CHAPTER - 2

REVIEW

OF

LITERATURE

CHAPTER 2-REVIEW OF LITERATURE

2.1 INTRODUCTION TO REVIEW OF LITERATURE

It is essential to learn the current state of knowledge in the selected topic of research. The review of literature gives number of reasons which resulted in to research studies on Mergers and Acquisitions in different sectors/Industries. Therefore, it is desirable to study the findings of some earlier researches and learn the methods adopted for undertaking the research. A review of literature connected with the objectives of the studies undertaken would provide a base of finding the research gap.

Corporate entities at regular intervals adopt several strategies to improve its financial performance through financial restructuring activities including mergers and acquisitions which is taking place increasingly all over the world including India. In today's cut throat competitive age, it is necessary to enhance size by joining hands with those, which have similar interest to survive in an increasingly complex and competitive global economy.

The survey of relevant literature gives a variety of reasons for mergers and acquisitions. This has given rise to range of theories which can be grouped into three major types by Khemani 1990, Allen 1992, Gaughan 1994, Markides and Williamson 1996 Viz: Internalization Theory, Technological Competence Theory and Transaction Cost Theory

Internalization Theory-The Internalization theory suggests that companies attempt to acquire others because they want to get intangible assets that generally give them a competitive advantage.

Technological Competence Theory -Another theory derived from the first is the technological advantages achieved by acquiring the companies that possess them.

Transaction Cost Theory-The theory of transaction costs applies to vertical mergers and acquisitions which is intended at reducing uncertainty or the cost of procuring particular factors of production.

All above theories suggest that mergers and acquisitions properly planned and executed result in to financial gains.

In the present chapter attempt is made to review work done in mergers and acquisitions by several researchers to examine its success or failure internationally as well as nationally.

2.2 STUDIES RELATED TO IMPACT OF MERGERS AND ACQUISITIONS ON OPERATING PERFORMANCE AND SHAREHOLDER'S WEALTH -FOREIGN COUNTRIES

Deepak K Datta has undertaken a study on Organizational Fit and Acquisition Performance: Effects of Post-Acquisition Integration. Study examined the impact of organizational differences between acquiring and acquired firms on post-acquisition performance. The sample comprises of 173 acquisitions in the U.S. manufacturing industry. The study's sample consists of acquisitions valued at $1 million or more in the U.S. manufacturing and mining sectors during the period January 1980-March 1984.

The findings indicate that differences in top management styles have a negative impact on performance in acquisitions characterized by both high and low levels of post-acquisition integration. However, no such relationship was observed between differences in the reward and evaluation systems and post-acquisition performance in either the high or low integration sub groups (Datta, 1991).

Anup Agrawal, Jeffrey F. Jaffe and Gershon N. Mandelker has undertaken a study on The Post-Merger Performance of Acquiring Firms: A Re-Examination of an Anomaly. The purpose of paper was to provide a thorough analysis of the post-merger performance of acquiring firms. The sample consisted of 937 mergers and 227 tender offers. This represents nearly the entire population of acquisitions of NYSE and AMEX firms by NYSE firms over the period 1955 to 1987. Study focuses on two dates, the date when the Wall Street Journal first mentions a bid involving the acquiring firm and the date when the acquired firm is delisted. These dates were referred to as the announcement date and the completion date, respectively. While investigating long-run returns over several years they used Methodology of both Dimson and Marsh (1986) and Lakonishok and Vermaelen (1990) that measured performance which could be significantly affected by the firm size effect. These two studies measure a stock's abnormal performance. Their second approach combined the Returns Across Time and Securities (RATS) methodology of Ibbotson (1975) with an adjustment for firm size. They employed two alternative methodologies, each of which adjusted for both beta risk and market capitalization. For both methods, they formed the set of size control groups. At the end of each calendar year, all stocks on the NYSE were ranked according to their market capitalization and allocated 10 decile portfolios. For each month over the following year, the return on each decile portfolio computed as the equally weighted average return across all securities in the portfolio (Agrawal, Jaffe, & Mandelkar, 1992).

We find that stockholders of the acquiring firms suffer a statistically significant wealth loss of about 10% over the five years following the merger completion. This finding was robust to a variety of specifications and did not seem to be caused by changes in beta following the merger.

Claudio Loderer and Kenneth Martin conducted study on Post acquisition Performance of Acquiring Firms This paper analyses the post acquisition stock-price performance of acquiring firms. Between 1966 and 1986, there were more than 10,000 domestic acquisitions in the U.S. of legally independent firms in which the acquirer traded on the New York or American Stock Exchange. Regression analysis has been applied along with other statistical tools and techniques.

It was found that, on an average, acquiring firms did not underperform a control portfolio during the first five years following the acquisition. They simply earned their required rate of return, no more or no less. There were some negative performance for the first three years, especially during the second and the third years after the acquisition, but it was most prominent in the 1960s, it diminishes in the 1970s, and disappears completely in the 1980s. Thus, in the later years, the post acquisition years did not provide strong enough evidence that corporate acquisitions were wasteful nor did they provide evidence contradicting market efficiency (Martin, 1992).

Andrew P. Dickerson, Heather D. Gibson and Euclid Tsakalotos conducted a study on The Impact of Acquisitions on Company Performance: Evidence from a Large Panel of UK Firms This paper investigated the impact of acquisitions on company performance using a large panel of U K-quoted companies observed over a long time period. They had 2,941 companies with an average of 18 years of data on each. Regression analysis has been applied along with other statistical tools and techniques.

The results indicate that acquisitions have a detrimental impact on company’s performance and that company growth through acquisition yields a lower rate of return than growth through internal investment, neither firms nor shareholders were being best served by the present financial and industrial system (Dickerson, Heather, & Euclid, 1997).

Laurence Capron conducted a study on The Long-Term Performance of Horizontal Acquisitions The paper examined how value is created in horizontal mergers and acquisitions. More specifically, it examined the impact of post-acquisition asset divestiture and resource redeployment on the long-term performance of horizontal acquisitions. The data came from a detailed survey of acquiring firm managers and covered 253 horizontal mergers and acquisitions that has been initiated by European and U.S. firms in manufacturing industries for the period 1988-1992. The study incorporated insights from the cost efficiency and resource-based theories to propose a model of the effects of asset divestiture and resource redeployment on long-term acquisition performance (Capron, 1999).

Results show that both asset divestiture and resource redeployment contributed to acquisition performance, with however, a significant risk of damaging acquisition performance when the divested assets and redistributed resources were those of the target.

Paul Andre, Maher Kooli and Jean – Francois L'Her conducted study on" The Long – Run Performance of Mergers and Acquisitions: Evidence from the Canadian stock market" considering sample of 267 mergers and acquisitions which took place between 1980 to 2000, using calendar time approaches with and without overlapping cases. For analysis The Alphas from the Fama- French (1993) three factor model has been applied (Paul Andre, winter 2004).

The Findings & conclusions of the study was as follows

- Canadian acquirers significantly underperformed over the three-year post- event period.
- Results were found consistent with Extrapolation hypothesis and for Method of payment hypothesis.
- Glamour Acquirers (i.e. those with a high market –to-book value) underperform as compared to value acquirers.
- M& as (Mergers and Acquisitions) Financed entirely equity underperform as compared to cash transactions.
- It was also seen that cross border deals perform poorly in the long run.

Ken C. Yook conducted study on The Measurement of Post-Acquisition Performance Using EVA. The purpose of the study was to reexamine pre- and post-acquisition performance of target and acquiring firms using EVA. Sample firms were selected by searching the CRSP tapes for all NYSE, AMEX, and Nasdaq delisting's caused by acquisition during the period1989-1994. A Final sample of 75 acquisitions have been considered. Each firm's annual EVA is estimated using the method suggested by Yook (2000). For industry average EVA, the Stern Stewart Performance1000 database was use. As the sample size was small the Wilcoxon rank sum test applied to determine whether the differences between aggregate median EVA during the five years preceding the acquisition and each of the five years post acquisition were statistically significant (Yook, 2004).

The results indicate that the sharp decline in raw EVA was mostly accounted by industry effects. If EVA is being calculated assuming that no premium was paid to target firms, i .e., the premium excluded from the acquiring firm's capital in the post-acquisition period, industry-adjusted EVA has shown an insignificant improvement. These results suggested that acquiring firms tend to experience slightly improved performance relative to their industry counterparts after completion of the acquisition but, the improved operating performance was wipe out by capital costs of the large premiums paid to the target firm, creating no real economic gains to the acquiring firm's shareholders.

