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Financial performance of LBO: An empirical study

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Abstract
This study investigates the financial performance of leveraged buyout companies during the period from 2005-06 to 2015-16. Four variables namely, (1) Earnings per Share (EPS), (2) Dividend per Share (DPS), (3) Return on Equity (ROE), and (4) Return on Investment (ROI) have been used to measure the financial performance of the sample companies by comparing the results between pre-LBO and post-LBO period with that of their matching control companies. Control sample methodology has been adopted to determine the industrial effect on the sample companies. Mean and coefficient of variation (CV) on the above variables have been computed to measure the financial performance of the sample companies between pre-LBO and post-LBO period. Paired sample t test has been conducted to determine whether the computed results are statistically significant or not. Analyzing the results it is found that there is improvement in financial performance of the sample companies since average EPS, DPS, ROE and ROI of the sample companies have been improved and CV on the above variables have been decreased after leveraged buyout. Moreover, Paired t tests on the above variables have depicted a statistically significant result.

Keywords: Financial performance, leveraged buyout (LBO), control sample methodology, EPS, DPS, ROE, ROI.

Introduction
In a leveraged buyout (LBO), there is usually a ratio of 90% debt to 10% equity. Because of this high debt/equity ratio, the bonds issued in the buyout are usually not investment grade. These are referred to as junk bonds. There are different scholars who have investigated different aspect of Leveraged Buyout (LBO) transactions. Some of these scholars who have examined that LBO leads to significant improvement in financial performance after LBO are Jensen (1989) [15], Smith (1990) [22], Muscarella, C. J., & Vetsuypens, M. R. (1990) [18], Opler, T. C. (1992) [19], F Degeorge, R Zeckhauser (1993) [7], SA Zahra (1995) [24], etc. On the other hand Scholars such as Long, W. F., & Ravenscraft, D. J. (1993) [17], Holthausen & Larcker (1996) [14], Desbrières, P., & Schatt, A. (2002) [9], Cao, J. X. (2011) [3], Ayash, B., & Schütt, H. (2016) [1], etc have found little improvement in financial performance after LBO. Some authors like Healey, Palepu and Ruback have observed operating improvement in assets efficiency following merger. Another author namely Jensen (1989) [15] has found that highly leveraged capital structure, concentrated ownership stake and well aligned managerial incentives lead to operating performance improvement of the firms. Kaplan (1989) and Smith (1990) [22] have shown that capital expenditure of the firm decline after leveraged buyout. Cohn, Mill and Towery (2014) [6] have examined the evolution of firms' financial structure and performance after LBO. However they have found little evidence of operating improvement following LBO. Moreover they have observed that those firms have shown operating improvements that have public financial statement. Varela, J. C. S., Sannajust, A., Arouri, M., & Chevalier, A. (2015) [23] have observed that macroeconomic variables have an impact on LBO value creation. According to the authors LBO transactions reduce information asymmetries between existing and new management team. As a result, a concentrated shareholder structure has a better impact on performance than diluted stockholders. So financial variables present significant effects after the delisting. In this backdrop the present study shed light on the impact of LBO on financial performance in the Indian scenario. By financial performance we mean that performance of the firms which are related to the financing activities that have significant impact on revenue generation of the firms.

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Objectives of the study

The main objective of the study is to measure the financial performance of the selected sample companies which have undergone LBO by comparing its matching control companies. Other objectives are-

1. To compute EPS of both sample and control companies in order to determine the change in financial performance before and after LBO period.
2. To calculate DPS of sample companies and control companies in order to assess the change in financial performance before and after LBO period.
3. To determine the return of the equity of the sample companies and its matching control companies between pre-LBO and Post-LBO period.
4. To determine the profitability of the sample companies and its matching control companies by calculating ROI before and after LBO period.

Hypotheses of the study

The testable hypotheses framed for the study are as follows-

- H_0: There in no change in EPS between Pre-LBO and Post-LBO period of the sample companies and control companies.
- H_1: There is significant change in EPS between pre-LBO and post-LBO period of the sample companies and control companies.
- H_0: There is no change in DPS of the sample companies and its matching control companies before and after LBO.
- H_1: There is significant change in DPS of the sample companies and its matching control companies before and after LBO.
- H_0: There is no change in ROE of the sample companies and its matching control companies before and after LBO.
- H_1: There is significant change in ROE of the sample companies and its matching control companies before and after LBO.
- H_0: There in no change in ROI between Pre-LBO and Post-LBO period of the sample companies and control companies.
- H_1: There is significant change in ROI between pre-LBO and post-LBO period of the sample companies and control companies.

