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Impact of Mergers & Acquisitions on Surviving Firm's Financial Performance: A Study of Jet Airways Ltd

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Abstract

Mergers and Acquisitions are important corporate strategy actions that aid the firm in external growth and provide it competitive advantage. In today's globalized economy, mergers and acquisitions (M&A) are being increasingly used world over, for improving competitiveness of companies through gaining greater market share, broadening the portfolio to reduce business risk, for entering new markets and geographies, and capitalizing on economies of scale etc. This paper has focused on the performance of JET Airways after the consolidation of Airline sector in year 2007-08. The main objective of this paper is to analyze whether the JET Airways has achieved financial performance efficiency during the post merger & acquisition period specifically in the areas of profitability, leverage, liquidity, and capital market standards. Paired sample t-test has been employed to determine the significance differences in financial performance standards two year before and two year after the merger activity. In general, Airline Companies merger in India does not bring significance difference on the financial performance after the merger. The finding of this study shows that there is no improvement in surviving Company's return on equity, net profit margin, interest coverage, earning per share and dividend per share post-merger & acquisition.

Keywords:

Mergers and Acquisitions, Profitability, Leverage, Liquidity, Capital Markets

Introduction

Financial performance metrics provide a relative basis for comparing a company with itself over time or with a company versus competitors within its industry. Financial performance metrics also know no international boundaries and are useful in assessing company performance throughout the world. It has often been said that financial statements are the language of business. The value of this approach is that quantitative relations can be used to diagnose strengths and weaknesses in a firm's performance. Financial performance analysis must also include consideration of strategic and economic developments for the firm's long-run success. Financial managers as well as general senior managers are demanding evaluative standards by which they can rapidly measure the firm's performance and chart an appropriate course. These metrics should immediately provide actionable feedback to improve the operations of the firm. Management's intense interest in financial performance metrics has dramatically risen as more and more annual and long-term incentive compensation is tied to attaining acceptable levels of performance as measured by financial performance metrics.

Literature Review

Anup Agrawal Jeffrey F. Jaffe (1999), in their article **"The Post-merger Performance Puzzle",** examines the literature on long-run abnormal returns following mergers. The paper also examines explanations for any findings of underperformance following mergers. We conclude that the evidence does not support the conjecture that underperformance is specifically due to a slow adjustment to merger news. We convincingly reject the EPS myopia hypothesis, i.e. the hypothesis that the market initially overvalues acquirers if the acquisition increases EPS, ultimately leading to long-run under-performance.

Saple V. (2000) in his research thesis on **"Diversification, Mergers and their Effect on Firm Performance: A Study of the Indian Corporate Sector"**, finds that the target firms were better than industry averages while the acquiring firms had lower than industry average profitability. Overall, acquirers were high growth firms which had improved the performance over the years prior to the merger and had a higher liquidity.

Ramaswamy and Waegelein (2003) in their article, **"Firm Financial Performance Following Mergers,"** studied the post-merger financial performance of 162 merging firms that occurred during 1975-1990 in the US. They used industry adjusted operating cash flow returns on market value of assets as the measure of performance & used only firms that had not gone in for any merger during the study period as part of their control sample, since they felt that only that would make the data incorruptible and the results more robust. The study found a significant increase of 12.7 per cent in firm performance after the merger had taken place.

Jose Manuel Campa & Ignacio Hernando (2005), in their research paper **"M&A performance in the European Financial industry"**, they reports evidence on shareholders returns from mergers. Mergers announcements brought positive excess returns to the shareholders of the target company around the date of the announcement. Returns to shareholders of the acquiring firms were essentially zero around announcement. One year after the announcement, excess returns were not significantly different from zero for either targets or acquirers. The paper also provides evidence on changes in operating performance for the sub-sample of mergers involving banks.

