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Impact of Mergers and Acquisitions on Financial Performance of Select Airline Companies in India

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ABSTRACT

Purpose: *Increase in competitive pressures fuelled by globalization, deregulation and privatization have forced many firms to adopt a variety of strategies including mergers & acquisitions. In 2007, the Indian aviation industry had witnessed three such consecutive mergers & acquisitions of airlines(notably merger of Indian Airlines with Air India, acquisition of Air Sahara by Jet Airways and merger of Kingfisher Airlines with Air Deccan). Global evidences on mergers and acquisitions show that there is a high rate of failures due to cultural indifferences and carry forward liabilities by the merging firm. In this study, an attempt has been made to analyze the financial performance of the three merged airline companies.*

Design/methodology/approach: *The pre-and-post merger performance ratios are calculated and compared by using paired sample "t-test" to see if there is any statistically significant improvement in their performance during the post-merger period. Further, to analyse whether effects of mergers & acquisitions are similar or different, we applied two-way ANOVA technique.*

Findings: *The results found are mixed. While the authors have found a considerable improvement in the financial performance of Jet Airways and Air India, the performance of Kingfisher Airlines had deteriorated due to post-merger acute financial crisis caused by heavy debt resulted the company to close off its operation.*

Keywords: *Mergers & Acquisitions, Financial Performance, Liquidity, Profitability, Debt Coverage, Investment Valuation, and Managerial Efficiency.*

INTRODUCTION

In today's corporate culture, mergers & acquisitions (M&A) is corroborated as an official marriage between two or more willing firms to live life together as they wish. Business enterprises widely apply M&A as strategic corporate restructuring tool for achieving larger market share, faster growth, improving competitiveness, broadening portfolios to reduce business risk, entering new markets and capitalizing on economies of scale. The open sky policy of 1990's followed by series of economic reforms and deregulation of industry allowed entry of many private airlines including overseas players. The entry of many low cost carriers during 2000-2005 had led stiff competition not only amongst the airlines but also with Indian Railway's AC segment. Depressing forces such as soaring in price of aviation turbine fuel, rising labor costs, shortage of skilled labor, rapid fleet expansion and intense price competition had led major airlines including Air India, Indian Airlines, Jet Airways and Kingfisher Airlines suffered from huge losses since 2006. Resultantly, three consecutive M&A of airlines (notably merger of Indian Airlines with Air India, acquisition of Air Sahara by Jet Airways and merger of Kingfisher Airlines with Air Deccan) have happened in 2007. Given such a scenario, researchers may be curious to empirically test whether these M&A are successful. Alternatively, are there any significant improvements in the financial performance of these merged companies followed by M&A? The scope of this study has

been limited to financial performance assessment of the above three merged airlines during the post-merger period.

SURVEY OF LITERATURE

Aggarwal and Singh (2015) found that there is no significant benefit that has been achieved by Kingfisher after its merger with Air Deccan. There is no improvement in company's return on equity, interest coverage, earnings per share and dividend per share during post merger period. *Chattopadhyay (2015)* concluded that aviation as an industry is structurally unattractive due to various regulations and historically unattractive rate of return. *Daddikar and Shaikh (2014)* have analysed the post consolidation performance of Jet Airways and found no significant improvement in performance in the post merger period. *Pinto and Shinde (2012)* have concluded that. Indian aviation industry holds lot of promise owing to huge population, increased affordability and making the services accessible to the common man. *Bunnik (2012)* while analysing the effect of Air France-KLM merger found positive effects on short-term stock price while long-term stock price, return on equity and return on assets are not affected significantly. *Kanthe (2012)* observed that shortage of workers and professionals, safety concerns, declining returns, lack of accompanying capacity and infrastructure, stiff competition and rising fuel costs are negatively impacting the aviation industry. *Kumar (2009)* found no significant improvement in the post-merger profitability, assets turnover and solvency of the acquiring companies. *Ahmed and Mahfooz (2009)* attempted to analyze the rationale for consolidation in the Indian airline industry and evaluated major changes in the business environment affecting the industry. *Cartwright and Schoenberg (2006)* found that mergers & acquisitions do not always generate positive values and assure income growth of the acquirer; rather the chances of failure of such deals vary from 44 to 50 percent. *Ramaswamy and Waegelein (2003)* found positive effects in the performance of 162 merging firms that occurred during 1975-1990 in the US. *Saple (2000)* found that the profitability of target firms are always above industry averages while it is below industry averages for the acquiring firms. *Agrawal and Jaffe (1999)*concluded that the performance of acquiring firm is positive in the short-run as the market overvalues the acquirers due to increase in EPS but ultimately leading to long-run under-performance due to slow adjustment with partner firm. *Meschi (1997)* found that mergers are not always profitable but the value of stock holdings of the merged firm's decreases in the post-merger period. It may be the shareholders of the acquired company that gain substantial returns from the mergers.

