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STUDY OF MERGERS & ACQUISITIONS IN INDIAN AIRLINE INDUSTRY: A CASE 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

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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.

REVIEW OF LITERATURE

Anup Agrawal Jeffrey F. Jaffe (1999)1, 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)2 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)3 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)4, 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)5,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)6 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)7 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)8 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

OBJECTIVE Of THE STUDY

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

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

SOURCE OF DATA:

Data required for this study is collected from secondary sources like publised Article,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.

SAMPLE SIZE

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**.**

PERIOD OF STUDY: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.

METHODS OF ANALYSIS:

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.

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.

i)PROFITABILITY RATIO:

Profitability: The measure of profitability shows the level of performance of the entity that how efficiently the company is using its assets and resources to earn revenue and to what extent it has been able to maximize shareholders' value and wealth. For this purpose we have used Return on Capital Employed (ROCE) and Return on Net Worth (RONW) as standards of measure.

(a) Return on Net Worth: The amount of net income returned as a percentage of shareholders equity. Return on equity measures a corporation's profitability by revealing how much profit a company generates with the money shareholders have invested.

ROE is expressed as a percentage and calculated as:

Return on Equity = Net Income/Shareholder's Equity

Net income is for the full fiscal year (before dividends paid to common stock holders but after dividends to preferred stock). Shareholder's equity does not include preferred shares.

b) Return on Capital Employed (ROCE): It is a financial ratio that measures a company's profitability and the efficiency with which its capital is employed. Return on Capital Employed (ROCE) is calculated as:

ROCE = Earnings Before Interest and Tax (EBIT)

Capital Employed

"Capital Employed" as shown in the denominator is the sum of shareholders' equity and debt liabilities; it can be simplified as (Total Assets – Current Liabilities). Instead of using capital

employed at an arbitrary point in time, analysts and investors often calculate ROCE based on "Average Capital Employed," which takes the average of opening and closing capital employed for the time period.

A higher ROCE indicates more efficient use of capital. ROCE should be higher than the company's capital cost; otherwise it indicates that the company is not employing its capital effectively and is not generating shareholder value. For analysis we have used the following data.

C) Gross Profit: Gross profit measures the relationship of gross profit to net Sales and is usuallybrepresented as a percentage,Thus calculated by

$$\text{Gross Profit Ratio} = \frac{\text{Gross Profit}}{\text{Net sales}}$$

D)

$$\text{Net profit Ratio} = \frac{\text{Net profit after tax}}{\text{Net Sales}}$$

E)Return on assets:Return on Assets known asRoA is the relationship between net profit (after Tax) and Assets employed to earn that profit.this Ratio measures the profitabilty of the firm in relation to assets employed in the firm.

$$\text{Return on Assets} = \frac{\text{Net Profit After Tax}}{\text{Average Total profit}}$$

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.

RATIOS	MEAN		std.deviation		Mean difference	t value	
	PRE	POST	pre	post			
Gross profit Margin	17.15	4.22	11.82	10.34	12.93	0.825	
Net Profit Margin	4.11	-5.34	5.26	2.67	9.45	1.684	
ROA	124.40	14.45	168.86	34.41	109.95	0.765	
ROCE	12.05	4,70	4.72	9.03	7.35	0.756	
ROE	11.21	102.39	13.98	550.93	-91.18	-0.228	

PROFITABILITY ANALYSIS

INTERPRETATION

- 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·
- 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.

ata 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 The pre and post M&A performance ratios are compared to see if ther 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.

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 1H: "There is no significant 0 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 for all the select profitability standards in sample company under study.