Database and Methodology

The study has been conducted on the basis of financial data procured from secondary sources like corporate financial reporting including published annual reports of the selected companies, National Stock Exchange directory and other reliable authentic sources. According to the objectives of the study, the selected companies are listed on the National Stock Exchange (NSE). The capita Line Data Base package 2000 has also been contemplated to procure data required for the study. Data have been gathered from the Profit and Loss Account and of the concerned companies. Analysis has been done for a total of nineteen companies under different sectors such as Alcoholic, pharmaceutical, steel, power, beverage, detergent, etc. Seven years have been selected for the study out of which three years are pre-LBO period denoted by (t-1), (t-2) and (t-3) respectively and year t is the year of LBO and remaining three years are the post-LBO

year denoted by (t+1), (t+2) and (t+3) respectively. So far as the measurement of financial performance of the selected companies are concerned, we have taken ten sample LBO companies along with its matching control companies during the year 2002-03 to 2018-19. Control companies have been chosen on the basis of size, capital employed, market capitalization and line of business activities.

For the purpose of measuring the change in financial performance of the sample companies we have taken four variables namely, (1) EPS, (2) DPS, (3) ROE and (4) ROI. Earnings per Share (EPS) is the ratio which is used to measure the earnings available to equity holders per unit of equity share. The higher the EPS indicates higher is the operating performance of the firm. EPS is calculated using the following formula-

$$EPS = \frac{Earnings\ Available\ to\ Equity\ Share\ holders}{No.of\ Equity\ Share\ Outstanding}$$

Thus we have computed Dividend per Share (DPS) which is used to measure dividend available for distribution per unit of equity share. The higher the DPS indicates high level of financial performance of the firm. DPS is computed using the following formula-

$$DPS = \frac{Dividend\ available\ for\ distribution\ among\ the\ share\ holders}{No.of\ Equity\ Share\ outstanding}$$

We have also calculated Return on Equity (ROE) in order to determine the profitability of the sample companies. The higher the ROE implies high level of earnings capability of the firm. This ratio is also used to measure the performance of the firm. ROE is computed using the following formula-

$$ROE = \frac{Net\ Income}{Share\ holders\ Equity}$$

Thus we have calculated Return on Investment (ROI) which is used to determine the profitability of the firm. The high value of ROI indicates a high level of profit earning capacity of the firm. However ROI is computed using the following formula-

$$ROI = \frac{Net\ Profit}{Total\ Investment}$$

We have conducted paired sample t test in order to determine the computed results are statistically significant or not. It is theoretically expected that the above calculated ratios of the sample companies should be increased after LBO. If the computed ratios are increased following LBO then it may be said that LBO leads to improvement in financial performance of the sample companies. In order to determine the industrial effect on the sample companies we have adopted control sample methodology where we have compared the result of sample companies with its matching control companies. If the computed ratios are increased in case of sample companies after LBO but it is decreased in case of control companies, then it may be said that LBO has significant impact on the financial performance on the sample companies.