Very few studies have examined M&A as an instrument of business expansion and consolidation for airlines industry. The authors under this study have attempted to make a comprehensive analysis of the medium term effects of M&A (2 months before and after the merger) by taking into account 16 micro parameters which affect the financial performance of a company. They have also analyzed the factors which govern such mergers and presented policy prescriptions for the industry to oversee before proceeding ahead for such M&A.

OBJECTIVES OF THE STUDY

- To analyze the financial performance of the three merged airline companies (Jet Airways, Kinfisher Airlines and Air India).
- To assess short term as well as medium term stock price effects on the merged companies.
- To evaluate whether the effects of mergers & acquisitions are similar or different on each merged company.

METHODOLOGY OF THE STUDY

To analyze the financial performance of sample companies, various pre-merger (2003-07) and post-merger (2008-2012) financial ratios have been calculated. This has been suggested by Heron and Lie (2002), Healy et al. (1992) and Slovin et al. (1991) [11, 10, 28]according to whom a frequently used method to analyse the operational performance of the merged or acquiring firm is to compare their financial ratios. Further to see the variations in stock price movements, stock price return/(s) has been calculated. Singal (1996), Rosen (2006), Lang et al. (1989), Abhyankar (2005), Agrawal (1992) and Rau and Vermaelen (1998) [27, 25, 15,1,3, 23]advocated that a widely used method to assess the success of a merger is to analyze the firm's stock prices in the short term and long term and often compare it to an industry and economic benchmark.

The authors have also carried out an event study taking M&A as an event and have analyzed its impact on short term (2 days before and 2 days

after the merger announcement) and medium term (2 months before and 2 months after the merger announcement) stock prices of the merged companies. To study whether M&A has similar or different effects on the merged companies, two-way ANOVA techniques have been applied airline-wise, merger-wise and, airline and merger-wise.

The *data required for the period* (2003-2012) has been collected from secondary sources e.g. Prowess, Money control, Yahoo finance, respective Company's websites including their Annual Reports, other investment web-sites such as BSE and NSE.

As a sampling technique, convenience sampling has been employed to select three sample companies (Jet Airways, Kingfisher Airlines and Air India) for the study as these were three official corporate marriages happened in the same year, 2007 and more of a representative sample of the airlines industry in India as these three companies captured around 90% of the then domestic market share.The key *statistical tools and techniques* used in the study are descriptive statistics such as Mean, Variance and Standard Deviation. The hypotheses are tested 'company-wise' by using Paired Sample t-test (at 95% significance level) to see whether there is any statistically significant improvement in the performance of each of the three companies. Further, to reach to a generalised conclusion whether M&A does have any bearing on the performance of the merged company, we have applied two-way ANOVA technique with return on net worth as dependent variable during pre-and-post merger periods for all the three airlines. The data has been analyzed with the help of SPSS and MS-Excel.

HYPOTHESIS

H_{01}: There is no significant difference in the pre-merger and post-merger financial performance of Jet Airways.

H_{02}: There is no significant difference in the pre-merger and post-merger financial performance of Kingfisher Airlines.

H_{03}: There is no significant difference in the pre-merger and post-merger financial performance of Air India.

H_{04}: There is no significant difference in return on stock prices after the merger announcement.

H_{05}: There is no significant difference in the mean return on net worth, airline-wise.

H_{06}: There is no significant difference in the mean return on net worth, merger-wise.

H_{07}: There is no significant difference in the mean return on net worth, both airline-wise as well as merger-wise.

