AN ANALYSIS OF CHANGES IN LEVERAGE PRE AND POST ACQUISITION WITH SPECIAL REFERENCE TO TATA FINANCE AND TATA MOTORS

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Abstract: The concept of Merger and acquisition are common in today's world. The topic is selected to know the changes in leverage position in post-acquisition of the company. This study used descriptive statistics (mean, standard deviation, kurtosis and skewness) and T-test as the statistical tools and ratios as financial tools. The study consisting the period of 5 years from 2013 to 2017 and used secondary sources to determine the position of the company. The most of the ratios are positively increased in all the descriptive. There is a changes in leverage position of the company in post-acquisition.

Key words- Leverage, mergers and acquisitions, ratios, statistical tools, financial tools, T-test, ratios

1. INTRODUCTION:

A merger is a corporate strategy of combining different companies into a single company in order to enhance the financial and operational strength of both organizations**.** Merger and acquisition is a general term that's refers to the consolidation of companies or assets. M & A can include a number of different transactions, such as mergers, acquisitions, consolidation, tender offers, purchase of assets and management acquisition. In all cases, two companies are involved. Merger and acquisition are transaction in which the ownership of companies. Other business organization, for their operating units are transferred or combined.

2. BACKGROUND OF THE CASE:

Tata Motors limited, TELCO short for TATA Engineering and Locomotive head quatres in Mumbai in an Indian multi National Automotive. Manufacturing company and a member of the Tata group. Its products include passenger car, trucks, vans, coach, buses, sports car, construction equipments, and military vehicles.

Tata finance or Tata Motors finance Ltd. Operates as an assets financing company. The company provides financing of entire range of passenger car and commercial vehicle. Tata Motors Finance serve customer in India. Tata Motors Finance, the vehicle financing company owned by Tata motors, will transfer its new vehicles finance business to sheba properties, to its fully owned subsidiary. The transfer to sheba properties is done for an undisclosed lump sum consideration(arrived at based on an independent valuation xercise), said a statement released by Tata Motars to the Bombay stock exchange. In March Tata motors had divested its entire state in sheba properties to Tata motors Finance for Rs.405.37 crore.

"the key rationale for this scheme is to transfer a new vehicle finance business to sheba with a view to convert the company (Tata motors finance) into a systematically important crore investment company and consolidate the different vehicles financing and other allied operations in a more focused manner under the company and subsidiaries", Tata Motors said today. Tata Motors Finance is a systematic non-deposited taking non-banking financial company and classified as an assets financial company. The scheme of arrangement well come into effect after obtaining all applicable approvals including the sanction of the Bombay high court.

3. LITERATURE REVIEW

Michal lubatkim "academy of management review 8(2), 218, 225, and 1983". Do merger prevail equal benefit to acquiring firms. It not all empirical studied completed mostly in the field. Of finance conclude. Then why do firms continue to merge. **Rachel Calipha**, " advance in merger and acquisition 1-24,2010"

Merger and Acquisition have become an increasingly blood, based phenomena and their numbers are growing dramatically in few united states Europe and elsewhere throughout the globe. **Susan Cartwright**, international reviews of in decrial and organization psychology 2005, value 20.1-38, 2008. The literature they cited was drawn pre- dominates from US sources and rejected the filled at that issue, in this review the literature.

Guntee K Stan" advances in merger and acquisition 51-82, 2004". This paper provides a review of theoretical prospective and empirid research of the role of cultures in merger and acquisition. With a particulars, forces on the performance implication of cultural differences in merger and acquisition. **Gerald A Fethan**" centemparary accountings research 11(2), 689-731, 1995. Abstract, this paper models the between a firms, market value, and accounting data, concerning operating and financial activity. **Ibrigtarique**, " journal of world business 45(2), 122-133, 210 the environment for most today is global, complex, dynamic, highly competitive and extremely Voltaire and is likely to remain so for years to come.