Hubert Ooghe, Elisabeth Van Laere and Tine De Langhe studied on “Are Acquisitions Worthwhile? An Empirical Study of the Post-Acquisition Performance of Privately Held Belgian Companies”, the study addressed the post-acquisition financial characteristics of privately held companies involved in 143 Belgian acquisitions between 1992 and 1994. Specifically, paper examined the financial performance of the acquiring firm after the acquisition, using statistical analysis of industry adjusted variables.

Their findings shown that following the acquisition, the profitability, the solvency and the liquidity of most of the combined companies decline. This decline was also reflected in the failure prediction scores. With respect to the added value, acquisitions were found to be accompanied by increase in the labour productivity, but this is caused by the general improvement of gross added value per employee of Belgian companies in the last 10 years. So, it seem that, contrary to the general expectations and beliefs, acquisitions usually did not seem to improve the acquirer's financial performance (Hubert, Elisabeth, & Tine, 2006).

Patricia M. Danzon, Andrew Epstein and Sean Nicholson conducted a study on Mergers and Acquisitions in the Pharmaceutical and Biotech Industries. They examined the determinants and effects of M&A activity in the pharmaceutical/biotechnology industry using SDC [Security and Data corp.’s] data on 383 firms from 1988 to 2001. For small firms, mergers were primarily an exit strategy in response to financial trouble (low Tobin's q, few marketed products, low cash-sales ratios). They used a multinomial logit model to test several competing hypotheses to explain firm-specific merger activity and to generate a measure of each firm's propensity to participate in a merger in each eligible year. Then they measured the effects of mergers on a range of performance measures controlling *ex ante* propensity to merge.

Controlling for merger propensity, large firms that merged experienced a similar change in enterprise value, sales, employees, and R&D, and had slower growth in operating profit, compared with similar firms that did not merge. Thus mergers might be a response to trouble, but they were not a solution (Patricia, Andrew, & Sean, 2007).

Muhammad Ahmed and Zahid Ahmed conducted a study on Mergers and Acquisitions: Effect on Financial Performance of Manufacturing Companies of Pakistan This particular research was conducted to get the effect of mergers upon financial performance regarding acquiring firms in a variety of manufacturing industries of Pakistan. Sample of research consisted of twelve manufacturing companies involved in the process of merger during 2000-2009. Three years before and after-merger data was used to test the significance of study. Paired t-test statistics was applied on accounting ratios with the help of statistical software SPSS (Ahmed & Ahmed, 2014).

It concluded that overall financial performance of acquiring manufacturing corporations insignificantly improved in after merger period. The liquidity, profitability and capital position insignificantly improved, while the efficiency deteriorated in after- merger period. It finally concluded that merger impact on different industries of manufacturing sector differently.

Interpretations

- Various studies conducted at different places like UK, Canada, Belgium etc. reveals following-
- Major studies concluded that overall mergers and acquisitions didn’t improve financial performance of acquirer which could be in the form of profitability, liquidity or solvency etc. Hence, it’s observed that Mergers and acquisitions could be response to troublesome situation but not a solution.
- Moreover, Mergers and acquisition had also resulted in to significant wealth loss of acquirer’s stockholders. However, Industry wise impact was found to be different.

2.3 STUDIES RELATED TO IMPACT OF MERGERS AND ACQUISITIONS ON OPERATING PERFORMANCE AND SHAREHOLDERS WEALTH IN GENERAL - INDIA

Vardhana Pawaskar conducted a study on Effects of Mergers on Corporate Performance of India. The paper was an attempt to study the impact of mergers on corporate performance. It compares the pre- and post-merger operating performance of the corporations involved in merger to identify their financial characteristics. Taking a sample of 36 cases of merger between 1992 and 1995, it is seen that there are no significant differences in the financial characteristics of the two firms involved in merger. Regression analysis was the technique used for analyzing data (Vardhana, 2001).

Comparing the performance of the firms involved in merger with a firm which was not involved in merger shows that if no merger had taken place, the post-merger period profitability would have improved. Merger had a negative impact on the profitability. If the firms with a higher than industry average performance would takeover a firm with lower than industry average profitability and size, then there is an average of performance with merger. However, in given cases, both the firms were at the industry performance levels and the merger did not lead to an increase in profits. In terms of the regression to norm, it was seen that there is a significant amount of persistence of profits of the firm and it was not significantly affected by merger. This implies that the competitive process was not impeded with merger.

Ramaswamy and Waegelein in their article, “Firm Financial Performance Following Mergers,” studied using a sample of 162 firms and industry-adjusted cash flow returns on market value of assets as performance criteria, examined the financial performance of the combined target and acquiring firms over a 5-year post-merger period in relation to the corresponding pre-merger period (Ramaswamy & Waegelein, 2003).

They found that post-merger performance was negatively associated with relative target size and positively associated with long-term incentive compensation plans. Firms that were in dissimilar industries also showed improved performance, as do the firms that merged prior to 1983.

P. L. Beena conducted a study towards understanding the Merger-Wave in the Indian Corporate Sector: A comparative Perspective. The paper was an attempt to study theories on motives and Implications of mergers and acquisitions, trends of mergers and acquisitions: Indian Experience, Policy shift regarding mergers and acquisitions during the 1990s, Post merger performance of acquiring firms have been studied considering only 115 actual M&As which accounts for 22 per cent of the total number of M&As that occurred in the Indian manufacturing sector during 1995-2000. Ratios analysis was the methodology used. It also included source of financing and some plausible issues for corporate governance (P.L.Beena, 2004).

The Findings & conclusions of the study was as follows

- The evidence shows that the new economic environment of the nineties has facilitated M&As between companies under domestic or foreign ownership
- The absence of anti-trust regulation in India in the 1990s has helped Foreign or Indian firms to expand its Product market share through M&As.
- Acquiring firms performance in terms of profitability ratios for the period 1990-2000 had been relatively better as compared to the overall manufacturing average. Further its noticed that the foreign-owned Acquiring firms performed relatively better as compared to Indian-owned Acquiring firms.
- The behavior pattern of Acquiring firms alert the importance of working towards a desirable and workable Competition policy and Corporate governance regime for the country.

Manish Agrawal and Aditya Bhattacharjea studied “Mergers in India: A Response to Regulatory Shocks” empirical research showed that industry and regulatory shocks play a key role in determining merger activity in developed countries. The study analyzed merger activity in India, using a comprehensive database spanning a thirty-year period from 1973-74 to 2002-03. At the industry level cluster of merger activity was analyzed and firms level analysis was done (Agrawal & Bhattacharjea, 2006).

At the industry level cluster of merger activity indicated that mergers may be a response to industry and regulatory shocks. At the firm level, 1991 amendments to the Monopolies and Restrictive Trade

Practices (MRTP) Act, which removed premerger scrutiny, it found to have a positive and significant effect to merger behavior of firms that have been under its purview.

Ms. Astha Dewan studied on Effect of Mergers and Acquisitions on Operating Performance: A Study of Acquiring Firms in India. Author focused on the post-merger financial performance of the acquirer companies in India and performance of firms going through mergers in Indian industry. The merger cases for the year 2003 have been taken for the analysis. The financial data has been collected for six years from 2000-06. Pre-merger and post-merger financial ratios have been examined using paired "t" test. Sample size of 49 companies had been selected (Astha, 2007).

The results of the analysis reveal that there was significant difference between the financial performance of the companies before and after the merger. Further, it has been found that the type of industry seems to make a difference to the post-merger operating performance of acquiring firms

Vanitha. S and Selvam. M "Financial Performance of Indian Manufacturing Companies during Pre and Post-Merger" they analyzed the pre and post-merger performance of Indian manufacturing sector during 2000-2002 by using a sample of 17 companies out of 58 (thirty percent of the total population). For financial performance analysis, they used ratio analysis, mean, standard deviation and t- test (S & M, 2007).

They found that the overall financial performance of merged companies in respect of 13 variables were not significantly different from the expectations.

Pramod Mantravadi and A Vidyadhar Reddy have studied on Post-Merger Performance of Acquiring Firms from Different Industries in India in 2008 which aimed at reviewing the operating performance of firms going through mergers in Indian industry, in the post-reforms period. The study had further attempted to investigate and test if there were any significant deviations in the results achieved by mergers in different industrial sectors in India, by analyzing sub-samples representing industry sectors with sample of 68 acquiring companies which had undertaken mergers and acquisitions during 1990-1991 to 2002-2003 (Mantravadi & Reddy, 2008).

Researcher used technique of Ratio analysis and paired two sample t-test for the purpose of study.

