A Study on Impact of Merger on Operating Performance of Acquiring Firms: Sectoral Analysis

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Abstract

In this tremendously exigent environment the markets all over the world have become more competitive. Merger and acquisition has become one of the important alternatives for corporate strategic expansion. It is a form of inorganic growth where the company purchases growth. This paper is an attempt to critically examine the financial strength of companies during pre and post-acquisition period. The study also attempts to analyze the impact of acquisition on the acquirer company. Different types of ratios were selected and paired t-test was applied to attain objectives of the study.

Data is collected from audited balance sheet, profit and loss account of the concerned companies, CMIE data base, BSE and NSE. It was hypothesized that acquirer companies show positive operating performance post M&A as compared to pre M&A performance. Additionally, it has also been attempted to analyze and test if the operating performance differs significantly as per industry type by analyzing sub-samples of different industry sectors. The results reveals that the operating performances are little diverged in different industry sectors in India following mergers. In the Agri-products sector, the profitability margins and return on assets and investments showed a significant decline following M&A. In Electrical Equipment sector, operating performance has declined marginally following M&A and in pharmaceutical sector, M&A results showed that profitability margins and return on assets and investments has slightly improved.

Keywords: *Operating Performance, Merger and Acquisition, Sectors, Financial Ratios.*

Introduction

In present regime, Corporate Restructuring has become a major instrument of financial and economic development all over the world. M&A are considered to be one of the most widely used form of corporate restructuring. Due to Globalization and Liberalization M&A has become major wave of growth strategy and has gained a lot of scrutiny in the field of strategic change. Traditionally M&A was considered to be an extraordinary business activity but now its use has been increased and has become common business development options. Merger and Acquisitions continue to be a highly popular form of corporate business development (Cartwright and Schoenberg, 2006) (1).

Mergers and acquisitions are used as instruments of momentous growth and are increasingly getting accepted by Indian firms as critical option of business strategy to accelerate competitiveness (Neelam Rani et al., 2011) (2). M&A has become a major driver/component as it creates synergies in companies by enhancing competitiveness through acquiring greater market share, by enlarging portfolio by minimizing the business risk for making move into new geographical areas, by gaining on economies of scale through redeploying resources and asset divestiture, by reducing tax liabilities, by acquiring competence.

According to the report published by BCG in July 2007 (3), in the early 1900s in the USA, the drivers that waves M&A were majorly six distinct, every driver has its own idiosyncratic and aftermaths. In the commencement of 20th era the first and foremost driver that is market share were followed for three decades and later on the companies fostered by an elongated and more magnificent waves as companies associated collectively the unparalleled components of the supply chain from natural resources to assembling to manufacturing to distribution. In 2004, the today's wave began which leads to end of an era by driving internet bubble and the successive downturn leads to industrial consolidation, which is sixth M&A wave.

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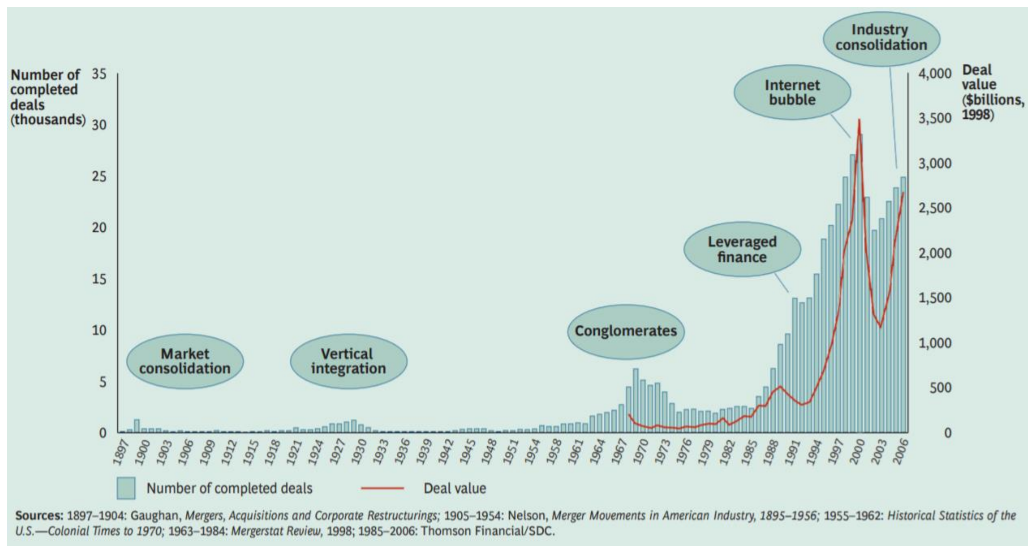

Figure 1

Source. The Brave new world of M&A-How to create value from Mergers and Acquisitions, July 2007, Boston Consulting Research Report.