ANALYSIS AND DISCUSSION

In this section, firstly a brief description of the three companies under the study has been presented along with company-wise financial performance analysis. This has been followed by event study analysis of stock market data for the available companies. In the end, ANOVA analysis has been carried out for the selected companies from aviation industry.

Analysis of Financial Performance of Jet Airways

Jet Airways is one of the major private airlines in India and the second largest both in terms of market share and passengers carried, after IndiGo. In January 2006, Jet Airways made first attempt to takeover Air Sahara at an estimated value of US$500 million. However due to lack of price fixation, the deal did not take through. In April, 2007, Jet Airways made a second attempt to buy out Air Sahara at an estimated value of US$ 340 million (Rs. 14.5 billion) and the deal was finalized.

The merged company was renamed as Jet Lite. The key motive of merger were driven by factors that it would give Jet Airways access to Air Sahara's infrastructure and logistics, parking slots, pilots stockpile and complementary opportunities in making its presence in those domestic and international arena where they have no access.

Table1. *Financial Performance of Jet Airways*

		Paired Differences			t	p value (2tailed)
		Mean	Std. Deviation	Std. Error Mean		
Liquidity and Solvency	CR*	1.01	0.25	0.11	8.98	0.001
	DER	-3.73	11.94	5.34	-0.69	0.52
	QR	0.48	0.60	0.26	1.79	0.14
Debt Coverage	FCCR	1.17	0.66	0.29	3.95	0.01
	IC	19.79	24.74	11.06	1.78	0.14

Profitability	GPM	19.48	9.97	4.45	4.37	0.01
	NPM	6.49	7.05	3.15	2.08	0.10
	OPM	14.59	7.47	3.34	4.36	0.01
	RoNW	19.78	358.00	160.10	0.12	0.90
	RoCE	10.67	7.86	3.51	3.03	0.03
Investment Valuation	EPS	72.37	56.13	25.10	2.88	0.04
	OPPS	124.90	39.44	17.64	7.08	0.002
Managerial Efficiency	ITR	-1.65	4.88	2.18	-0.75	0.49
	DTR	3.09	1.81	0.81	3.8	0.01
	Invt.TR	2.29	3.23	1.44	1.58	0.18
	WCD	88.37	67.63	30.24	2.92	0.04

** Current Ratio (CR), Quick Ratio (QR), Debt-Equity Ratio (DER); Financial Charges Coverage Ratio (FCCR), Interest Coverage (IC); Gross Profit Margin (GPM), Net Profit Margin (NPM), Operating Profit Margin (OPM), Return on Net Worth (RoNW), Return on Capital Employed (RoCE); Earning Per Share (EPS), Operating Profit Per Share (OPPS); Inventory Turnover Ratio (ITR), Debtor Turnover Ratio (DTR), Investment Turnover Ratio (Invt.TR), Working Capital Days (WCD).*

The findings of paired sample t-test for Jet Airways (Table-1) show a mix merger response on financial performance of Jet Airways. We found an observable improvement with respect to few financial parameters such as Quick Ratio (QR), Debt Equity Ratio (DER), Interest Coverage (IC), Net Profit Margin (NPM), Return on Net Worth (RoNW), Inventory Turnover Ratio (ITR), Investment Turnover Ratio (Invt.TR) as calculated p-value is less than critical significance value of 0.05. However there appears to be no statistically significant difference w.r.t. other parameters such as Current Ratio (CR), Gross Profit Margin (GPM), Operating Profit Margin (OPM), Return on Capital Employed (RoCE), Financial Charges Coverage Ratio (FCCR), Earning Per Share (EPS), Operating Profit Per Share (OPPS), Debtor Turnover Ratio (DTR) and Working Capital Days (WCD) as calculated p-value is greater than standard significance value. *Hence, Null hypothesis 1 that there is no significant difference in the pre-merger and post-merger financial performance of Jet Airways is partially rejected.*