Pramod Mantravadi & A Vidyadhar Reddy (2008), in their empirical study **"Post-Merger Performance of Acquiring Firms from Different Industries in India"**, aimed to study the impact of mergers on the operating performance of acquiring corporate in different industries,

by examining some pre- merger and post-merger financial ratios, with the sample of firms chosen as all mergers involving public limited and traded companies in India between 1991 and 2003. The results suggest that there are minor variations in terms of impact on operating performance following mergers, in different industries in India.

Dr. Salma Ahmed & Yasser Mahfooz (2009) in their case study paper, "**Consolidation in the Sky - A Case Study on the Quest for Supremacy between Jetlite and Kingfisher Airlines",** did an attempt to descriptively analyze the rationale for consolidation in the Indian airline industry. The paper also evaluates major changes in the business environment affecting the airline industry.

Dr. Neena Sinha, Dr. K.P.Kaushik & Ms. Timcy Chaudhary (2010) in their research article on **"Measuring Post Merger and Acquisition Performance: An Investigation of Select Financial Sector Organizations in India**", examines the impact of mergers and acquisitions on the financial efficiency of the selected financial institutions in India. The analysis consists of two stages. Firstly, by using the ratio analysis approach, we calculate the change in the position of the companies during the period 2000-2008. Secondly, we examine changes in the efficiency of the companies during the pre and post merger periods by using nonparametric Wilcoxon signed rank test. The result of the study indicate that M&A cases in India show a significant correlation between financial performance and the M&A deal, in the long run, and the acquiring firms were able to generate value.

N. M. Leepsa & Chandra Sekhar Mishra (2012) in their research paper on **"Post Merger Financial Performance: A Study with Reference to Select Manufacturing Companies in India",** intends to study the trend in merger and acquisition (M&A) particularly with reference to manufacturing companies. The present study is an attempt to find out the difference in post-merger performance compared with pre-merger in terms of profitability, liquidity and solvency. The statistical tools used are descriptive statistics, paired sample t-test

Limitations of The Past Studies & Research Dimension

The literature review survey highlights the following limitations of the various studied examined above and some of these issues are sought to be addressed in this paper.

- Number of merger cases analyzed by various studies is much less and have taken only mergers and leaving acquisitions. From the survey of Indian M&As literature, it is mainly found that apart from growth and expansion, efficiency gains and market power are the two important motives for M&As. Apart from measuring post merger profitability of the merged entity, there have been no reported works on these issues in the Indian context.
- It is noticed that none of the studies dealt comprehensively on the post M&A performance analysis.

With this back drop, here an attempt has been made to address some of the above issues on the Indian context which are as follows,

- The present paper has taken both M&As. Further, in order to carry out analysis of M&As in Indian Airline Industry with special reference to Jet Airways.
- By using financial and accounting data, an attempt has been made to investigate the impact of M&A on the performance of the select companies from Indian Airline Industry.

Objective

The main objective of this research paper is to ascertain the Impact of M&A on profitability improvements, leverage standards, liquidity position and capital market standards of the surviving company in Indian Airline industry with specific reference to Jet Airways Ltd.

Research Hypotheses

1. **H_0:** There is no significant positive influence of M&A on profitability improvements for the surviving company in Indian Airline industry with special reference to Jet Airways
2. **H_0:** There is no significant positive influence of M&A on leverage standards for the surviving company in Indian Airline industry with special reference to Jet Airways
3. **H_0:** There is no significant positive influence of M&A on liquidity position for the surviving company in Indian Airline industry with special reference to Jet Airways
4. **H_0:** There is no significant positive influence of M&A on capital market standards for the surviving company in Indian Airline industry with special reference to Jet Airways

Scope of The Study

The study has been carried on to analyze corporate restructuring practices in India with special reference to Airline Industry, Jet Airways in particular and to explore the impact of Merger & Acquisition on the financial performance of the surviving firm.

