P: ISSN NO.: 2321-290X RNI : UPBIL/2013/55327 VOL-6* ISSUE-5* January- 2019
E: ISSN NO.: 2349-980X **Shrinkhla Ek Shodhparak Vaicharik Patrika**

Impact of Demerger on Return: An Empirical Evidence From Indian Corporate Sector

Abstract

To present the results of this analysis, the paper deals with Return of demerged companies after demerger. The demerger is examined in returns point of view both in pre- and post demerger period in respect of sample companies. The sample company are nine which were demerged between 1998 to 2001.The data of share prices have been collected for two different time periods, namely, before demerger and after demerger. So this paper aims to analyze the effect of demerger on return of the selected companies. The said analysis is based on the returns calculated with the help of adjusted closing price of selectedcompanies.The paper examines the aspect that "whether Demergers result in changing the return position of the demerged companies."

The sample company are nine which were demerged between 1998 to 2001. The data of share prices have been collected for two different time periods, namely, before demerger and after demerger. So this paper aims to analyze the effect of demerger on return of the selected companies. The said analysis is based on the returns calculated with the help of adjusted closing price of selectedcompanies. We studied whether companies are giving positive return to the shareholders or not.The paper examines the aspect that "Demergers do not result in changing the return position of the demerged companies."

Seema Singhal
Associate Professor,
Deptt. of Commerce,
M D S D College,
Ambala City, India

Keywords: Indian Corporate Sector, Demerger. Clean period, window period, announcement date, spin-off.

Introduction

The Indian corporate world is doing not only with mergers and acquisitions but also with demergers. Companies are demerging divisions to bring sharper focus to their business. Demergers have also been into the limelight because of ongoing bull market. Promoters can command high valuation for the demerged entity due to favorable market conditions. Companies like Arvind Ltd., Srei Infra Ltd., Ceat Ltd., Crompton Ltd. Dabur India Ltd., HMT Ltd., JK Synthetics Ltd., Nirma Ltd., Raymonds Ltd., and Voltas Ltd. are the examples, which have used demerger as a tool to maximize focus and create value.

One of the most important reasons of demerger is that the company after demerger should improve in terms of return characteristic. This is only then the wealth of the shareholders can be maximized. The paper examines the aspect that "Demergers do not result in changing the return position of the demerged companies."

To present the results of this analysis, the paper deals with Return. The demerger is examined in returns point of view both in pre- and post demerger period in respect of sample companies. The data of share prices have been collected for two different time periods, namely, before demerger and after demerger. So this paper aims to analyze the effect of demerger on return of the selected companies. The said analysis is based on the returns calculated with the help of adjusted closing price of selected companies.

Review of Literature

Literature review has been done on empirical studies as are available in the books, journals, published papers, etc. Here, an attempt has been made to survey the related studies relating to the demergers both in India and abroad. To be specific the following are the few studies on the subject.

Hite and Owners (1983) intheir paper have examined security price reactions around the announcements of 123 voluntary spin-offs by

116 firms between 1963 and 1981. Based on the reason for spin-offs, the categories ‘merger related’, ‘specialization’ ‘legal & regulatory’, other/no reasons were made of the 123 announcements. The event period was defined as the period from 50 days before the first press announcement through the announcement of completion of the spin-off plans. Day 0 is defined as the first press date relating to the spin-off. They examined abnormal returns of 3.8 percent. They also found a positive relation between the relative size of the spin-off and the announcement effect. Neither study found an adverse effect on bondholders

The cumulative excess return from 50 days before the first press announcement to the completion of the spin-off is 0.070 (significant at 1% level). In the last five days including the press day, the cumulative excess return gains another 0.047 (significant at 1% level). The results indicated that the spin-off firms experience good performance in the stock market over the entire 51 day interval ending with the announcement and that the announcement, on average, is associated with significantly positive stock price reactions.

