td>
<td>15</td>
</tr>
<tr>
<td>(-25 TO -1 Day)</td>
<td>-0.0426</td>
<td>25</td>
</tr>
<tr>
<td>(-40 TO -1 Day)</td>
<td>0.15153</td>
<td>40</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>After announcement</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>(+1 Day)</td>
<td>-0.0197</td>
<td>1</td>
</tr>
<tr>
<td>(+2 TO +1 Day)</td>
<td>-0.0408</td>
<td>2</td>
</tr>
<tr>
<td>(+5 TO +1 Day)</td>
<td>-0.0559</td>
<td>5</td>
</tr>
<tr>
<td>(+10 TO +1 Day)</td>
<td>-0.1625</td>
<td>10</td>
</tr>
<tr>
<td>(+15 TO +1 Day)</td>
<td>-0.1401</td>
<td>15</td>
</tr>
<tr>
<td>(+25 TO +1 Day)</td>
<td>-0.1465</td>
<td>25</td>
</tr>
<tr>
<td>(+40 TO +1 Day)</td>
<td>-0.0358</td>
<td>40</td>
</tr>
</tbody>
</table>

*denotes Significant at 1% level, ** denote Significant at 5%, *** denote Significant at 10%
Insignificant positive so demerger has not created significant shareholder wealth in this company.

8. REFERENCES