Research Methodology

In this paper researchers have tested impact of M&A on the financial performance of the surviving company by considering Pre and Post M&A financial ratios. For the present study relevant financial ratios are identified and categorized into four broad groups. Each group is further classified into various significant ratios for pre & post performance analysis and they are as follows:

Table 1 Profitability Standards

Ratio	Description	Standard
Gross Profit Margin (%)	(Sales – COGS) / Sales	High
Net Profit Margin (%)	(NPAT / Sales)	High
Return on Assets or ROI (%)	(NPAT/ Average Total Assets)	High
Return on Equity (%)	(NPAT – Preference Dividend / Average Shareholders Fund)	High
Return on Capital Employed (%)	EBIT / Avg. total Capital employed	High

Table 2 Financial Leverage Standards

Ratio	Description	Standard
Debt-to-Equity	(Total Debt / Equity Share Capital)	Low
Total Capitalization	(Total Debt / Total Capital)	Low

Table 3 Liquidity Standards

Ratio	Description	Standard
Current Ratio	(Current Assets / Current Liabilities)	High
Acid-Test Ratio	(Quick Assets / Current Liabilities)	High
Interest Coverage	(EBIT / Interest Charges)	High

Table 4 Capital Market Standards

Ratio	Description	Standard
Earnings Per Share	(PAT / No. of Equity Share)	High
Price/Earnings Ratio	(Avg. stock price / EPS)	High
Price-to-Book Ratio	(Avg. Stock Price / BV Per Share)	High
Market Capitalization	Avg. Stock Price x Outstanding shares issued	High

Sampling Technique

Convenience sampling has been employed to select the sample company for the study. Such a selection is undertaken as the unit represents the sample in a better way and reflects better relationship with the other variable.

Sample Selection

To perform the research study, Jet Airways has been selected from Indian Airline Industry. Further, two year data for both Pre and Post merger performance analysis has been carried out.

Data Collection

Data required for this study is collected from several sources like journals, investment web sites, and web sites of the BSE and NSE. Further, the data on performance evaluation parameters up to two years prior and two years after the M&A years for Jet Airways has been taken from annual reports & other related data sources.

Statistical Tools & Techniques

To analyze the data collected and to prove the hypotheses, various statistical tools and techniques have been applied in this study. Mean, Variance and standard deviation were used for descriptive statistics. The hypotheses are tested using Paired Sample t-test. The data has been analyzed with the help of SPSS and MS-Excel.

Data Analysis

Pre and post-merger performance ratios are computed for Jet Airways. The pre and post M&A performance ratios are compared to see if there is any statistically significant change in financial performance of surviving firm after M&A using paired sample t-test" at confidence level of 0.01 or 99%. Also Pearson Correlation coefficient test has been employed to assess the significance level.

Testing Of Hypothesis

To test the hypotheses, Pre and Post M&A financial performance standards of surviving firm is compared to see if there is any statistically significant changes in the financial performance after M&A, using "paired sample t-test" at confidence level of 0.01 or 99% (df =1, t-tab = 63.65 {2-tailed}) and also descriptive statistics analysis has been performed to ascertain the mean difference. The results are shown in the following tables related to the sample firms.

Analysis of Profitability Standards

Table No: 5 Paired Sample t-test for Profitability Ratios of Jet Airways

Ratios	Mean		Std. Deviation		Mean Difference	t-value	p-value (2-tailed)
	Pre	Post	Pre	Post			
GPM (%)	17.15	4.22	11.82	10.34	12.93	0.825	0.561
NPM (%)	4.11	-5.34	5.26	2.67	9.45	1.684	0.341
ROA / ROI (%)	124.40	14.45	168.86	34.41	109.95	0.765	0.584
ROE (%)	11.21	102.39	13.98	550.93	-91.18	-0.228	0.857
ROCE (%)	12.05	4.70	4.72	9.03	7.35	0.756	0.588