Robert Dr. Young, And Douglas D Evnoff, journals of financials service research". Abstract this study analyses the empirical literature concerning the influence of various factors on shares holders wealth create in few mind a using multinative frame work. Mergers and acquisitions, human resources issues and outcomes. **MarcyMapier**" journals of management studies 26(3) 271-290,1989. Abstract the article has 3 aims, first it review recent research on corporate merger and acquisition and their impact of issues. **David R King**" statergical management journals 25(2) 187-200,2004" abstract empirical research not consistently identified antecedent for presiding post acquisition performance. **Bruce A Brogin**" attantic economics journals 33(4), 383-403, 2005" Abstract this proper servey the recent burgeoning litreture that empirically examine the foreign direct investment.

4. OBJECTIVE:

- To compare the changes in leverage position pre and post-acquisition.

5. RESEARCH METHODOLOGY:

5.1 Types of research

This study is considered by Descriptive research design because of the merger and acquisition is existing nature problems faced by companies and its descriptive in nature.

5.2 Sampling design:

Sample

Acquirer	Acquire	Type of activity	Deal value	Year	Strategic motives
Tata finance	Tata motors	Merger	405.37 crore.	April 1, 2005	systematically important core investment company and to consolidate the different vehicle financing and other allied operations in a more focussed manner under the company and its subsidiaries",Tata Motors said today.

5.3 sources of data:

Secondary data:

It means the data already collected and it is available in the websites, articles, magazines, newspaper, journals etc.

5.4 tools for the study:

1. Statistical tool:

a) Descriptive research:

It is describe what, who, when, where and how to answer the research questions. It is describe the company financial data and ratios followed by the company.

❖ **Mean:**

The "**mean**" is the "**average**" you're used to, where you add up all the numbers and then divide by the number of numbers.

❖ **Standard deviation**

The **standard deviation** is a statistic that measures the dispersion of a dataset relative to its mean and is calculated as the square root of the variance. ... If the data points are further from the mean, there is higher **deviation** within the data set; thus, the more spread out the data, the higher the **standard deviation**.

❖ **Skewnes**:

skewness is a measure of the asymmetry of the probability distribution of a real-valued random variable about its mean. The **skewness** value can be positive or negative, or undefined.

❖ **Kurtosis:**

Kurtosis is **defined** as the measure of thickness or heaviness of the given distribution for the random variable along its tail. In other words, it can be **defined** as the measure of "tailedness" of the distribution.

b) T- test:

A **t-test** is an analysis of two populations means through the use of statistical examination; a **t-test** with two samples is commonly used with small sample sizes, **testing** the difference between the samples when the variances of two normal distributions are not known.

2. Financial tools:

➢ **Ratios:** in this study to analyzing the ratio analysis using the companies consolidation balance sheet and ratio statement for acquirer company.

5.5 Hypotheses of the study:

There is no significance between leverage position in pre and post-acquisition.

6. ANALYSES AND INTERPRETATION

The following study ascertain the to analyses impact to merger and acquisition compare to pre and post - merger of the tata motors after merging the tata finance considered the period of 2013-2017. This journal use statistical tool and financial tool.

Table 6.1

Leverage ratios

Ratios	GPR	NPR	ROCE	ROA	RONW	ROANW	DER
2013	-0.24	0.67	0.67	59.91	1.57	3.75	0.75
2014	-8.69	0.97	2.52	59.58	1.74	4.56	0.76
2015	-10.58	-13.05	-5.61	46.18	-31.93	-29.21	1.35

2016	1.44	-0.14	-0.14	68.51	-0.26	1.58	0.46
2017	-3.88	-5.59	-1.86	61.28	-11.91	-11.5	0.92

In the year 2013 GPR was -0.24 were as in 2017 it is -3.88 which shows it is a loss were as NPR was 0.67 in the year 2013 and it is -5.59in the year of 2017 which shows negative value. In the year 2013 ROCE was 067 were as in 2017 it is -1.86 which shows it is a loss were as ROA was 59.91 in the year 2013 and it is 61.28 in the year 2017 which shows it is positive value. In the year 2013 RONW was 1.57 were as in 2017 it is -11.91 which shows it is loss were as ROANW was 3.75 in the year 2013 and it is -11.5 in the year 2017 which shows negative value. In the year 2013 DER was 0.75 were as in 2017 it is 0.92 which shows it is positive value.

