Chapter II
Review of Literature
CHAPTER - II

REVIEW OF LITERATURE

Studies of the post-merger performance usually followed either of the two general approaches: share price analysis or analysing the operating and financial performance. Studies of mergers in India are few and have stopped at comparing pre-merger and post-merger operating performance using a case by case approach (Kaveri, 1986) or a general description of mergers and takeover and their accounting framework (Kumar and Parchure, 1990). The research studies conducted to analyse M&A in USA, UK and in India are reviewed in the following pages.

Berkovitch and Narayanan analysed the influence of competition among bidders as reflected in multiple-bid contests. For positive total gains, the correlation between target returns and total gains were strongly positive. It appeared that the synergy influence was reinforced. When total gains were negative, however, the correlation between target returns and total gains was negative. Multiple bidding appeared to aggravate the agency problem and stimulate hubris as well. Berkovitch and Narayanan concluded that total gains were mostly positive and that synergy appeared to be the dominant driving force in mergers and takeover. They suggested that the empirical data conveyed that agency and hubris played some role as well. They observed that in more than three-fourths of the cases in the sample they employed, total gains were positive. It was likely therefore, that value was created by M&A. This reinforced conclusions of other studies as well.
Weston (1953) examined annual merger data for the period between the two World Wars employing a multiple regression analysis, he found that mergers were significantly and positively related to securities prices and to wholesale commodity prices but were not significantly related to industrial production levels.

Nelson (1959) looked at quarterly merger data stretching from 1895 through 1956 with his primary focus on the years 1895-1920. Most part of his book described the sources and methodology he used in compiling his 1895-1920 data and the descriptive qualities of those data. Nelson explored a number of hypotheses concerning the origins and motives underlying the mergers of the period. He rejected the proposition that the mergers were a consequence of slowdown in growth of the US economy or of decreases in transportation costs. He found out that the achievement of market power and the development of the US securities markets appeared to have played a role in encouraging the mergers. Nelson calculated and discovered a significant positive correlation between the quarterly merger data and the level of securities prices. He also calculated the correlation between mergers and the level of industrial production, but here he found an insignificant relationship between the two.

One British study carried out by Newbould (1970) questioned the management of 38 firms that had merged, and analysed the motives behind the mergers and the consequences ensued. He found that market dominance for one reason or another (including self defence) was the most important single motive in merger. Technological reasons such as the ability to exploit economies of scale came a long way behind this, and this was reflected in the failure to carry out much rationalization following the merger. For
example, twenty-one firms did not shut down any plant and thirty of the thirty-eight firms shut down less than 5% of their plant of any particular type.

Analysing the characteristics of some 700 acquired firms over the period 1948-68, Boyle (1970) found that the acquired firms in conglomerate mergers had higher levels and growth of profits than in horizontal and vertical cases and characterized the conglomerate merger process as the acquisition of strong and financially viable firms by larger corporations.

Weston and Mansinghka (1971) found that companies heavily involved in the conglomerate merger wave of the 1960s earned lower returns on capital than a random sample of industries prior to the merger wave and roughly the same returns after the merger also.

Hart, Utton and Walshe (1973) also looked for evidence of improved efficiency. They managed to examine forty-two cases but unlike Newbould, did not appear to adopt a systematic approach to the problem. Since they did not make a serious attempt to calculate efficiency changes, their conclusions related more to the issue of concentration than to efficiency.

Steiner (1975) used multiple regression analysis to try to explain annual merger activity (numbers and value) from 1949 through the early 1970s. For the years 1949-71, he found that GNP and the change in the level of securities prices both had significant positive influences, the prime rate of interest had a positive but insignificant effect. When he added data for 1972 to the analysis, Steiner saw the change in securities prices variable
becoming insignificant and prime rate of interest showed a significant positive effect.

"Disappointing Marriage: A Study of the gains from Mergers" by Meeks (1977) captured the skepticism which had greeted takeovers. Meeks studied the impact of mergers on the profitability of the merging companies. His study had been followed by many others (Kumar, 1984:ch.5; Cosh et al, 1980). The basic methodology in accounting-based studies was to compare reported post-merger profits to the weighted average of the pre-bid profits of each of the merging firms. To allow for changes in profits brought about by factors independent of the merger, they were calculated relative to the performance of the company’s own industry, or the performance of a sample of non-merging firms.