Table2. *Financial Performance of Kingfisher Airlines*

		Paired Differences			t	p value (2-tailed)
		Mean	Std. Deviation	Std. Error Mean		
Liquidity and Solvency	CR	0.5	0.59	0.26	1.88	0.13
	DER	2.14	8.28	3.70	0.57	0.59
	QR	0.81	0.50	0.22	3.63	0.02
Debt Coverage	CCR	1.08	1.49	0.66	1.62	0.18
	IC	-0.47	7.67	3.43	-0.13	0.89
Profitability	GPM	13.48	22.04	9.85	1.36	0.24
	NPM	15.93	15.36	6.86	2.32	0.08
	OPM	11.40	23.46	10.49	1.08	0.33
	RoNW	-88.01	124.61	55.72	-1.57	0.18
	RoCE	14.52	37.32	16.69	0.87	0.43
Investment valuation	EPS	16.17	27.50	12.30	1.31	0.25
	OPPS	28.02	43.07	19.26	1.45	0.21
Managerial Efficiency	ITR	-2.91	2709.31	1211.64	-2.40	0.07
	DTR	25.77	58.60	26.20	0.98	0.38
	Invt.TR	-2.91	2709.91	1211.91	-2.40	0.07
	WCD	97.72	125.20	55.99	1.74	0.15

Analysis of Financial Performance of Kingfisher Airlines

While Air Deccan was started as the first Low Cost Carrier (LCC) in 2005, Kingfisher came into operation in 2007.Air Deccan merged with Kingfisher Airlines and a new company called Kingfisher Red was formed in 2008. The key motive behind the merger was that Air Deccan being the older of the two airlines would give Kingfisher access to international routes, which is otherwise not possible for Kingfisher due to five years mandatory domestic operational regulatory rules. However, acute financial crisis caused by heavy debt, stiff competition,

aggressive pricing of tickets etc. have compelled the company to close off its operation.

The t-test findings for Kingfisher Airline (Table-2) shows that there is no statistically significant pre and post merger difference with respect to fifteen identified variables, except one (Quick Ratio) asp-value is greater than standard significant value 0.05.The significant Quick Ratio implies that there is an observable improvement in the company's ability to pay off the short-term debt and/or current liabilities. This may be due to the fact that the merged company Air Deccan did not have very high debt exposure and it had a reasonable market share by the time of merger, therefore, high liquid assets including cash, securities, receivables etc. As fifteen variables out of sixteen are insignificant, the *Null hypothesis 2 that there is no significant difference in the pre-merger and post-merger financial performance of Kingfisher Airlines cannot be rejected.* This means that post merger synergy did not work for the merged company Kingfisher Red as it was unable to en-cash the benefit of synergy and Air Deccan being a low cost carrier, was not able to recover the operational expenses. The resultant acute financial crisis caused by heavy debt, stiff competition from counterpart airlines, lay off staff causing bad image, high pricing of tickets, diverged from its target etc. forced the company to close off its operation.

Analysis of Financial Performance of Air India

It was set up in 1932 as the Aviation Department of Tata Sons, christened as Tata Airlines in 1938 and Air India in 1946, before its acquisition by Government of India in 1953. The airline's current avatar is result of the merger of state-run carrier Indian Airlines with Air India in 2007. Stiff competition, precarious operational performance, massive aircraft purchases and ill-conceived merger pushed the merged airline into financial ill-health. Many analysts opined that government had mismanaged the airline for yesteryears, more particularly the purchase of 111 aircrafts from Boeing and Airbus in 2005 at a target price of $15 billion that had largely built-up the debt. The precarious financial situation forced the Government to announce a bailout package in April 2012, entailing an equity infusion of more than Rs 30,000 crore over nine year period upto 2021.

Table3. *Financial Performance of Air India*

		Paired Differences			t	p value (2-tailed)
		Mean	Std. Deviation	Std. Error Mean		
Liquidity and Solvency	CR	0.26	0.08	0.03	6.75	0.002
	DER	-23.11	66.83	29.89	-0.77	0.48
	QR	0.21	0.07	0.03	6.35	0.003
Debt Coverage	FCCR	-10.82	4.91	2.19	-4.92	0.008
Profitability	GPM	98.29	57.58	25.75	3.81	0.01
	NPM	0.40	0.09	0.04	10.08	0.001
	OPM	6.86	27.62	12.35	0.55	0.60
	RoNW	-14.91	228.64	102.25	-0.14	0.89
	RoCE	17.91	7.87	3.52	5.09	0.007
Investment Valuation	EPS	127.21	183.86	82.22	1.54	0.19
	OPPS	8.00	5.98	2.67	2.99	0.04
Managerial Efficiency	ITR	12.39	4.04	1.80	6.85	0.002
	DTR	2.01	1.89	0.84	2.37	0.07
	Invt.TR	2.74	2.94	1.316	2.08	0.10
	WCD	381.61	155.36	69.48	5.49	0.005

