

# **CHAPTER 4: DATA ANALYSIS**

## CHAPTER 4: DATA ANALYSIS

### 4.1. MARKETCAP / NET OPERATING REVENUE

*Table 1 : MarketCap/Net Operating Revenue Pharmaceutical Companies*

PHARMACEUTICAL COMPANIES										
MARKETCAP/NET OPERATING REVENUE										
NAME	202 1-22	202 0-21	201 9-20	201 8-19	201 7-18	201 6-17	201 5-16	201 4-15	201 3-14	201 2-13
Abbott India Ltd	7.65	7.39	8.02	4.21	3.51	3.40	3.83	3.67	1.62	1.91
Alkem Laboratories Ltd	4.90	4.59	4.17	3.67	4.46	5.65	4.13	0.00	0.00	0.00
Aurobindo Pharma Ltd	3.47	3.26	1.82	3.76	3.18	4.12	4.76	4.40	2.09	0.78
Cipla Ltd	6.28	4.73	2.69	3.45	3.84	4.42	3.40	5.64	3.28	3.72
Divis Laboratories Ltd	13.1 6	14.1 7	9.93	9.27	7.58	4.12	7.03	7.70	7.23	6.13
Dr Reddys Laboratories Ltd	4.97	5.63	4.37	4.33	3.69	4.49	5.07	5.94	4.48	3.56
Lupin Ltd	2.88	4.19	2.42	2.94	3.30	5.17	5.94	9.25	4.69	3.95
Sun Pharmaceutical Industries Ltd	14.0 8	11.2 0	6.74	11.1 6	13.2 0	21.4 7	25.9 0	26.4 1	41.9 8	34.8 5
Torrent Pharmaceuticals Ltd	7.02	6.67	5.41	5.73	4.97	5.71	4.17	5.65	2.63	2.13

Zydus Lifesciences Ltd	4.47	5.80	4.31	5.88	6.67	14.05	4.62	6.74	5.20	4.13
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Figure 7 : MarketCap/Net Operating Revenue Pharmaceutical Companies

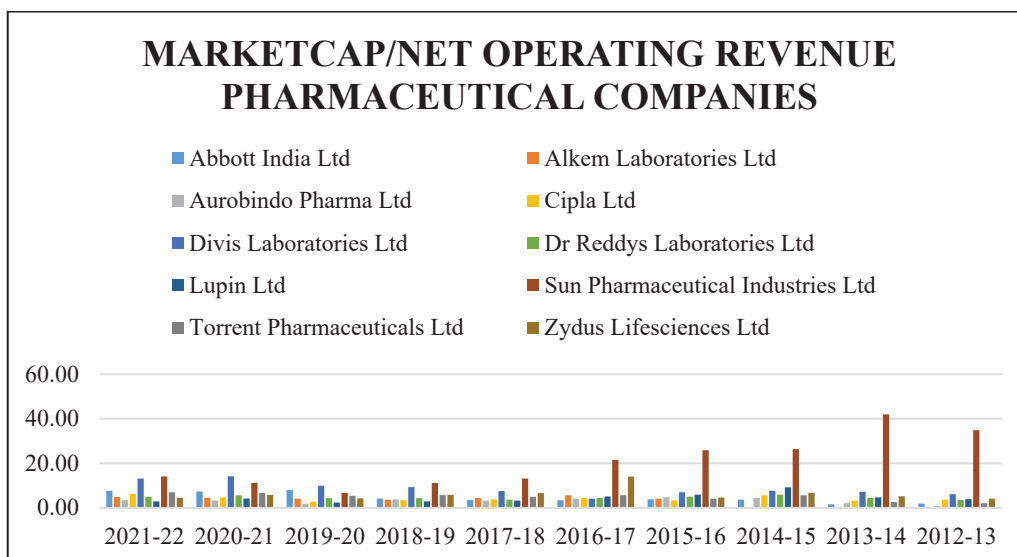


Table 2 : MarketCap/Net Operating Revenue Retail Companies

RETAIL COMPANIES										
MARKETCAP/NET OPERATING REVENUE										
NAME	2021-22	2020-21	2019-20	2018-19	2017-18	2016-17	2015-16	2014-15	2013-14	2012-13
Aditya Birla Fashion & Retail Ltd	3.62	3.55	1.36	2.11	1.62	1.79	1.82	0.57	0.45	0.00
Avenue Supermarts Ltd	8.54	7.77	5.78	4.61	5.52	3.35	0.00	0.00	0.00	0.00
Bella Casa Fashion & Retail Ltd	0.97	1.17	0.72	1.06	1.46	0.91	0.24	0.00	0.00	0.00

Cantabil Retail India Ltd	3.91	2.45	0.97	1.65	0.96	0.80	0.73	0.59	0.25	0.26
Future Enterprises Ltd	0.19	0.44	0.11	0.42	0.42	0.38	0.66	0.39	0.16	0.85
Heads UP Ventures Ltd	33.13	59.97	0.08	0.30	0.92	1.83	0.00	0.00	0.00	0.00
Shoppers Stop Ltd	2.05	1.36	0.50	1.19	1.29	0.83	0.89	1.12	1.18	1.48
Trent Ltd	11.69	13.05	5.36	4.72	5.57	5.14	3.51	3.59	2.71	3.53
V2 Retail Ltd	0.80	0.80	0.25	1.32	2.53	1.25	0.37	0.27	0.15	0.18
V-Mart Retail Ltd	4.71	5.07	1.54	3.41	2.81	1.49	1.05	1.42	0.90	0.79

Figure 8 : MarketCap/Net Operating Revenue Retail Companies

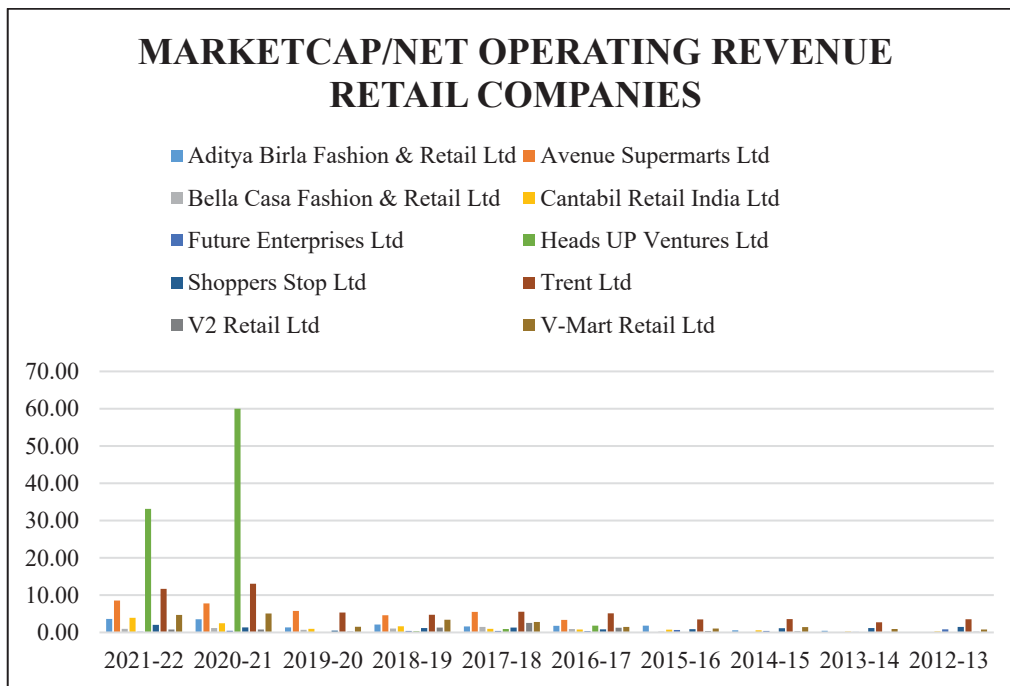


Table 3 : Average of MarketCap/Net Operating Revenue by Company

MARKETCAP/NET OPERATING REVENUE		
INDUSTRY	NAME	AVERAGE VALUE
PHARMACEUTICAL COMPANIES	Abbott India Ltd	4.52
	Alkem Laboratories Ltd	3.16
	Aurobindo Pharma Ltd	3.16
	Cipla Ltd	4.15
	Divis Laboratories Ltd	8.63
	Dr Reddys Laboratories Ltd	4.65
	Lupin Ltd	4.47
	Sun Pharmaceutical Industries Ltd	20.70
	Torrent Pharmaceuticals Ltd	5.01
	Zydus Lifesciences Ltd	6.19
RETAIL COMPANIES	Aditya Birla Fashion & Retail Ltd	1.69
	Avenue Supermarts Ltd	3.56
	Bella Casa Fashion & Retail Ltd	0.65
	Cantabil Retail India Ltd	1.26
	Future Enterprises Ltd	0.40
	Heads UP Ventures Ltd	9.62
	Shoppers Stop Ltd	1.19
	Trent Ltd	5.89
	V2 Retail Ltd	0.79
	V-Mart Retail Ltd	2.32