To summarise, the verdict of these studies was not wholly adverse to mergers. Moreover, a substantial minority of mergers studied (about 40 percent) actually improved profitability, even though the average sample performance was negative. What this meant was that certain types of merger could be successful. It appeared that some acquirers did have the skill, judgment and shrewdness to pick the winners and make them work.

Studies of the role of risk pooling in diversification and merger have been numerous in the USA where they have generally produced negative results (Mueller-1977). Only three studies have apparently been undertaken for the UK, Utton (1969). Econtel Research (1969) and Kumps (1975) All three compared the variability of profits between groups of ‘conglomerate’ or ‘diversified’ firms and a control group. Utton applied analysis of variance to a sample of eighteen diversified and a like number of firms specialising in the engineering industries, using profit-rate data for the period 1957-68. No
statistically significant difference in the variance of profit between the groups was apparent. The Econtel Study compared graphically the deviations from trend profits for a group of twenty UK conglomerates with those for twenty-seven ‘non-conglomerate giants.’ Here after their full diversification was effected by the early 1960s, the conglomerates experienced fluctuations, which equaled those of non-conglomerates giants. Kumps calculated the co-efficient of variation of profit rates for three groups among the 200 largest UK companies from 1964-69, those, which had grown principally by diversifying merger, those with no acquisition and those with principally horizontal and vertical acquisitions. The values obtained were 28%, 39% and 45% respectively.

Beckenstein (1979) examined annual data on merger numbers and values for the years 1949-1975. Using Multiple Regression Analyses and trying a number of variables, he found that only the nominal level of securities prices and the nominal interest rate had consistently significant effects, but the interest rate effects were consistently positive.

Chung and Weston (1982) employed regression analysis to explore the determination of the annual number of large conglomerate mergers. They found that these mergers were positively and significantly related to the difference between yields on lower and higher-grade corporate bonds, the ratio of short to long-term bond yields, and the rate of growth of GNP. The mergers were negatively related to the rate of return on corporate bonds. When they used Tobin’s ‘q’ instead of the last two variables, the authors found a positive and significant effect.
Melicher, Ledolter and D’Antonio (1983) examined quarterly merger data between 1947 and 1977. Using “prewhitened” logarithmic first difference transformations, they found that mergers were significantly related to lagged stock prices (positively) and to lagged bond yields (negatively) but not to industrial activity or to business failure levels.

In an analysis of annual merger data for the years 1895-1920 and 1947-79 Shugart and Tollison (1984) concluded that the series could best be described as generated by a “white-noise process with possible drift” or by a “stable first-order autoregressive scheme”, and they rejected the characterization of the merger data as occurring in waves. They did not, however, explicitly test a wave hypothesis, nor did they specifically show why their findings were inconsistent with a wave characterization.

Myers and Majluf (1984) provided another financial motive for acquisitions in terms of the complementary fit between slack rich bidders and slack-poor targets. In their model, slack-rich bidders (i.e. those with low gearing levels) bought slack-poor targets. Slackness was relative to the available positive net present value (NPV) investment opportunities. There was, thus, a mismatch between resources and investment opportunities within each merging firm and this mismatch was corrected by the merger. The Myers and Majluf Model predicted that bidders would be less geared than targets and the larger the gearing difference, the greater would be the wealth gains to shareholders.

Using procedures similar to those of Melicher and his colleagues, Guerard (1985) examined quarterly merger data for the years 1895-1950. He found that the mergers were positively related to stock prices but unrelated to the level of industrial production.
Mueller (1985) drew upon surveys taken by the Federal Trade Commission in 1950 and 1972 of shipments by the 1000 largest companies in narrowly defined 5-digit product classes. He focused upon, 209 companies in the 1950 study that were acquired by 123 others included in the 1000 –largest group in both years. Thus, he could observe market shares in both years for business units that did and did not undergo changes in control. His data implied that an un-acquired business on an average retained 88 percent of its 1950 market share in 1972 while an acquired one retained only 18 percent. Part of the decline could well have taken place before the changes in control, which of course were distributed over the period. However, the size of the declines coupled with the relatively weak evidence of debilitated pre-merger profits of target firms left little doubt that significant decline in market shares followed the changes in control.