Summary of Major findings

Table 1: EPS of sample companies and control companies

Name of the company	Earnings per share							Average EPS Rs. (CV)	
	(t-3)	(t-2)	(t-1)	t	(t+1)	(t+2)	(t+3)	Pre-LBO	Post-LBO
UB Group	1.55	2.41	4.36	2.58	2.49	3.19	3.62	2.77 (51.92)	3.10 (18.40)
Radico Khaitan	13.06	18.28	4.61	2.32	2.74	0.59	3.05	11.98 (57.57)	2.13 (63.00)
Dr.Reddys Lab	50.6	36.37	7.85	26.82	69.45	27.62	32.25	31.61 (68.88)	43.11 (53.20)
Sun Pharma	24.18	24.99	15.94	24.06	31.57	37.16	38.75	21.70 (23.07)	35.83 (10.53)
Tata steel	46.02	60.91	69.95	61.06	66.75	56.35	69.93	58.96 (20.49)	64.34 (11.04)
JSW Steel	3.91	43.22	37.02	54.69	56.5	16.99	8.99	28.05 (75.35)	27.49 (92.52)
United Spirits	3.87	4.89	6.38	51.81	30.8	29.25	29.53	5.05 (25.01)	29.86 (2.77)
Radico Khaitan	13.06	18.28	4.61	2.32	2.74	0.59	3.05	11.98 (57.57)	2.13 (63.00)
Suzlon Energy	52.83	48.58	40.85	27.8	36.12	38.29	50.46	47.42 (12.81)	41.62 (18.57)
NTPC	4.57	6.56	6.72	6.67	7.85	8.4	9.34	5.95 (20.13)	8.53 (8.83)
United Phosporus Ltd	0.6	5.03	9.17	6.08	5.54	5.84	4.11	4.93 (86.87)	5.16 (17.90)
Pidilite Indus	22.54	23.3	27.48	3.34	4.5	7.14	5.48	24.44 (10.88)	5.71 (23.39)
Tata Motors	21.93	32.44	37.59	47.1	50.52	18.81	36.93	30.65 (26.04)	35.42 (44.91)
Maruti Suzuki	18.56	29.25	40.65	53.29	59.03	41.57	85.43	29.49 (37.46)	62.01 (35.61)
Aban Offshore	11.68	33.19	38.78	19.45	22.18	33.42	59.67	27.88 (51.31)	38.42 (50.07)
Reliance industries	30.78	28.62	36.31	53.3	63.7	84.28	101.97	31.90 (12.43)	83.32 (22.99)
Tata Coffee	15.56	13.07	22.09	16.98	9.73	12.02	8.96	16.91 (27.55)	10.24 (15.55)
Tata Global Beverage	11.66	15.19	21.53	31.57	49.26	44.64	22.95	16.13 (31.01)	38.95 (36.07)
Nirma Ltd	21.85	26.45	16.86	40.35	29.53	28.72	30.12	21.72 (22.08)	29.46 (2.39)
Tamilnadu Petro	0	0	0	4.24	1.03	5.75	6.03	0 (0)	4.27 (65.79)

Source: Self-generated data

Table 2: DPS of sample companies and control companies

Name of the company	Dividend per share							Average DPS (CV)	
	(t-3)	(t-2)	(t-1)	t	(t+1)	(t+2)	(t+3)	Pre-LBO	Post-LBO
UB Group	0	0	0	0	0	0.3	0.36	0 (0)	0.22 (87.67)
Radico Khaitan	0	0	0	0	0.5	0.3	0.6	0 (0)	0.47 (32.73)
Dr. Reddys Lab	5	5	5	5	3.75	3.75	6.25	5 (0)	4.58 (31.49)
Sun Pharma	5	6.5	3.75	5.5	6.75	10.5	13.75	5.08 (27.09)	10.33 (33.90)
Tata steel	10	13	13	15.5	16	16	8	12.00 (14.43)	13.33 (34.64)
JSW Steel	0	0	0	0	14	1	9.5	0 (0)	8.17 (80.84)
United Spirits	0	0	0	0	1.5	2	2.5	0 (0)	2 (25.00)
Radico Khaitan	0	0	0	0	0.5	0.3	0.6	0 (0)	0.47 (32.73)
Suzlon Energy	0	0	0	0	0	1	0	0 (0)	0.33 (173.21)
NTPC	0.91	1.39	2.4	2.8	3.2	3.5	3.6	1.57 (48.55)	3.43 (6.06)
United Phosporus Ltd	0	0	0	0	0	2	1.5	0 (0)	1.17 (89.21)
Pidilite Indus	0	0	0	0	0	1.75	1.75	0 (0)	1.17 (86.6)
Tata Motors	8	12.5	13	15	15	6	15	11.17 (24.66)	12 (43.3)
Maruti Suzuki	1.5	2	3.5	4.5	5	3.5	6	2.33 (44.61)	4.83 (26.03)
Aban Offshore	0	0	0	0	0	3.6	3.6	0 (0)	2.4 (86.6)
Reliance industries	5	5.25	7.5	10	11	13	13	5.92 (23.27)	12.33 (9.63)
Tata Coffee	5	5	6.5	6.5	6.5	7	6	5.5 (15.75)	6.5 (7.69)
Tata Global Beverage	7	8.5	10	12	15	35	17.5	8.5 (17.65)	22.5 (48.43)
Nirma Ltd	0	0	0	0	0	0	0	0 (0)	0 (0)
Tamilnadu Petro	0	0	0	0	0	0.5	1	0 (0)	0.5 (100)

