



Relationship of Mergers and Acquisitions with Financial Performance: Indian Evidence

**Khurshid Ali ^{a*}, Khalid Ashraf Chisti ^{b#}, Moh-Ud-Din Sangmi ^{b#}
and Irshad Ahmad Malik ^{c#}**

^a *Business Division, Higher Colleges of Technology, United Arab Emirates.*

^b *Department of Commerce, University of Kashmir, Srinagar, India.*

^c *Department of Management Studies, University of Kashmir, Srinagar, India.*

Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

Article Information

DOI: 10.9734/JEMT/2022/v28i1130455

Open Peer Review History:

This journal follows the Advanced Open Peer Review policy. Identity of the Reviewers, Editor(s) and additional Reviewers, peer review comments, different versions of the manuscript, comments of the editors, etc are available here: <https://www.sdiarticle5.com/review-history/91759>

Original Research Article

Received 14 July 2022

Accepted 21 September 2022

Published 27 September 2022

ABSTRACT

In this paper an attempt has been made to investigate the level of relationship between acquisitions/mergers and operating financial performance by making the pre and post-merger comparison of operating financial performance. The researchers have studied various aspects such as Return on Capital Employed (ROCE), Debt Equity Ratio, Return on Net worth (RONW), Net Profit Margin (NPM), Operating Profit Margin (OPM), Gross Profit Margin (GPM), Earning per Share (EPS) and Price to Earnings Ratio (P/E) so as to ascertain the relationship between pre and post-merger operating financial performance of the acquirers. For this purpose two industries are taken into consideration such as, aviation industry and oil and gas industry. The reference period of five years has been taken for every firm. The findings put forth by the study affirm that the inorganic growth decisions have not gone well, particularly, in the aviation industry for the financial performance has gone from bad to worse, however, the oil and gas industry has put forth mixed results.

Keywords: *Mergers; acquisitions; ROCE; RONW; NPM; OPM.*

^o Assistant Professor;

[#] Full Professor;

^{*}Corresponding author: E-mail: gaash786@gmail.com;

1. INTRODUCTION

Ever since globalisation assumed centre stage in the world economy, inorganic growth became inevitable for corporate world for this is the only way to grow and survive in this borderless business arena where survival of the fittest is the prime slogan. Consequently, firms constantly look for opportunities to inorganic growth, thereby, increasing their access to new markets, latest technology, enriching their product line, etc. This scenario has brought about transformation in the focus of strategists from organic growth strategies to inorganic growth strategies, expecting, to attain competitive advantage over their rivals in the time to come. Therefore, every firm as per their financial ability is growing through the process of Greenfield and Brownfield investments in developing economies, hence, getting access to growing markets.

In India the process of liberalisation took off in 1991 and since then Indian Economy has undergone notable reforms, aiming at, higher levels of growth and employment. This policy brought about significant competition to the domestic industry [1-3]. Initially, this policy raised the eyebrows of some political class, thinking, that India Inc. cannot withstand such competitive pressure but not only they adopted but excelled, proving, critics wrong. Since liberalisation India Inc. has undertaken a substantial number of mergers and acquisitions deals within the country and cross-country as well. These deals have benefited India Inc. in numerous ways. In 1999 the announced mergers and acquisitions in India valued at around 20 billion USD and these deals continued to multiply and reached around 67 billion USD in 2007. Despite, slowdown in the global economy these deals are flourishing in India as it facilitates India Inc. to originate its presence in diversified markets all over the globe, thereby, enhancing its ability to overcome the present economic slowdown. Inorganic growth brings about constancy in the profitability of the acquirer as the revenue is generated through diversified markets.

2. REVIEW OF LITERATURE

Mergers and acquisitions are dynamic in nature, bringing about synergetic effects, regarding every facet of the firm, hence, researchers, scholars, academicians, corporates, etc. are interested in knowing about these corporate activities which are inevitable in the present era

of globalisation where inorganic growth has assumed paramount importance. Keeping their role in view, a substantial number of studies have been undertaken to assess the effects of inorganic growth activities. The review of some of the major studies is undertaken as follows.