Definition and conceptual framework

Generally, Merger and Acquisitions are the terms used interchangeably and as synonyms whereas there are some authors which distinguishes between them.

Merger means a combination of two or more company into one company. The minor company loses its identity and get merged into major company which retains its identity. Merger is different from consolidation in which both the companies loses their identity and coadjutress to formulate a completely new company.

According to Investopedia (4), "A merger is an agreement that unites two existing companies into new company. There are several types of mergers and also several reasons why companies' complete mergers".

Acquisition means in general means acquiring the shares of existing company. It means purchase of governing gain in the share capital of one company by another company. It is different from merger in the sense that in this both the companies retains their identity.

According to Investopedia (5), "An acquisition is a situation whereby one company purchases most or all of another company's shares in order to take control. An acquisition occurs when a buying company obtains more than 50% ownership in a target company. As part of the exchange, the acquiring company often purchases the target company's stock and other assets, which allows the acquiring company to make decisions regarding the newly acquired assets without the approval of the target company's shareholders."

Literature review

Merger and Acquisitions performance has been always a subject undergoing intense study. In a nutshell, abundance literature provides evidence on whether M&A magnifies shareholder's wealth or reduces the value of company. Many of the corporate entities are adopting M&A as endurance strategy and to improve competitiveness and synergy over other corporate. Corporate M&A becomes popular due to liberalization, globalization and technological advancement in the intensely competitive market. M&A is not a limited phenomenon and it extends worldwide. To compete in a competitive business environment M&A plays an important role and it has been found that countries like India, China, Brazil etc., engaged in this consolidation to achieve greater market share and enhance its complete operating synergy during post M&A era (**Zahid and Shah, 2011**).The Empirical work on M&A observed two divergent approaches of evaluating M&A profitability related emolument viz. Share Price Analysis and Accounting Measure Analysis. Whereas Stock Price Analysis is examined through abnormal return behavior of shareholders around the announcement period of M&A deals using the Event study

methodology. This study analysis only short-term M&A gains, for evaluating long-term gains pre and post M&A accounting information is analyzed by calculating financial ratios by applying various statistical techniques viz. t-test, regression analysis, correlation analysis etc. It analyses how financial performance changes after M&A.

Ravenscraft and Scherer (1989) (6) have investigated manufacturing companies of US with 2732 lines of business. They analyzed target firm's financial performance in the USA during 1957-1977. They examined that post mergers profitability have impacted significantly negative with 13.34 per cent and they bring out that mergers dismantle the value of company in terms of profitability.

In the analysis of acquisition of 50 companies in United States for the period of January 1970 to June 1984. They stated that the long-term performance of companies has been improved post-merger, on the other hand; study has faced criticism for applying industry median firm as a benchmark.

Healy et al. (1992) (7). **Switzer (1996) (8)** analyzed a performance of merged firms consisting large sample of 327 companies for the period of 1967-1987 in the USA by using the study of Healy et al. (1992). She noted a positive relation between the acquiring firms' long term performance and the reaction of shareholder's abnormal return around the announcement date. But she condemned the Healy et al. study for examining the mergers of 50 large companies and the frame of time used was categorized as "merger mania". **Muller (1980) (9)** observed that the pattern of profitability was inconsistent as either improved or deteriorated, the study includes the sample area across the seven nations (German, France, The Netherlands, Belgium, the UK, Sweden, and the USA). A study of the 239 mergers in U.S. during the 1978-1987, it was revealed that the mean financial performance post-merger has been increased by 17%. **Ghosh and Jain (2000) (10). Pawaskar (2001) (11)** study examine the post-merger operating performance of acquiring firms for the period 1992-1995 by using the Cosh et al. (1998) and Muller (1986) methodology. He analyzed the performance of 36 mergers using the ratios of liquidity, profitability, leverage and growth and through regression analysis he observed that the corporate performance is not improved significantly. **Ramakrishnan (2008) (12)** analyzed the merged companies' long-term performance in India during the period of 1996-2002. The sample of 87 domestic mergers were examined.