- The results from the analysis of pre- and post-merger operating performance ratios for the acquiring firms in the sample showed that there was a differential impact of mergers, for different industry sectors in India.

Dr. Hitesh Parmar has undertaken a study on the effect of merger and acquisition on operational performance of acquiring firms in India with the purpose to evaluate the pre and post-merger financial performance of the acquirer firms in India. For this, 18 companies from different sectors were selected that were engaged in mergers and acquisitions during the period 2000 -2001 and 2011-2012.

Ratio analysis, Descriptive and inferential statistics have been used to check the results. Paired t- test has been used to test the hypothesis (Hitesh, 2009).

The Findings & conclusions of the study was as follows

- M&A was helpful for survival of weak company by merging into potentially strong company.
- This study showed the impact of M&As in the drugs and pharmaceuticals industry, food and agro based industry, electricity industry and banking and financial sector.
- For this a comparison between pre and post-merger performance in terms of gross profit margin, net profit margin, operating profit margin, return on capital employed, return on equity, and debt equity ratio.
- The combined performance of the entire merged companies (five years before the merger) and the performance of acquiring companies (after five years of merger) had been compared.

Rachna Jawa conducted a study on Mergers, acquisitions and corporate restructuring in India. The purpose of the study was to find out whether the merger and acquisition activity has been able to achieve its objectives of improved efficiency in the form of Value creation. Period of study was from 1997 to 2004.Ten cases were examined for the purpose which involved in M & A during the period (Rachna, 2009).

M&As activities have not resulted in any significant improvement in the performance of restructured entities since EVA and FCF have not shown an impressive performance post restructuring.

Rabi Narayan Kar and Amit Soni conducted study on Mergers and acquisitions in India: A Strategic Impact Analysis for the corporate Enterprises in the Post Liberalization Period. The objectives of the study were to identify the presence of any trend of M&As of the Indian industry in the post liberalisation period and to examine the impact of M&As on performance of corporate enterprises. They selected fifteen listed companies spreading a time period from 1990-91 to 2000-01 for detailed investigations. Further, utmost care given to select companies which fairly represent broad industrial groupings followed in this study. Method of least squares has applied to investigate the trend of M&As for the entire period of study. Micro level analysis for the selected companies carried out to investigate the impact of M&As on the financial variables like turnover, PAT, Book Value, Return on Net Worth etc. Regression analysis was also conducted (Rabi & Soni, 2009).

The analysis of M&As trends for the entire period gave two distinct phases of M&As for the different sectors of the Indian industry, that is the period from 1990-91 to 1995-96 and 1996-97 to 2000-01. During the first period, there have been 68 M&As where as in the second phase 1318 M&As have been found. That’s why the second phase can safely be called as the first M&A wave in India. M&As have been found to be beneficial in the sense that Indian companies grew in size, and attained better market share which is substantiated by empirical analysis. Throughout the period of study, turnover increased after the companies experienced an M&A. Profit after tax and book value of the companies increased after M&As during the time periods 1994-98 and 1994-99 respectively. After that there was no significant change of M&As on these variables. Further, M&As did not have any impact on return on net worth for the period of study.

The nature and pattern of M&As strategies adopted by the Indian companies reveal mostly horizontal and vertical types. This gives strength to the argument that Indian companies are focusing on their core areas and expanding mostly in related areas of strength which is helpful in realization of synergistic benefits.

Meena Smita has worked on a study of impact of mergers and acquisitions on selected sectors in India. There were three research objectives, first trends of M&A in India, second to examine the financial performance of selected companies after M&A and third to study the impact of companies after M&A on Indian corporate sector. The study has covered mostly all latest mergers and acquisition from 2005 to 2007. The financial performances of the following selected Banking, Aviation, Steel, Software, Pharmaceutical, FMCG, Petroleum, Electronics, and Telecom and Energy sectors and concerned companies has been considered to study the impact. The sample size of selected comprises 10 companies involved in mergers and acquisitions from different sectors. The different financial ratios like Liquidity, Profitability and Solvency ratios have been analyzed. The analysis was conducted with the help of Chi-square and t-test (Smita, 2011).

It concluded that mergers and acquisitions do not improve profits immediately; a company has to face liquidity problems for a period of few years. But these mergers and acquisitions surely give a good return in long period.

Govind M. Dhinaiya did research on Impact of Mergers & Acquisitions on the performance of companies. The objective of the study was to analyze operating performance of companies which involved in mergers & acquisitions using various ratios viz Operating profit ratio, Gross profit ratio, Net profit Ratio, Debt equity ratio, Current ratio, return on capital employed and Return on Net worth. The sample industries and companies were identified randomly from the mergers and acquisitions that took place during year 2007. Total 35 companies from 6 industries have been selected for the study. The analysis was done using the data of two years before & after mergers & acquisitions with help of paired sample t-test (Dhinaiya, 2012).

The result has proved that companies failed to perform well after mergers and acquisitions in all parameters understudy. The analysis showed that performance was varied from industry to industry. Hence, concluded performance of company depends on the type of industry in which mergers and acquisitions have taken place.

Pradeep Kumar Gupta conducted a study on Mergers and Acquisitions (M&A): The Strategic Concepts for the Nuptials of Corporate Sector. The objective of this paper was to provide the theoretical framework of Mergers & Acquisitions (M&A). Besides, this paper aimed to look at the Mergers & Acquisitions (M&A) as the strategic concepts for the nuptials of Corporate Sector.

Corporate Mergers and Acquisitions were very crucial for any country's economy. This was so because the Corporate Mergers and Acquisitions can result in significant restructuring of the industries and can contribute to rapid growth of industries by generating economies of scale, increased competition in the market and raise the vulnerability of the stockholders as the value of stocks experience ups and downs after a merger or acquisition. Although the concept of Merger and Acquisition were different from one another but, both can be used as engines of growth. As a result, M&As were consider as most strategic concepts to make sure growth for the companies in the Corporate world (Gupta, 2012).

Mital Menapara and Dr. Vijay Pithadia evaluated the impact of Mergers and Acquisitions on financial Performance of Indian Corporate Sectors and examined the impact of Merger and Acquisitions on Return on Investment, Profitability and Liquidity position of selected companies. In order to evaluate financial performance, Ratio analysis, Standard Deviation and ‘t’ test have been used as tools of analysis. The population of the study consisted of all types of the companies having different operations of business and totally different nature of industries.

Selection based upon growth aspect of companies from Indian industry has been considered. The study was mainly intended to examine the financial performance of merged companies five years before merger and five years after merger.

The authors concluded that emerging from the point of view financial evaluation was that the merging Companies were taken over by companies with reputed and good management. And therefore, it was possible for the merged firms to turnaround successfully in due course (Menapara & Pithadia, 2012)**.**

Manoj Kumara.N.and Satyanarayana have undertaken research on Comparative Study of Pre and Post Corporate Integration through Mergers and acquisition. The study has been conducted to examine the comparative difference between pre and post- merger and acquisition in terms of financial analysis of all the sample of ten major companies were taken from a list of merger and acquisition in india-2010. Event study methodology has used to determine whether there were any changes in post- merger and acquisition, financial performance associated with merger and acquisition of ten sample companies in India. The time period was confined to 3 years to judge the post mergers and acquisitions performance (Kumara & Satyanarayana, 2013).

The financial performance of the firms improved after merger in terms of current ratio, liquidity ratio, ROCE, ROA, return on long term funds, but most of the ratios were statistically insignificant.

Dr. K. B. Singh had undertaken study on the impact of Mergers and Acquisitions on Corporate Financial Performance in India. The objective of study was to analyze long-term pre- and post-merger financial data to assess firm operating performance. Sample of 20 pair of public listed companies which have undergone M&A during 2005 have been selected for analysis. Use of averages of the financial ratios from the data of three years prior to merger and three years subsequent to the merger was the key factor. These ratios have been compared and tested for any statistical significant difference, using paired T test (Singh, 2013).

The study found that there was a long-term improvement in financial performance of merging companies. Thus, concluded that mergers and acquisitions as an effective method of corporate restructuring, and should become an integral part of the long-term business strategy of corporates in India.

K. Srinivasa Reddy and Vinay Kumar Nangia and Rajat Agrawal conducted study on Corporate Mergers and Financial Performance: A New Assessment of Indian Cases. The Study aimed to investigate if mergers produce abnormal returns around the announcement; conversely, did they improve financial performance in the long-run". Four companies were selected for the study. The study applied earnings management approach (event study) to compute average abnormal returns (AAR) around the merger announcement for selected Indian M&A cases. Further, accounting ratios considered to assess the long-run financial performance. Thereafter, t-test was applied for testing the proposed hypotheses. In particular, it performed a later test to the means of financial ratios and variables for both services and manufacturing sectors in accounting ratios and cylinder models respectively (Reddy, Nangia, & Agrawal, 2013).