Source: Self-generated data

Table 3: ROE of sample companies and control companies

Name of the company	Return on equity							Average ROE (CV)	
	(t-3)	(t-2)	(t-1)	t	(t+1)	(t+2)	(t+3)	Pre-LBO	Post-LBO
UB Group	0.1286	0.1831	0.1917	0.2328	0.2917	0.2083	0.1741	0.17 (20.39)	0.22 (26.92)
Radico Khaitan	0.4789	0.4075	0.3895	0.1874	0.1004	0.0403	0.1025	0.43 (11.12)	0.08 (43.57)
Dr.Reddys Lab	0.2402	0.147	0.0277	0.0857	0.3547	0.1035	0.1114	0.14 (77.02)	0.19 (75.21)
Sun Pharma	0.3799	0.3144	0.3138	0.3593	0.3215	0.3047	0.2704	0.34 (11.31)	0.30 (8.71)
Tata steel	0.4536	0.4002	0.317	0.354	0.3597	0.3188	0.2419	0.39 (17.64)	0.31 (19.46)
JSW Steel	0.2246	0.3989	0.1741	0.2698	0.268	0.1234	0.2332	0.27 (44.36)	0.21 (36.25)
United Spirits	0.0599	0.1152	0.055	0.2612	0.1861	0.1168	0.0833	0.08 (43.59)	0.13 (40.73)
Radico Khaitan	0.4789	0.4075	0.337	0.143	0.184	0.047	0.159	0.41 (17.40)	0.13 (56.12)
Suzlon Energy	0.1907	0.363	0.301	0.4539	0.4261	0.3855	0.3731	0.28 (30.63)	0.39 (7.02)
NTPC	0.1199	0.1303	0.1485	0.1493	0.1468	0.1465	0.1491	0.13 (10.89)	0.15 (.96)

United Phosporus Ltd	0.0371	0.0866	0.12	0.1342	0.1835	0.1547	0.0632	0.08 (51.35)	0.13 (46.95)
Pidilite Indus	0.2229	0.2114	0.2187	0.2303	0.2664	0.3341	0.2131	0.22 (2.67)	0.27 (22.36)
Tata Motors	0.262	0.2212	0.2136	0.3098	0.3391	0.2534	0.2132	0.23 (11.21)	0.27 (23.94)
Maruti Suzuki	0.1859	0.2142	0.2419	0.2538	0.2267	0.1208	0.2358	0.21 (10.08)	0.19 (32.88)
Aban Offshore	0.0679	0.3006	0.2593	0.2948	0.269	0.2503	0.286	0.21 (59.33)	0.27 (6.65)
Reliance industries	0.1558	0.1739	0.2182	0.219	0.2245	0.2164	0.1569	0.18 (17.58)	0.20 (18.52)
Tata Coffee	0.1059	0.115	0.1295	0.1243	0.0668	0.0725	0.0579	0.12 (10.19)	0.07 (11.19)
Tata Global Beverage	0.0742	0.0958	0.1502	0.1534	0.1002	0.1098	0.0894	0.11 (28.22)	0.10 (22.66)
Nirma Ltd	0.1226	0.1121	0.0775	0.1627	0.2161	0.2045	0.0985	0.10 (22.68)	0.17 (37.45)
Tamilnadu Petro	-0.1441	-0.1215	0	-0.0752	-0.0206	0.1548	0.1413	-0.09 (87.54)	0.09 (106.28)