The findings state that the operating performance of merging companies in the post-merger period have been improved. **Burner (2002) (13)** had studied the acquiring companies' financial performance post-merger and acquisition of fifteen studies, he concluded that out of fifteen studies, the negative performance has been reported by the four studies, significantly negative performance has been reported by three studies and non-significant change has been reported by eight studies. **Gugler et al. (2003) (14)** scrutinized the mergers impact on large panel data sample of 15 years around the world. They examined the impact on profitability and sales following mergers with non-merging firms as control groups. Their conclusions revealed that post-merger the profits of firms increased whereas it leads to decline in level of sales. They also examined that there is no difference between mergers of manufacturing and service sector. They also state that sales level reduced more in conglomerate mergers than the horizontal sector. **Ramaswamy and Waegelein (2003) (15)** examined the financial performance US firms with sample of 162 firms for the period 1975 to1990 of the acquired and acquiring firms both. The study findings show that the financial performance of merging companies have been improved in post-merger period. So far, the empirical testing and analysis of Indian companies are concerned the post-merger performance has shown an uncertain result and it is difficult to draw on any significant interpretation. The studies revealed that the manufacturing sector performance is highly skewed in favor of M&A and the only limitation is that for measuring the performance short time intervals were chosen.

Research methodology

In this paper the mergers and acquisitions through the period January 2011 to December 2017 has been considered. The operating ratios of years before the merger of only acquiring firms were taken into consideration. Post the merger, the combined firms operating ratios are considered.

Only mergers where the consideration was given to the acquired firm (target) shareholders, is in the form of equity stock is taken into consideration, cash acquisitions are eliminated from the sample, to make the nature of sample homogenous. From the sample, mergers not approved by Government,

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disavowal of news of deal successively, acquisition of less than controlling stake, sick or BIFR companies have been taken by companies and mergers and acquisitions made in other industry sector than the Chemicals, Textile and textile products and Pharmaceuticals were eliminated. In the defined time period the final sample frame of M&A consist of 70 number of cases.

The following hypothesis was formulated with a view to test the objectives mentioned above.

a) H1. To compare pre- and post-merger and acquisitions operating performance of sample firms.
b) H2. The post-merger operating performance of acquiring firms is not affected by type of industry.

Data collection and analysis

Data collection

The data for each acquiring company for ratio operating performance for up to three years prior and three years after the acquisition was extracted from the Prowess IQ database of CMIE, websites of National Stock Exchange (NSE) and Bombay Stock Exchange (BSE). The data sample of company was divided into sub-samples of industry-wise to make the sample size significant.

Data analysis

The operating performance ratio of period prior to merger and period after the merger were evaluated by applying "paired two sample t-test" and the confidence level is 5%.

Analysis and interpretation

Analyzing acquiring firms operating performance in different industries

Agri-products

Table 1. Impact on acquiring firms through mean ratio

	Mean Ratio (Pre-M&A)	Mean Ratio (Post-M&A)	t(0.05 significance)
Return on Capital Employed	24.799	15.218	2.890
Return on Net Worth	15.025	8.410	2.099
Debt-Equity Ratio	0.850	0.505	1.517
Net Profit Margin	4.284	2.180	1.310
Operating Profit Margin	13.205	9.110	4.067
Gross Profit Margin	10.095	6.220	2.468