The findings of paired sample t-test for Air India (Table-3) indicates a mix merger response on financial performance of the company as there appears to be statistically significant difference and observable improvement with respect to some parameters (e.g., CR, QR, FCCR, GPM, NPM, RoCE, OPPS, ITR, WCD), while other parameters (e.g., DER, OPM, RoNW, EPS, DTR, and Invt.TR) are insignificant. Hence, *Null hypothesis 3 that there is no significant difference in the pre-merger and post-merger financial performance of Air India is partially rejected.* This means that Air India partially synergized with the merger and carried net benefits that its sibling Indian Airlines had enjoyed.

Further subsequent implementation of some strategic measures by the Airline including

falling staff cost, restructuring or withdrawing loss-making flights, selling or leasing out underused assets such as land and buildings, and stopping excessive allowances to pilots and crew members, increase in passenger load factor and cargo revenue etc. have impacted the overall performance of the company.

Analysis of Stock Price Effect of Merger

Through an event analysis, we have tried to analyze the effect of merger on stock prices in the short term (2 days before and after the merger announcement) as well as in the medium term (2 months before and after the merger announcement). The date of announcement is considered in the post merger period as quick reactions are found followed by such news. The short-term as well as medium-term findings of paired sample t-test for Jet Airways (Table-4 and Table-5) shows that there is no statistically significant difference in return on stock prices in both pre and post merger period as the calculated p value is greater than critical significance value of 0.05. Hence, *Null hypothesis 4 that there is no significant difference in return on stock prices after the merger announcement cannot be rejected.*For Kingfisher Airlines, observable post-merger difference in return on stock prices is found in the short run (Table-6). Hence, *we may partially reject Null hypothesis 4 that there is no significant short term difference in return on stock prices after the merger announcement.* However, in the medium term, there is no statistically significant pre and post merger difference in return on stock prices as calculated p value is greater than 0.05 (Table-7). Hence, *Null hypothesis 4 cannot be rejected in the medium term.*

Table4. *Short-term stock price effect of Jet Airways (2 days before and 2 days after the merger announcement)*

Paired samples t-test						
		Paired Differences			t	p value (2-tailed)
		Mean	Std. Deviation	Std. Error Mean		
Pair 1	pre merger announcement - stock price return	-2.76	4.54	3.21	-0.86	0.54
Pair 2	post merger announcement - stock price return	-0.27	3.42	2.42	-0.11	0.92

Table5. *Medium-term stock price effect of Jet Airways (2 months before and 2 months after the merger announcement)*

Paired samples t-test						
		Paired Differences			t	p value (2-tailed)
		Mean	Std. Deviation	Std. Error Mean		
Pair 1	pre merger announcement - stock price return	1.20	23.65	16.73	0.71	0.60
Pair 2	post merger announcement - stock price return	-7.31	3.79	2.68	-2.72	0.22

Table6. *Short-term stock price effect of Kingfisher airlines (2 days before and 2 days after the merger announcement)*

Paired samples t-test						
		Paired Differences			t	p value (2-tailed)
		Mean	Std. Deviation	Std. Error Mean		
Pair 1	pre merger announcement - stock price return	-3.03	8.88	6.28	-0.48	0.71
Pair 2	post merger announcement - stock price return	8.91	0.42	0.3	29.70	0.02

Table7. *Medium-term stock price effect of Kingfisher Airlines (2 months before and 2 months after the merger announcement)*

Paired samples t-test						
		Paired Differences			t	p value (2-tailed)
		Mean	Std. Deviation	Std. Error Mean		
Pair 1	pre merger announcement - stock price return	-1.97	23.27	16.45	-1.19	0.44