Rau and Vermaelen [4] investigated the post-merger performance of the acquirer and concluded that some firms underperformed and some earned abnormal profits. Andre et.al. [5] examined long-run performance of mergers and acquisitions in Canada and the findings affirm underperformance post-merger. Yuce and Nag [6] in their study concluded that post-merger returns are higher than pre-merger returns. Megginson et.al. [7] in their study put forth that abnormal returns appear to be decreasing through time. Heron and Lie [8] undertook a study and the results suggest that “acquiring firms exhibit superior performance relative to the industry”. Yeh and Hoshina [9] examined “the efficiency of mergers on the firms’ operating performance and the results reveal insignificant negative change in productivity, significant downward trend in profitability, significant negative effect on the sales growth rate and downsize in the workforce after merger”.

Gugler et al. [10] examined and analysed the effects of mergers around the world over the past five years. The findings of the study confirmed that profitability is positive in all five years after merger. Yook [11] tested “the impact of acquisition on the acquiring firms’ financial performance by comparing pre and post-acquisition value. The study did not find any impact of acquisition on financial performance”.

Lau et al. [12] examined “the operating performance of merged firms, compared to the performance of the pre-merger targets and acquirers. The results provided some evidence that mergers improve the post-merger operating performance”. Kumar [13] examined “the post-merger operating performance and it was found that the post-merger profitability, assets quality and solvency of the acquiring firms, did not confirm any improvement when compared with pre-merger”. Majumdar et al. [14] undertook a study regarding “the effect of merger of local exchange firms in the U.S.A. and the study concluded that the impact of mergers on the measures of efficiency and synergy was negative”.

2.1 Need for the Study

The studies reviewed in this paper put forth conflicting findings as some of the studies such as Andre et al. [5], Megginson et.al. [7], Yoeh and Hoshina (2002), and Majumdar et al. [14] affirm that “inorganic growth strategies enhance the financial operating performance of the acquirer” while as some studies such as Yuce and Ng [6], Heron and Lie [8], Lugler et al. (2003) and Lau et.al. [12] confirm that “the financial operating performance takes a downward trajectory”. On the other hand the studies undertaken by Yook [11] and Kumar [13] did not find any change in the operating performance of the acquirer. Thus, these results are inconclusive and conflicting as some affirm positive relationship while others confirm negative relationship. It is against these deviations that the present study has been undertaken so as to add to the existing literature which will be of some use for the other researchers and corporate in the time to come.

2.2 Objective of the Study

To investigate the impact of mergers and acquisitions on the operating financial performance of the acquiring company.

3. METHODOLOGY

In order to achieve the objective of the study, the researchers have employed various financial ratios such as Return on Capital Employed (ROCE), Debt Equity Ratio, Return on Net Worth (RONW), Net Profit Margin (NPM), Operating Profit Margin (OPM), Gross Profit Margin (GPM), Earning Per Share (EPS), and Price to Earnings Ratio (P/E). The application of these ratios enabled the researchers in ascertaining the relationship between pre and post-merger operating financial performance of the acquirers.

The researchers have taken two industries in the study which are Aviation industry and oil and gas industry. The reference period of five years has been taken which is different for different companies as per the date of mergers and acquisitions.

4. RESULTS AND DISCUSSION

Financial Analysis of Kingfisher Airlines and Air Deccan.

The acquisition of Air Deccan by the Kingfisher Airlines took place in the year 2006-07. Hence

below analysis has been done two years prior to the merger i.e. during 2004-05 and 2005-06 and two years after the merger i.e. 2007-08 and 2008-09 respectively.

In the Table 1-A the analysis of financial parameters of the acquiring company has been given so as to establish the impact of acquisition.

The above financial analysis of Kingfisher Airlines has been divided into pre-acquisition and post-acquisition as well as the year in which the acquisition has taken place. It can be concluded from the table that the operating profit margin which was not doing well in the pre-acquisition period got worse in the post-acquisition period. The gross profit margin followed the same trajectory. Similarly, the net profit margin and return on capital employed has also witnessed negative trend. The earning per share of the company has fallen quite sharply which dragged down the price earning ration as well. This situation made the company to take more and more debt from the market, thereby, influencing the debt equity ratio in a negative manner. Thus, it can be concluded that the decision of the company to acquire Air Deccan has not gone well as the acquisition not to mention of improving the financials of the company could not even stop the slide of the company in its financial performance.

4.1 Aviation Industry

Financial Analysis of Jet Airways and Air Sahara.