Schipperand Smith (1983) found a positive 2.84 percent abnormal return to the parent (statistically significant) on the spin-off announcement date. The size of the announcement effect is positively related to the size of the spin-off relative to parent size (the average size of the pin-off is about 20 percent of the original parent). Spin-offs motivated by avoidance of regulation experienced an abnormal return of 5.07 percent as compared to 2.29 percent for the remainder of the sample. Examples of regulation avoidance include separating a regulated utility subsidiary from non-utility businesses and spinning off a foreign subsidiary to avoid restrictions by the U.S. Congress.

Gabor Raday (2000) concluded that in the 80s and 90s, the accelerated development of technology caused several changes in most of sciences, even in the field of business formations. For the time being, there are plenty of literatures and completed survey available regarding both academic and corporate spin-off. Some of them are engaged to reveal the critical success factors of spin-off companies and several models were created. The hypothetical question of this study whether common success factors exist for both type of spin-off even if they are established in quite different environments. Using the relevant international literature and available public data of academic and corporate spin-off firms, six aspects were investigated: Raison d’etre, management, investment, networking, location and relation to intellectual property. As a result of this study, common success factors of spin-off companies having different origins could be identified.

Chemmanur and Paeglis (2001) in their paper suggested that the decision to issue tracking stock (rather than to do a spin-off or a carve-out) is driven by the firm’s desire to enjoy the valuation benefits arising from a reduction in the extent of asymmetric information in the equity market, while continuing to keep the two units of the firm together under the same corporate umbrella. The three main findings of their study can be summarized as follows:

1. there is a positive announcement effect upon the issuance of tracking stock (similar in size to that of spin-offs but greater than that of equity carve-outs), and
2. the number of analysts who follow the firm increases after the issuance of tracking stock; and
3. The parents and subsidiaries of tracking stock firms are more closely related than those that undertake the other two forms of corporate restructuring.

Stuckter (2001) used a sample of 119 American spin-offs which took place from 1990-1995. They analyzed questions regarding changes in spin-off strategy as a reflection of parent and industry requirements, as well as the implications of such change. Results show that at the time of the spin-off, spin-off firms had strategic profiles which were much more divergent from their industry than a set of match firms. They also find evidence that a third relationship, parent proximity to industry, is an important predictor of spin-offs tendency to increase levels of conformity after the spin-off. In addition, results show that continuity of the management team leads to greatest increases in conformity after the spin-off. Taken together, these results suggested that multi- divisional firms often hamper subunit ability to adapt to industry requirements. Then, once the unit is released from, its strategic actions to conform to industry norms are insufficient to ensure superior performance.

Kumar (2004)analyzed the RPL merger with RIL - the largest ever merger in India. The study examined the effect of the merger on the wealth of the shareholders of RIL and also on post merger corporate performance. The increase in the equity value of the acquiring firm in the wake of a successful merger is a compelling evidence for the synergy theory of mergers. The results fail to support the capitalization hypothesis that merger gains are captured at the beginning of the merger programs. They find that the stockholders suffer loss for different time window period around the announcement period. The announcement day return was found to be 4.78%. But the average abnormal return from 20 days before until 20 days after the announcement period was found to be – 0.17 %. Merged firm did not show improved operating performance in term of per share ratio. Net profit increased by 26.51% in the post merger period. Sales increased by only 13.93 % in the post merger period compared to 37.96 % in the pre merger period. The merged firm had not shown significant improvement in asset productivity based on percentage changes of comparison between the pre merger and post merger period.

Veld and Merkoulova (2004)in their research studied wealth effects of spin offs for a sample of 156 spin offs. These spin offs were announced between the period January 1987 to September 2000. The announcement effects of the spin-offs have been measured using an event study methodology. The market index chosen is the Data Stream total return

index for the individual European countries. The estimation period in the study ranges from day -220 to day -21 and the event window has been taken as day -1 to day +1. The results for all countries show a cumulative average abnormal return of 2.62% (significant at 1 % level) for the event window from day -1 to day +1.