Source: Self-generated data

Table 4: ROI of sample companies and control companies

Name of the company	Return on investment							Average ROI (CV)	
	(t-3)	(t-2)	(t-1)	T	(t+1)	(t+2)	(t+3)	Pre-LBO	Post-LBO
UB Group	15.1	16.09	16.06	18.95	19.83	19.44	17.42	15.75 (3.58)	18.90 (6.85)
Radico Khaitan	18.52	17.41	15.72	8.96	11.14	7.3	11.95	13.00 (10.85)	10.13 (24.52)
Dr.Reddys Lab	23.82	14.61	2.43	9.05	30.15	21.36	22.83	13.62 (78.78)	24.78 (19.00)
Sun Pharma	35.97	25.4	11.47	15.57	18.46	24.53	23.09	22.36 (54.97)	22.03 (16.20)
Tata steel	36.63	36.39	34.12	37.43	37.64	35.41	34.3	35.71 (3.88)	35.78 (4.75)
JSW Steel	17.49	27.89	19.76	23.82	19.57	7.87	17.47	19.12 (28.59)	14.97 (41.67)
United Spirits	12.83	8.03	9.2	26.42	19.48	13.12	10.33	10.02 (24.98)	14.31 (32.77)
Radico Khaitan	18.52	17.41	15.72	8.96	11.14	7.3	11.95	13.00 (10.85)	10.13 (24.52)
Suzlon Energy	20.33	20.17	24.64	30.41	25.24	24.55	20.76	21.71 (11.68)	23.52 (10.26)
NTPC	10.61	17.97	13.23	13.23	14.9	15.26	12.35	13.94 (26.77)	14.17 (11.20)
United Phosporus Ltd	4.45	14.73	13.7	10.32	18.45	16.66	9.81	10.96 (51.65)	14.97 (30.46)
Pidilite Indus	30.38	26.04	26.31	28.87	26.05	21.05	15.63	24.90 (9.76)	20.91 (24.92)
Tata Motors	30.82	28.3	27.7	27.04	31.26	27.18	22.91	28.94 (5.72)	27.12 (15.40)
Maruti Suzuki	20.83	28.61	32.05	30.96	27.51	17.19	28.65	26.54 (21.66)	24.45 (25.82)
Aban Offshore	16.37	15.32	11.56	19.97	22.93	21.94	15.46	14.42 (17.54)	20.11 (20.18)
Reliance industries	13.02	15.96	17.8	16.16	17.11	18.43	10.08	15.59 (16.33)	15.21 (33.29)
Tata Coffee	13.27	11.59	15.6	10.14	7.95	9.52	8.64	13.49 (14.93)	8.70 (9.04)
Tata Global Beverage	10.62	11.78	14.18	17.59	16.88	17.63	12.16	14.41 (12.60)	15.56 (19.06)
Nirma Ltd	6.47	9.93	6.79	17.81	9.1	9.83	10.12	7.73 (24.73)	9.68 (5.43)
Tamilnadu Petro	-7.38	-4.94	-14.87	15.16	18.6	19.92	16.57	1.31 (393.80)	18.36 (9.19)

Source: Self-generated data

Table 5: Paired sample t test results

Time window	Variables	Sample companies		Control companies	
		Mean	t value	Mean	t value
Pre-LBO to Post-LBO	EPS	$EPS_{(Pre-LBO)}=24.79$	-1.807*	$EPS_{(Pre-LBO)}=18.16$	-1.298
		$EPS_{(Post-LBO)}=30.07$		$EPS_{(Post-LBO)}=27.04$	
Pre-LBO to Post-LBO	DPS	$DPS_{(Pre-LBO)}=3.37$	-3.161***	$DPS_{(Pre-LBO)}=2.34$	-2.912***
		$DPS_{(Post-LBO)}=4.25$		$DPS_{(Post-LBO)}=6.42$	
Pre-LBO to Post-LBO	ROE	$ROE_{(Pre-LBO)}=0.18$	-1.955*	$ROE_{(Pre-LBO)}=0.22$	.995
		$ROE_{(Post-LBO)}=0.22$		$ROE_{(Post-LBO)}=0.17$	
Pre-LBO to Post-LBO	ROI	$ROI_{(Pre-LBO)}=17.24$	-1.859*	$ROI_{(Pre-LBO)}=16.42$	-.089
		$ROI_{(Post-LBO)}=19.79$		$ROI_{(Post-LBO)}=15.59$	

Notes: *** implies significant at 1% level, ** implies significant at 5% level, * implies significant at 10% level. Author's calculation is based on SPSS

Interpretation of Results
Interpretation of Results on EPS
It is observed from Table 1 that there is increase in average EPS for eight sample companies (namely, UB Group, Dr. Reddys' Laboratory, Tata Steel, United Spirits, United Phosporus, Tata Motors, Aban Offshore, Nirma Limited) out of ten sample companies. Remaining two sample companies (Suzlon Energy, Tata Coffee) have shown decreased in average EPS in the post-LBO period as compared to that of pre-LBO period. On the other hand, there is increased in average EPS for six control companies (*viz*, Sun Pharma, NTPC, Maruti Suzuki, Reliance