The acquisition between Jet Airways and Air Sahara took place in the year 2006. Hence, below analysis has been done two years prior to the merger i.e. during 2004-05 and 2005-06 and two years after the merger i.e. 2007-08 and 2008-09 respectively.

In the Table 1-B the analysis of financial parameters of the acquiring company has been given so as to establish the impact of acquisition.

After having a careful look at the above figures it can be seen that the operating margins of Jet Airways were very strong in the year 2004-05. Later the operating margins started slowing down in the coming years. Post-merger the operating margins of Jet Airways had gone down to 5.2% from an earlier five year high of 33.2%. Gross Profit margin was strong at 24% in 2004-05. However, post-merger it has moved into a negative territory of (6.4%). Return on capital

employed proves the efficiency with which the business is maintained. Looking at the post-merger results the shareholders who act as owners would surely be disappointed with only 4% return on capital employed compared to 31.6% in 2004-05. Similarly the Return on Net worth for the company has also slid into negative zone which further brought about deterioration in the value of shareholders' wealth. The debt equity ratio of the firm has jumped up around 10 times than what it was in the year 2004-05 which shows the level of leverage used by the company because of deficiency of funds. The EPS of the company which was quite bright during the period of pre-acquisition has followed a downward trajectory and dipped to -46.6%, The P/E ratio also demonstrated the same behavior in the market as it touched -3.3 mark because of the weak financial performance by the company.

The overall financial performance of the aviation industry in the post-acquisition period is quite dismal and discouraging which is evident from the financial analysis of the sample companies. However, it should be also kept in mind that the aviation industry is not doing well in India, therefore, the decline in the financial performance of the sample companies should not be completely associated with the acquisition decisions [15,16]. But, it can be concluded that the decision of acquisition has not led the acquiring companies towards the desirable results.

4.2 Oil and Gas Sector

Financial Analysis of Reliance Industries Limited and Indian Petroleum Corporation Limited. The merger between Reliance Industries Limited and Indian Petroleum Corporation Limited took place in the year 2006. Hence below analysis has been done two years prior to the merger i.e. during 2004-05 and 2005-06 and two years after the

merger i.e. 2007-08 and 2008-09 respectively. In the Table 2-A the analysis of financial parameters of the acquiring company has been given so as to establish the impact of acquisition.

Reliance Industries Limited is one of the biggest companies in the oil and gas industry in India. Pre-merger the company has a good operating margin ratio of 19.4% which was one of the best in the Indian oil industry. The company continued with the robust numbers regarding operating profit margin. Similar pattern was seen with respect to gross profit margin and net profit margin. However, two years post-merger both the return on net worth and return on capital employed saw a slight drop which can be associated to economic slowdown. The debt equity ratio remained almost the same for the company never felt a need to raise further debt because the company has piled huge cash reserves over a period of time. The EPS showed a tremendous upward movement which accelerated the valuation of the company by increasing the P/E ratio which even touched 17.5 times post-acquisition.

Financial Analysis of Indian Oil Corporation and IBP: The acquisition between Indian Oil Corporation and IBP took place in the year 2006. Hence below analysis has been done two years prior to the merger i.e. during 2004-05 and 2005-06 and two years after the merger i.e. 2007-08 and 2008-09 respectively.

In the Table 2-B the analysis of financial parameters of the acquiring company has been given so as to establish the impact of acquisition.

Indian Oil Corporation with its merger with IBP has seen deterioration in the overall shareholder wealth for the company. The operating margin pre-merger for the company was at 5.3% which dropped to 4.4% after the merger. Similarly gross

Table 1-A. Analysis of financial parameters of the acquiring company (Kingfisher Airlines)

| Kingfisher Airlines | 2004-05 | 2005-06 | 2006-07 | 2007-08 | 2008-09 |
|----------------------------|----------------|----------------|----------------|----------------|----------------|
| Operating Profit Margin | 10.20% | -1.30% | -21.90% | -51.50% | -26.50% |
| Gross Profit Margin | -4.00% | -24.60% | -21.00% | -47.80% | -33.90% |
| Net Profit Margin | -6.40% | -27.50% | -23.60% | -13.10% | -30.50% |
| Return on Capital Employed | 15.40% | -9.80% | 7.50% | -19.60% | -24.40% |
| Return on Net Worth | -143.00% | -347.50% | -287.40% | -129.80% | -809.00% |
| Debt-Equity Ratio | 20.80 | 4.60 | 6.30 | 6.40 | 4.70 |
| Earnings Per Share | -63 | -347.50 | -31 | -13.00 | -118 |
| Price to Earnings Ratio | -1.90 | -0.30 | -4.60 | -9.60 | 0.40 |