Figure 9 : Average of MarketCap/Net Operating Revenue by Company

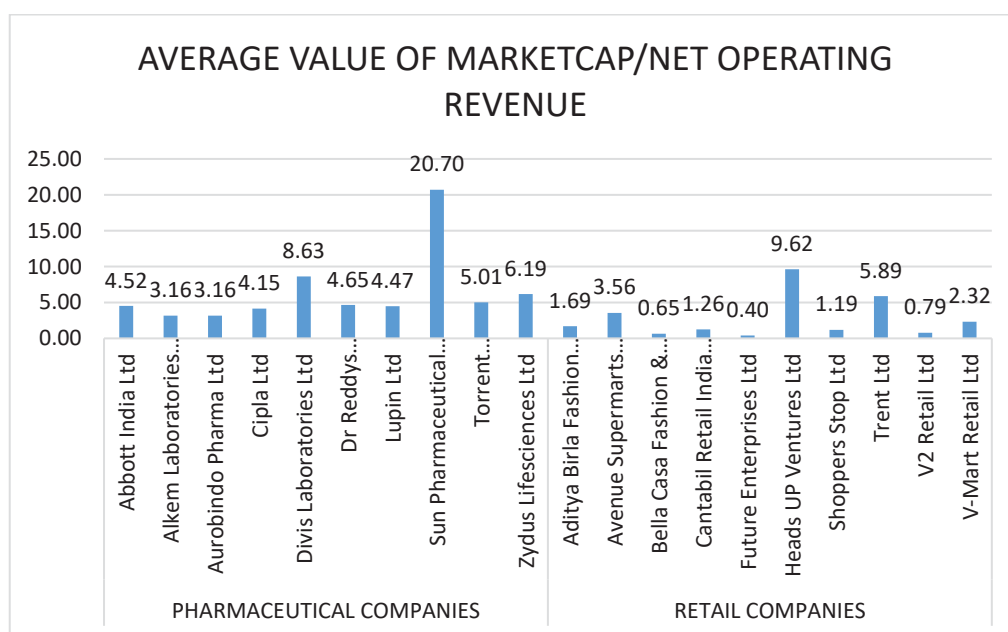
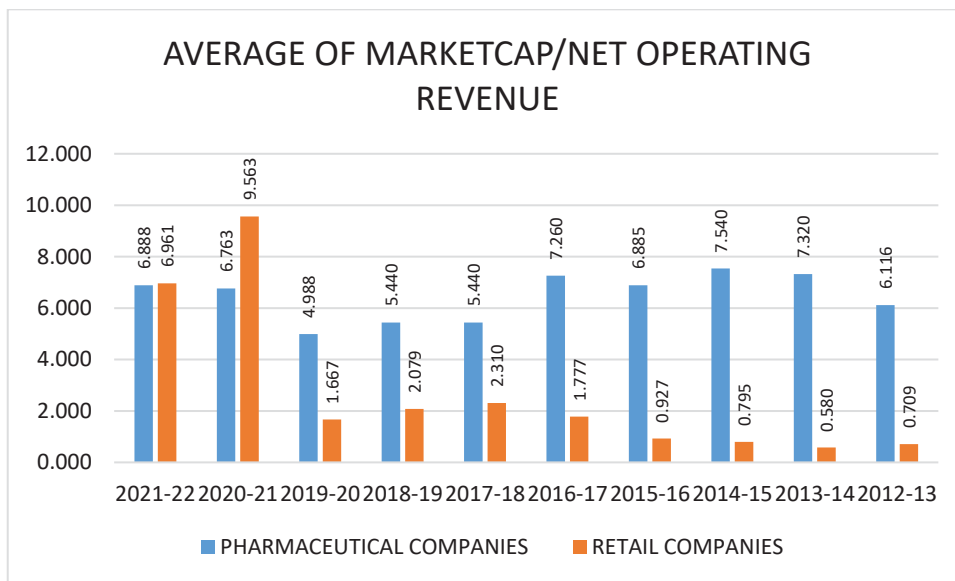


Table 4 : Average of MarketCap/Net Operating Revenue by Year

MARKETCAP/NET OPERATING REVENUE		
YEAR	PHARMACEUTICAL COMPANIES	RETAIL COMPANIES
2021-22	6.888	6.961
2020-21	6.763	9.563
2019-20	4.988	1.667
2018-19	5.440	2.079
2017-18	5.440	2.310
2016-17	7.260	1.777
2015-16	6.885	0.927
2014-15	7.540	0.795
2013-14	7.320	0.580
2012-13	6.116	0.709

Figure 10 : Average of MarketCap/Net Operating Revenue by Year



From the above average value of marketcap/net operating revenue table it can be concluded that in pharmaceutical companies, Sun Pharmaceutical Industries Ltd has highest average value of marketcap/net operating revenue with value 20.699. Alkem Laboratories Ltd has lowest average value of marketcap/net operating revenue with value 3.157.

In case of retail companies, Heads UP Ventures Ltd has highest average value of marketcap/net operating revenue with value 9.623. Future Enterprises Ltd has lowest average value of marketcap/net operating revenue with value 0.402.

On an average pharmaceutical companies have higher average value of marketcap/net operating revenue than selected retail companies.

From the above average of marketcap/net operating revenue table, it can be concluded that during the year 2021-22 retail companies have higher average of marketcap/net operating revenue. During the year 2020-21 retail companies have higher average of marketcap/net operating revenue. During the year 2019-20 pharmaceutical companies have higher average of marketcap/net operating revenue. During the year 2018-19 pharmaceutical companies have higher average of marketcap/net operating revenue. During the year 2017-18 pharmaceutical companies have higher average of

marketcap/net operating revenue. During the year 2016-17 pharmaceutical companies have higher average of marketcap/net operating revenue. During the year 2015-16 pharmaceutical companies have higher average of marketcap/net operating revenue. During the year 2014-15 pharmaceutical companies have higher average of marketcap/net operating revenue. During the year 2013-14 pharmaceutical companies have higher average of marketcap/net operating revenue. During the year 2012-13 pharmaceutical companies have higher average of marketcap/net operating revenue.

#### SUMMARY

<i>Groups</i>	<i>Count</i>	<i>Sum</i>	<i>Average</i>	<i>Variance</i>
Abbott India Ltd	10	45.21	4.521	5.45278 8
Alkem Laboratories Ltd	10	31.57	3.157	5.01560 1
Aurobindo Pharma Ltd	10	31.64	3.164	1.56560 4
Cipla Ltd	10	41.45	4.145	1.26533 9
Divis Laboratories Ltd	10	86.32	8.632	9.59884
Dr Reddys Laboratories Ltd	10	46.53	4.653	0.58313 4
Lupin Ltd	10	44.73	4.473	4.03742 3
Sun Pharmaceutical Industries Ltd	10	206.9 9	20.699	132.168 4
Torrent Pharmaceuticals Ltd	10	50.09	5.009	2.55996 6
Zydus Lifesciences Ltd	10	61.87	6.187	8.52689



## ANOVA

<i>Source of Variation</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>P-value</i>	<i>F crit</i>
“Between Groups”	2477.52 3	9	275.280 3	16.1195 7	2.08E- 15	1.98559 5
“Within Groups”	1536.96 6	90	17.0774			
Total	4014.48 8	99				

$H_0$  = There is no significant difference in MarketCap/Net Operating Revenue for selected Pharmaceutical Companies of India.

“From above table for 9 and 90 degree of freedom”

$F_{cal}$  is 16.12 and  $F_{tab}$  is 1.986

“Thus,  $F_{cal} > F_{tab}$  and p-value is smaller than specified  $\alpha$  of 0.05”

So, null hypothesis is rejected and it is concluded that there is significant difference in MarketCap/Net Operating Revenue for selected Pharmaceutical Companies of India.

Anova: Single Factor

## SUMMARY

<i>Groups</i>	<i>Count</i>	<i>Sum</i>	<i>Average</i>	<i>Variance</i>
Aditya Birla Fashion & Retail Ltd	10	16.89	1.689	1.461077
Avenue Supermarts Ltd	10	35.57	3.557	11.45949
Bella Casa Fashion & Retail Ltd	10	6.53	0.653	0.300557
Cantabil Retail India Ltd	10	12.57	1.257	1.302912
Future Enterprises Ltd	10	4.02	0.402	0.050973
Heads UP Ventures Ltd	10	96.23	9.623	419.1409

Shoppers Stop Ltd	10	11.89	1.189	0.173699
Trent Ltd	10	58.87	5.887	12.65073
V2 Retail Ltd	10	7.92	0.792	0.56004
V-Mart Retail Ltd	10	23.19	2.319	2.531143

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ANOVA

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<i>Source of Variation</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>P-value</i>	<i>F crit</i>
“Between Groups”	774.4993	9	86.05548	1.913911	0.059754	1.985595
“Within Groups”	4046.684	90	44.96315			
Total	4821.183	99				

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$H_0$  = There is no significant difference in MarketCap/Net Operating Revenue for selected Retail Companies of India.

“From above table for 9 and 90 degree of freedom”

$F_{cal}$  is 1.914 and  $F_{tab}$  is 1.986

Thus,  $F_{cal} > F_{tab}$  and p-value is more than specified  $\alpha$  of 0.05

So, null hypothesis is accepted and it is concluded that there is no significant difference in MarketCap/Net Operating Revenue for selected Retail Companies of India.

“t-Test: Two-Sample Assuming Equal Variances”

	<i>Pharmaceutical Companies</i>	<i>Retail Companies</i>
Mean	6.464	2.7368
Variance	0.8186	9.21457
Observations	10	10
“Pooled Variance”	5.01658	

Hypothesized Mean Difference	0
df	18
t Stat	3.72103
“P(T<=t) one-tail”	0.00078
“t Critical one-tail”	1.73406
“P(T<=t) two-tail”	0.00156
“t Critical two-tail”	2.10092

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H0 : There is no significant difference in MarketCap/Net Operating Revenue between selected Pharmaceutical and Retail Companies of India.

From the above table it can be seen that P value (Two Tail) is 0.00156 which is smaller than significance value 0.05 (P value < 0.05) which means,

Null Hypothesis (H0) is rejected and it concludes that there is significant difference in MarketCap/Net Operating Revenue between selected Pharmaceutical and Retail Companies of India.