Industries, Tata Global Beverage, Tamilnadu Petro) out of total ten control companies. From this result it may be said that there is no significant impact on the EPS of the LBO sample companies. So far as the coefficient of variation (CV) of the sample companies are concerned, it is seen that seven sample companies (such as UB Group, Dr. Reddys Laboratory, Tata Steel, United Spirits, United phosphorus, Aban Offshore, Tata Coffee and Nirma Ltd.) out of ten sample companies have shown a decrease in CV in the post-LBO period as compared to that of Pre-LBO period. Whereas only three control companies (i.e Sun Pharma, NTPC, Maruti Suzuki) out of ten control companies have shown a decrease in CV after leveraged buyout. Therefore,

comparing the results of sample companies and control companies, it can be said that sample companies have performed far better than control companies since CV on EPS indicates consistency in EPS after leveraged buyout. It is observed from Table 5 that t values are significant for the sample companies but in case of control companies it is insignificant. Hence it can be said that LBO has no significant on the sample companies.

Interpretation of Result on DPS

From Table 2 it is depicted that there is increased in average DPS for eight sample companies (*viz*, UB Group, Tata Steel, United Sprits, Suzlon Energy, United Phosporus, Tata Motors, Aban Offshore, Tata Coffee) out of ten sample companies and remaining two sample companies have shown a decrease in average DPS. Whereas there is increase in average DPS for ten matching control companies out of ten control companies. The result indicates that LBO does not lead to increase in average DPS of the sample companies as all the control companies. It is also found from the table that there is decreased in CV on DPS for only one sample company (Tata Coffee) out of ten sample companies whereas only two control companies have shown a decrease in CV on DPS in the post-LBO period as compared to that of pre-LBO period. From this result we can't draw any reasonable conclusion. It is observed from Table 5 that t values are significant at 1% level for sample companies and control companies. So it can't be concluded that LBO has a significant impact on DPS.

Interpretation of Results on ROE

It is disclose from Table 3 that there is increased in average ROE for eight sample companies (such as, UB Group, Dr. Reddys' Laboratory, United Spirits, United Phosporus, Tata Motors, Aban Offshore, Suzlon Energy, Nirma Limited) out of ten sample companies and only two sample companies *viz*, Tata Steel, Tata Coffee have shown a decrease in average ROE in the post-LBO period as compared to pre-LBO period. In contrast, there is increased in average ROE for four control companies (namely, NTPC, Reliance Industries, Pedilite Industries, Tamilnadu Petro) out of ten control companies. It is also found that there is deceased in CV on ROE for five sample companies (namely, Dr. Reddys' Laboratory, United Spirits, Suzlon Energy, United Phosporus, Aban Offshore) out of ten sample companies. On the other hand, only four control companies such as Sun Pharma, JSW Steel, NTPC, and Tata Global Beverage have shown a decrease in CV on ROE in the post-LBO period as compared to that of pre-LBO period. The results indicate that sample companies have a better performance than control companies. From Table 5 it is depicted that t value (-1.955*) is significant for the sample companies at 10% level while t value on average ROE of the control companies is insignificant. Hence it may be concluded that LBO has statistically significant impact on financial performance of the sample companies.

Interpretation of Results on ROI

There is increased in ROI for eight sample companies [namely, UB Group, Tata Steel, Dr. Reddys' Laboratory, United Spirits, United Phosporus, Suzlon Energy, Aban Offshore, Nirma Limited] out of ten sample companies and

two sample companies (i.e, Tata Motors, Tata Coffee) have disclosed decrease in average ROI in the post-LBO period as compared to that of pre-LBO period which is depicted by Table 4. Whereas there is increased in average ROI for three control companies (NTPC, Tata Global Beverage and Taminilnadu Petro) out of ten control companies. It is also found that CV on ROI has decreased for five sample companies (*viz*, Dr. Reddys' Laboratory, United Spirits, Suzlotn Energy, United Phosporus, Aban Offshore) out of ten sample companies whereas only three control companies (Sun Pharma, NTPC, Tamilnadu Petro) have shown a decrease in CV on ROI after LBO. The results indicate that sample companies have performed far better than that of control companies. It is observed from Table 5 that t value (-1.859*) is significant at 10% level for the sample companies while it is insignificant for control companies. Hence it may be concluded that there is statistically significant impact of LBO on the financial performance of the sample companies from the ROI point of view.