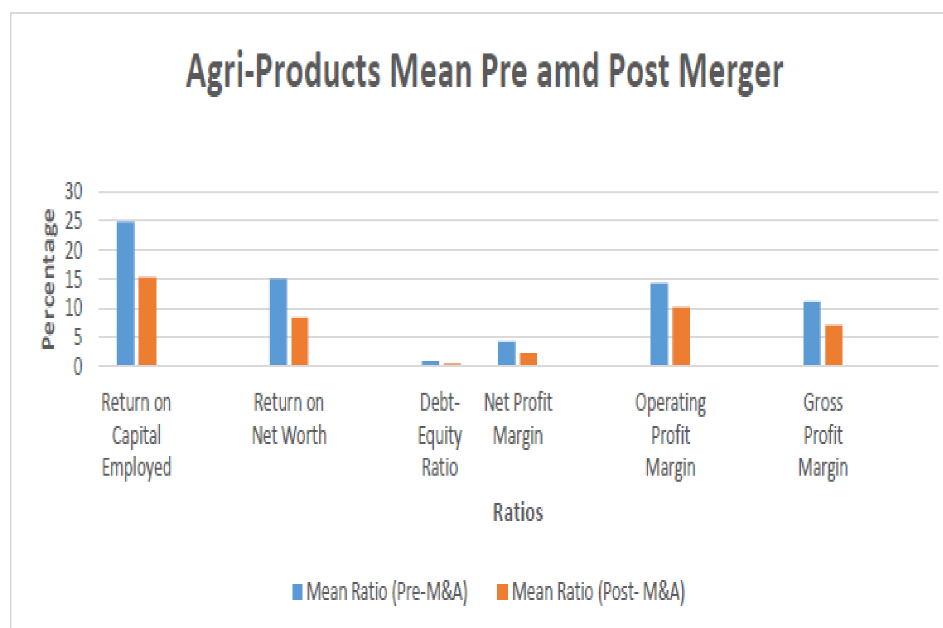

Figure 2

The findings as revealed the mean of return on capital employed (from 24.799% to 15.218%) and mean return on net worth (15.025% to 8.410%) showed decline and the decrease was validated statistically with value of t-2.890 and 2.099 respectively. The debt-equity had declined marginally post-merger (0.850% to 0.505%) however, the decrease was insignificant statistically with t-value of 1.517.

Likewise, the ratio net profit margin (4.284% to 2.180%) had marginal decline in post-merger period but the decline was not statistically validated with t-value of 1.310. However, the operating profit margin (13.205% to 9.110%) and mean gross profit margin (10.095% to 6.220%) showed that in the post-merger period ratio has declined and the decline was statistically validated with high t-value of 4.067 and 2.468 respectively. The above result suggested that in the Agri-product Sector, mergers had leads to significant decline both into profit margins and returns on net worth and capital employed in the business.

Electrical equipment

Table 2. Impact on acquiring firms through mean ratios

	Mean Ratio (Pre-M&A)	Mean Ratio (Post-M&A)	t(0.05 significance)
Return on Capital Employed	19.510	10.223	2.234
Return on Net Worth	9.386	-5.197	1.298
Debt-Equity Ratio	1.499	1.492	0.011
Net Profit Margin	2.232	-0.899	1.165
Operating Profit Margin	13.397	11.594	1.099
Gross Profit Margin	8.528	5.322	1.499

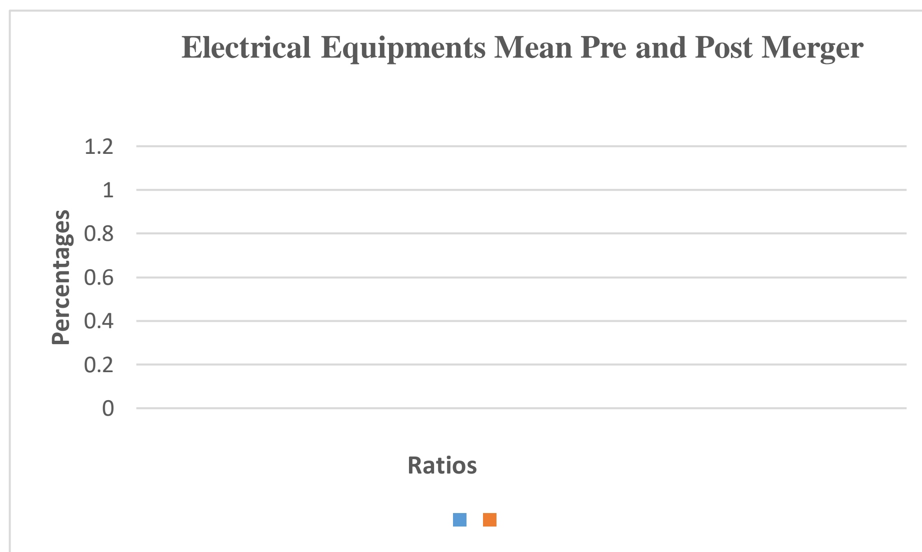

Figure 3

The findings as revealed by the first ratio (19.510% -10.223%) indicated substantial fall and decrease was significant statistically as t value going up to 2.234. In the same line, second ratio (9.386% to -5.197%) showed marginal decrease with t-value of 1.298, whereas the third ratio didn't alter (1.499% to 1.492%) with statistically less "t" value of 0.011.