Chang and Hertzel (2004)in their paper investigated the relation between changes in firm value and changes in ownership structure that take place around non-control-related targeted repurchases of common stock for a sample of223 target repurchases from 1979 to 1995. In contrast to the negative average abnormal return associated with the announcement of a control-related targeted repurchase (greenmail transaction), they found that the announcement of a non-control-related targeted repurchase is associated with a positive and significant average abnormal return. Mishra and Goel (2005) they examined the financial implication of RIL-RPL merger on the shareholders' wealth. The profitability for shareholders was investigated by examining the daily excess returns that accrue to the shareholders around the date of announcement of the merger deal. The study shows that positive excess return occurred to the shareholders of the target company RPL and negative excess returns to the shareholder of the acquiring company, RIL.

Ramakrishnan (2008) indicated thatthe long-term post-merger performance of 414 mergers between 1993 and 2005. He has carried out statistical analyses of financial data pertaining to 87 pairs of merged firms. These mergers took place in the period 1996 to 2002. It is found that the merged firms demonstrate improvement in long-term financial performance after controlling for pre-merger performance, with increasing cash flow returns post merger, at an annual rate of 4.3%. This improved operating cash flow return is on account of improvements in the post-merger operating margins of the firms, though not of the efficient utilization of the assets to generate higher sales. Increase in market power also appears to be driving gains through mergers in India. As far as wealth gains on merger announcement are concerned, only the shareholders of the acquired firms appear to be enjoying significant positive share price returns of 11.6%. The wealth gains to acquired firm shareholders on announcement of a merger are positively influenced by the relative size and the pre-merger performance of the acquired firm. The transfer of corporate control from the acquired firm to the acquiring firm is negatively associated with these abnormal share price returns. The level of industry-relatedness of the acquired and the acquiring firms, the method of payment for the acquired firm and the business health of the acquired firm do not appear to be playing a role in affecting the share price returns to the acquired firm shareholders, on announcement of a merger.

Vyas Pavak (2015) examines that the demergers and the announcement period price reaction of demergers during the year 2012-2014. He studied total 51 demergers of companies listed in India and tried to establish that demergers results into abnormal returns for the shareholders of the parent company. Using event study methodology the authors have analyzed the security price performance of the announcement day effect 10 days prior to the announcement to 10 days post demerger announcement. He found significant out-performance of the security over the benchmark index post demerger announcement ranging from 1.74% average abnormal return for a demerger announcement to 0.16% average abnormal return 10 days following the announcement.

Padmanabhan P.A (2018) analysed that demergers are emerging as one of the important forms of corporate restructuring. While there is extensive literature on demergers abroad, there is limited literature on demergers in the Indian context. he studied the impact of demerger announcements on shareholders' wealth is analysed using event study. He took demerger announcements made by 63 companies spread over 11 years from 2003 to 2014 . He applied Two different models, namely, mean-adjusted returns model and market model. Log returns are used in the study. The efficiency of the Indian stock market is also tested in the study. The results show positive abnormal returns during the event window under both mean-adjusted returns model and market model. The results also indicate that the Indian stock market exhibits semi-strong form efficiency.

Objectives of the Study

Besides providing a detailed view of de-merger practices in corporate sector in India, the study under consideration intends to achieve the following objectives. To analyze the pre-demerger and post-demerger scenario of demerged companies in term of return.

Scope of the Study

The sample companies for the present study have been selected in two stages. First, about 70 demergers during 1996 to 2006 were taken from Prowess 3.1; a database developed by Centre for Monitoring Indian Economy. Subsequently the companies whose announcement date of demerger is not given were left out.

In the second stage those companies were excluded whose Stock Price Data for two years before announcement of demerger and two years after the announcement is not available. This exercise leaves me with a sample of 9 demerged companies which I have taken for my research work. The list of demerged companies was identified first from Bombay Stock Exchange (BSE) and National Stock Exchange web sites then finally from prowess 3.1.