Table 6.2

Descriptive statistical tool:

Particulars	GPR	NPR	ROCE	ROA	RONA	RONAW	DER
Mean	-4.39	-3.428	-1.2725	59.092	-8.158	-6.164	0.848
Standard Deviation	5.2028	6.0042	3.4070	8.07949	14.4409	14.4295	0.3259
Kurtosis	-2.4354	1.0084	0.4170	2.4682	1.8296	0.9204	1.5574
Skewness	-0.1388	-1.3695	-0.4350	-1.0319	1.5362	-1.3480	0.8039
Minimum	-10.58	-13.05	-5.61	46.18	-31.93	-29.21	0.46
Maximum	1.44	0.97	2.52	68.51	1.74	4.56	1.35

From the above table GPR resulted with the descriptive mean value -4.39, SD is 5.20, Kurtosis is -2.43, Skewness is -0.13 and the minimum value is -10.5, whereas maximum value is 1.44 . The NPR shows that the mean value is -3.42, SD is 6, Kurtosis is 1, Skewness is -1.36 and the minimum value is -13.05, whereas Maximum value is 0.97. The ROCE resulted with the descriptive mean value -1.27, SD is 3.40, kurtosis 0.41, Skewness is -0.43 and minimum value is -5.61, maximum value is 2.52. the ROA shows that the mean value is 59.92, SD is 8.07, Kurtosis value is 2.46, Skewness value is -1.03 and the minimum value is 46.18 whereas the minimum value is 68.51. the RONA resulted with the descriptive mean value is -8.15, SD value is 14.44, the kurtosis value is 1.82, Skewness value is 1.53 and minimum value is -31.93 whereas maximum value is 1.74. the RONAW shows the mean value -6.16, SD value is 14.42, the kurtosis value is 0.92, Skewness value is -29.21, minimum value is -29.21 and Maximum value is 4.56. the DER resulted with the descriptive mean value is 0.84, SD value is 0.32, kurtosis value is 1.55, the Skewness value is 0.80, minimum value is 0.46, minimum value is , and were as Maximum value is

Table 6.3

One simple test

Test value=0

RATIOS	T	DF	Sig. (2-tailed)	Mean Difference	95%	Confidence Interval of the Difference
					Lower	Upper
GPR	-3.33897	8	0.010247	-6.23778	-10.5458	-1.92976
NPR	-1.55885	8	0.157649	-16.6722	-41.3353	7.990897
ROCE	-1.05271	8	0.32323	-0.89222	-2.84668	1.062232
ROA	2.068181	8	0.072434	27.29444	-3.13863	57.72752
RONA	1.817112	8	0.106723	31.22444	-8.40091	70.8498
ROANW	-1.08949	8	0.307663	-3.87667	-12.082	4.328621
DER	5.816685	4	0.004349	0.848	0.443229	1.252771

Interpretation: From the above table represented the calculation of the sample t-test considering the study period of 5years. Using probability variables of the firm. The study found all the profitability variables t-test resulted positive as well as negative with the degree of freedom at 8. The study find that NPR, ROCE, ROA, RONA, ROANW resulted with more than 0.05 significance level therefore it proven that that there is a significant changes in the profitability ratio with respect to NPR, ROCE, ROA, RONA, ROANW. Further it is therefore H0 is rejected (in case of GPR and DER). Henceforth, it's proven there is no significant impact of M & A on firm's performance in post-acquisition.

7. FINDINGS AND RECOMMENDATIONS

- The result found that GPR resulted -0.24 and -3.88 is decreasing the value in the year 2013 to 2017.
- The ROA was increased by 2013 to 2017 continuously 51.19 and 61.29.
- The DER was cautiously increased by 0.75 to 0.92 company have a profit.
- Degree of freedom is constantly that is 8 except DER (4).
- The NPR is highly decreased from 2013 to2017, i.e. 0.67 to -5.59.
- The Company needs to maintain a better capital structure for its better running of the business and it should be cut down there costs to get profits.
- The company should need to maintain a proper debt equity proportions.

8. CONCLUSION

Mergers and acquisitions are played an important role in the modern days. From the above study, this concludes that there is a changes in leverage position in post-acquisition of the company. In all the descriptive variables, the mean, skewness, kurtosis are positively skewed and increased and there is a constant degree of freedom. Finally, this study concludes with the company has need to maintain an effective debt-equity and capital structure for the company to run their businesses smoothly and effectively.

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