(ii) Liquidity: It is the degree to which an asset or security can be bought or sold in the market without affecting the asset's price. Liquidity is characterized by a high level of trading activity. Assets that can be easily bought or sold are known as liquid assets. It also explains the convertibility an asset to cash quickly. For the purpose of testing the liquidity position before and after the merger we have used the following ratios:

(a) Current Ratio: The current ratio is a popular financial ratio used to test a company's liquidity (also referred to as its current or working capital position) by deriving the proportion of current assets available to cover current liabilities. The concept behind this ratio is to ascertain whether a company's short-term assets (cash, cash equivalents, marketable securities, receivables and inventory) are readily available to pay off its short-term liabilities (notes payable, current portion of term debt, payables, accrued expenses and taxes). In theory, the higher the current ratio, the better is the liquidity position. But a high current ratio is not necessarily good, and a

low current ratio is not necessarily bad. Higher and excess liquidity position is not a good sign because it implies that the entity is unable to its resources in profitable investments.

$$Current\ Ratio = \frac{Current\ Asset}{Current\ Liabilities}$$

(b) Quick Ratio: An indicator of a company's short-term liquidity. The quick ratio measures a company's ability to meet its short-term obligations with its most liquid assets. For this reason, the ratio excludes inventories from current assets, and is calculated as follows:

$$Quick\ Ratio = \frac{(Current\ assets - inventories - Prepaid\ Expenses)}{Current\ Liabilities}$$

The quick ratio measures the rupee amount of liquid assets available for each rupee of current liabilities. Thus, a quick ratio of 1.5 means that a company has Rs.1.50 of liquid assets available to cover each Rs.1 of current liabilities. The higher the quick ratio, the better the company's liquidity position. Also known as the "acid-test ratio" or "quick assets ratio."

ANAYSIS OF LIQUIDITY RATOAND TESTING OF HYPOYHESIS

	Mean		Std.deviation		Mean Difference	t Value
	Pre	Post	pre	Post		
Current ratio	2,260	0.950	0.9333	0.1273	1.310	1.747
Quick ratio	1.54	0.60	0.93	0.03	0.94	1.382

INTERPRETATION

- 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.

- Based on the results of the paired sample t-test analysis at 99% confidence level, the Null Hypothesis H0: "There is no 0 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 > $\alpha = 0.01$ for all the select liquidity standards in sample companies under study.

iii)ANALYSIS OF CAPITAL MARKET STANDARD

i)Earning Per Share(EPS)

Earning per share is a small variation of return on equity capital and is calculated by dividing the net Profit after taxes and preference dividend by the total number of equity Share.The earning per share is good measures of profitabilit.

$$\text{Eps}=\frac{\text{Net profit after tax-preference Dividend}}{\text{No of Equity Share}}$$

ii)Price-Earning Ratio(P/E Ratio)

Price earning ratio is the ratio between market price per equity Share and earning per share.The ratio is calculated to make an estimate of appriciation in the value of a share of a company and is widely used by investor to decide whether or not to buy shares in a particular company.The ratio is calculated as

$$\text{Price earning Ratio}=\frac{\text{Market Price Per quity share}}{\text{Earning Per Share}}$$

ANALYSIS OF CAPITAL MARKET STANDARD AND TESTING OF HYPOYHESIS

Ratio	Mean		Std. Deviation		Mean Difference	t value
	Pre	Post	Pre	Post		
EPS	27.80	-80.02	34.74	44.33	107.81	1.928
P/E Ratio	115.92	-6.10	132.88	1.74	122.02	1.282

INTERPRETATION

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.Based on the results of the paired sample t-test analysis at 99% confidence level, the Null Hypothesis H0: "There is no 0significant 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 > $\alpha = 0.01$ for all the select capital market standards in sample company under study.

FINDINGS

- 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 1H: "There is no significant 0 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 for all the select profitability standards in sample company under study.

- 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. Based on the results of the paired sample t-test analysis at 99% confidence level, the Null Hypothesis H0: "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 accepted,
- During past three years JET did not reported any dividend payments which further worsened investors' confidence.Based on the results of the paired sample t-test analysis at 99% confidence level, the Null Hypothesis H0: "There is no 0significant 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 > $\alpha = 0.01$ 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.

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