Source: JAL various AGM reports & money control.com database

Discussion

- The comparison of the pre and post-merger financial performance of JET indicates that there was a decline in the mean value of all select performance standards but it is observed that the declines were not statistically significant because the calculated t-values are less than the df table value & p values are greater than set confidence level value.
- Profitability ratios reflect the JET's luxury air travel service deliver model at a high cost to both firm as well as the passengers. All profitability ratios have declined post-merger, demonstrating negative impact of higher operating overheads, rising financial charges and lower yield per passenger.
- Post-acquisition mean value of GPM has declined indicating management's inability to control the COGS and unfavorable purchasing policies. Major contributing factor for declining gross profit is attributed to soaring ATF prices, increased employee cost and commencement of low cost flights on non-strategic routes.
- During past five years Indian airline industry had witnessed major downturn on account of global economic crisis, lower passenger count, rising fuel prices, fluctuations in foreign exchange rate, all these external environmental factors along with internal environmental factors like non-strategic management decisions, higher overheads & financial charges influenced NPM negatively & resulted in losses. Post-merger period JET had reported lowest losses compared to rest of the domestic airline operators.
- Post-acquisition mean value of ROA/ROI indicates erosion in shareholders' funds by non-strategic management policies and intense competition in airline industry. JET did not utilize its assets to the best extent to generate higher sales revenue in spite of increased fleet size.
- Post-acquisition mean value of ROE has increased tenfold which reflects greater reserves accumulation. Improved performance attributed to higher depreciation benefits accrued from acquisition of Sahara Airways capital assets and transferred to reserves head to safeguarded shareholders' value in order gain the confidence.

- The analysis reveals the negative relationship between profits actually earned and capital actually employed. ROCE had shown declining trends over the years due to non-strategic investment decisions. Management team has able to provide minimum return on capital employed on account of sound financial decisions. Though leading financial institutions downgraded JET's creditworthiness on the basis of rising debt component in capital structure over the years assuming the possibility of financial risks.

Based on the results of the **paired sample t-test analysis at 99%** confidence level, the Hypothesis 1**H_0: "There is no significant positive influence of M&A on profitability improvements for the surviving company in Indian Airline industry with special reference to Jet Airways"** was **not rejected**, since paired sample t-test failed to reveal a statistically reliable difference between the pre & post M&A **mean values, SD, t-cal value < t-tab value** and **p-value > α = 0.01** for all the select profitability standards in sample company under study.

Analysis of Financial Leverage Standards

Table No: 6 Paired Sample t-test for Financial Leverage Ratios of Jet Airways

Ratios	Mean		Std. Deviation		Mean	t-value	p-value
	Pre	Post	Pre	Post	Difference		(2-tailed)
Debt-to-Equity	63.43	181.44	9.50	20.40	-118.01	-5.581	0.113
Total Capitalization	.70	.89	.04	.01	-0.18	-8.581	0.074

Source: JAL various AGM reports & money control.com database

Discussion

- Post-merger D/E ratio has increased indicating the higher leverage policy employed by JET instead of infusing more equity funds in its capital structure. JET accessed capital markets for fund raising purpose from public at large. The raised equity capital is devoted for long-term investment purposes and acquisition of capital assets. Thus, in order to fulfill working capital needs, JET had borrowed loan from leading Indian banks & financial institutions on short-term basis. Over the years the debt amount had increased on account of inefficient borrowing policies and at the same time low operating profitability contributed limited funds to service the debt and amortization of the debt. The analysis indicates that the claims of lenders are more than the equity shareholders' and their interests are not safe & they have to bear the probable future losses.

- Over the years total capitalization had shown increasing trend on account of more debt addition to the capital structure. The proportion of debt is high compared to equity funds reflecting use of over leveraging to fund the business operations. Post-acquisition JET had incurred losses & unable to create enough reserves for future investment purposes. To fulfill operating activities and strategic plans JET had dependent on debt financing as well as reserve funds created over the years.

Based on the results of the **paired sample t-test analysis at 99%** confidence level, the Null Hypothesis **2H_0: "There is no significant positive influence of M&A on leverage standards for the surviving company in Indian Airline industry with special reference to Jet Airways"** was **not rejected**, since paired sample t-test failed to reveal a statistically reliable difference between the pre & post M&A **mean values, SD, t-cal value < t-tab value** and **p-value > α = 0.01** for all the select leverage standards in sample company under study.