Conclusion

This study investigates the firms' financial performance after leveraged buyout (LBO). For the purpose of measuring the financial performance we have taken four variables *viz*, EPS, DPS, ROE, ROI. Control sample methodology has been adopted to determine the industrial effect on the sample companies. Mean and CV on the above variables have been computed to measure the financial performance of the sample LBO companies. After analyzing the results it is found that there is improvement in financial performance of the samples companies after leveraged buyout since most of the sample companies have shown increase in average EPS, DPS, ROE and ROI in the post-LBO period as compared to that of pre-LBO period. It is also concluded that there is consistency in earnings of EPS, ROE and ROI of the sample companies in the post-LBO period since CV on the above variables has decreased in the post-LBO period as compared to that of pre-LBO period whereas no such consistency has been observed in case of control companies. Finally it is also concluded that there is statistically significant improvement in financial performance of the sample companies as paired t test results are significant for sample companies but for control companies the results are insignificant.

References

1. Ayash B, Schütt H. Does going private add value through operating improvements? Journal of Corporate Finance 2016;40:192-215.
2. Boucly Q, Sraer D, Thesmar D. Growth lbos. Journal of Financial Economics 2011;102(2):432-453.
3. Cao JX. IPO timing, buyout sponsors' exit strategies, and firm performance of RLBOs. Journal of Financial and Quantitative Analysis 2011;46(4):1001-1024.
4. Capizzi V, Giovannini R, Pesic V. Risks and Perils in LBO transactions 2014.
5. Chan HW, Duh JG, Sheen SR. Electrochemical performance of LBO-coated spinel lithium manganese oxide as cathode material for Li-ion battery. Surface and Coatings Technology 2004;188:116-119.
6. Cohn JB, Mills LF, Towery EM. The evolution of capital structure and operating performance after

leveraged buyouts: Evidence from US corporate tax returns. Journal of Financial Economics 2014;111(2):469-494.

7. Degeorge F, Zeckhauser R. The reverse LBO decision and firm performance: Theory and evidence. The Journal of Finance 1993;48(4):1323-1348.

8. Demiroglu C, James CM. The role of private equity group reputation in LBO financing. Journal of Financial Economics 2010;96(2):306-330.

9. Desbrières P, Schatt A. The impacts of LBOs on the performance of acquired firms: the French case. Journal of Business Finance & Accounting 2002;29(5- 6):695-729.

10. Gaspar JM. The Performance of French LBO Firms: New data and new results. Finance 2012;33(2):7-60.

11. Harford J, Stanfield J, Zhang F. What does an LBO signal for the target's rivals. SSRN Electronic Journal 2014.

12. He X, Zhang J, Xu J, Su J, Wei M. An Experimental Research of the Performance of the Trapped-Vortex Combustor. In 44th AIAA/ASME/SAE/ASEE Joint Propulsion Conference & Exhibit 2009, 5161.

13. Healy PM, Palepu KG, Ruback RS. Does corporate performance improve after mergers? Journal of financial economics 1992;31(2):135-175.

14. Holthausen RW, Larcker DF. The financial performance of reverse leveraged buyouts. Journal of Financial Economics 1996;42(3):293-332.

15. Jensen MC. Active investors, LBOs and the privatization of bankruptcy 1989.

16. Liebeskind J, Wiersema M, Hansen G. LBOs, corporate restructuring, and the incentive-intensity hypothesis. Financial Management 1992, 73-88.

17. Long WF, Ravenscraft DJ. The financial performance of whole company LBOs. Bureau of the Census 1993;93(16).

18. Muscarella CJ, Vetsuypens MR. Efficiency and organizational structure: A study of reverse LBOs. The Journal of Finance 1990;45(5):1389-1413.

19. Opler TC. Operating performance in leveraged buyouts: Evidence from 1985-1989. Financial Management 1992, 27-34.

20. Oxman J, Yildirim Y. Governance effects of LBO events 2008.

21. Phan PH, Hill CW. Organizational restructuring and economic performance in leveraged buyouts: An ex post study. Academy of Management Journal 1995;38(3):704-739.

22. Smith A. The effects of leveraged buyouts. Business Economics 1990, 19-25.

23. Varela JCS, Sannajust A, Arouri M, Chevalier A. Drivers of LBO operating performance: an empirical investigation in Latin America. European Business Review 2015.

24. Zahra SA. Corporate entrepreneurship and financial performance: The case of management leveraged buyouts. Journal of business venturing 1995;10(3):225-247.