Sources of Data

Besides reputed books and journals, the study is based on data taken from Prowess 3.1; a database developed by Centre for Monitoring Indian Economy (CMIE), company reports and Capitaline data basis. Web sites like bseindia.com, nseindia.com. moneycontrol.com, indiainfoline.com have also been extensively consulted.

Research Methodology

The first objective of this part is to discuss in detail the methodology used for the research. Before

P: ISSN NO.: 2321-290X RNI : UPBIL/2013/55327 VOL-6* ISSUE-5* January- 2019
E: ISSN NO.: 2349-980X **Shrinkhla Ek Shodhparak Vaicharik Patrika**

conducting actual research work, the researcher prepares a full detail of information about the overall work to be done. This enables the researcher to save time and energy and to conduct the study step-wise and systematically. Such sequential steps adopted by the researcher in studying a problem with certain objectives are called research methodology. Discussion of research methodology at this stage is appropriate as it has a direct bearing on the collection, analysis, interpretation of the data and reporting of results about various aspects of phenomenon under study. Accordingly the following issues have been discussed.

Analysis and Interpretation

The research tools used are as under:

1. Mean
2. Standard Deviation
3. Coefficient of Variation
4. Regression
5. F-test
6. T-test

Statistical Techniques Used

In order to analyze the data, student's t-test is used to evaluate the statistical significance of differences in paired means of financial variables computed for two sample groups, namely pre-demerger period and post demerger period. Pre and post demerger average ratios are calculated to measure the improvement in financial position. Then their significance is tested with the help of t- test and p- value.

Table 1

Date of Announcement of Demerged companies

Sr. No.	Company Name	Company Name	First Media Announcement date
1.	CEAT LTD	CEAT	MAY 18, 1999
2.	CROMPTON GREAVES LTD	CROMPT	JULY 7, 2000
3.	DABUR INDIA LTD	DABUR	AUGUST 9, 1999
4.	GODREJ INDUSTRIES LTD	GODREJ	AUGUST 1. 2000
5.	GRASIM INDUSTRIES LTD	GRASIM	JANUARY 7, 2000
6.	HMT LTD	HMT	JULY 16,1999
7.	INFOSYS TECHNOLOGIES LTD	INFO	JUNE 30, 2000
8.	J.K. SYNTHETICS LTD	JKSYNT	OCTOBER 14, 2000
9.	KESORAM INDUSTRIES LTD	KESO	JULY 7, 2000

Table 2

Clean Period and Window period for the Study

Window Period	Clean Period	
	Before Demerger	After Demerger
-40 to 40 days	-240 days to- 41 days	41 days to 240 days

The share price data and market index (BSE 200) has been taken from Prowess 3.1; the database Software developed by CMIE and National Stock Exchange. Table 3 gives the date wise data used for clean and window periods for the demerged companies.

Table3

Clean Period & Window Period Data for Demerged Companies

Sr. No.	Name of Company	Data used for Clean Period (-240 to -41)		Data used for Window Period (-40 to 40)	
		Start Date	End Date	Start Date	End Date
1.	CEAT	May 25, 1998	March 11,1999	March 12, 1999	July 12,1999
2.	CROMP	July 22, 1999	May 11, 2000	May 12,2000	Sept 5,2000
3.	DABUR	Oct.22, 1998	June10, 1999	June11,1999	Sept 28,1999
4.	GODREJ	Aug.20, 1999	Feb.10,2000	Feb11,2000	May 8,2000
5.	GRASIM	March 15, 1999	Nov 10,1999	Nov 11,1999	Feb 28,2000
6.	HMT	May 26, 1998	May 19, 1999	May 20, 1999	Sept 14,1999
7.	INFO	July 15, 1999	May 4, 2000	May 5, 2000	Aug 28, 2000
8.	JKS	Oct.29, 2001	Aug13, 2002	Aug 14,2002	Dec 12, 2002
9.	KESO	July 22, 1999	May 11, 2000	May12, 2000	Sept 5, 2000

Statistical Significance of Event Returns

If the estimated value of t-statistic is greater than 1.64 but less than 1.96, it is significant at 10% level. If estimated value of t statistics is greater than 1.96 and less than 2.58, it is significant at 5% level. If its value exceeds 2.58, it is significant at 1% level. In the event of the t-statistic being significant, it implies that there are abnormal returns associated with the demerger announcements in India.

