

An empirical study of liquidity analysis of selected pharmaceutical companies in India

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Abstract

In today's globalised economy, the main objective of every firm is to make profits and enhance shareholders wealth. In the global market, number of companies among Indian Pharmaceuticals, have entered into Merger and Acquisition agreements. The objective of the study is to evaluate the impact of Merger and Acquisition on the Liquidity position of selected pharmaceutical companies. For the present study, 8 pharmaceutical companies listed under Bombay Stock Exchange (BSE) which involved in M&A activities in India after recession period i.e., after 2007. The analysis is based on the various liquidity ratios are compared between pre and post-event periods. Other statistical tools Mean, Standard Deviation, Co-efficient of Variation and Paired 't' test have been used in this research.

Keywords: pharmaceutical companies, profits, shareholders

Introductions

The Indian pharmaceutical companies have a wide variety of experience in manufacturing as per global standards. The Indian pharmaceutical market is mature with decades of experience in generics manufacturing, catering to the needs of the general population. It is entrusted with the responsibility of policy, planning, development and regulation of Pharmaceutical Industries across the nation. The Indian Pharmaceutical Industry is the 3rd largest pharmaceutical market in terms of volume and 10th largest in terms of value, contributing towards 10% of global production. The objective of present study is to find out the impact of Merger and Acquisition on the Liquidity position of Indian Pharmaceutical companies, with respect to pre-merger and post-merger period.

Statement of the Problem

The liberalization of the economic policies since early 1990s brings lot of policy changes in Government, that might include, delicensing, relaxation of MRTP Act, 1969, liberalization of policy towards foreign capital and technology. The policy changes motivates the corporate to increasingly use the M&As as a route to enter and strengthen their presence in the market. In the global market, number of companies among Indian Pharmaceuticals, have entered into Merger and Acquisition agreements. The research has to be made to compare the liquidity position of pre and post-merger of Indian Pharmaceutical companies.

Objectives of the Study

The objective of the study is to evaluate the impact of Merger and Acquisition on the liquidity position of selected pharmaceutical companies.

Hypotheses of the Study

- There is no significant difference in current ratio between before and after merger period of the selected companies
- There is no significant difference in liquid or quick ratio

between before and after merger period of the selected companies

Methodology to the Study

Data Collection

For the present study, 8 pharmaceutical companies listed under Bombay Stock Exchange (BSE) which involved in M&A activities in India after recession period i.e., after 2007. The basic criteria of this research is the M&A deals should exhibited after 2007 and acquirer should have atleast 5 financial period in pre and post-merger period. Out of 61 M&A deals in India, 8 M&A as only occurs after 2007 which satisfied the basic criteria of this research.

Data Sources

In order to have a comprehensive analysis of M&As in India from Centre for Monitoring Indian Economy (CMIE) database of M&As. The annual reports of the selected 8 companies have collected from the CMIE database and respected company websites.

Period of Study

The sample was taken from CMIE database of which took place acquisition between 2003-04 to 2015-16 in order to avoid the economic fluctuation.

Tools of Analysis

The analysis is based on the result of the statistical analysis based on the hypothesis formulated. In the ratio analysis, various Liquidity ratios are compared between pre and post-event periods. Other statistical tools Mean, Standard Deviation, Co-efficient of Variation and Paired 't' test have been used in this research.

Liquidity Ratios

1. Current Ratio
2. Liquid or Quick Ratio

Current Ratio

Current Ratio may be defined as the relationship between current assets current liabilities. This ratio is also known as working capital ratio, is a measure of general liquidity and is most widely used to make the analysis of a short-term financial position of a concern. The standard norm is 2:1.

$$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

Current assets includes cash in hand, cash at bank, marketable securities, inventories, sundry debtors, etc. current liabilities includes outstanding expenses, sundry creditors, short-term advances, income-tax payable, dividends payable, interest accrued but not due on loans and provisions.

H₀: There is no significant difference in current ratio between before and after merger period of the selected companies.