The selected Indian M&A cases showed superior performance during the post-merger period for both manufacturing and services sectors, and observed a balance sheet improvement in the long-run.

Priya Bhalla's study on Mergers & Acquisitions in India: A sectoral Analysis was an attempt to emphasize differential importance of sectors in M&A activity, so a sector-wise analysis was conducted. This study aimed to Investigate the differential representation of various sectors in M&A (Priya, 2014)

It helped to notice that India has been lagging behind than other advanced and emerging economies in terms of both number as well as value of M&A. It was seen that there has been notable acceleration in M&A in the post 2000, particularly in the financial sector of India. A careful analysis revealed an interesting pattern in the M&A activity. The sectors such as paper products, printing, publishing, media & entertainment, food products, textiles and non-metallic mineral products, metals, machinery, automobiles and miscellaneous manufacturing have shown relatively little involvement in *M&A* activity.

Dr. N. M. Leepsa and Dr. Chandra Sekhar Mishra conducted a study on An Examination of Success of Mergers and Acquisitions in Manufacturing Sector in India using Index Score the aim of the study was to determine financial as well as non-financial factors affecting performance of manufacturing companies in the post M&A period. The study investigates the pre and post M&A performance of manufacturing companies in India that have gone for M&A deals during the period from 1st January 2000 to 31st December 2008. In this study, a composite index score was develop using Principal Components Analysis for the pre and post M&A period separately by taking into account different financial ratios. For the entire study, data from year ending 31st March 1997 to 31st March 2011 was considered for the performance evaluation of the manufacturing companies. Sample comprises of 407 deals of which 290 Mergers and 117 Acquisitions were considered. Technique of analysis was regression analysis (Leepsa & Mishra, 2014).

The Findings & conclusions of the study was as follows

- The results strongly suggested that the companies that went for merger had benefited more than companies these went for acquisitions.
- More importantly, the findings highlight that managers considering mergers and acquisition strategy should be sensitive to the many factors that are related to post M&A performance. These include type of deal, quick ratio (liquidity), total debt ratio (solvency) and interest coverage ratio (solvency), return on capital employed (profitability).
- More specifically, acquiring firms could maximize the post M&A performance by looking into the pre M&A liquidity and solvency situation of both the acquirer and target firms. Moreover, merger should be preferred than acquisitions wherever possible.

Ramachandran Azhagaiah and Thangavelu Sathishkumar studied Impact of Merger and Acquisitions on Operating Performance: Evidence from Manufacturing Firms in India, The paper was carried out with the objective of studying what shift in structure is experienced especially in the operating performance (OP) after merger and acquisitions (M&A's) by studying 39 selected acquiring manufacturing firms in India. The firms, which had gone in to the M&A's process during the financial year 2006–2007 were only considered for the study. The study period is restricted to 10 years ranging from 2002 to 2012 considering the year 2006–2007 as mid-year, i.e. the year of M&A's. Factor Analysis, Correlation Matrix, Multiple Regression, and Chow Test were applied to study the operating performance of the firms in the pre-and post-merger periods (Aghagaiah & Thangavelu, 2014).

The study revealed that the merger and acquisition process has significant (positive improvement) effect on operating performance of the acquiring manufacturing firms in India after M&A's over the study period.

Dr Ram Shukla conducted a study on Review of Major Companies Merger Failures in The First Decade of 21st Century. The study tried for an explanation why some mergers fail, based on the information obtained from different research papers published by different authors worldwide.6 cases had been examined

Results showed that reason for failure of Merger includes cultural and people issues, Merger also means integration of two groups of people which are from different culture and mind-set (Shukla, 2014).

Shree Prakash conducted research on The Impact of Mergers and Acquisitions (M&As) on Operating Performance: An Empirical Study of Select Companies in India. The study analyzed the impact of M&As on long-term operating performance pre and post-merger of the combined entity on completion of M&A deals during 2000-2010 using the cash flow returns on operating assets at book as well as market value. The changes in operating performance on account of merger and acquisition were measured by comparing the post and pre-merger operating cash flows three years before and after the year of M&A. The study used a sample of 51 pairs of acquiring and target firms involved in M&As during the period April 1, 2000 to March 31, 2010.

The results showed that M&As as strategy of growth was found not helping in improving corporate performance for the combined firm in the long term based on evaluation of long term operating performance (Prakash, 2016).

N. M. Leepsa and Chandra Shekhar Mishra conducted a study on Predicting the Success of Mergers and Acquisitions in Manufacturing Sector in India: A Logistic Analysis. The study examined if the manufacturing companies in India being successful or unsuccessful after mergers and acquisitions. The period of study was from 1st Jan 2000 to 31st Dec 2008 with sample of 290 Mergers and 117 Acquisitions total up to 407.In the study, the rate of EVA (economic value added), was considered as a measure of performance used as dependent variable and the independent variables used were M&A experience, size of acquirer, pre-M&A current ratio, quick ratio, return on asset, return on capital employed, return on net worth, net profit margin, asset turnover ratio, and interest coverage ratio

The researchers found that the probability of a given firm being successful after M&A increased as the pre-M&A current ratio, net profit margin decreased; while its pre-M&A quick ratio and asset turnover ratio increased. It was also estimated that the Z score below 0.02 in the case of M&A would indicate that the company was probably headed for failure, while companies with scores above 0.02 were likely to be successful. Quick ratio was the most significant predictor of M&A success. Thus, managers should give more importance to a company’s liquidity position (Leepsa & Mishra, 2017).

THESIS / DISSERTATION

Ms. Vidhya V. conducted " A study of the performance of Selected Companies before and after Mergers and Acquisitions" with the objectives to examine the presence of trend and progress of mergers and acquisitions (M&As) in Indian corporation, to analyze year-wise and industry-wise variance in number and amount of M&A deals., to examine the trend and progress of different types of M&As namely horizontal, vertical and conglomerate across different industry sectors in India, to Analyze capital market standards (ratios) of selected companies before and after M&A during the study period and to study the impact of M&A of firms in different industry sectors in India and to see if there's any variations in impact for different industries (V V. , 2014).

Data on operating performance ratios for up to three years prior and three years after the acquisition for each acquiring company in the sample was extracted. The sample list of firms was further divided into industry wise sub-samples (for significant sample sizes). The final sample included 40 cases of mergers, in the defined period of study.

The collected data was analyzed with the help of the following tools and techniques viz. Ratio analysis, Mean, Variance and Standard Deviation, Paired sample t-test and ANOVA and multiple Comparison (Post-hoc test)

The Findings & conclusions of the study was as follows

- This study suggested that in case of Mergers & Acquisitions, synergy can be generated in long run with the careful usage of the resource, accurate valuation of the target and estimating the future prospects. The success of mergers and acquisition deals depends on post integration process, timely action and to keep check on the costs of integration process. This results from the analysis of pre and post-merger operating performance ratios for the acquiring firms in the sample showed that there was a differential impact of mergers, for different industry sectors in India. Type of industry does seem to make a difference to the post-merger operating performance of acquiring firms.

- The nature and pattern of M &As strategies adopted by the Indian companies reveal mostly horizontal and vertical types. That strengthens the argument that Indian companies focuses on their core areas and expanding mostly in related areas of strength which helps in realization of synergistic benefits. Further, it has been observed that M&As in India are strategic in nature that motives range from growth and expansion to high quality of human resources, strong brand presence and global identity and leadership. Thus trend analysis has substantiated the fact that Indian companies have adopted M&As as a strategic choice for growth and particularly more prominently during the difficult period. It concluded that future research can be directed in areas of impact of M&As on corporate performance by taking total factor productivity measures for empirical investigations.