## 4.2. NET PROFIT MARGIN (%)

Table 5 : Net Profit Margin (%) Pharmaceutical Companies

PHARMACEUTICAL COMPANIES										
NET PROFIT MARGIN (%)										
NAME	2021-22	2020-21	2019-20	2018-19	2017-18	2016-17	2015-16	2014-15	2013-14	2012-13
Abbott India Ltd	16.23	16.02	14.48	12.24	12.16	9.53	9.76	10.00	8.63	8.75
Alkem Laboratories Ltd	17.45	23.34	18.93	13.99	13.50	18.91	17.72	13.78	16.46	20.28

Aurobindo Pharma Ltd	12.88	19.67	14.11	12.47	17.65	17.76	17.74	18.73	16.48	9.14
Cipla Ltd	22.59	17.75	18.31	15.26	12.89	9.05	12.06	11.65	14.80	18.37
Divis Laboratories Ltd	33.20	28.75	25.84	27.31	22.78	26.17	29.76	27.46	31.49	28.72
Dr Reddys Laboratories Ltd	11.26	16.37	24.78	12.02	6.05	14.24	13.26	16.77	19.86	15.00
Lupin Ltd	-1.60	11.38	6.59	13.55	13.33	24.87	25.23	24.58	25.99	17.69
Sun Pharmaceutical Industries Ltd	-0.64	16.71	25.62	7.92	3.39	-0.29	-14.09	-18.38	-99.99	21.23
Torrent Pharmaceuticals Ltd	14.70	17.63	15.21	12.93	11.34	18.59	32.04	17.93	22.65	19.75
Zydus Lifesciences Ltd	10.74	18.97	22.25	24.60	18.77	20.48	28.97	24.05	22.35	13.56

Figure 11 : Net Profit Margin (%) Pharmaceutical Companies

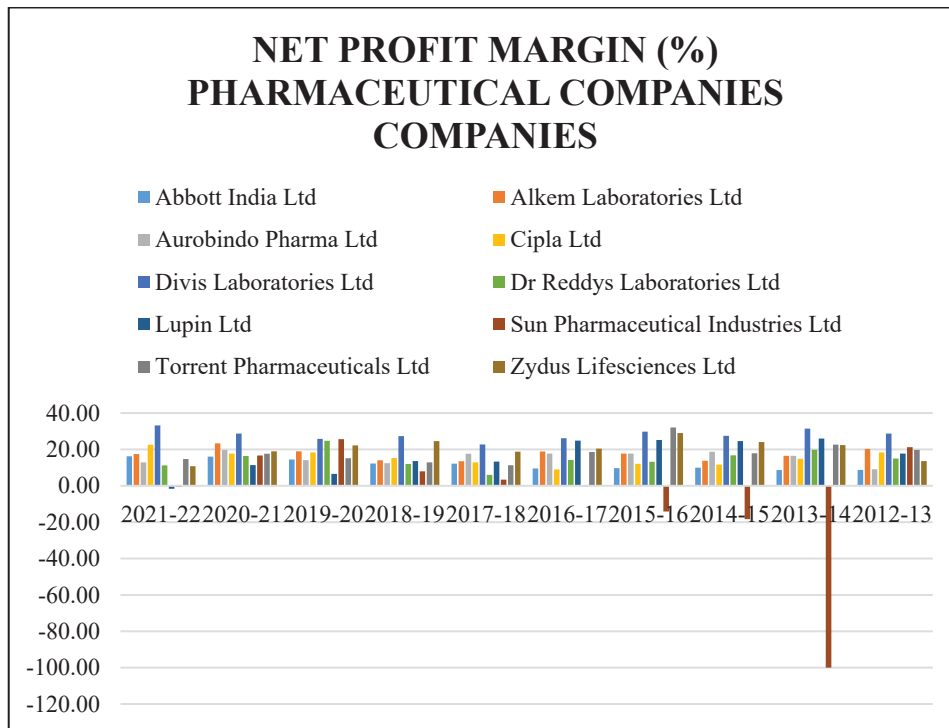


Table 6 : Net Profit Margin (%) Retail Companies

RETAIL COMPANIES										
NET PROFIT MARGIN (%)										
NAME	2021-22	2020-21	2019-20	2018-19	2017-18	2016-17	2015-16	2014-15	2013-14	2012-13
Aditya Birla Fashion & Retail Ltd	-1.03	12.53	-1.66	3.95	1.64	0.81	-1.71	12.32	11.30	-5.36
Avenue Supermarts Ltd	5.32	4.89	5.47	4.70	5.22	4.06	3.70	3.27	3.40	2.77
Bella Casa Fashion & Retail Ltd	5.42	4.19	5.59	5.97	4.56	2.84	1.62	0.48	1.05	1.47
Cantabil Retail India Ltd	9.92	3.84	4.86	4.33	10.18	2.59	3.26	2.08	-8.18	-28.74

Future Enterprises Ltd	- 153. 57	- 118. 37	-7.13	0.52	-0.29	1.15	0.14	0.71	0.02	3.91
Heads UP Ventures Ltd	- 550. 87	- 631. 68	- 20.4 4	-0.26	3.47	5.38	9.81	11.7 3	0.00	0.00
Shoppers Stop Ltd	-3.47	- 15.9 5	-4.16	2.26	0.32	-0.54	0.73	1.33	1.36	1.73
Trent Ltd	6.43	-2.49	4.86	5.03	5.64	6.22	5.18	7.36	4.32	6.65
V2 Retail Ltd	-2.05	-2.04	1.44	2.73	5.55	8.26	3.75	3.40	-1.96	-4.99
V-Mart Retail Ltd	0.69	-0.57	2.96	4.29	6.35	4.38	3.41	5.18	4.37	4.69

Figure 12 : Net Profit Margin (%) Retail Companies

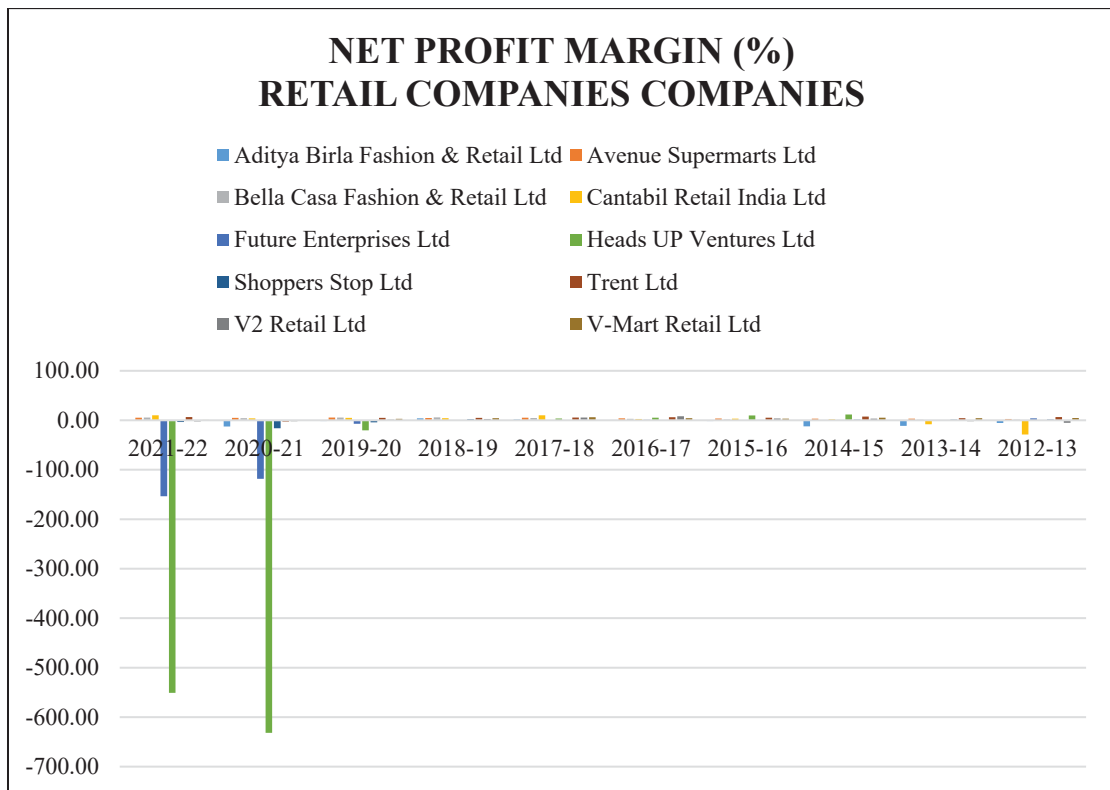


Table 7 : Average of Net Profit Margin (%) by Company

NET PROFIT MARGIN (%)

INDUSTRY	NAME	AVERAGE VALUE
<b>PHARMACEUTICAL COMPANIES</b>	Abbott India Ltd	11.78
	Alkem Laboratories Ltd	17.44
	Aurobindo Pharma Ltd	15.66
	Cipla Ltd	15.27
	Divis Laboratories Ltd	28.15
	Dr Reddys Laboratories Ltd	14.96
	Lupin Ltd	16.16
	Sun Pharmaceutical Industries Ltd	-5.85
	Torrent Pharmaceuticals Ltd	18.28
	Zydus Lifesciences Ltd	20.47
<b>RETAIL COMPANIES</b>	Aditya Birla Fashion & Retail Ltd	-3.95
	Avenue Supermarts Ltd	4.28
	Bella Casa Fashion & Retail Ltd	3.32
	Cantabil Retail India Ltd	0.41
	Future Enterprises Ltd	-27.29
	Heads UP Ventures Ltd	-117.29
	Shoppers Stop Ltd	-1.64
	Trent Ltd	4.92
	V2 Retail Ltd	1.41
	V-Mart Retail Ltd	3.58