Pair 2	post merger announcement - stock price return	2.55	50.56	35.75	0.71	0.60

Table8. *Levene's Test of Equality of Error Variances*

F	df1	df2	Sig.
3.18	5	24	0.024

Table9. *Tests of between-subjects effects*

Dependent Variable: Return on Net worth						
Source	**Type III Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**	**Partial Eta Squared**
Corrected Model	689563.443[a]	5	137912.689	2.160	0.093	0.310
Intercept	159305.479	1	159305.479	2.495	0.127	0.094
Airline-wise	367091.399	2	183545.700	2.875	**0.076**	0.193
Merger-wise	65058.290	1	65058.290	1.019	**0.323**	0.041
Airline-wise and Merger-wise	257413.754	2	128706.877	2.016	**0.155**	0.144
Error	1532279.697	24	63844.987			
Total	2381148.620	30				
Corrected Total	2221843.141	29				

Table10. *Airlines-wise mean return on net worth (pair-wise comparisons)*

(I) Name of Airlines	(J) Name of Airlines	Mean Difference (I-J)	Std. Error	Sig.[a]
Jet Airways	Kingfisher Airlines	65.31	113	1.00
	Air India	260.39	113	0.09
Kingfisher Airlines	Jet Airways	-65.31	113	1.00
	Air India	195.08	113	0.29
Air India	Jet Airways	-260.39	113	0.09
	Kingfisher Airlines	-195.08	113	0.29

Based on estimated marginal means

Adjustment for multiple comparisons: Bonferroni.

Table11. *Univariate Tests*

	Sum of Squares	Mean Square	F	Sig.	Partial Eta Squared
Contrast	367091.39	183545.70	2.87	0.07	0.19
Error	1532279.69	63844.99			

(The F tests the effect of Name of Airlines. This test is based on the linearly independent pair-wise comparisons among the estimated marginal means).

Table12. *Merger-wise return on net worth (pair-wise comparisons)*

(I) Pre-Merger and Post Merger	(J) Pre-Merger and Post Merger	Mean Difference (I-J)	Std. Error	Sig.
Pre-Merger	Post-Merger	93.13	92.26	0.32
Post-Merger	Pre-Merger	-93.13	92.26	0.32

Based on estimated marginal means

a. Adjustment for multiple comparisons: Bonferroni.

Table13. *Univariate Tests*

	Sum of Squares	Mean Square	F	Sig.	Partial Eta Squared
Contrast	65058.29	65058.29	1.01	0.32	0.04
Error	1532279.69	63844.98			

(The F tests the effect of Pre-Merger and Post Merger. This test is based on the linearly independent pair-wise comparisons among the estimated marginal means).

Table14. *Post Hoc Homogeneous Test for Mean Return on Net Worth*

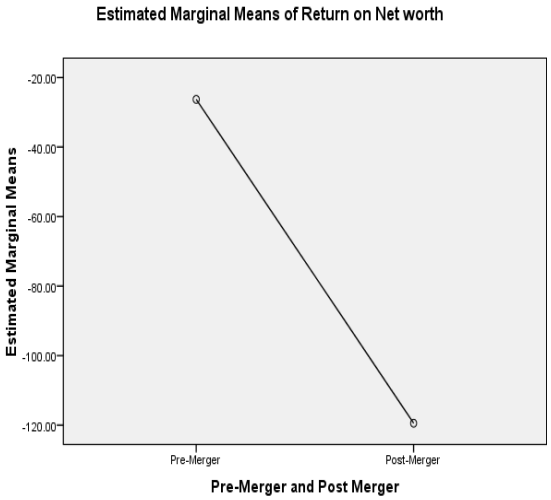
Ryan-Einot-Gabriel-Welsch Range		
		Subset
Name of Airlines	**N**	**1**
Air India	10	-2.24

Kingfisher Airlines	10	-29.61
Jet Airways	10	35.69
Sig.		.07

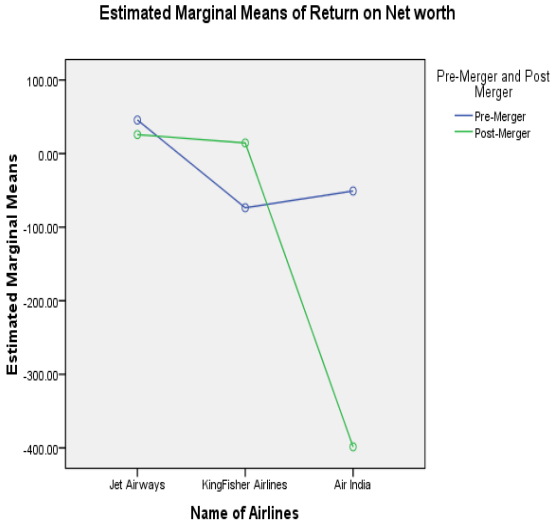
(Means for groups in homogeneous subsets are displayed. Based on observed means. The error term is Mean Square (Error) = 63844.987).