Pastena and Ruland (1986) tested the ability of several financial variables to predict the acquisition of distressed firms in the US. They found a positive relationship between the variable of ownership concentration and size of firm and the probability of acquisition and a negative relationship between the variable of financial leverage and the probability of acquisition.

A study of Huang and Walkling (1987) combined the analysis of method of payment with acquisition form and managerial resistance. Whereas previous studies found higher abnormal returns (30 to 35 percent) for tender offers than for mergers (15 to 20 percent) for target shareholders, such studies did not consider the effect of payment method and target management resistance. Huang and Walkling found that when method of payment and degree of resistance were taken into account statistically, abnormal returns were no higher in tender offers than in mergers.
Ravenscraft and Scherer (1987) undertook a series of case studies of acquired businesses that went through a divestment cycle, confirming this conventional wisdom from the business press. The opportunity cost of managerial effort was high and figured strongly in the divestment decision. The cases were consistent with the view that multi business companies had certain repertories of skills and control/evaluation/reward structures that worked well for a subset of business but were apt to fumble when extended into new areas. An important dividend of this study was information on the pre-merger profitability of many target firms too small to be publicly traded.

Ravi Shankar and KV Rao in their paper on ‘Takeover as Strategy of Turnaround – An Empirical Study’ selected a sample of sick companies, which were taken over for revival. This study attempted to know the successfulness or otherwise of the takeovers as a strategy of turning around a sick unit. Further, the study analysed the implications of takeovers from the financial point of view and hence quantitative in nature. The selection of sample units was based on the records of Board for Industrial and Financial Reconstruction (BIFR). The conclusion emerging from this study was that the takeovers could be successfully used to turnaround a sick company provided it was taken over by reputed management groups.

Walsh (1988) examined the top management turnover after acquisitions for a sample of 55 acquisitions during 1975-79. He matched this against a control sample of 30 non-acquired companies. Over the five years following the acquisitions, 59 percent of the top management in the acquired companies was removed, whereas with the control sample the turnover was only 33 percent. The first year’s turnover was much more dramatic with 25 and 6 percent turnover respectively for the two samples.
Neither the type of acquisition (i.e. related, horizontal, conglomerate, etc.) nor the size difference between the acquirer and the acquired explained the high incidence of top management turnover.

**Peel and Wilson (1989)** investigated similar issue for the UK firms. They found that the decision to acquire a distressed firm was based mainly on synergistic grounds and the extent of financial distress of the firm. Contrary to Pastena and Ruland, Peel and Wilson found no relationship between the variables of ownership concentration and size and probability of acquisition.

**Mitchell and Lehn (1990)** studied stock price reactions to acquisitions during the period 1982 to 1986. One sample was composed of firms that became targets of takeovers after they had made acquisitions. A control group consisted of acquiring firms that did not subsequently become targets of takeover bids. The stock prices of acquirers that became targets declined significantly when they announced acquisitions. The stock prices of acquiring firms that did not become subsequent targets increased significantly when they announced acquisitions.

**Walsh and Ellwood (1991)** extended the above study to investigate the relation between the pre-merger performance of the acquired companies and post-acquisition top management turnover. For a larger sample of 59 acquired companies and 75 non-acquired control companies, Walsh and Ellwood found turnover was 61 percent for the acquired and 34 percent for the control sample.

**Martin and Connell (1991)** however provided evidence consistent with the disciplinary mode. They classified a takeover as disciplinary if
there was top management turnover. They examined the five-year pre-takeover performance of the targets in terms of cumulative abnormal returns in both disciplinary and non-disciplinary takeovers. The results were that turnover increased after a takeover. For example, in the fourteen months after takeover, the ratio of turnover for top executive was 42 percent whereas the annual turnover in the previous five years was only 10 percent. Further, targets with high turnover under performed their industry in the pre-takeover period.