Analysis of Liquidity Standards

Table No: 7 Paired Sample t-test for Financial Synergy of Jet Airways

Ratios	Mean		Std. Deviation		Mean	t-value	p-value
	Pre	Post	Pre	Post	Difference		(2-tailed)
Current Ratio	2.2600	0.9500	.93338	.12728	1.310	1.747	0.331
Acid-Test Ratio	1.54	0.60	.93	.03	0.94	1.382	0.399
Interest Coverage	2.600	-0.650	1.97	1.53	3.250	10.484	0.061
Market Value	7890.22	3881.79	2881.79	1134.64	4008.43	3.245	.190

Source: JAL various AGM reports & money control.com database

Discussion

- Post-merger current ratio decreased indicating scarcity of resources to pay its debts over the short-term period and difficulty meeting current obligations. Over the year's relative increase in current liabilities is greater than the addition in current assets on account of rising financial charges, creditors payments etc.
- A falling acid-test ratio indicates worsening liquidity positions of JET and failure to meet immediate current liabilities. It is also observed that acid-test ratio is much lesser than the current ratio suggesting current assets are highly dependent on inventory & sundry debtors.
- Over the years interest coverage had shown declining trend and JET's inability to honor its debt payments due to negative operating profit margin reported over past three years. Post-merger the interest coverage had lowered below industry standards indicating possibility of default to creditors.
- Post-acquisition market value had deteriorated by 51% and JET eroded investor's wealth year-on-year basis. Investors' have lost their confidence in JET's future earning quality and market analyst have given sell signal in order to recover the investment amount as early as possible so as protect against the further loses. JET had reported highest decline in market valuation by airline operator in the Indian airline industry.

Based on the results of the **paired sample t-test analysis at 99%** confidence level, the Null Hypothesis **3H$_0$: "There is no significant positive influence of M&A on liquidity position for the surviving company in Indian Airline industry with special reference to Jet Airways"** was **not rejected**, since paired sample t-test failed to reveal a statistically reliable difference between the pre & post M&A **mean values, SD, t-cal value < t-tab value** and **p-value > α = 0.01** for all the select liquidity standards in sample companies under study.

Analysis of Capital Market Standards

Table No: 8 Paired Sample t-test for Capital Market Ratios of Jet Airways

Ratios	Mean		Std. Deviation		Mean Difference	t-value	p-value (2-tailed)
	Pre	Post	Pre	Post			
EPS	27.80	-80.02	34.74	44.33	107.81	1.928	.305
P/E Ratio	115.92	-6.10	132.88	1.74	122.02	1.282	.422
P/B Ratio	3.47	1.14	1.20	.33	2.33	3.780	.165

Source: JAL various AGM reports & money control.com database

Discussion

- Post-acquisition EPS had indicated a negative trend due to continual losses incurred by the JET post-acquisition. Management team failed to provide bare minimum profit to equity holders. Unfortunately, JET's equity shareholders' have lost their funds. Decline in EPS is attributed to higher operating expenses, increasing interest payments, proportionate decrease in sales revenue on account of low cost carrier demand and intense competition.
- Post-acquisition P/E ratio had indicated a negative trend reflecting lower price paid by the investors for reported low EPS. Investors' expectations and market appraisal has been violated by JET on account of deteriorating profitability. During past three years JET did not reported any dividend payments which further worsened investors' confidence.
- Post acquisition P/B ratio had declined but it did not support the concept of Fama and French, low P/B ratio results in higher equity returns. This contradictory outcome is attributed to decline in market price of equity share due to deteriorated investors' confidence in JET's future performance & quality of earnings.

Based on the results of the **paired sample t-test analysis at 99%** confidence level, the Null Hypothesis **4H$_0$: "There is no significant positive influence of M&A on capital market standards for the surviving company in Indian Airline industry with special reference to Jet Airways"** was **not rejected**, since paired sample t-test failed to reveal a statistically reliable difference between the pre & post M&A **mean values, SD, t-cal value < t-tab value** and **p-value > α = 0.01** for all the select capital market standards in sample company under study.