Table 1-B. Analysis of financial parameters of the acquiring company (Jet Airways)

| Jet airways | 2004-05 | 2005-06 | 2006-07 | 2007-08 | 2008-09 |
|----------------------------|----------------|----------------|----------------|----------------|----------------|
| Operating Profit Margin | 33.20% | 24.80% | 14.70% | 8.60% | 5.20% |
| Gross Profit Margin | 24.00% | 19.80% | 6.60% | 4.10% | -6.40% |
| Net Profit Margin | 9.00% | 7.90% | 0.40% | -2.90% | -3.50% |
| Return on Capital Employed | 31.60% | 21.20% | 13.80% | 6.30% | 4.00% |
| Return on Net Worth | 22.40% | 21.10% | 1.30% | -13.70% | -31.10% |
| Debt-Equity Ratio | 1.70 | 2.30 | 2.90 | 6.50 | 12.60 |
| Earnings Per Share | 45.6 | 52.40 | 3.20 | -29.30 | -46.60 |
| Price to Earnings Ratio | 27.60 | 18.50 | 19.58 | -17.70 | -3.30 |

Table 2-A. Analysis of financial parameters of the acquiring company (Reliance Industries Limited)

| Reliance industries limited | 2004-05 | 2005-06 | 2006-07 | 2007-08 | 2008-09 |
|------------------------------------|----------------|----------------|----------------|----------------|----------------|
| Operating Profit Margin | 19.40% | 17.60% | 17.30% | 17.50% | 16.00% |
| Gross Profit Margin | 21.60% | 18.40% | 17.50% | 18.10% | 17.40% |
| Net Profit Margin | 11.50% | 11.20% | 10.40% | 11.40% | 10.40% |
| Return on Capital Employed | 23.80% | 21.00% | 22.70% | 19.70% | 18.60% |
| Return on Net Worth | 18.70% | 18.20% | 18.20% | 23.90% | 15.00% |
| Debt-Equity Ratio | 0.46 | 0.44 | 0.44 | 0.45 | 0.47 |
| Earnings Per Share | 54.50 | 65.20 | 78.50 | 134.20 | 105.40 |
| Price to Earnings Ratio | 8.30 | 12.20 | 17.40 | 17.50 | 14.40 |

Table 2-B. Analysis of financial parameters of the acquiring company (Indian Oil Corporation)

| Indian oil corporation | 2004-05 | 2005-06 | 2006-07 | 2007-08 | 2008-09 |
|-------------------------------|----------------|----------------|----------------|----------------|----------------|
| Operating Profit Margin | 5.30% | 4.50% | 5.00% | 4.60% | 4.4% |
| Gross Profit Margin | 5.80% | 5.10% | 5.20% | 5.20% | 2.30% |
| Net Profit Margin | 3.50% | 2.80% | 3.50% | 2.80% | 1.00% |
| Return on Capital Employed | 19.70% | 16.60% | 20.30% | 17.90% | 18.20% |
| Return on Net Worth | 18.80% | 16.80% | 21.50% | 16.90% | 6.70% |
| Debt-Equity Ratio | 0.67 | 0.90 | 0.78 | 0.89 | 1.02 |
| Earnings Per Share | 42.17 | 42.37 | 64.65 | 58.51 | 24.79 |
| Price to Earnings Ratio | 10.39 | 13.78 | 6.17 | 7.61 | 15.61 |

profit margins for the company went down half from 5.8% in 2004-05 to 2.3% in 2008-09. Return on Capital employed and Return on net worth has also dropped significantly post-merger. The net profit margin for the company has dropped from 3.5% to 1% in 2008-09 (post-merger). EPS which is the indicator of shareholders wealth has also dropped from Rs 42 to Rs 24 in 2008-09. The valuations of the company had reduced in the first year post-merger, however, the valuations started increasing on the P/E multiple and it reached close to 16 times its net earnings.