The seminal study of post-merger performance is that of Healy, Palepu and Ruback (HPR) (1992). They studied the post acquisition performance of the 50 largest US mergers between 1979 and 1984. They used accounting data primarily but tested their results by using market valuation measures as well. They analysed both operating characteristics and investment characteristics.

Their data showed that industry-adjusted employment decreased. But the cash flow margin on sales did not significantly change. However, asset turnover significantly improved. The return on the market value of assets also improved significantly. However, the fact that the cash flow margin on sales had not changed implies that the improvement on the return on assets did not come from the reduction of employment costs, which would have increased the cash flow margin on sales. It was better asset management that increased the return on assets. Pension expense per employee was reduced marginally but not by a statistically significant degree; none of the investment characteristics was significantly changed on the basis of industry-adjusted performance, except asset sales measured at book value.
One of the important findings in the HPR study related to the event returns. The event returns for the firms were significantly correlated with the subsequent accounting returns during the post-merger period. Thus it was evident that on an average, for their sample, event returns correctly forecasted post merger performance.

Agrawal, Jaffe and Mandelker (AJM) (1992) also studied post merger performance. They developed a large sample of 937 mergers and 227 tender offers. Their sample included firms smaller than those of the HPR study, which focused on the 50 largest mergers. They adjusted for size effect and beta-weighted market returns. They found that shareholders of acquiring firms experienced a wealth loss of about 10 percent over the 5 years following the merger completion.

Another implication from the above two studies were that, Healy, Palepu and Ruback (1992) found that industry-adjusted post merger performance was positive and Agrawal, Jaffe and Mandelker (1992) found that market wide or economy wide adjustments resulted in negative returns. The two results together implied that merger activity took place mainly in industries where performance was substandard compared to the market or the economy as a whole.

Houston and Ryngaert (1994) studied gains from large bank mergers using a sample of 131 completed mergers and 22 uncompleted for the period 1985 to 1991. They focused on the total return measured by the return to a value-weighted portfolio of the bidder and target. The average total return to a completed bank merger was slightly positive but not significantly different
from zero. However, in the later years covered by their sample, the total merger returns were positive and significant.

**Mansom et al (1994)** replicated Healy et al approach for a sample of 38 UK takeovers completed in 1985 to 1987. They compared the five-year median operating cash flow of acquirers to the median cash flow that could be expected when allowance is made for the erosion of the pre-merger competitive advantage of either of the merging firms. Manson et al. reported that mergers led to improve operating cash flow and the increase in cash flow positively related to the total abnormal return to the two firms before the bid.

**Franks and Mayer (1994)** documented that top management turnover is high after a hostile takeover compared to that of friendly takeovers. For a sample of 34 recommended and 31 hostile UK bids, they estimated that 90 percent of executive and non-executive directors of targets resigned after the takeover, whereas only 50 percent did so in friendly bids. Both these turnover rates were much higher than for a smaller sample of 10 non-acquired firms.

For a sample of 171 UK acquisitions in the period 1974-80, **Firth** found that acquisitions that were well received by the stock market led to significant increase in managerial rewards. Even acquisitions with negative abnormal returns at bid announcement appeared to reward senior management. Firth concluded that the acquisition process led invariably to an increase in managerial remuneration and this appeared to be predicted on the increased size of the company.
Panayiotis Theodossion, Emel Kahya, Reza Saidi and George P Philippatos (1994) studied the economic factors that influence the acquisition of financially distressed firms in the US using the sequential response logic model (SRL). The paper used different sampling and statistical methodologies. The sample of distressed firms, acquired and non-acquired, was compiled using qualitative criteria of distress such as debt default announcements, debt renegotiation efforts and inability to meet debt obligations. The selection of explanatory variables in the SRL model was primarily accomplished using Akaike's Information Criterion (AIC). An elasticity type measure was developed to assess the relative importance of each financial variable in the model. The findings of this study were - insider control was found to have a negative impact on the probability of acquisition of a financially distressed firm. Financial leverage had a negative sign indicating that, other things being equal, the more leveraged the firm, the lower the probability of acquisition. The results indicated that sales generating ability of the firms, inefficient management, proportion of productive assets to total assets and return on productive assets were positively related to the probability of acquisition of financially distressed firms.