Mr. Rajendra Kumar Sharma conducted a study on “Impact of Merger on Financial Performance of Corporate Sector in India” with the following objectives to evaluate the pre and post-merger performance of the merged companies using the value added metrics of corporate performance such as Economic Value Added, Market Value Added and Return on Net Worth, to examine the motives of corporate mergers in India as avowed in their merger schemes and to assess if, motives as avowed in the schemes have been fulfilled or not, to evaluate the pre-and post-merger financial performance of merged companies and examine the influence of motives variables on mergers on mergers such as (a) Profit maximization (b) Growth (c) Tax Consideration (d) Diversification (e) Leverage, to suggest appropriate strategy for merger and acquisition of Indian industry. The study included companies which have undergone merger during the period 1st April, 1999 - 31st March, 2000. The empirical analysis of all individual merger events has been carried out pre-merger and post- merger to give a somewhat clear picture of their success or failure. Sample of 56 companies had selected from different industries. The period of study was from 2004 to 2010 (Kumar, 2014)

Tools and techniques for Analysis-Post-Merger EVA Analysis, MVA analysis, ratio analysis, regression analysis has been used.

The Findings & conclusions of the study was as follows

- The result of the various analyses conducted in the study concludes that mergers have not resulted in any significant improvement in the performance of merged firms
- The fall in profitability immediately after merger may be justified by attributing this fall to various adjustment lags and risks associated with merger activities. Also, it could be hoped that after a reasonable time period when all adjustments have been made, this fall would be reversed. It however, raised some doubts as to the sustainability of these mergers in particular, and M&A activities in general in our economy.
- It seen that operating expenses of the firm is positively related to EVA and also significant at 1% level in firm’s pre and post mergers performance. ROCE of the firm was significantly positively correlated to EVA in pre and post mergers financial performance of firm. While Debt equity, Current Ratio, and RONW were negatively correlated with shareholder’s creation capacity of the firm.
- Regression result of post-merger indicates the value of R2 and adjusted R2 value were 0.87 and 0.86 which are significant at 1% level. So model concluded fit for study.

T. Sathishkumar undertaken study on “a study on the impact of merger and acquisitions on operating performance and shareholders’ wealth in Indian manufacturing industry “The study was primarily designed to examine the relevant benefits expected by adopting *M&As* strategy by the Indian acquiring firms of manufacturing industry. The motives behind the *M&As* ***we***re, naturally, shareholder's wealth maximization, profit maximization, and financial and operating risk reduction. The study examined the corporate financial performance, operating performance, and shareholders wealth of acquiring manufacturing firms in India, using paired samples t–test, factor analysis, correlation coefficient, regression analysis, and chow test to study if there was a significant shift in the performance of acquiring manufacturing firms in post-merger period of *M&As* with the base of annual financial data spanning the years from 2002 – 2012, for a period of five years, prior to the merger (2002–2006) and five years after the merger (2008–2012) for each of the acquiring manufacturing firms in India. (Satishkumar, 2013)

The study was carried out with a sample of 39 acquiring manufacturing firms in India. The firms, which had gone into the M&As process during the financial year 2006–07 are only considered for the study for the simple reason that the number of M&As was the highest in 2006–07 in the recent past decade, and for want of analyzing the long run impact of M&As on operating performance as well as on shareholder's wealth.

The Findings & conclusions of the study was as follows

- The results of the overall preliminary analysis revealed that the explanatory variables viz., Liquidity, Operating Efficiency, Profitability, Financial Risk, Operating Leverage, Growth, and Cost of Utilization in the post-merger period have not changed uniformly in all the acquiring manufacturing firms after merger. Most of the acquiring manufacturing firms have performed financially well after merger when compared to their financial performance in the pre-merger period.
- The results of the overall core analysis revealed that the explanatory variables viz., the factors Gross Earning, Financial Risk, and Growth with Return On Equity are found to have highly significant positive beta coefficient on Operating Performance at 1% level, while factors viz., Liquidity, Cost of Utilization, and Operating Leverage with Return On Equity found to have significant negative beta coefficient on Operating Performance at 1% level. However, the factor Ton Return On Equity did not show a significant impact. The chow test F-value (2.79) was greater than the F–limit (2.51), which implied that the acquiring manufacturing firms had significant shift-in-structure (improvement positively) in respect of operating performance in the post-merger period.
- The factors viz., Profitability, Financial Risk, and Turnover with MVA found to have a highly significant positive beta coefficient on shareholders' wealth at 1% and 5% levels, respectively, while factors viz, Liquidity, Cost of Utilization, Operating Efficiency, and Operating Leverage found to have significant negative beta coefficient on SW at 1% and 5% levels respectively. However, the factor G did not show a significant impact on SW.

- The Chow Test F–value (2.24) was greater than the F limit (1.88), which implied that the acquiring manufacturing firms had a significant shift-in structure (improvement positively) in respect of SW in the post-merger period at 5% level.
- Overall the M&As process had significant (shift) effect on OP and SW of the acquiring manufacturing firms in India after M&As.

Shailesh. N. Ransariya conducted a study on Financial Growth Indicator of Merger and Acquisition in Indian Corporate Sector with the objective to measure mergers and acquisitions on financial growth indicators in Indian Corporate Sector, for the said purpose profitability, liquidity and leverage position have been examined of selected companies. Sample of ten companies selected from top 10 mergers and acquisitions during 1996 to 2002.The study intended to measure financial performance of selected companies 5 years' pre- merger and 5 years' post- merger. Ratio analysis and T test were used to analyse the data (Ransaria, 2010).

The Findings & conclusions of the study was as follows

- After M&A Return on Financial performance was not improved in selected units
- After M&A Return on gross capital employed was not improved in selected units
- After M&A Return on shareholder's wealth was not improved in selected units
- After M&A Return on long term fund improved in 5 units and was decreased in 5 units
- After M&A Return on profitability was not improved in selected units indicated by NP Ratio, Operating profit ratio etc.
- After M&A Return on liquidity was not improved in selected units indicated by current ratio, Quick ratio, Inventory turnover ratio, debtor's turnover ratio, debt equity, fixed asset turnover ratio etc.

Rahul V. Vyas did study on Mergers and Acquisitions in India with objectives to describe the market for corporate control with a view to highlight the changes in regulatory environment; to expound if the companies concerned in India experience abnormal returns around M & A announcement period; to determine whether abnormal returns of target firms are significantly different from abnormal returns of acquiring companies; and compare abnormal returns experienced by Indian acquirer versus foreign acquirer. The study covered a period of 9 years from April, 2002 to March, 2011. Sample included 116 companies of which 80 were Indian and 36 overseas companies. For the selected companies, pre and post-merger equity prices were obtained from the daily quotations of companies listed on BSE, NSE and Yahoo Finance database for the period + 180 days and -180 days of M & A. The data collected was processed for event study methodology and wealth maximization effect was captured by comparing the abnormal returns, average abnormal returns and cumulative abnormal returns during pre and post acquisitions period. The student t-test used to test the significances of results estimated through Ordinary Least Squares (OLS) market model (V V. R., 2012).

The Findings & conclusions of the study was as follows

- Analysis suggests that M & A of Indian companies registered with SEBI in India during the 2002-03 to 2010-11 period, did not add to any significant cumulative abnormal returns in event window but pre event window and post event window noticed high cumulative abnormal returns where companies having gained in pre event window noticed loss in post event window and vice versa.
- The shareholders of financial sector noticed loss by 32.67% in pre event window while 32.86% gained in post event window.
- The results also showed that the Indian acquirers did not create value even after changing the event window period from 23 days to 180 days while CAR (-180, +180) returns for all sample size were equal to 0%, it means there is no significant abnormal gain or loss in 361 days' window.

These results were contrary to the findings about wealth effect on acquisition in the developed markets but support the hubris hypothesis i.e. there are absolutely no gains available to corporate takeovers, the average increase in the target company's market value should then be more than offset by the average decrease in the value of the acquiring company.

Nidhi Upendra Argade conducted a study on "A study of Impact of Merger and Acquisition on the Performance of Selected Indian Companies" with the objective to examine effect of acquisitions on long term performance of companies [overall and sectoral analysis] and effect of acquisition announcement on share price of acquirer companies. For the purpose of study acquisition which have been taken place in 2007 and 2008 are taken as a population. The study period was 5 years' pre-merger and 5 years' post-merger comprising from 2003 to 2014.66 sample companies selected for study. For analysis the technique used is Ratio analysis to test regarding liquidity, Profitability and leverage position of acquirer firms during pre and post-merger period. Statistical techniques used are Mean, Range, Standard deviatiation, Coefficient of variation and Paired t- test. Event study methodology used to analyse effect of acquisition on share prices of acquiring companies. Total sample acquirer companies selected for share price analysis is 51 companies. The study is based on acquisitions during calendar year 2007 and 2008.

The Findings & conclusions of the study was as follows

- Some ratios calculated like Debt equity ratio, interest coverage ratio etc. are statistically insignificant whereas some like Current ratio, Gross profit ratio etc. are significant, apart results variate from sector to sector.