Return: Conceptual Framework

Return is the motivating force that induces the investor to postpone his consumption. Return is the actual income received plus any change in market price of an asset/investment and is calculated by the following formula

$$R= (P_1 - P_{0)} + D_1 / P_0$$

However if continuous return is to be calculated then the following formula is used

$$\text{Log Normal } (P1/P_0)$$

In the present study we have calculated continuous return. So the return is calculated using log normal of current market price divided by previous day market price of the demerged company. Returns have been calculated in respect of 9 selected

P: ISSN NO.: 2321-290X RNI : UPBIL/2013/55327 VOL-6* ISSUE-5* January- 2019
E: ISSN NO.: 2349-980X **Shrinkhla Ek Shodhparak Vaicharik Patrika**

companies on continuous basis using log normal (LN) function of Excel. The average of returns is calculated. The total time period is divided into two parts before and after demerger. The period has been taken is 200 days before (-) 40th day and 200 days after 40th day is known as estimation window or clean period and post estimation window or clean period. The estimation window or clean period is also used to determine the normal behaviour of stock's return with respect to a market of industry index. The estimation of the stock's return in the estimation window is required to define a model of normal behaviour. This estimation window is used to calculate risk and return of demerged companies.

The event window or window period often starts a few days before the actual event day. The length of the event window is centered on the announcement and is normally one, three, five, ten, fifteen, twenty-five and forty days. This procedure enables the researcher to investigate present leakage of the information. The 81 days (40 days before demerger and 40 days after demerger and one is the announcement day) has been left out because of abnormal fluctuations in the market price during this period. These window periods are followed by many studies like by Kevin (1995), Chan-Lau (2001), Anand (2008), Mann (2008), Ramakrishnan (2008), Jagandeep (2005).

The statistical tool to empirically ascertain the effect of demerger on average return is t-test. It is used to examine that is the demerger really added any wealth to the shareholders. All the results related to returns are presented in Table 4 to 6

Table 4
The Effect of Demerger on Return and Significance

Sr.No.	Company Name	Average return before demerger	Average return after demerger	Increase/ Decrease	t- value	p- value
1	CEAT	-0.0027	-0.0013	0.0013	-0.2950	0.7680****
2	CROMPT	-0.0046	-0.0003	0.0044	-1.0760	0.2830****
3	DABUR	0.0034	-0.0029	-0.0063	1.6850	0.0930***
4	GODREJ	0.0002	0.0035	0.0032	-0.7970	0.4260****
5	GRASIM	0.0053	-0.0008	-0.0061	1.5250	0.1280****
6	HMT	0.0006	-0.0020	-0.0026	0.3320	0.7400****
7	INFOSYS	0.0063	-0.0036	-0.0099	2.2420	0.0260**
8	JKSYNT	0.0007	0.0035	0.0029	-0.5040	0.6140****
9	KESO	-0.0027	0.0009	0.0036	-0.7540	0.4520****

* **denote significance at 1% level, ** denote significance at 5% level, *** denote significance at 10% level**

For better interpretation of the data calculated in Table 4 another Table 5 has been prepared where the effect has been depicted in totality.

Table 5
Effect on Expected Returns after demerger

Results after demerger	Number of companies	In percentage terms
Increase in returns	5	56
Decrease in returns	4	44
Total	9	100

Further the effect is classified on the basis of significance level of the increased and decreased expected return of the selected companies in the Table 6 based on values in Table 4 and 5.