Analysis of Variance (ANOVA):

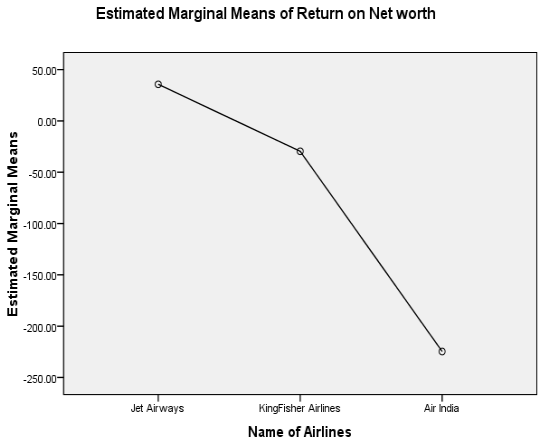
To understand the behaviour of return on net worth as dependent variable and to see whether there is any significant difference in the return on net worth, we have applied two-way ANOVA technique airline-wise, merger-wise and, airline and merger-wise. The Levene's Test of Equality of Error Variances (Table-8) tests the Null hypothesis that the error variance of the dependent variable is equal across groups since the calculated value is less than standard significant value 0.05.The findings of ANOVA result (Table-9) shows that the mean return on net worth is significantly different airline-wise, merger-wise as well as both airline and merger wise as the calculated value of each of the three categories is greater than critical value 0.05.The two-way comparison of airline to airline for all possible sub-sets (Table-10) indicates that the mean return on net worth is significantly different for each pair of airlines. This has also been supported by the contrast Univariate tests (Table-11). Hence, *Null hypothesis 5 that there is no significance difference in mean return on net worth airline-wise, cannot be rejected.* The pair-wise comparisons of pre-merger and post-merger ANOVA result (Table-12) shows that the mean return on net worth is significantly different merger-wise, as calculated value is greater than critical value 0.05. Hence, *Null hypothesis 6 that there is no significant difference in mean return on net worth merger-wise, cannot be rejected.*



Graph 2



Graph 3



Graph 1

The contrast Univariate test (Table-13) also suggests that the mean return on net worth is significantly different for both pre and post merger and hence the Null hypothesis cannot be rejected. The Post Hoc Homogeneity test (Table-14) suggests that the mean return on net worth of three airlines pre merger and post merger is significantly different as the calculated value is greater than critical value 0.05 and hence, *we cannot reject the Null hypothesis 7.*The graphical presentation (Graph-1 and Graph-2) shows that the mean return on net worth is significantly different both airlines-

wise and merger-wise. Graph-3 shows that pre and post merger mean return on net worth is significantly different for three airlines- Jet Airways, Kingfisher and Air India. While post merger mean return on net worth is greater than pre merger mean return on net worth for Kingfisher, it is completely opposite for Jet Airways and Air India. This means that there is an observable improvement in mean return on net worth post merger for Kingfisher Airlines, while the impact of mean return on net worth post merger is negative for Jet Airways and Air India.