- The result of event study for individual firm show that abnormal returns on and around the acquisition announcement date are statistically significant for acquirer companies on some days of pre and post event day. Further analysis of average abnormal returns for 51 acquirer companies over entire event window suggests positive effect of acquisition announcement on share price of the acquirer firm which is similar to previous studies. The results of Average abnormal returns are supported by Cumulative average abnormal returns. This indicates that share market is positive about the outcome of acquisition takes place between the companies (Argade, 2016).

Interpretations

After reviewing different research works done in India it could be summed up that

- Its observed that Indian companies mostly prefer horizontal and vertical mergers and acquisitions.
- Many researchers concluded Mergers and Acquisitions have not improved financial performance of acquirer, whereas many are of the opinion that Mergers and Acquisitions have positively affected operating performance of acquirer, in certain studies it was found to be significant whereas in some studies it was insignificant.
- Apart from this like foreign studies here also its observed that industry wise impact of M & A is different.

Improvement in Shareholders wealth, the ultimate goal of any business entity is also not achieved as per certain studies. However, many studies suggested that M&A could have long run benefit

2.4 STUDIES RELATED TO IMPACT OF MERGERS AND ACQUISITIONS ON OPERATING PERFORMANCE AND SHAREHOLDER'S WEALTH IN PHARMACEUTICAL INDUSTRY – INDIA

S. Beena conducted a study on Mergers and Acquisitions in the Indian Pharmaceutical Industry with respect to Nature, Structure and Performance, with the objective to find out performance of merging firm's prior mergers and acquisitions and after mergers and acquisitions. She selected 23 pharmaceutical companies (merging firms) which underwent mergers and acquisitions during 1991-1992 to 2003-2004.Ratio analysis was tool adopted for analyzing performance (S.Beena, 2006).

The Findings & conclusions of the study was as follows

- The study coincided with the global trends, the Indian pharmaceutical industry experienced greater consolidation through mergers, acquisitions, alliances as well as sale of assets.
- Even though the mergers dominated by the domestic firms, the foreign firms were actively participating in acquisition as well as alliances which became possible due to the dilution of various policy regulations.
- Most of the firms used it as a market expansion strategy rather than as a technology enhancer and it was evident from the performance analysis carried out, which shows that there was a significant difference in the marketing expenditure of merging firms compared to the non-merging counterparts during the post-merger period. Majority of the firms were using merger as a means to expand their product profile and thus to remain risk free.
- The merging firms' - which were less than 10 percent of all firms in this industry- overall performance was far better than the others and their own pre-merger period performance.

Pulak Mishra and Tamal Chandra conducted a study on Mergers, Acquisitions and Firms' Performance: Experience of Indian Pharmaceutical Industry with objective to analyze policy reforms in the 1990s in general and three important amendments made to the Indian Patent Act (1970) in 1999, 2002 and 2005 in particular, attempt made to examine the impact of Mergers and Acquisitions on financial performance of Indian pharmaceutical companies with sample of 52 pharmaceutical companies engaged in mergers and acquisition during 2000-2001 to 2007-2008. For analysis fixed effects model (FEM) and the random effects model (REM) has been used (Mishra & Chandra, 2010).

The Findings & conclusions of the study was as follows

- It showed that the profitability of a firm depends directly on its size, selling efforts and exports and imports intensities but inversely on their market share and demand for the products.
- Mergers and acquisitions did not have any significant impact on profitability of the firms in the long run possibly due to the resultant X-inefficiency and entry of new firms into the market. monopoly power arising out of a merger or an acquisition may result in X-inefficiency.
- In addition, in-house R&D and foreign technology purchase also did not have any significant impact on profitability of the firms

Neelam Rani, Surendra S. Yadav, and P. K. Jain did a study on Impact of Mergers and Acquisitions on Shareholders Wealth in Short Run: An Empirical Study of Indian Pharmaceutical Industry with the objective to examine short term abnormal returns to the shareholders of acquiring companies separately for mergers and acquisitions. The disaggregate analysis for such returns had also been attempted for domestic and foreign based targets. The study also explored the determinants of these abnormal returns along with co-operative strategies adopted by major companies in the pharmaceutical industry for competitiveness. Sample of 76 companies have been selected which were engaged in mergers and acquisitions for the period of study from 2001 to 2007.The event study methodology used to examine short term price reaction to mergers and acquisitions announcements. The traditional market model with value weighted market index (BSE Sensex) used to estimate abnormal return (Rani, Yadav, & Jain, 2011).

The study concluded that there were significant positive abnormal returns to shareholders of Indian Pharmaceutical companies on their acquisitions of foreign targets.

Neetu Dubey, R. K. Sharma, Himanshu Gupta, Nitin Dubey and Nidhi Dubey conducted a study on Performance of the Indian Pharmaceutical Industry Pre and Post TRIPS Era: A Study. The study discusses the performance of Indian pharmaceutical industry post Trips (Dubey, Sharma, Gupta, Dubey, & Dubey, 2011).

The study revealed that pharmaceutical companies changed their strategies to meet the new competitive business environment. The pharma industry was suggested to focus more on R&D and better productivity to capitalize on the immense existing opportunities. India, with its inherent competitive advantages and cost-effective manufacturing capabilities, has now become one of the most preferred destinations for Contract Research and Manufacturing Services (CRAMS). As a result, Indian pharmaceutical industry, which currently had strong linkages with the global pharmaceutical market, will become even more strongly integrated.

Vidhisha Vyas, Krishnan Narayanan and A Ramanathan conducted a study on determinants of mergers and acquisitions in Indian Pharmaceutical Industry with the objective to find out the determinants of Mergers and Acquisitions in Indian pharmaceutical industry with a sample size of 94 to 138 [range] in each year with total 1120 observations for 10 years i.e. period of study from 2001 to 2010.The methodology adopted empirical analysis using cross tabulations and logit analysis (Vyas, Narayanan, & Ramanathan, 2012).

The results of the logit analysis suggested that large and multinational affiliated firms were investing more in mergers and acquisitions activities. Similarly, firms reporting excess capacity and R & D investments were relying heavily on mergers and acquisitions to restructure and consolidate their position in the industry.

Anirban Ghatak conducted study on Effect of Mergers and Acquisitions on the Profitability of India Pharmaceutical Industry with objective to understand the concept of fixed effects model (FEM) and the random effects model (REM), to study the effect of fixed effects model (FEM) and the random effects model (REM) on the M&A's profitability and to analyze the impact of M&A on the profitability of the pharmaceutical companies in the Indian context. The dependent variable in the study was Current Profitability and Independent variable used in the study was Current Size, Current Market Size, Current Market Share, Lagged Mergers and Acquisitions, Lagged Selling Intensity, Lagged R&D Intensity, Lagged Foreign Technology Purchase Intensity, Current Export Intensity, and Current Import Intensity. Set of 52 listed drugs and pharmaceutical companies that merged over the period from 2005 to 2010 were taken as the sample for this study. The paper also tried to answer how far the wave of mergers and acquisition in the post-reform era helped Indian firms in improving their financial performance (Ghatak, 2012).

It was found from the study that that the profitability of firm depends directly on its size, selling efforts and exports and imports intensities but inversely on their market share and demand for the products. It also found that mergers and acquisition do not have any significant impact on profitability of the firms in the long run possibly due to the resultant X-inefficiency and entry of new firms into the market.

K. Jaykumar studied on an Impact of Acquisition on Operating Performance in Indian Pharmaceutical Industry with the objective of analyzing the impact of mergers and acquisitions on operating performance of Indian pharmaceutical industry with sample of 2 pharmaceutical companies engaged in mergers and acquisitions during 2001-2002 to 2009-2010 and Ratio analysis technique has been adopted to check the same (K.Jaykumar, 2013).

The result and analysis of the key financial ratios of the acquiring firms shown that there was no significant effect on the operating of the firms following acquisitions

Divya Christopher and Miss Arishma conducted a study on Pharmaceutical Mergers and Acquisitions. The paper explored the impact of merger and acquisition on the different pharmaceutical companies which were segmented into three parts. The first segment deal with statistical evaluation of data by application of t-test. This test was used to evaluate the difference in the profitability of pharmaceutical companies observed before and post-merger and acquisition by applying t-test to the EPS (Earnings per share) values of the company. The profitability of the companies viz EPS was observed to have no impact post the merger and acquisition. The second segment involved application of ANOVA test. Two- way classification model of ANOVA was applied to test significant association between PAT and Pharmaceutical companies undergone Mergers and acquisitions. Therefore, a relationship was observed between the increase in PAT and M&A. The last segment consisted of the analysis of the benefits and the controversies associated with the mergers and acquisitions of pharmaceutical companies globally and in India via case studies. The time period of 2009-2012 was considered for selecting case studies of mergers and acquisitions.