Sudi Sundarsanam, Peter Holl and Ayo Salami (1995) studied the shareholder wealth gains in Mergers especially the effect of synergy and ownership structure. From a sample of 429 completed UK acquisitions during 1980-90, the impact of synergy between bidders and targets and their ownership structure on the returns to shareholders were investigated. The results confirmed that synergy from various sources - operational, financial and managerial did create value for shareholders of either bidder or target or both. When one of the merging firms had an imbalance between its
resources and growth opportunities and the other firm had the opposite but complementary imbalance, their combination increased shareholder wealth for both bidder and target. Further, the ownership structure of bidders and targets has a significant impact on the wealth gains to their shareholders.

In an in-depth analysis of industry effects, Mitchell and Mulherin (1996) studied industry-level patterns of takeover and restructuring activity during the 1982 to 1989 period. They found that in their sample of 1064 firms, 57 percent were the object of a takeover attempt or experienced a major restructuring during the 1980s. Of the firms involved in the takeovers or restructuring 40 percent were hostile takeover targets, around 47 percent of the firms were targets of friendly takeover and the remaining 13 percent of the firms were engaged in defensive assets restructuring or financial recapitalisation.

Anslinger and Copeland (1996) studied returns to shareholders covering the 1985 to 1994 period for seemingly unrelated acquisitions. They studied in depth successful acquirers of two types: diversified corporate acquirers and financial buyers such as leveraged buyout firms. These companies made a total of 829 acquisitions.

Loughran and Vijh (1997) studied 947 acquisitions during the period 1970 to 1989. Their overall sample had an average 5-year-buy-and-hold return of 88.2 percent compared to 94.7 percent for their matching firms. The difference had a t statistics of 0.96, which was not significant. The compound annual return was 13.5 percent for their sample and 14.2 percent for the matching firms over the 20-year period covered by their study. The Standard & Poor's 500 experienced a compound annual return of 6.15 percent less than one-half the returns for their two samples. The returns to acquirers in the case of tender offers for the 5-year period were 145.6
percent, as compared to 83.9 percent for their matching firm sample, which was statistically significant. In stock-for-stock mergers, the acquisition sample underperformed in tender offers.

**M. Mark Walker (1998)** in his paper on corporate takeovers investigated the strategic objectives and stock price performance of acquiring firms. The results supported both the asymmetric information hypothesis (acquiring-firm shareholders earn higher return following cash offers) and also the strategic alignment hypothesis (acquiring firm shareholders earn higher returns following takeovers that expand the firms operations geographically or increase its market share). Further analysis showed that shareholder losses were limited primarily to those takeovers based in diversification strategies, when the acquiring firms cited potential overlap with their existing operations. The latter firms tended to have more favourable growth opportunities prior to the takeover announcement.

Another study used a sample of 364 transactions that accounted for almost one-half of the total M&A values between 1992 and mid-1998 (**Weston and Johnson, 1999**). The information was obtained from the Merger stat database, supplemented by proxy statements to shareholders soliciting approval of transactions. The study summarized deal structure patterns and calculated event returns. The results reflected large transactions whose patterns were different from those of smaller transactions.

**Andrade and Stafford (1999)** extended the Mitchell and Mulherin results. Their data set was based on Value line companies and industry groupings covering the period 1970 to 1994. Their evidence supported an impact of industry shocks. Their broader framework also measured the role of other influences—synergy, diversification, agency costs and market power.
Their basic economic finding was that mergers, like internal investment, were a response to favourable growth potentials. They found a dual role, in that; own-industry mergers were used in industries with excess capacity to achieve consolidation. In contracting industries, acquiring firms appeared to be those with better performance, lower capacity utilization and lower leverage. The asset reallocation resulted in improved efficiency.