5. CONCLUSION

After undergoing the overall analysis of the results, it becomes quite evident that inorganic growth decisions have not gone well in the aviation industry as the empirical results of the sample companies have put forth discouraging numbers post-acquisition. Therefore, it can be

concluded, regarding, the aviation industry that inorganic growth decisions have given a bitter experience to the acquiring companies as their financial performance have got badly hit. However, this poor financial performance can also be attributed, to some extent, to the existing environment prevailing in the industry, as the whole industry is bleeding in financial terms, all over India.

In case of oil and gas industry, the study put forth mixed results as one of the acquiring sample company has done well post-acquisition while as another one have shown poor performance throughout the post-acquisition period. These findings make it quite clear that the acquiring companies should be financially quite sound so as to overcome the adverse economic phases which will enable it to reap the economic benefits of acquisition during the boom period. The case of Reliance Industries Limited is a live example

of this as the company continued its strong numbers after the acquisition. The overall findings of the study collaborate with the findings of Rau and Vermaelen [4], Andre et al. [5], Megginson et al. [7], Yeh and Hoshina [9], etc.

COMPETING INTERESTS

Authors have declared that they have no known competing financial interests or non-financial interests or personal relationships that could have appeared to influence the work reported in this paper.

REFERENCES

1. Singh R, Goel G, Ghosh P, Sinha S. Mergers in indian public sector banks: Can human resource practices ensure effective implementation of change?. *Management Decision*. 2022;60(3):606-633.
2. Srinivasa Reddy K, Nangia VK, Agrawal R. Corporate mergers and financial performance: A new assessment of Indian cases. *Nankai Business Review International*. 2013;4(2):107-129.
3. Mishra P. Are mergers and acquisitions necessarily anti-competitive?. *Empirical Evidence from India's Manufacturing Sector*. *Margin*. 2018;12(3):276-307.
4. Rau, Vermaelen. Glamour value and the post acquisition performance of acquiring firms. *Journal of Financial Economics*. 1998;49:223-253.
5. Andre P, Kooli M, L'Her J. The long-run performance of mergers and acquisitions: Evidence from the canadian stock market. *Financial Management*. 2004;33(4):27-43.
6. Yuce, Nag. Effects of private and public canadian mergers. *Journal of Administrative Sciences*. 2005;111-124.
7. Megginson et al. The determinate of positive long-term performance in strategic merger: Corporate focus and cash. *Journal of Banking and Finance*. 2004;523-552.
8. Heron, Lie. Operating performance and the method of payment in takeovers. *Journal of Financial and Quantitative Analysis*. 2002;137-156.
9. Yeh, Hoshina. Productivity and operating performance of japanese merging firms: Keiretsu-related and independent mergers. *Japan and the World Economy*. 2002;14: 347-366.
10. Gugler KD, Mueller B, Yurtoglu, Zulehner C. The effects of merger: An International comparison. *International Journal of Industrial Organization*. 2003;21:625-653.
11. Yook KC. The measurement of post-acquisition performance using EVA. *Quarterly Journal of Business & Economics*, Summer. 2004;67-84.
12. Lau B, Proimos A, Wright S. Accounting measures of operating performance outcomes for australian mergers. *Journal of Applied Accounting*. 2008;9(3):168-180.
13. Kumar R. Post-merger corporate performance: An indian perspective. *Management Research News*. 2009;32(2): 145-157.
14. Majumdar et al. Quest for efficiency: Assessing the impact of mergers on performance in the u.s. telecommunications industry. *Working Paper Series*; 2007. Available:www.ssrn.com
15. Coccia M, Benati I. Comparative models of inquiry, A. Farazmand (Ed.), *Global Encyclopedia of Public Administration, Public Policy, and Governance*, Springer Nature; 2018. Available:https://doi.org/10.1007/978-3-319-31816-5_1199-1
16. Coccia M. An introduction to the methods of inquiry in social sciences, *J. Adm. Soc. Sci*. 2018;5(2):116-126. Available:http://dx.doi.org/10.1453/jsas.v5i 2.1651

© 2022 Ali et al.; This is an Open Access article distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/4.0>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Peer-review history:

The peer review history for this paper can be accessed here:
<https://www.sdiarticle5.com/review-history/91759>