Figure 13 : Average of Net Profit Margin (%) by Company

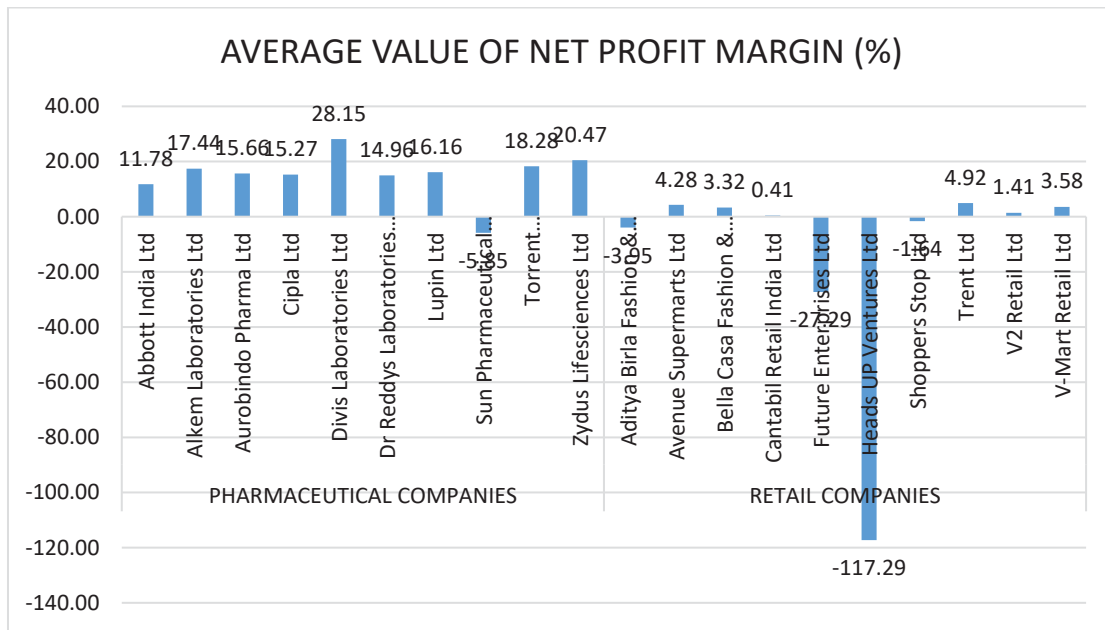
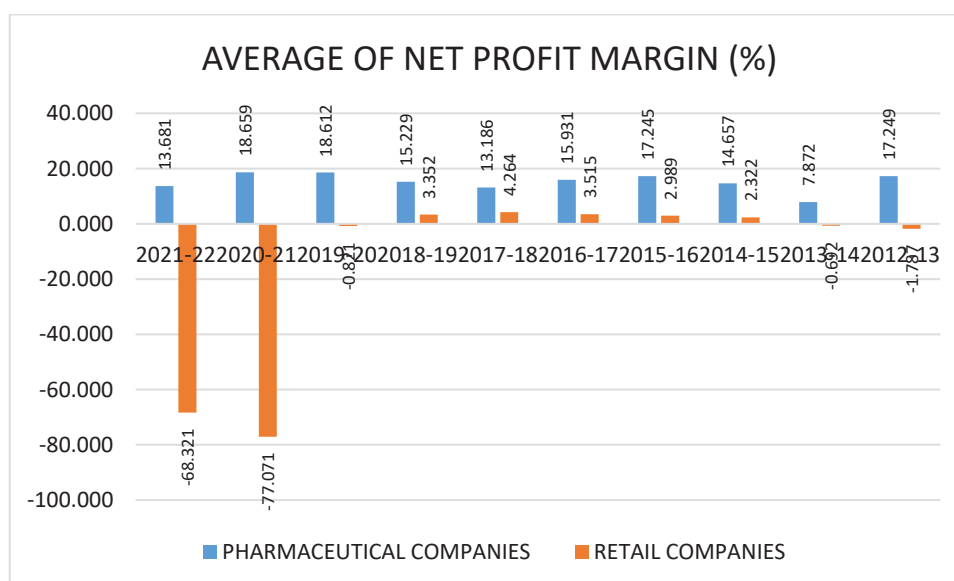


Table 8 : Average of Net Profit Margin (%) by Year

NET PROFIT MARGIN (%)		
YEAR	PHARMACEUTICAL COMPANIES	RETAIL COMPANIES
2021-22	13.681	-68.321
2020-21	18.659	-77.071
2019-20	18.612	-0.821
2018-19	15.229	3.352
2017-18	13.186	4.264
2016-17	15.931	3.515
2015-16	17.245	2.989
2014-15	14.657	2.322
2013-14	7.872	-0.692
2012-13	17.249	-1.787



Figure 14 : Average of Net Profit Margin (%) by Year



From the above average value of net profit margin (%) table it can be concluded that in pharmaceutical companies, Divis Laboratories Ltd has highest average value of net profit margin (%) with value 28.148. Sun Pharmaceutical Industries Ltd has lowest average value of net profit margin (%) with value -5.852.

In case of retail companies, Trent Ltd has highest average value of net profit margin (%) with value 4.92. Heads UP Ventures Ltd has lowest average value of net profit margin (%) with value -117.286.

On an average pharmaceutical companies have higher average value of net profit margin (%) than selected retail companies.

From the above average of net profit margin (%) table, it can be concluded that during the year 2021-22 pharmaceutical companies have higher average of net profit margin (%). During the year 2020-21 pharmaceutical companies have higher average of net profit margin (%). During the year 2019-20 pharmaceutical companies have higher average of net profit margin (%). During the year 2018-19 pharmaceutical companies have higher average of net profit margin (%). During the year 2017-18 pharmaceutical companies have higher average of net profit margin (%). During the year 2016-17 pharmaceutical companies have higher average of net profit margin (%). During the year 2015-16 pharmaceutical companies have higher average of net profit margin (%).

During the year 2014-15 pharmaceutical companies have higher average of net profit margin (%). During the year 2013-14 pharmaceutical companies have higher average of net profit margin (%). During the year 2012-13 pharmaceutical companies have higher average of net profit margin (%).

Anova: Single Factor

SUMMARY

<i>Groups</i>	<i>Count</i>	<i>Sum</i>	<i>Average</i>	<i>Variance</i>
Abbott India Ltd	10	117.8	11.78	8.537867
Alkem Laboratories Ltd	10	174.36	17.436	9.901893
Aurobindo Pharma Ltd	10	156.63	15.663	11.29902
Cipla Ltd	10	152.73	15.273	16.28518
Divis Laboratories Ltd	10	281.48	28.148	8.801129
Dr Reddys Laboratories Ltd	10	149.61	14.961	25.6487
Lupin Ltd	10	161.61	16.161	85.8519
Sun Pharmaceutical Industries Ltd	10	-58.52	-5.852	1294.77
Torrent Pharmaceuticals Ltd	10	182.77	18.277	34.47376
Zydus Lifesciences Ltd	10	204.74	20.474	28.48745

ANOVA

<i>Source of Variation</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>P-value</i>	<i>F crit</i>
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“Between Groups”	6660.065	9	740.0073	4.85551	2.69E-05	1.985595
“Within Groups”	13716.51	90	152.4057			
Total	20376.57	99				

H0 = There is no significant difference in Net Profit Margin (%) for selected Pharmaceutical Companies of India.

“From above table for 9 and 90 degree of freedom”

Fcal is 4.856 and Ftab is 1.986

“Thus, Fcal>Ftab and p-value is smaller than specified  $\alpha$  of 0.05”

So, null hypothesis is rejected and it is concluded that there is significant difference in Net Profit Margin (%) for selected Pharmaceutical Companies of India.

Anova: Single Factor

#### SUMMARY

<i>Groups</i>	<i>Count</i>	<i>Sum</i>	<i>Average</i>	<i>Variance</i>
Aditya Birla Fashion & Retail Ltd	10	-39.51	-3.951	37.19863
Avenue Supermarts Ltd	10	42.8	4.28	0.932133
Bella Casa Fashion & Retail Ltd	10	33.19	3.319	4.293477
Cantabil Retail India Ltd	10	4.14	0.414	130.2223
Future Enterprises Ltd	10	-272.91	-27.291	3357.282

Heads UP Ventures Ltd	10	-	-117.286	62845.56
Shoppers Stop Ltd	10	-16.39	-1.639	29.94797
Trent Ltd	10	49.2	4.92	7.642933
V2 Retail Ltd	10	14.09	1.409	16.82579
V-Mart Retail Ltd	10	35.75	3.575	4.357872

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ANOVA

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<i>Source of Variation</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>P-value</i>	<i>F crit</i>
“Between Groups”	128385.7	9	14265.08	2.147248	0.033255	1.985595
“Within Groups”	597908.3	90	6643.426			
Total	726294.1	99				

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$H_0$  = There is no significant difference in Net Profit Margin (%) for selected Retail Companies of India.

“From above table for 9 and 90 degree of freedom”

$F_{cal}$  is 2.147 and  $F_{tab}$  is 1.986

“Thus,  $F_{cal} > F_{tab}$  and p-value is smaller than specified  $\alpha$  of 0.05”

So, null hypothesis is rejected and it is concluded that there is significant difference in Net Profit Margin (%) for selected Retail Companies of India.

“t-Test: Two-Sample Assuming Equal Variances”

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	<i>Pharmaceutical Companies</i>	<i>Retail Companies</i>
Mean	15.2321	-13.225
Variance	10.3189	991.015
Observations	10	10

“Pooled Variance”	500.667
Hypothesized Mean Difference	0
df	18
t Stat	2.84381
“P(T<=t) one-tail”	0.00539
“t Critical one-tail”	1.73406
“P(T<=t) two-tail”	0.01077
“t Critical two-tail”	2.10092

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H0 : There is no significant difference in Net Profit Margin (%) between selected Pharmaceutical and Retail Companies of India.

From the above table it can be seen that P value (Two Tail) is 0.01077 which is smaller than significance value 0.05 (P value < 0.05) which means,

Null Hypothesis (H0) is rejected and it concludes that there is significant difference in Net Profit Margin (%) between selected Pharmaceutical and Retail Companies of India.