Table 6
Classification on the basis of Significance level of increased and Decreased Expected Return of Companies

Level of significance	Companies indicating an increased in Expected Returns		Companies indicating a decrease in Expected returns	
	Number of companies	In percentage terms	Number of companies	In percentage terms
1%	-	-	-	-
5%	-	-	1	25
10%	-	-	1	25
More than 10%	5	100	2	50
Total	5	100	4	100

Empirical Findings

Table 4 to 6 Show that average return in respect of 5 companies (56%) has increased and in respect of 4 companies (44%) has decreased. The increase of returns is statistically insignificant. Other companies (44%) have shown decrease in average returns. Only one company Infosys Technologies Ltd has shown a significant decrease in expected return after demerger.

Conclusion

In nutshell it is clear that 56% companies are giving positive return to the shareholders which is statistically insignificant and 44% companies are giving a negative return which is also statistically insignificant. On the whole demerger has no significant effect on return.

References

Chan- Lau A. Jorge (2001): Corporate Restructuring in Japan: An Event – Study Analysis, IMF Working Paper, International Capital Markets Department, December, pp 1 - 14.

Chammanur J. Thomas and Paeglis Imants (2001): Why issue Tracking Stock? Insight from a Comparison with Spin-offs and Carve- outs, Journal of Applied Corporate Finance, Volume 14, Number 2, pp 102-114.

Chang Saeyong and Hertzel Michael (2004): Equity Ownership and Firm Value: Evidence from Targeted Stock Repurchases The Financial Review 39, pp 389 – 407.

Gertner, Powers and Scharfstein (2002): Learning about Internal Capital Markets from Corporate Spin-offs, The Journal of Finance, Vol. LVII, No. 6, December, pp 2479-2543.

Hite, G.L. and J.E. Owers (1983): Security Price Reactions around Corporate Spin-off Announcements, Journal of Financial Economics Vol. 12, pp- 409-436.

Kumar Rajesh (2004): Effect of RPL-RIL Merger on Shareholders' Wealth and Corporate Performance, The ICFAI Journal of Applied Finance, September, pp 13-34.

Mishra A.K. and Goel Rashmi (2005): Returns to Shareholders from Mergers: The Case of RIL and RPL Merger IMB Management Review, September pp 69 -79.

P. A. Padmanabhan (2018): "Do Demerger Announcements Impact Shareholders Wealth? An Empirical Analysis Using Event Study", Feb., The Journal of Business Perspective.

Raday Gabor (2000): Academic Spin-off Ventures and Corporate Spin-off Firms at the High-Tech Industries, Debrecen University's Faculty of Economics and Business Administration ,Radaydrug Ltd., pp 1 - 10.

Ramakrishanan K (2008): Long term Post-Merger Performance of Firms in India, Vikalpa, Volume 33, No. 2, April-June, pp 47-62.

Schipper, K. and Smith, A. (1983): Effects of Reconstructing on Shareholder Wealth. The Case of Voluntary Spin-Offs, Journal of Financial Economics, 12(4), pp. 437-467.

Seoungpil Ahn (2001): Efficiency of the Internal Capital Markets and Corporate Spinoff Decision, Ph.D., Purdue University, pp 1-121.

Stucker Kristin Anne (2001): Does Break Up Lead to Break Down? Effect of Parent and Industry Influences on Spin-off Firms, Thesis submitted in Columbia University, pp 1 - 103.

Veld C and Veld Merkoulova Y V (2004): Do Spin-Offs Really Create Value? The European Case, Journal of Banking and Finance, Vol. 28, No. 5, May, pp 1111-1135.

Veld Chris and Veld Yulia V. & Merkoulova (2008): Value Creation through Spin-Offs: A Review of the Empirical Evidence, website ssrn.com, pp 1 – 28.

Vyas Pavak (2015):" Impact of Demerger Announcement on Shareholder Value: Evidences from India" Dec., The Italian Journal of Public Policy.