Example Merck- Schering Plough in 2009, Watson – Actavis in 2012, Mylan Inc. - Matrix laboratories in 2006 etc. (Christopher & Arishma, 2013).

The Findings & conclusions of the study was as that the pharmaceutical mergers and acquisitions add value to the companies by increasing the cooperate control in the market, adding new value in terms of profit enhancement of the company, acquisition of new investigational drugs and drug pipeline of the new company and above all improvisation of the R&D process as per the technology up gradation. The positive effects of merger and acquisition hence, was proved by the relative increase in the PAT (Profit after Tax) of the prominent pharmaceutical companies after the merger and acquisition was conducted.

Abhinna Shrivastav studied on Opportunities and Threats of Mega Merger: A case study of Sun Pharmaceuticals and Ranbaxy laboratories. The study dealt with impact of acquisition on financial health and profitability of the company by comparing pre and Post Acquisition performance. Study concluded that merger appears to be demand of time and may prove helpful to company in coming years thus author concluded that company moved in right direction (Shrivastav, 2016).

THESIS / DISSERTATION

CA Amit C Shah conducted a research study titled "Impact of Mergers and Acquisitions on value of firms : A study of selected Pharmaceutical and Chemical Companies in India" with objective to study conceptual framework of Mergers and acquisitions, to study trends of Mergers and acquisitions of selected pharmaceutical companies and chemical companies, to study Financial performance of selected pharmaceutical companies and chemical companies, to understand impact of mergers and acquisitions on value of firms of selected pharmaceutical companies and chemical companies, to compare Pre and post-merger financial performance of selected pharmaceutical companies and chemical companies, at last providing suggestions for improving value of selected pharmaceutical companies and chemical companies. The study undertook sample of 11 merger and acquisition deals in Indian Pharmaceutical and chemical companies during the period from 2000-01 to 2012-13 following convenient sampling method. Various Hypothesis were framed to test financial performance and Tested using appropriate tools. Tools like Ratio analysis, Graphs, Mean, and Paired Sample t test using SPSS were applied. Data was collected from secondary sources viz Magazines, Journals, websites etc.

The Findings & conclusions of the study was as follows

In the pharmaceutical sector, merger has shown positive effect for Cadila Healthcare limited increasing value of the firm however negative effect has been observed on Wockhardt and Ranbaxy which had decreased value of the firms. In chemical sector, Merger has shown mixed results.

Thus, conclusion drawn for selected mergers and acquisitions being unsuccessful in majority of cases in improving value of the firms (Shah, 2017).

Gaurang Prajapati studied on a Comprehensive Study on the Effect of Mergers and Acquisitions on Corporate Financial Performance of selected Pharmaceutical Companies in India. The objectives of study were to study process and concept of Merger and acquisition, evaluate financial performance for pre and post-merger for selected sample companies which include profitability, liquidity and financial strength. Primary and secondary data being used for study. For primary data analysis 200 stock market investors who invest in pharmaceutical companies were targeted and structured questionnaire was filled in. Researcher had selected ten companies of India whose merger and acquisition was taken place for the period from 2006-07 to 2016-17 from the pharmaceutical industry. Mean, chi square and T test were tools used for analysis.

The Findings & conclusions of the study was as follows

- Based on primary data it was observed that majority of the respondents' reaction was *"I made changes in my portfolio within 5 days* "and *"I made changes in my portfolio within 15 days to one Month post-merger period.*" The same reaction applied pre-merger period. 80% of the respondents monitoring their stock investment return before and after merger whereas only 20% of the respondents not monitoring their stock investment return before and after merger. 22% of the respondents purchase more shares of existing company, 33% of the respondents sell the shares of existing company whereas 45% of the respondents hold the shares of existing company as soon as they get merger announcement. 17% of the respondents purchase more shares of existing company, 35% of the respondents sell the shares of existing company whereas 48% of the respondents hold the shares of existing company after merger.
- Based on secondary data Net Profit has been decreased for most of the pharmaceutical companies after M&A activity against revenue generated. Current assets increased for most of the pharmaceutical companies after M&A activity against current liability. Cash and Quick assets increased for most of the pharmaceutical companies after M&A activity against current liability (Prajapati, 2018).

Interpretations

Analyzing studies conducted in India in Pharmaceutical Industry it could be noticed that-

- More number of Mergers and Acquisition found in Indian pharmaceutical industry due to globalization.
- It's also noticed that large and multinational companies are investing more in M & A.

- Out of reviewed studies, some cases show positive impact of mergers and acquisitions on financial performance of acquirers firm whereas in some cases either negative or no effect is seen on financial performance of acquirer's firm.
- It's interesting to note that study conducted by Neelam Rani, Surendra S. Yadav, and P.K. Jain in 2011 strongly concluded that significant positive abnormal returns to shareholders is found on account of M & A specifically when Indian pharmaceutical companies acquire foreign target companies

2.5 RESEARCH GAP

- Majority of the studies conducted till date are covering different companies or covering different sectors involved in mergers and acquisitions with study period of 5 to 10 years.
- Studies done earlier are generally covering few aspects only like ratio analysis or regression analysis or event studies, Comprehensive research on specific sector with long time period of study is still less in number especially in the pharmaceutical sector.
- Present study covers wider scope of analysis though sample size is small but analysis is done in-depth for each acquirer company to understand how Merger or Acquisition had affected the financial performance.
- Study covers various techniques of analysis viz Ratio analysis [extensive coverage of 24 ratios], Shareholders wealth analysis in the form of EVA and MVA, Multiple linear Regression equation for each sample company for pre and post-merger period has been framed to understand how it has affected and which variables dominantly changed Net profit on account of merger. Altman Z score had been also computed to check financial health of company during Pre and Post-merger period and attempt has been made to assess company's financial health changes due to Merger. With Principle component analysis composite score model had been build up for each sample company to check if company succeeded on account of undertaking Merger and Acquisition activity.
- Very few studies had been done with detailed analysis especially in pharmaceutical sector. Present study with period of 16 years is an attempt to fill up the above research gap.

Considering statistics shown in chapter 1 Introduction, table T.1.2 on page number 4 and table T.1.3 on page number 5 present study has been selected in Drugs & pharmaceuticals industry.

REFERENCES

Aghagaiah, R., & Thangavelu, S. (2014). Impact of merger and acquisitions on operating performance: evidence from manufacturing firms in India. *Managing global transitions: International research journal, vol-12, (2), Issn no-1854-6935*, 121-139.

Agrawal, A., Jaffe, J. F., & Mandelkar, G. N. (1992). The Post-Merger Performance of Acquiring Firms: A Re-Examination of an Anomaly. *The Journal of Finance, Vol. 47, (4*), 1605-1621.

Agrawal, M., & Bhattacharjea, A. (2006). Mergers in India:A response to regulatory shocks. *Emerging markets finance and trade, vol-42, (3),* 46-65.

Ahmed, M., & Ahmed, Z. (2014). Mergers and Acquisitions: Effect on Financial Performance of Manufacturing Companies of Pakistan. *Middle-East Journal of Scientific Research 21 (4), ISSN 1990-9233*, 689-699.

Argade, N. U. (2016, December). A study of Impact of merger and acquisition on the performance of selected Indian companies. Vadodara, Gujarat, India. doi:http://hdl.handle.net/10603/151378

Astha, D. (2007). Effect of Mergers and Acquisitions on Operating Performance: A Study of Acquiring Firms in India. *Effect of Mergers and Acquisitions on Operating Performance: A Study of Acquiring Firms in India*. Delhi, India. Retrieved from file:///C:/Users/Admin/Desktop/PHD/literature%20review/ms%20astha.pdf

Capron, L. (1999). The Long-Term Performance of Horizontal Acquisitions. *Strategic Management Journal, Vol. 20, (11),* 987-1018.

Christopher, D., & Arishma. (2013). Pharmaceutical Mergers and Acquisitions. *International Journal of Advanced Research, Volume 1, (5),* 119-130.

Datta, D. K. (1991). Organizational Fit and Acquisition Performance: Effects of Post-Acquisition Integration. *Strategic Management Journal Vol. 12, (4),* 281-297.

Dhinaiya, G. M. (2012). Impact of mergers & acquisitions on the performance of companies. *International journal of research in commerce & management, Vol-3, (9),* 102-106.