### 4.3. NET PROFIT/SHARE (Rs)

Table 9 : Net Profit/Share (Rs.) Pharmaceutical Companies

PHARMACEUTICAL COMPANIES										
NET PROFIT/SHARE (Rs.)										
NAME	202 1-22	202 0-21	201 9-20	201 8-19	201 7-18	201 6-17	201 5-16	201 4-15	201 3-14	201 2-13
Abbott India Ltd	375. 86	325. 03	279. 04	211. 93	188. 81	130. 19	120. 12	107. 75	93.3 9	68.1 0
Alkem Laboratories Ltd	128. 92	140. 95	105. 76	66.9 0	59.8 8	73.8 7	58.5 7	36.7 1	368. 06	390. 28
Aurobindo Pharma Ltd	24.8 3	53.1 3	31.9 6	26.1 1	30.9 4	29.1 3	27.8 0	51.9 3	40.2 1	17.0 3
Cipla Ltd	36.6 6	30.6 1	28.7 5	23.4 4	18.2 4	12.1 2	18.2 0	14.7 1	17.2 9	18.7 7
Divis Laboratories Ltd	111. 08	73.6 4	51.7 1	50.2 0	32.7 6	39.6 8	41.7 3	63.8 2	59.6 5	46.0 6
Dr Reddys Laboratories Ltd	97.5 5	131. 39	176. 76	76.9 5	34.1 5	83.4 8	79.4 0	98.5 6	113. 56	74.5 3
Lupin Ltd	- 4.15	27.7 4	16.0 6	34.0 1	29.7 4	69.5 6	62.8 2	53.3 3	51.8 3	28.1 6
Sun Pharmaceutical Industries Ltd	- 0.42	8.92	13.3 8	3.40	1.27	- 0.10	- 4.46	- 7.12	- 13.6 6	4.99
Torrent Pharmaceuticals Ltd	58.5 8	67.2 3	55.4 5	44.0 5	28.4 8	50.4 7	102. 99	36.8 2	45.0 4	64.5 7
Zydus Lifesciences Ltd	8.38	14.4 2	13.8 0	14.5 1	10.6 5	6.46	19.9 0	62.0 7	44.1 2	24.3 5

Figure 15 : Net Profit/Share (Rs.) Pharmaceutical Companies

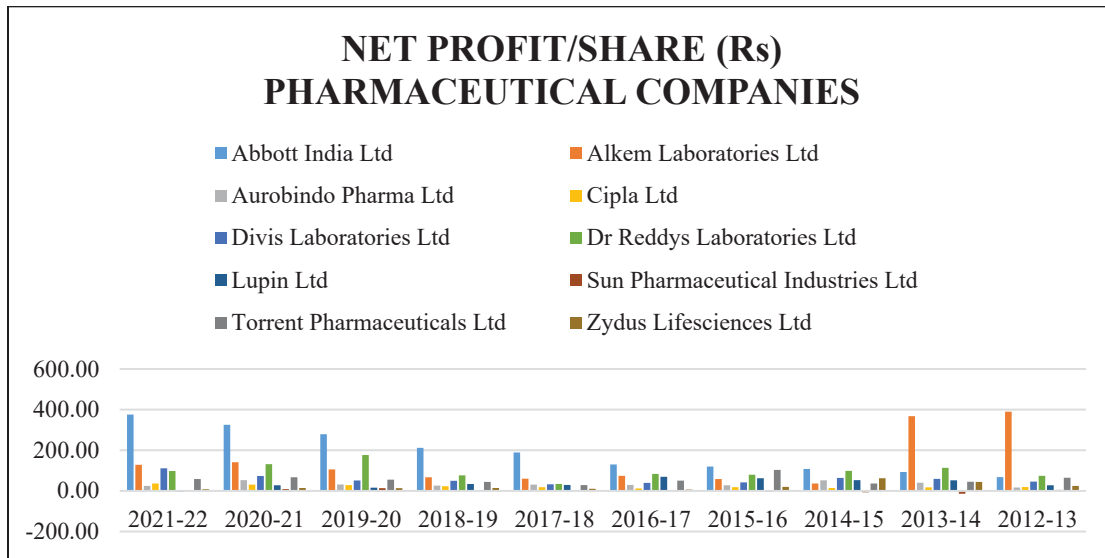


Table 10 : Net Profit/Share (Rs.) Retail Companies

RETAIL COMPANIES										
NET PROFIT/SHARE (Rs.)										
NAME	202 1-22	202 0-21	201 9-20	201 8-19	201 7-18	201 6-17	201 5-16	201 4-15	201 3-14	201 2-13
Aditya Birla Fashion & Retail Ltd	- 0.86	- 7.10	- 1.88	4.15	1.53	0.69	- 1.35	- 24.5 9	- 20.2 3	- 13.7 7
Avenue Supermarts Ltd	24.9 5	17.9 9	20.8 4	15.0 0	12.5 7	7.73	5.66	3.75	2.92	1.70
Bella Casa Fashion & Retail Ltd	9.73	4.71	7.96	7.65	5.70	3.55	1.51	1.87	4.29	4.15
Cantabil Retail India Ltd	23.3 1	5.92	10.0 6	7.66	12.2 4	2.49	3.11	1.77	- 5.58	- 20.1 4

Future Enterprises Ltd	- 47.0 3	- 21.2 4	- 5.84	0.49	- 0.25	0.92	0.28	1.79	0.12	11.8 0
Heads UP Ventures Ltd	- 2.43	- 1.26	- 14.0 6	- 0.27	4.09	6.33	4.28	4.03	- 0.30	- 0.30
Shoppers Stop Ltd	- 7.91	- 25.1 6	- 16.0 2	8.95	1.32	- 2.39	3.02	4.89	4.45	4.72
Trent Ltd	7.02	- 1.44	4.35	3.84	3.51	3.22	23.4 3	30.1 0	16.3 2	18.7 4
V2 Retail Ltd	- 3.75	- 3.24	2.97	6.01	9.16	12.6 2	4.89	4.14	- 2.01	- 2.35
V-Mart Retail Ltd	5.89	- 3.15	27.1 8	33.9 9	42.9 4	24.3 0	15.2 9	20.7 4	14.0 1	10.0 3

Figure 16 : Net Profit/Share (Rs.) Retail Companies

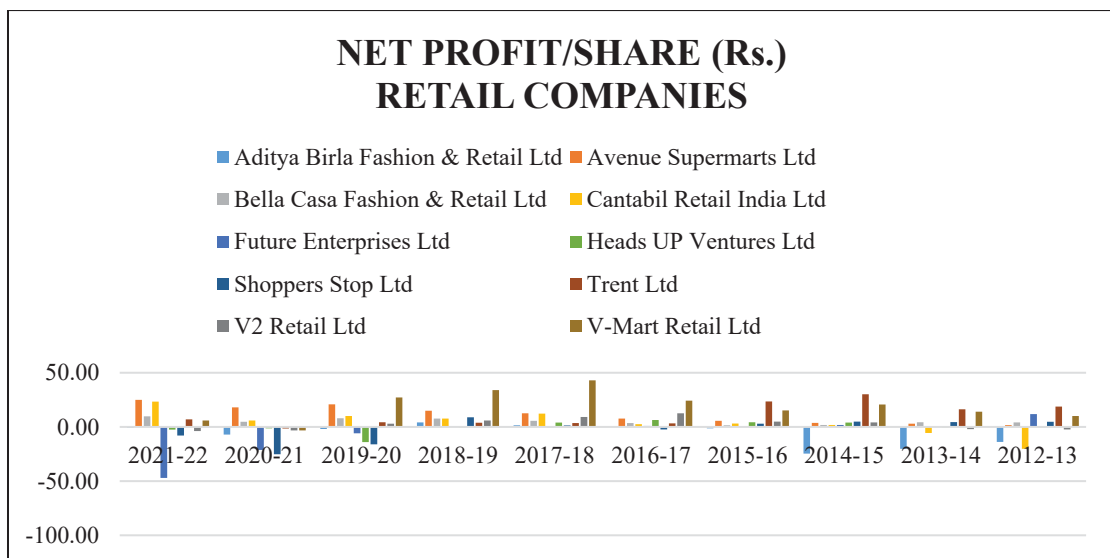




Table 11 : Average of Net Profit/Share (Rs.) by Company

NET PROFIT/SHARE (Rs.)		
INDUSTRY	NAME	AVERAGE VALUE
<b>PHARMACEUTICAL COMPANIES</b>	Abbott India Ltd	190.02
	Alkem Laboratories Ltd	142.99
	Aurobindo Pharma Ltd	33.31
	Cipla Ltd	21.88
	Divis Laboratories Ltd	57.03
	Dr Reddys Laboratories Ltd	96.63
	Lupin Ltd	36.91
	Sun Pharmaceutical Industries Ltd	0.62
	Torrent Pharmaceuticals Ltd	55.37
	Zydus Lifesciences Ltd	21.87
<b>RETAIL COMPANIES</b>	Aditya Birla Fashion & Retail Ltd	-6.34
	Avenue Supermarts Ltd	11.31
	Bella Casa Fashion & Retail Ltd	5.11
	Cantabil Retail India Ltd	4.08
	Future Enterprises Ltd	-5.90
	Heads UP Ventures Ltd	0.01
	Shoppers Stop Ltd	-2.41
	Trent Ltd	10.91
	V2 Retail Ltd	2.84
	V-Mart Retail Ltd	19.12