Conclusion

The result shows that there is insignificant improvement in return on equity, expenses to income, earning per share and dividend per share post-merger. The result from paired sample t-test at significant level of 99% illustrated that there is no significance difference in the defined financial performance standards between pre-merger and post-merger due to the significance value is greater than 0.01. Hence, this study has not rejected the null hypotheses which consider that there are no significant positive influence on surviving firm's financial performance after merger and acquisition and rejected the alternative hypothesis which considers that there is significance positive influence on surviving firm's financial performance post-merger and acquisition activity for the sample unit under consideration.

Limitations of The Study

1. The study shall focus only on select Industry & company

merger & acquisition in Indian context for a period of five years [2005-10] & did not consider other merger & acquisition took place during the period due to the inadequacy of time and resources

2. The study has analyzed Pre and Post merger & acquisition performance results for only two years, which may not provide the true picture of improvements in financial performance.
3. The study has ignored the impact of possible differences in the accounting methods adopted by company under study.
4. The study has also not used any control groups for comparison (industry average or firms with similar characteristics).
5. The small sample size of merger & acquisition in Airline Industry, which might bring in the question of statistical validity of the results

Bibliography

Research Articles

Anup Agrawal Jeffrey F. Jaffe (1999), "The Post-merger Performance Puzzle", Journal of Corporate Finance, USA

Saple (2000), "Diversification, Mergers and their Effect on Firm Performance: A Study of the Indian Corporate Sector", Unpublished Ph.D. thesis submitted to IGIDR, Mumbai

Ramaswamy, K P and Waegelein, J F (2003), "Firm Financial Performance Following Mergers," Review of Quantitative Finance and Accounting

Pramod Mantravadi & A Vidyadhar Reddy (2008) "Post-Merger Performance of Acquiring Firms from Different Industries in India**",** International Research Journal of

Finance and Economics, ISSN 1450-2887

Dr. Salma Ahmed & Yasser Mahfooz (2009), "Consolidation in the Sky - A Case Study on the Quest for Supremacy between Jetlite and Kingfisher Airlines" Working paper series Aligarh Muslim University

Dr. Neena Sinha, Dr. K.P.Kaushik & Ms. Timcy Chaudhary, (2010), "Measuring Post Merger and Acquisition Performance: An Investigation of Select Financial Sector Organizations in India", International Journal of Economics and Finance Vol. 2, No. 4; November 2010

N. M. Leepsa & Chandra Sekhar Mishra, (2012), "Post Merger Financial Performance: A Study with Reference to Select Manufacturing Companies in India", International Research Journal of Finance and Economics ISSN 1450-2887

Text Books

Sudi Sudarsanam – Value creation from M&A, Pearson Education 1/e 2003

Ravindhar Vadapalli – M&A and business valuation, Excel Books 1/e 2007

Van Horne – Financial Management 12/e, Pearson /PHI

Arzak - Valuation for M&A, Buyouts & Restructuring, Wiley Publications

John Michelson - Restructurings for Growth , TMH

Gerard Picot – Handbook of International M&A, Palgrave Publishers Ltd

Fred Weston, Kwang S C, Susan E H – Mergers, Restructuring & Corporate Control, Pearson education 4/e

M.Y. Khan & P. K. Jain - Financial Management, TMH, 4/e, 2004

Research Journals & Magazines:

Indian Journal of Finance

India Management

ICFAI Journal for Financial Management

Business & Economics

Frontline

Business Standard

International Research Journal of Finance and Economics

Journal of Financial And Strategic Decisions

Websites:

www.flykingfisher.com

www.jetairways.com

www.airindia.com

www.bse-india.com

www.nse-india.com

www.moneycontrol.com

www.icicidirect.com

www.ssrn.in

www.acexc.com

www.indexmundi.com