Table 1: Current Ratio (In Times)

Period	SMS Pharmaceuticals Ltd.	Strides Shasun Ltd.	Sequent Scientific Ltd.	Sri Krishna Pharmaceuticals Ltd.	Makers Labs Ltd.	Abbott India Ltd.	Aarti Drugs Ltd.	IPCA Labs. Ltd.
Before Merger	1.803	4.096	7.237	1.411	3.795	3.124	3.440	3.402
	1.708	3.834	2.913	1.436	4.530	3.449	3.782	4.380
	2.130	2.367	3.859	1.285	3.598	3.477	2.925	4.394
	3.428	2.160	2.544	1.474	4.213	3.705	2.753	3.774
	3.079	2.532	3.978	1.470	5.322	5.854	3.133	4.904
Mean	2.430	2.998	4.106	1.415	4.292	3.922	3.207	4.171
SD	0.778	0.897	1.854	0.077	0.681	1.100	0.411	0.587
CV (%)	32.017	29.937	45.140	5.452	15.858	28.042	12.820	14.078
After Merger	2.591	3.146	2.705	1.470	3.767	4.113	2.444	5.039
	2.232	8.172	1.740	1.778	2.326	4.231	2.670	3.561
	1.989	1.811	1.615	2.063	2.225	5.321	2.518	4.109
	2.076	2.916	1.401	2.161	2.179	5.241	2.352	3.748
	1.924	3.341	1.591	2.161	2.755	4.848	2.648	3.696
Mean	2.162	3.877	1.810	1.927	2.650	4.751	2.526	4.031
SD	0.266	2.473	0.514	0.300	0.664	0.559	0.135	0.599
CV (%)	12.303	63.775	28.416	15.551	25.071	11.773	5.331	14.867
Paired 't'	0.620	0.943	3.724	3.773	3.669	1.671	4.405	0.286
'p' Value	0.569 ^{NS}	0.399 ^{NS}	0.020**	0.020**	0.021**	0.170 ^{NS}	0.012**	0.789 ^{NS}

Source: Annual Reports of the respected companies.

It is highlighted from the Table1 that the mean value of current ratio in before merger period endowed by 2.430 in SMS Pharmaceuticals followed by 2.998 in Strides Shasun, 4.106 in Sequent Scientific Limited, 1.415 in Sri Krishna Pharmaceuticals Limited, 4.292 in Makers labs, 3.922 in Abbott India, 3.207 in Aarti Drugs and 4.171 in IPCA Labs. The co-efficient of variation of current ratio endowed by 32.017 per cent in SMS Pharmaceuticals followed by 29.937 per cent in Strides Shasun, 45.140 per cent in sequent Scientific limited, 5.452 per cent in Sri Krishna Pharmaceuticals limited, 15.858 per cent in Makers labs, 28.042 percent in Abbott India, 12.820 percent in Aarti Drugs and 14.078 per cent in IPCA labs. The table shows that the current ratio in Sri Krishna Pharmaceuticals limited is constant and on the other hand it is fickle in Sequent Scientific limited.

It is noted from the mean value of current ratio in after merger period endowed by 2.162 in SMS Pharmaceuticals followed by 3.877 in Strides Shasun, 1.810 in Sequent Scientific Limited, 1.927 in Sri Krishna Pharmaceuticals Limited, 2.650 in Makers labs, 4.751 in Abbott India, 2.526 in Aarti Drugs and 4.031 in IPCA Labs. The co-efficient of variation of current ratio endowed by 12.303 percent in SMS Pharmaceuticals followed by 63.775 percent in Strides Shasun, 28.416 percent in sequent Scientific limited, 15.551 percent in Sri Krishna Pharmaceuticals limited, 25.071 percent in Makers labs, 11.773 percent in Abbott India, 5.331 percent in Aarti Drugs and 14.867 per cent in IPCA labs. The table shows that the current ratio in Aarti Drugs limited is constant and on the other hand it is fickle in Strides Shasun limited.