Figure 17 : Average of Net Profit/Share (Rs.) by Company

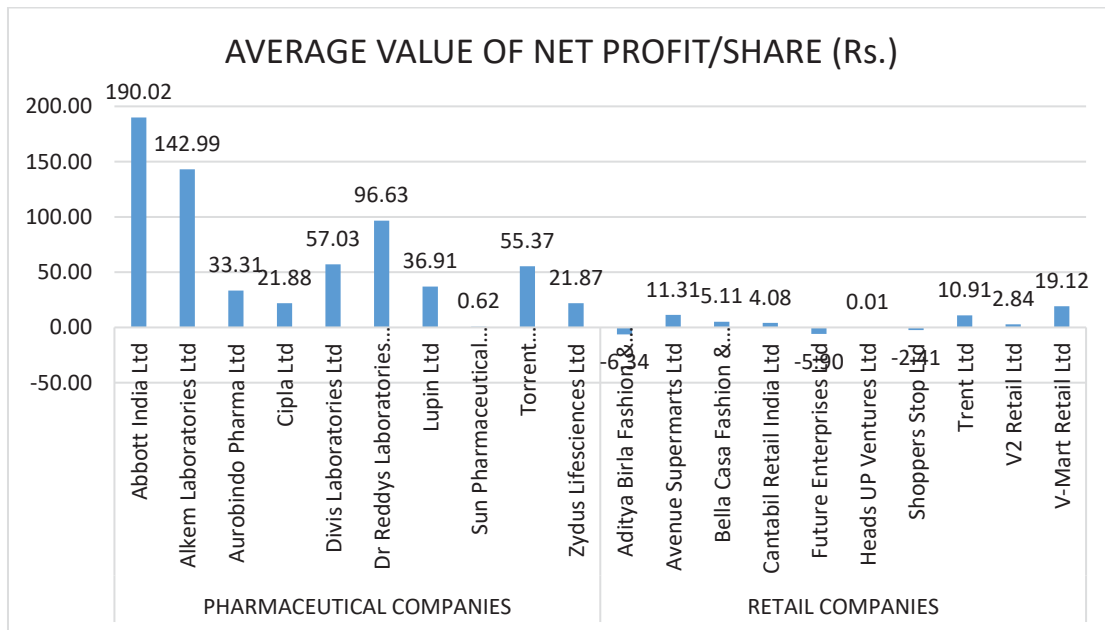
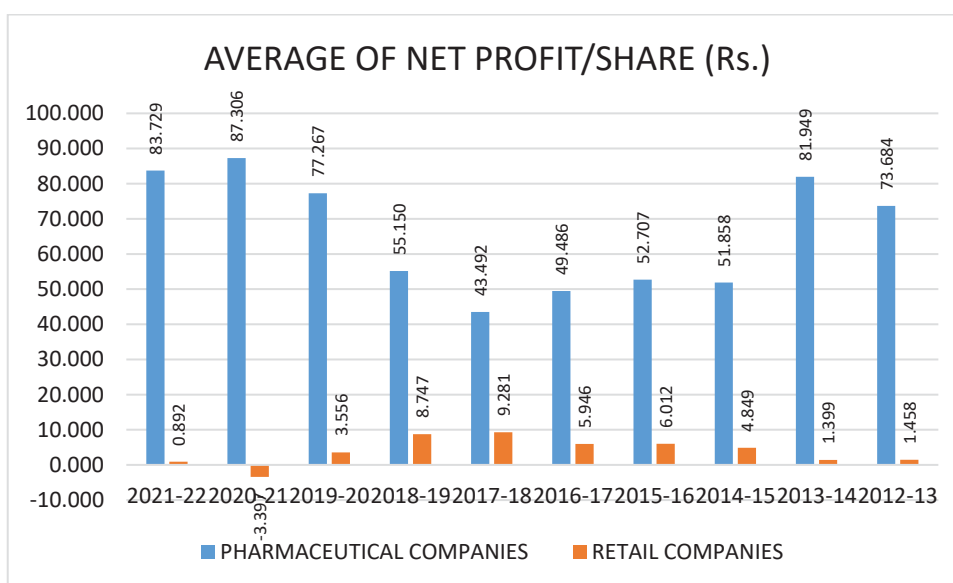


Table 12 : Average of Net Profit/Share (Rs.) by Year

NET PROFIT/SHARE (Rs.)		
YEAR	PHARMACEUTICAL COMPANIES	RETAIL COMPANIES
2021-22	83.729	0.892
2020-21	87.306	-3.397
2019-20	77.267	3.556
2018-19	55.150	8.747
2017-18	43.492	9.281
2016-17	49.486	5.946
2015-16	52.707	6.012
2014-15	51.858	4.849
2013-14	81.949	1.399
2012-13	73.684	1.458

Figure 18 : Average of Net Profit/Share (Rs.) by Year



From the above average value of net profit/share (Rs.) table it can be concluded that in pharmaceutical companies, Abbott India Ltd has highest average value of net profit/share (Rs.) with value 190.022. Sun Pharmaceutical Industries Ltd has lowest average value of net profit/share (Rs.) with value 0.62.

In case of retail companies, V-Mart Retail Ltd has highest average value of net profit/share (Rs.) with value 19.122. Aditya Birla Fashion & Retail Ltd has lowest average value of net profit/share (Rs.) with value -6.341.

On an average pharmaceutical companies have higher average value of net profit/share (Rs.) than selected retail companies.

From the above average of net profit/share (Rs.) table, it can be concluded that during the year 2021-22 pharmaceutical companies have higher average of net profit/share (Rs.). During the year 2020-21 pharmaceutical companies have higher average of net profit/share (Rs.). During the year 2019-20 pharmaceutical companies have higher average of net profit/share (Rs.). During the year 2018-19 pharmaceutical companies have higher average of net profit/share (Rs.). During the year 2017-18 pharmaceutical companies have higher average of net profit/share (Rs.). During the year 2016-17 pharmaceutical companies have higher average of net profit/share (Rs.). During the year 2015-16 pharmaceutical companies have higher average of net profit/share (Rs.).

During the year 2014-15 pharmaceutical companies have higher average of net profit/share (Rs.). During the year 2013-14 pharmaceutical companies have higher average of net profit/share (Rs.). During the year 2012-13 pharmaceutical companies have higher average of net profit/share (Rs.).

Anova: Single Factor

SUMMARY

<i>Groups</i>	<i>Count</i>	<i>Sum</i>	<i>Average</i>	<i>Variance</i>
Abbott India Ltd	10	1900.22	190.022	11178.46
Alkem Laboratories Ltd	10	1429.9	142.99	16588.2
Aurobindo Pharma Ltd	10	333.07	33.307	136.8008
Cipla Ltd	10	218.79	21.879	60.94339
Divis Laboratories Ltd	10	570.33	57.033	507.7445
Dr Reddys Laboratories Ltd	10	966.33	96.633	1463.281
Lupin Ltd	10	369.1	36.91	507.8544
Sun Pharmaceutical Industries Ltd	10	6.2	0.62	61.13198
Torrent Pharmaceuticals Ltd	10	553.68	55.368	425.4789
Zydus Lifesciences Ltd	10	218.66	21.866	315.6964

ANOVA

<i>Source of Variation</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>P-value</i>	<i>F crit</i>
“Between Groups”	325236.8	9	36137.43	11.56561	7.19E-12	1.985595

“Within Groups”	281210.3	90	3124.558
Total	606447.1	99	

---

H0 = There is no significant difference in Net Profit/Share (Rs.) for selected Pharmaceutical Companies of India.

“From above table for 9 and 90 degree of freedom”

Fcal is 11.566 and Ftab is 1.986

“Thus, Fcal > Ftab and p-value is smaller than specified  $\alpha$  of 0.05”

So, null hypothesis is rejected and it is concluded that there is significant difference in Net Profit/Share (Rs.) for selected Pharmaceutical Companies of India.

Anova: Single Factor

SUMMARY

<i>Groups</i>	<i>Count</i>	<i>Sum</i>	<i>Average</i>	<i>Variance</i>
Aditya Birla Fashion & Retail Ltd	10	-63.41	-6.341	97.55523
Avenue Supermarts Ltd	10	113.11	11.311	66.81481
Bella Casa Fashion & Retail Ltd	10	51.12	5.112	7.101307
Cantabil Retail India Ltd	10	40.84	4.084	130.7855
Future Enterprises Ltd	10	-58.96	-5.896	277.0135
Heads UP Ventures Ltd	10	0.117	0.0117	32.98243

Shoppers Stop Ltd	10	-24.13	-2.413	117.4088
Trent Ltd	10	109.09	10.909	110.017
V2 Retail Ltd	10	28.44	2.844	31.378
V-Mart Retail Ltd	10	191.22	19.122	186.3694

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ANOVA

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<i>Source of Variation</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>P-value</i>	<i>F crit</i>
“Between Groups”	5941.822	9	660.2024	6.243486	8.22E-07	1.985595
“Within Groups”	9516.834	90	105.7426			
Total	15458.66	99				

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H0 = There is no significant difference in Net Profit/Share (Rs.) for selected Retail Companies of India.

“From above table for 9 and 90 degree of freedom”

Fcal is 6.243 and Ftab is 1.986

“Thus, Fcal > Ftab and p-value is smaller than specified  $\alpha$  of 0.05”

So, null hypothesis is rejected and it is concluded that there is significant difference in Net Profit/Share (Rs.) for selected Retail Companies of India.

“t-Test: Two-Sample Assuming Equal Variances”

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	<i>Pharmaceutical Companies</i>	<i>Retail Companies</i>
Mean	65.6628	3.87437
Variance	275.692	15.1803
Observations	10	10
“Pooled Variance”	145.436	

Hypothesized Mean Difference	0
df	18
t Stat	11.4566
“P(T<=t) one-tail”	5.3E-10
“t Critical one-tail”	1.73406
“P(T<=t) two-tail”	1.1E-09
“t Critical two-tail”	2.10092

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H0 : There is no significant difference in Net Profit/Share (Rs.) between selected Pharmaceutical and Retail Companies of India.