P Raghvendra Rau and Theo Vermaclen (1999) used a methodology robust to recent criticisms of standard long horizon event study tests to show that bidders in mergers underperform while bidders in tender offers over perform in the three years after acquisition. However, the long-term underperformance of acquiring firms in mergers was predominantly caused by the poor post-acquisition performance of low book-to-market ‘glamour’ firms. This finding was interpreted as evidence that both the market and management over extrapolated the bidder’s past performance when they assessed the desirability of an acquisition.

The research article ‘Effect of Mergers on Corporate Performance in India by Vardhana Pawaskar (2000) studied the impact of mergers on corporate performance. It compared the pre and post-merger operating performance of the corporations involved in merger to identify their financial characteristics. Also looking at the persistence of the profits identified the effect on merger-induced monopoly profits. Taking a sample of 36 cases of mergers between 1992 and 1995, it was seen that there were no significant differences in the financial characteristics of the two firms involved in merger. The mergers seemed to lead to financial synergies and a one-time growth. The analysis of regression to norm showed that there was no increase in the post merger profits. The competitive process was not impeded with merger even when no strong anti-trust laws were present.
Dhawal Mehta and Sunil Samanta in their paper 'Mergers of Acquisitions Nature and Significance' had discussed the types of mergers and acquisitions and classified specific cases of M&A. They further suggested some areas for future research.

S. Madhu Mohan and L. Suganthe (2001) in their paper “B2B mergers in the New Economy” have discussed the historical factors that prevented mergers in India like the ownership pattern of Indian industry, exercise of voting power by public financial institutions, tight regulatory environment before 1991, restriction on registration/transfer of share, high entry barriers, tax policy, etc. They had also discussed the importance of Internet technology in hastening the merger process.

A summary of earlier event studies compiled by Chatterjee and Meeks is given in Tables 2.1 and 2.2.
Table 2.1: Summary of Earlier ‘Event’ Studies

<table>
<thead>
<tr>
<th>Author, Sample Period and Country Examined</th>
<th>Model Used and Sample Size</th>
<th>Main Findings</th>
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</thead>
<tbody>
<tr>
<td>Eckbo (1983) 1963-78 (US)</td>
<td>Market Model 102 AR (Acquirer) 57 AD (Acquired)</td>
<td><strong>AD</strong> firms experience significantly positive returns of 14.08% twenty days before through ten days after the public announcement. AR firms experience insignificant gains of 10.58% over the same period.</td>
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<tr>
<td>Asquith, Burner and Mullins (1983) 1963-79 (US)</td>
<td>Control Portfolios (Similar to Market Adjusted Returns) 156 Mergers</td>
<td><strong>AD</strong> firms experience significantly positive returns of 20.5% twenty days before the announcement day through the announcement day. AR firms experience significant gains of 3.48% over the same period.</td>
</tr>
<tr>
<td>Dennis and McConnell (1986) 1962-80 (US)</td>
<td>Simple Market Index (or ‘Market-Adjusted Returns’) 132 Mergers</td>
<td><strong>AD</strong> firms shareholders experience statistically significant gains around the date of merger announcements. AR firm’s shareholders appear not to lose around a similar period of time.</td>
</tr>
<tr>
<td>Lahey and Conn (1990) 1960-79 (US)</td>
<td>Mean Adjusted Return 91 Major Mergers Market Model 91 Major Mergers</td>
<td>AR firm shareholders experienced significantly negative returns of 38.6% three years after merger (Mean Adjusted Returns Model). AR firms shareholders experienced negative returns of 10.2% three years after merger (Market Model)</td>
</tr>
<tr>
<td>Franks and Harris (1989) 1955-85 (UK)</td>
<td>Simple Market Index (or ‘Market-Adjusted Returns’) 1058 AR 1898 AD</td>
<td><strong>AD</strong> firm shareholders experience significant positive returns of around 25.8% over the period (-4.1 months). AR shareholders experience gains of 2.4% over the corresponding period.</td>
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<tr>
<td>Source</td>
<td>Period</td>
<td>Market Model</td>
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<tr>
<td>Firth (1979) 1972-74 (UK)</td>
<td>Market Model 224 successful bids</td>
<td>AD shareholders experience positive gains of around 32.9% over the twelve-month period up to and including the bid announcement month. AR firm shareholders experience significant abnormal losses of around −8.2% in the twelve-month period after the bid announcement (AR’s offering equity considerations), or losses of −3.2% (AR’s offering cash).</td>
</tr>
<tr>
<td>Firth (1980) 1969-75 (UK)</td>
<td>Market Model 486 AR 563 AD</td>
<td>AD shareholders experience significant abnormal gains of around 37% over the period (−6,0). AR shareholders experience negative returns of around −5% over the period 36 months after the merger, including statistically significant negative abnormal returns of −6.3% in month 0.</td>
</tr>
<tr>
<td>Franks, Broyles and Hecht (1977) 1955-72 (UK)</td>
<td>Market Model 70 Mergers</td>
<td>AD shareholders experience positive abnormal returns averaging 26% during the run-up to merger. AR shareholders experience small positive abnormal returns at the time of merger, which were subsequently lost.</td>
</tr>
<tr>
<td>Limmack (1991) 12977-86 (UK)</td>
<td>Market-Adjusted Return, Market Model and Adjusted Betas 448 AR 462 AD</td>
<td>AD shareholders experience significant abnormal returns of 31.38% over the bid month to bid outcome (Adjusted Betas). AR shareholders experience significant abnormal losses −14.96% from the bid month to +24 months (Market Model), and −7.43 over the same period during the Market-Adjusted Return Model.</td>
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### Table 2.2: Summary of Earlier ‘Accounting’ Studies