The result of paired 't' test shows that null hypothesis of the

companies SMS Pharmaceuticals Ltd., Strides Shasun Ltd., Abbott India Ltd. and IPCA Labs. Ltd. are accepted. On the other hand, the null hypothesis of the companies Sequent Scientific Ltd., Sri Krishna Pharmaceuticals Ltd., Makers Labs Ltd. and Aarti Drugs Ltd. are rejected. Hence, it is noted that there is a no significant difference between before and after merger period of the companies SMS Pharmaceuticals Ltd., Strides Shasun Ltd., Abbott India Ltd. and IPCA Labs. Ltd. and on the other hand, there is a significant difference between before and after merger period of the companies Sequent Scientific Ltd., Sri Krishna Pharmaceuticals Ltd., Makers Labs Ltd. and Aarti Drugs Ltd. in its current ratio.

It is concluded from the Makers Labs has the highest mean value and Sri Krishna Pharmaceuticals limited has less consistent in the current ratio and the coefficient variation of Sri Krishna Pharmaceuticals limited is constant and on the other hand it is fickle in Sequent Scientific limited in the before merger period. On the other hand, the Abbott India has the highest mean value and Sequent Scientific limited has the low volatile in the current ratio and the coefficient variation of Aarti Drugs limited is constant and on the other hand it is fickle in Strides Shasun limited in the after merger period. Further, there is a significant difference between before and after merger period of the companies Sequent Scientific Ltd., Sri Krishna Pharmaceuticals Ltd., Makers Labs Ltd. and Aarti Drugs Ltd. in its current ratio.

Liquid Ratio

Liquid ratio, also known as acid test or quick ratio. It may be defined as the relationship between quick / liquid assets and

current / liquid liabilities. The term liquidity refers to the ability of a firm to pay its short-term obligations as and when they become due.

Liquid Assets: Current assets other than stock and prepaid expenses.

As a ‘rule of thumb’ or as a convention quick ratio of 1:1 is considered as satisfactory.

$$\text{Liquid or Quick Ratio} = \frac{\text{Liquid or quick assets}}{\text{Current Liabilities}}$$

H₀: There is no significant difference in liquid or quick ratio between before and after merger period of the selected companies.

Table 2: Liquid Ratio (In Times)

Period	SMS Pharmaceuticals Ltd.	Strides Shasun Ltd.	Sequent Scientific Ltd.	Sri Krishna Pharmaceuticals Ltd.	Makers Labs Ltd.	Abbott India Ltd.	Aarti Drugs Ltd.	IPCA Labs Ltd.
Before Merger	0.206	0.262	1.272	0.076	0.057	0.250	0.120	0.034
	0.060	0.875	0.414	0.091	0.053	0.347	0.099	0.046
	0.088	0.093	1.085	0.057	0.049	0.415	0.041	0.055
	0.317	0.498	0.197	0.068	0.026	2.020	0.040	0.030
	0.312	0.082	0.249	0.138	0.027	3.033	0.057	0.045
Mean	0.197	0.362	0.643	0.086	0.042	1.213	0.071	0.042
SD	0.121	0.333	0.500	0.032	0.015	1.253	0.036	0.010
CV (%)	61.330	91.89	77.655	36.922	35.345	103.301	50.590	23.750
After Merger	0.356	0.142	0.216	0.138	0.173	1.925	0.035	0.041
	0.051	0.367	0.062	0.141	0.056	1.597	0.040	0.028
	0.075	0.095	0.119	0.086	0.045	2.223	0.018	0.162
	0.101	0.149	0.199	0.078	0.013	2.434	0.023	0.164
	0.397	0.708	0.128	0.078	0.009	2.546	0.018	0.263
Mean	0.196	0.292	0.145	0.104	0.059	2.145	0.027	0.131
SD	0.166	0.255	0.063	0.033	0.067	0.387	0.010	0.098
CV (%)	84.930	87.38	43.422	31.329	113.127	18.054	38.886	74.257
Paired ‘t’ Test	0.010	0.358	2.295	0.847	0.670	2.166	3.583	2.079
‘p’ Value	0.993 ^{NS}	0.739 ^{NS}	0.083 ^{NS}	0.445 ^{NS}	0.539 ^{NS}	0.096 ^{NS}	0.023 ^{**}	0.106 ^{NS}

Source: Annual Reports of the respected companies.

Note: *-Sig. at 1% level; **-Sig. at 5% level; NS-Not Significant.