From the above table it can be seen that P value (Two Tail) is 1.1E-09 which is smaller than significance value 0.05 (P value < 0.05) which means,

Null Hypothesis (H0) is rejected and it concludes that there is significant difference in Net Profit/Share (Rs.) between selected Pharmaceutical and Retail Companies of India.

#### 4.4. PBDIT MARGIN (%)

Table 13 : PBDIT Margin (%) Pharmaceutical Companies

PHARMACEUTICAL COMPANIES										
PBDIT MARGIN (%)										
NAME	202 1-22	202 0-21	201 9-20	201 8-19	201 7-18	201 6-17	201 5-16	201 4-15	201 3-14	201 2-13
Abbott India Ltd	23.6 8	23.2 5	21.2 7	19.5 1	19.4 4	15.6 7	15.8 7	15.7 2	13.7 8	13.5 6
Alkem Laboratories Ltd	22.7 6	29.6 2	23.4 1	19.4 8	20.2 6	21.3 0	24.5 7	18.6 5	21.0 7	25.9 5

Aurobindo Pharma Ltd	18.9 9	29.7 6	23.2 8	21.2 8	26.7 8	26.1 2	28.8 0	28.6 3	28.0 4	18.1 4
Cipla Ltd	30.8 0	28.4 2	28.4 3	24.8 8	22.2 1	16.0 2	19.2 5	20.8 1	24.1 9	28.6 2
Divis Laboratories Ltd	44.9 0	42.4 0	37.7 6	41.0 9	35.7 2	37.6 1	40.1 0	39.0 6	43.8 6	40.8 7
Dr Reddys Laboratories Ltd	21.3 5	29.4 9	30.4 8	23.8 8	16.3 8	24.0 4	25.9 4	26.1 1	29.9 4	25.2 2
Lupin Ltd	3.61	19.6 5	21.6 1	27.6 8	21.9 9	36.2 3	37.2 0	36.4 4	37.2 2	26.7 7
Sun Pharmaceutical Industries Ltd	24.8 0	24.1 0	33.6 9	29.3 8	23.3 8	8.18	- 0.04	- 4.32	6.88	30.8 0
Torrent Pharmaceuticals Ltd	34.1 8	35.8 1	34.9 1	34.6 2	29.1 8	31.0 6	53.9 4	33.0 6	32.5 7	29.3 1
Zydus Lifesciences Ltd	26.2 6	30.8 2	35.8 0	36.2 5	31.9 1	27.9 8	39.1 2	32.5 3	27.5 9	20.6 5

Figure 19 : PBDIT Margin (%) Pharmaceutical Companies

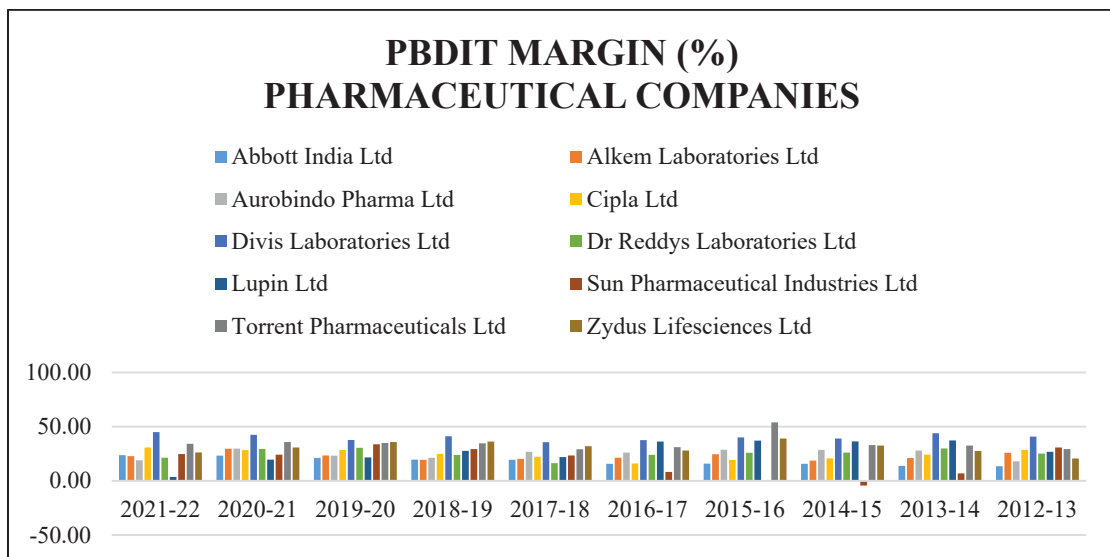




Table 14 : PBDIT Margin (%) Retail Companies

RETAIL COMPANIES										
PBDIT MARGIN (%)										
NAME	202 1-22	202 0-21	201 9-20	201 8-19	201 7-18	201 6-17	201 5-16	201 4-15	201 3-14	201 2-13
Aditya Birla Fashion & Retail Ltd	14.99	12.87	14.76	7.62	6.98	7.20	6.74	4.07	2.31	10.06
Avenue Supermarts Ltd	8.70	8.20	8.85	8.50	9.39	8.37	7.89	7.36	7.56	6.80
Bella Casa Fashion & Retail Ltd	10.56	9.09	11.05	11.95	10.32	7.62	6.97	6.51	6.79	9.39
Cantabil Retail India Ltd	33.09	30.25	26.30	11.64	10.89	11.82	10.45	10.44	-2.43	-21.96
Future Enterprises Ltd	-17.10	29.19	28.96	29.55	29.82	31.31	12.57	11.05	9.22	11.50
Heads UP Ventures Ltd	-497.27	-574.85	-0.50	2.91	8.07	11.02	18.42	25.75	0.00	0.00
Shoppers Stop Ltd	17.38	15.77	17.24	7.79	6.33	6.08	6.98	6.79	6.15	6.36
Trent Ltd	23.51	19.92	22.49	10.77	11.80	10.58	10.94	9.52	7.29	11.49
V2 Retail Ltd	12.12	13.16	11.16	7.58	9.82	9.13	11.69	10.55	2.81	2.68

V-Mart Retail Ltd	13.10	14.15	13.13	9.68	11.20	8.87	7.80	9.15	9.47	10.25
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Figure 20 : PBDIT Margin (%) Retail Companies

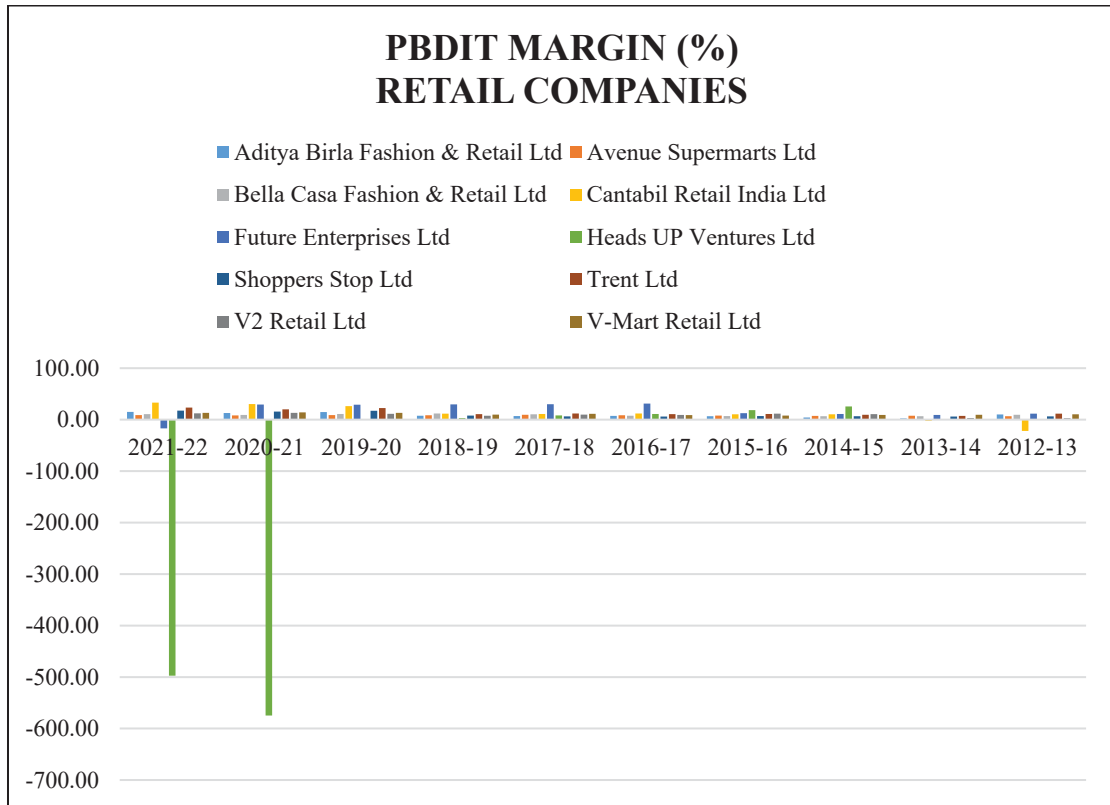


Table 15 : Average of PBDIT Margin (%) by Company

PBDIT MARGIN (%)		
INDUSTRY	NAME	AVERAGE VALUE
PHARMACEUTICAL COMPANIES	Abbott India Ltd	18.18
	Alkem Laboratories Ltd	22.71
	Aurobindo Pharma Ltd	24.98
	Cipla Ltd	24.36
	Divis Laboratories Ltd	40.34
	Dr Reddys Laboratories Ltd	25.28

	Lupin Ltd	26.84
	Sun Pharmaceutical Industries Ltd	17.69
	Torrent Pharmaceuticals Ltd	34.86
	Zydus Lifesciences Ltd	30.89
<b>RETAIL COMPANIES</b>	Aditya Birla Fashion & Retail Ltd	8.76
	Avenue Supermarts Ltd	8.16
	Bella Casa Fashion & Retail Ltd	9.03
	Cantabil Retail India Ltd	12.05
	Future Enterprises Ltd	17.61
	Heads UP Ventures Ltd	-100.65
	Shoppers Stop Ltd	9.69
	Trent Ltd	13.83
	V2 Retail Ltd	9.07
	V-Mart Retail Ltd	10.68