Likewise, the fourth ratio (2.232% to -0.899%) had decline but the decrease was statistically insignificant with value of t as 1.165. However, the operating profit margin had declined marginally (13.397% to 11.594%) and mean gross profit margin (8.528% to 5.322%) showed that ratio has not declined much from value of 1.099 to 1.499 respectively. Accordingly, it can be concluded that in electrical equipment sector, operating performance has not been much impacted by mergers, in respect of returns on capital employed and profitability margins.

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Pharmaceuticals

Table 3. Impact on acquiring firms through mean ratios

	Mean Ratio (Pre-M&A)	Mean Ratio (Post-M&A)	t(0.05 significance)
Return on Capital Employed	21.326	20.342	0.769
Return on Net Worth	31.174	11.326	1.911
Debt-Equity Ratio	1.317	2.195	-1.941
Net Profit Margin	7.646	6.871	0.505
Operating Profit Margin	15.685	16.315	-0.199
Gross Profit Margin	13.292	13.262	0.009

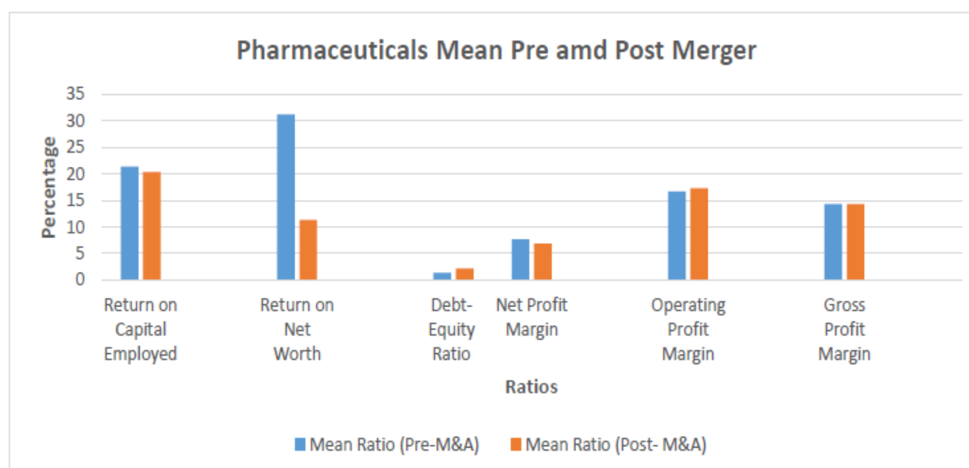

Figure 4

The findings as revealed by the return on capital employed mean (21.326% to 20.342%) revealed that the after the merger there was significant decrease although the decline was not statistically validated with value of t as 0.769. Correspondingly, return on net worth mean (31.174% to 11.326%) showed decline in the post-merger period and the decrease was just curtailed significant with t-value of 1.911 statistically. The fourth ratio debt-equity had decreased slightly after merger (1.317% to 2.195%) but the alteration was statistically insignificant with value of t (-1.941). Likewise, the ratio net profit margin (7.646% to 6.871%) had marginally decline in post-merger period but the decrease in value of t as 0.505 was statistically invalidated. Though, the operating profit margin had increased marginally (15.685% to 16.315%) but the improvement was statistically insignificant and this confirmed by low t-value of -0.199. Whereas, the mean gross profit margin (13.292% to 13.262%) showed no change in the post-merger period ratio and statistical low "t" value (0.009) confirmed the same. The above findings revealed that the for the Pharmaceuticals sector, mergers had caused an improvement in profit margins and returns on net worth, however not supported statistically. Simultaneously, the profit margin and return on capital employed had decreased slightly, though again statistically insignificant.

According to above results, the hypothesis **H2: The change in operating performance does not get affected by Type of Industry of acquiring companies after merger was rejected**, since different industry sectors revealed different results for merger samples in context of operating performance, also some results showed that differences are not statistically significant.

Conclusions

This research paper aims to examine whether the different industry sector has an impact on the operating performance post-merger of the merging companies, in respect of profitability and return on assets and investment. The results of pre-merger and post-merger operating performance revealed that the different industry sector has different results of mergers.

In the **Agri-Product Sector**, mergers lead to significant decline, both in terms of returns on assets, investment and profitability margins. Whereas, for the **Electrical Equipment Sectors,** mergers showed

an insignificant negative impact on operating performance both in terms of returns on assets, investment and profitability margins. In the **Pharmaceutical Sector,** the result shows financial position of the selected companies is significantly improving during the post-merger time. The operating performance of acquiring firm's post-merger does seem to be get affected by the type of industry sector.

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