Dickerson, A., Heather, G. D., & Euclid, T. (1997). The Impact of Acquisitions on Company Performance: Evidence from a Large Panel of UK Firms. *Oxford Economic Papers, New Series, Vol. 49, (3),* 344-361.

Dubey, N., Sharma, R. K., Gupta, H., Dubey, N., & Dubey, N. (2011). Performance of the Indian Pharmaceutical Industry Pre and Post TRIPS Era: A Study. *Asian Journal of Pharmacy & Life Science, Vol-1(2) Issn No-2231-4423*, 187-194.

Ghatak, A. (2012). Effect of Mergers and Acquisitions on the Profitability of India Pharmaceutical Industry. *The International Journal's: Research Journal of social science and Management, Vol-2, (6),Issn-2251-1571*, 131-138.

Gupta, P. K. (2012). Mergers and acquisitions (m & a): the strategic concepts for the nuptials of corporate sector. *Innovative Journal of Business and Management 1,* 60-68.

Hitesh, P. (2009). Effect of merger on operational performance of acquiring firms in India. *Srgcmzn*, 1-10.

Hubert, O., Elisabeth, V. L., & Tine, D. L. (2006). Are Acquisitions Worthwhile? An Empirical Study of the Post-Acquisition Performance ofPrivately Held Belgian Companies. *Small Business Economics, Vol. 27, (2/3*), 223-243.

K.Jaykumar. (2013). Impact of acquisition on operating performance in Indian Pharmaceutical Industry. *Indian Journal of Economics and Development, Vol-1, (3), Issn no-2320-9836*, 67-70.

Kumar, S. R. (2014). Impact of merger on financial performance of corporate sector in India. Jaipur, Rajasthan, India. doi:http://hdl.handle.net/10603/37440

Kumara, M., & Satyanarayana. (2013). Comparative study of pre and post corporate integration through mergers and acquisitions. *International journal of business and management invention, ISSN (online):2319-8028, Issn (print):2319-801x, vol-2, (3),* 31-38.

Leepsa, N. M., & Mishra, C. (2017). Predicting the Success of Mergers and Acquisitions in Manufacturing Sector in India: A Logistic Analysis. *Singapore Management Journal*, 43-72.

Leepsa, N. M., & Mishra, C. S. (2014). An Examination of Success of Mergers and Acquisitions in Manufacturing sectors in India Using Index score. *Annual symposium on Management and social science* (pp. 1-18). Seoul, Korea(south): ASMSS conference proceeding.

Mantravadi, P., & Reddy, A. V. (2008). Post merger performance of acquiring firms from different industries in India. *International Journal of Finance and Economics, (22), ISSN 1450-2887*, 192-204.

Martin, C. L. (1992). Post acquisition Performance of Acquiring Firms. *Financial Management, Vol. 21, (3) (Autumn, 1992)*, 69-79.

Menapara, M., & Pithadia, V. (2012). A study of financial performance of selected companies during pre-post merger and acquisition. *Abhinav-volume no.1 ,(11),Issn 2277-1166*, 192-198.

Mishra, P., & Chandra, T. (2010). Mergers, Acquisitions and Firms' performance: Experience of Indian Pharmaceutical Industry. *Eurasian Journal of Business and Economics,3(5)*, 111-126.

Omah, I., Okolie, J. U., & Durowoju, S. T. (2013). Mergers and Acquisitions: Effects on Shareholders Value Evidence from Nigeria. *International Journal of Humanities and Social Science, vol. 3, No-6*, 150-159.

P.L.Beena. (2004). Towards understanding a merger- wave in the Indian corporate sector: A comparative perspective. *Towards understanding a merger- wave in the Indian corporate sector: A comparative perspective*. Retrieved from www.cds.edu.

Patricia, M. D., Andrew, E., & Sean, N. (2007). Mergers and Acquisitions in the Pharmaceutical and Biotech Industries. *Managerial and Decision Economics, Vol. 28, (4/5), Economic and Policy Issues in the Pharmaceutical Industry*, 307-328.

Paul Andre, M. K.-F. (winter 2004). The long- run performance of mergers and acquisitions: Evidence from Canadian stock market. *Financial management, Vol.33, (4)*, pp27-43.

Prajapati, G. (2018). A Comprehensive Study on the Effect of Mergers and Acquisitions on Corporate financial Performance of Selected Pharmaceutical Companies in India. *Thesis-School of Doctoral Research and Innovations, GLS University, Ahmedabad,* Ahmedabad, Gujarat, India. doi:http://hdl.handle.net/10603/307032

Prakash, S. (2016). The Impact of Mergers and Acquisitions (M&As) on Operating Performance: An Empirical Study of Select Companies in India. *SUMEDHA Journal of management*, 102-115.

Priya, B. (2014). Mergers & Acquisitions in India: A sectoral analysis. *International journal of Business and economic development, Vol-2, (2), ISSN NO-2051848x, Accession No-9786693*, 119-134.

Rabi, N. K., & Soni, A. (2009). *Mergers and acquisitions in India: A strategic impact analysis for the corporate enterprises in the post liberalization period*. New Delhi: Taxmann Publication

Rachna, J. (2009). *Mergers, Acquisitions and corporate restructuring in India.* New Delhi: New century Publications.

Ramaswamy, K. P., & Waegelein, J. F. (2003). Firm financial performance following mergers. *Review of quantitative finance and accounting, Vol-20, (2)*, 115-126.

Rani, N., Yadav, S. s., & Jain, P. K. (2011). Impact of Mergers and Acquisitions on Shareholders' Wealth in Short-Run: An Empirical Study of Indian Pharmaceutical Industry. *International Journal of Global Business and Competitiveness, Vol-6, (1),* 40-52.

Ransaria, S. N. (2010, April). Financial Growth indicator of merger and acquisition in Indian corporate sector. Morbi, Saurashtra, India.

Reddy, K. S., Nangia, V. K., & Agrawal, R. (2013). Corporate mergers and financial performance: a new assessment of Indian cases. *Nankai Business Review International 4(2),* 107-129.

S, V., & M, s. (2007). Financial performance of Indian manufacturing companies during pre and post merger. *International research journal of finance and economics, vol. 12,* 7-35.

S.Beena. (2006). Mergers and acquisitions in the Indian Pharmaceutical Industry: Nature, Structure and Performance. *Munich personal RePEc archive*, 1-20.

Sathishkumar, T. (2013, February). A Study on the Impact of Merger and Acquisitions on Operating Performance and Shareholders' Wealth in Indian Manufacturing Industry. Puducherry, Pondicherry, India. doi:http://hdl.handle.net/10603/20843

Shah, C. A. (2017, December). Impact of Mergers and acquisitions on value of firms: A Study of selected pharmaceutical and chemical companies in India. Vallabh Vidyanagar, Gujarat, India. doi:http://hdl.handle.net/10603/218547

Shrivastav, A. (2016). Opportunities and threats of mega merger: A case study of sun pharmaceuticals and Ranbaxy laboratories. *International Journal of Commerce and Management Research*, 112-115.

Shukla, D. R. (2014). Review of Major Companies Merger Failures in The First Decade of 21st Century. *International Journal of Enhanced Research in Management & Computer Applications,* 1-5.

Singh, K. B. (2013). The impact of Mergers and Acquisitions on Corporate Financial Performance in India. *Indian Journal of Research in Management, Business and social sciences(IJRMBSS)Vol no-1, (2), Issn No-2319-6998*, 13-16.

Smita, m. (2011). A study of impact of mergers and acquisitions on selected sectors in India. *Journal of doctoral studies, Vol-1, (1-2)*, 104-119.

V, V. (2014, July). A study of the financial performance of selected companies before and after merger and acquisition. Bharathiar University, Coimbatore, Tamilnadu, India. doi: http://hdl.handle.net/10603/40432

V, V. R. (2012, September). Mergers and Acquisitions in India. Vadodara, Gujarat, India. doi:http://hdl.handle.net/10603/28963

Vardhana, P. (2001). Effects of mergers on corporate performance of India. *Vikalpa, vol. 26 (1)*, 19-32.

Vyas, V., Narayanan, K., & Ramanathan, A. (2012). Determinants of Mergers and Acquisitions in Indian Pharmaceutical Industry. *Eurasian Journal of Business and Economics, 5 (9)*, 79-102.

Yook, K. C. (2004). The Measurement of Post-Acquisition Performance Using EVA. *Quarterly Journal of Business and Economics, Vol. 43, (3/4)*, 67-83.