It is found from the Table 2 that the mean value of liquid ratio in before merger period endowed by 0.197 in SMS Pharmaceuticals limited followed by 0.362 in Strides Shasun limited, 0.643 in Sequent Scientific Limited, 0.086 in Sri Krishna Pharmaceuticals Limited, 0.042 in Makers labs, 1.213 in Abbott India, 0.071 in Aarti Drugs limited and 0.042 in IPCA Labs limited. The co-efficient of variation of liquid ratio endowed by 61.330 per cent in SMS Pharmaceuticals limited followed by 91.89 per cent in Strides Shasun limited, 77.655 per cent in Sequent Scientific limited, 36.922 per cent in Sri Krishna Pharmaceuticals limited, 35.345 per cent in Makers labs limited, 103.301 percent in Abbott India limited, 50.590 percent in Aarti Drugs limited and 23.750 per cent in IPCA labs limited. The table shows that the liquid ratio in IPCA labs limited is constant and on the other hand it is fickle in Abbott India limited.

It is determined from the mean value of liquid ratio in after merger period endowed by 0.196 in SMS Pharmaceuticals limited followed by 0.292 in Strides Shasun limited, 0.145 in Sequent Scientific Limited, 0.104 in Sri Krishna Pharmaceuticals Limited, 0.059 in Makers labs, 2.145 in Abbott India, 0.027 in Aarti Drugs limited and 0.131 in IPCA Labs limited. The co-efficient of variation of liquid ratio endowed by 84.930 per cent in SMS Pharmaceuticals followed by 87.38 per cent in Strides Shasun limited, 43.422 per cent in Sequent Scientific limited, 31.329 per cent in Sri Krishna Pharmaceuticals limited, 113.127 per cent in Makers labs, 18.054 percent in Abbott India, 38.886 percent in Aarti Drugs limited and 74.257 per cent in IPCA Labs limited. The table

shows that the liquid ratio in Abbott India is constant and on the other hand it is fickle in Makers labs limited.

The result of paired ‘t’ test shows that null hypothesis of the selected all companies except Aarti Drugs Ltd. are accepted. On the other hand, the null hypothesis of the company Aarti Drugs Ltd. is rejected. Hence, it is determined that there is no significant difference between before and after merger period of the selected all companies except Aarti Drugs Ltd. and on the other hand, there is a significant difference between before and after merger period of the company Aarti Drugs Ltd. in its liquid ratio.

It is divulged from the Abbott India limited has the highest mean value and Makers Labs Limited and IPCA labs limited has less consistent in the liquid ratio and the coefficient variation of IPCA labs limited is constant and on the other hand it is fickle in Abbott India limited in before merger period. On the other hand, Abbott India has the highest mean value and Aarti Drugs Limited has the low volatile in the liquid ratio and the coefficient variation of Abbott India is constant and on the other hand it is fickle in Makers labs limited in after merger period during the study period. Further, there is a significant difference between before and after merger period of the company Aarti Drugs Ltd. in its liquid ratio.

Conclusion

After the Analysis of various data related to selected Pharmaceutical Companies in India, it is concluded from the Makers Labs has the highest mean value and Sri Krishna

Pharmaceuticals limited has less consistent in the current ratio and the coefficient variation of Sri Krishna Pharmaceuticals limited is constant and on the other hand it is fickle in Sequent Scientific limited in the before merger period. Further, there is a significant difference between before and after merger period of the company Aarti Drugs Ltd. in its liquid ratio. These analyses will be helpful to increase Liquidity of selected Pharmaceutical Companies in India in future prospects.

References

1. Smitha Meena. Prospects of global Mergers and Acquisitions-An Indian Overview-International Journal of Research in Business Management, 2014.
2. Tang Alger C. Mergers and Acquisitions and its effects on Firm Performance: A New Look. Proceedings of the DLSU Research Congress, 2015
3. Gupta SP. Statistical Methods, (New Delhi, Sultan Chand and Sons, 2000
4. Stuart Ferguson. Financial analysis of M&A integration.MC-Grew Hill,-New Delhi.
5. <http://pharmaceuticals.gov.in/>
6. www.businesstoday.in/sectors/pharma