Summary of Hypothesis Testing

Null Hypothesis	Status	Justification
Ho_1: there is no significant difference in the pre-merger and post-merger financial performance of Jet Airways.	Partially rejected	*Significant variables:* QR, DER, IC, NPM, RoNW, ITR and Invt.TR. *In-significant variables:* CR, FCCR, GPM, OPM, RoCE, EPS, OPPS, DTR and WCD.
Ho_2: there is no significant difference in the pre-merger and post-merger financial performance of Kingfisher Airlines.	Cannot be rejected	Fifteen variables out of sixteen are significant.
Ho_3: there is no significant difference in the pre-merger and post-merger financial performance of Air India.	Partially rejected	*Significant variables:* DER, OPM, RoNW, EPS, DTR, and Invt.TR. *In-significant variables:* CR, QR, FCCR, GPM, NPM, RoCE, OPPS, ITR, WCD.
Ho_4: there is no significant difference in return on stock prices after the merger announcement.	Jet Airways: Cannot be rejected Kingfisher Airlines: Partially rejected for short term and cannot be rejected in the medium term	Calculated p value for Jet Airways is greater than 0.05 at 95% significance level for both short-term as well as medium-term. While calculated p value for Kingfisher (short term) is greater than 0.05 for pre-merger, it is less than 0.05 for post merger. Calculated p value is greater than 0.05 for medium-term.
Ho_5: there is no significant difference in the mean return on net worth, airline-wise.	Cannot be rejected	The calculated value of pair-wise comparison of airlines and contrast Univariate tests is less than the critical significance value.
Ho_6:there is no significant difference in the mean return on net worth, merger-wise.	Cannot be rejected	The calculated value as per pair-wise comparison of mergers and contrast Univariate tests is greater than the critical significance value.
Ho_7: there is no significant difference in the mean return on net worth, both airline-wise as well as merger-wise.	Cannot be rejected	The calculated value as per Post Hoc Homogeneity test is greater than 0.05.

CONCLUSION

The strategy of M&A has been developed over the last 30 years and it has become a highly popular form of corporate strategy to create diversity and growth for an enterprise (Cartwright and Schoenberg, 2006; Nahavandi and Malekzadeh, 1988; and Pablo, 1994) [7, 19, 20]. The circumstances of every such deal are different and so as the magnitude of impacts as per the deal has been approached, managed and finally executed. Each deal is influenced by various extraneous factors such as company's leadership and the ability of the enterprise to adjust with new set of environment. The failure rate of M&A is very high as managers of the past acquiring firms report that 44% of their acquisitions are not living up to the original objectives and about 70% of them are reported as failure (Cartwright and Schoenberg, 2006; Pablo, 1994; Peng, 2006) [7, 20, 21]. The success of M&A depends upon how well the deal makers are able to integrate the two companies given its existing strengths and weaknesses. The key to success of a M&A lies in the ability of the acquirer firm to manage the integration of the target company into its existing organization in all respects from winning the hearts and minds of the employees and shareholders, resolving

outstanding issues quickly and to eliminate any cultural differences that might arise subsequent to the acquisition (Carleton and Lineberry, 2004) [6].The statistical findings of the three mergers & acquisitions present a very tricky and rosy picture of success and failure. While the post merger impact upon Jet Airways and Air India is a mixture of both positive and negative, the impact on Kingfisher is negative. This implies that while Jet Airways and Air India have managed to synergize the merger and able to integrate respective companies with dynamic leadership and determinism, Kingfisher had to close off its complete airlines business due to mounting debt and other operational issues.

Limitations And Directions For Future Research

The study is limited to only civil aviation sector and selected airlines companies in India. The accuracy of statistical findings is subject to the reliability of data used in the study. Due to time constraint, we have considered only the short term and medium term stock price effects of mergers and acquisitions. Subject to availability of data and convenience, long term stock price effect may be considered. The merger event could be applied by introducing control variables, such as other related factors which normally affect the performance of a company to get a clear picture on post merger performance. The post merger performance then could be compared with a standard industry and economy benchmark to generalize the conclusive findings.

Policy Implications For Industry

The operational and structural issues have a direct bearing on the success and/or failure of M&A.

The subsidy and other financial incentives being offered by the government to its national carrier distort the market. Empirical evidences show that the biggest airline market in the United States is almost entirely private-owned. Even the European Union did have the concept of 'national carriers' for a long time, before British Airways got privatized in 1987, Lufthansa in 1994 and Air France-KLM in 2004. Similarly, Swiss and Austrian Airlines were sold to Lufthansa in 2005 and 2009 respectively. It is, therefore, very important for an enterprise to do in-depth research before proceeding ahead for M&A, especially given the operational, structural and other inefficiencies of the aviation industry.

A carelessly carried out research many at times may cause destruction of acquirer's wealth. Even though M&A has been considered as an important corporate restructuring strategy throughout the globe, there is no concrete research evidence on whether M&A enhance efficiency or destroy wealth of successor firms.

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