<table>
<thead>
<tr>
<th>Author, Sample Period and Country Examined</th>
<th>Main Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Singh (1971)</strong> 1955-60 77 Mergers (UK)</td>
<td>66.2% of firms experienced worse adjusted profitability in the year of takeover, 66% suffered declines in profitability one year after takeover, falling to 57.1% experiencing a worse record two years after takeover.</td>
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<tr>
<td><strong>Utton (1974)</strong> 1954-65 39 Mergers (UK)</td>
<td>The percentage of firms with below median profitability was 58% both one and two years after merger.</td>
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<tr>
<td><strong>Meeks (1977)</strong> 1964-72 233 Mergers (UK)</td>
<td>Amalgamations experience decline in adjusted post-merger profitability, from −5.3% in the year after merger to −7.3% seven years post-merger.</td>
</tr>
<tr>
<td><strong>Cable, Palfrey and Runge (1980)</strong> 1964-74 55 Mergers (West Germany)</td>
<td>Statistically insignificant positive post-merger profitability returns. In relation to industry performance, merging firms avoided the decline in industry profits experienced by firms as a whole.</td>
</tr>
<tr>
<td><strong>Cosh, Hughes and Singh (198)</strong> 1967-69 290 Mergers (UK)</td>
<td>Statistically significant relative improvement in post-merger profitability found (at the 5% level) for all mergers for two measures of profitability. They conclude that their combined results on profitability provide some evidence that the relative profitability of merging firms improved slightly after merger.</td>
</tr>
<tr>
<td><strong>Kumps and Wutterwulghe (198)</strong> 1962-72 62 Horizontal Mergers (France)</td>
<td>Merging firms performed better in relation to industry performance over a five-year post-merger period. However, the differences were statistically insignificant.</td>
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<tr>
<td>Study</td>
<td>Time Period</td>
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<td>-------------------------------------------</td>
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<tr>
<td>Jenny and Weber (1980)</td>
<td>1962-72</td>
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<td>Ryden and Edberg (1980)</td>
<td>1962-76</td>
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<td>Mueller (1980)</td>
<td>1962-72</td>
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<tr>
<td>Kumar (1984)</td>
<td>1967-74</td>
</tr>
<tr>
<td>Ravenscraft and Scherer (1987)</td>
<td>1950-77</td>
</tr>
<tr>
<td>Healy, Palepu and Ruback (1992)</td>
<td>1979-mid’84</td>
</tr>
</tbody>
</table>

REFERENCES