Figure 21 : Average of PBDIT Margin (%) by Company

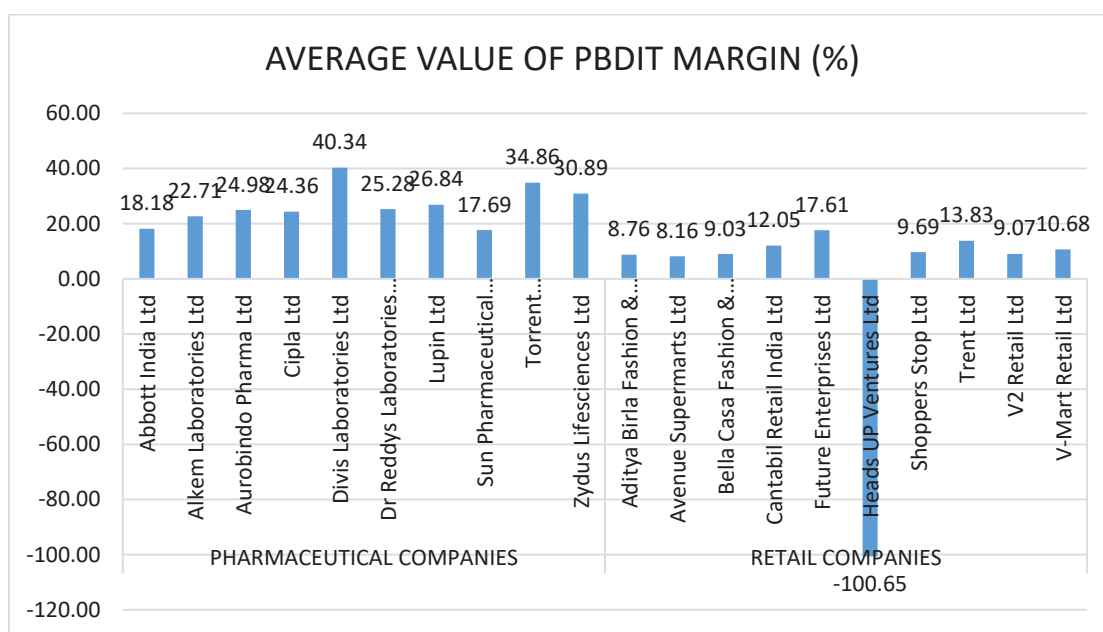
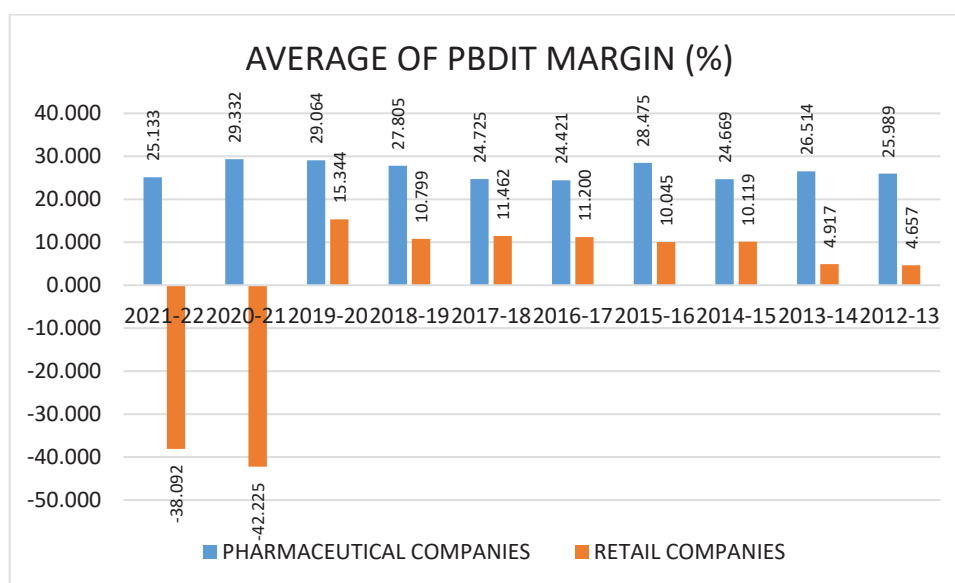


Table 16 : Average of PBDIT Margin (%) by Year

PBDIT MARGIN (%)		
YEAR	PHARMACEUTICAL COMPANIES	RETAIL COMPANIES
2021-22	25.133	-38.092
2020-21	29.332	-42.225
2019-20	29.064	15.344
2018-19	27.805	10.799
2017-18	24.725	11.462
2016-17	24.421	11.200
2015-16	28.475	10.045
2014-15	24.669	10.119
2013-14	26.514	4.917
2012-13	25.989	4.657

Figure 22 : Average of PBDIT Margin (%) by Year



From the above average value of PBDIT margin (%) table it can be concluded that in pharmaceutical companies, Divis Laboratories Ltd has highest average value of PBDIT margin (%) with value 40.337. Sun Pharmaceutical Industries Ltd has lowest average value of PBDIT margin (%) with value 17.685.

In case of retail companies, Future Enterprises Ltd has highest average value of PBDIT margin (%) with value 17.607. Heads UP Ventures Ltd has lowest average value of PBDIT margin (%) with value -100.645.

On an average pharmaceutical companies have higher average value of PBDIT margin (%) than selected retail companies.

From the above average of PBDIT margin (%) table, it can be concluded that during the year 2021-22 pharmaceutical companies have higher average of PBDIT margin (%). During the year 2020-21 pharmaceutical companies have higher average of PBDIT margin (%). During the year 2019-20 pharmaceutical companies have higher average of PBDIT margin (%). During the year 2018-19 pharmaceutical companies have higher average of PBDIT margin (%). During the year 2017-18 pharmaceutical companies have higher average of PBDIT margin (%). During the year 2016-17 pharmaceutical companies have higher average of PBDIT margin (%). During the year 2015-16 pharmaceutical companies have higher average of PBDIT margin (%). During the year 2014-15 pharmaceutical companies have higher average of PBDIT margin (%). During the year 2013-14 pharmaceutical companies have higher average of PBDIT margin (%). During the year 2012-13 pharmaceutical companies have higher average of PBDIT margin (%).

2014-15 pharmaceutical companies have higher average of PBDIT margin (%). During the year 2013-14 pharmaceutical companies have higher average of PBDIT margin (%). During the year 2012-13 pharmaceutical companies have higher average of PBDIT margin (%).

Anova: Single Factor

SUMMARY

<i>Groups</i>	<i>Count</i>	<i>Sum</i>	<i>Average</i>	<i>Variance</i>
Abbott India Ltd	10	181.75	18.175	14.13905
Alkem Laboratories Ltd	10	227.07	22.707	11.08827
Aurobindo Pharma Ltd	10	249.82	24.982	18.21246
Cipla Ltd	10	243.63	24.363	22.87351
Divis Laboratories Ltd	10	403.37	40.337	8.380068
Dr Reddys Laboratories Ltd	10	252.83	25.283	18.4178
Lupin Ltd	10	268.4	26.84	115.369
Sun Pharmaceutical Industries Ltd	10	176.85	17.685	188.2926
Torrent Pharmaceuticals Ltd	10	348.64	34.864	50.16225
Zydus Lifesciences Ltd	10	308.91	30.891	29.99534

ANOVA

<i>Source of Variation</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>P-value</i>	<i>F crit</i>
“Between Groups”	4504.374	9	500.486	10.4939	6.11E-11	1.985595
“Within Groups”	4292.373	90	47.69304			
Total	8796.747	99				

H0 = There is no significant difference in PBDIT Margin (%) for selected Pharmaceutical Companies of India.

“From above table for 9 and 90 degree of freedom”

Fcal is 10.494 and Ftab is 1.986

“Thus, Fcal>Ftab and p-value is smaller than specified  $\alpha$  of 0.05”

So, null hypothesis is rejected and it is concluded that there is significant difference in PBDIT Margin (%) for selected Pharmaceutical Companies of India.

Anova: Single Factor

#### SUMMARY

<i>Groups</i>	<i>Count</i>	<i>Sum</i>	<i>Average</i>	<i>Variance</i>
Aditya Birla Fashion & Retail Ltd	10	87.6	8.76	18.66396
Avenue Supermarts Ltd	10	81.62	8.162	0.59604
Bella Casa Fashion & Retail Ltd	10	90.25	9.025	3.81605
Cantabil Retail India Ltd	10	120.49	12.049	261.117
Future Enterprises Ltd	10	176.07	17.607	235.9111
Heads UP Ventures Ltd	10	-1006.45	-100.645	53070.38
Shoppers Stop Ltd	10	96.87	9.687	24.49013
Trent Ltd	10	138.31	13.831	33.88983

V2 Retail Ltd	10	90.7	9.07	13.58438
V-Mart Retail Ltd	10	106.8	10.68	4.525622

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ANOVA

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<i>Source of Variation</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>P-value</i>	<i>F crit</i>
“Between Groups”	112905.5	9	12545.06	2.337575	0.020401	1.985595
“Within Groups”	483002.8	90	5366.698			
Total	595908.3	99				

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H0 = There is no significant difference in PBDIT Margin (%) for selected Retail Companies of India.

“From above table for 9 and 90 degree of freedom”

Fcal is 2.338 and Ftab is 1.986

“Thus, Fcal > Ftab and p-value is smaller than specified  $\alpha$  of 0.05”

So, null hypothesis is rejected and it is concluded that there is significant difference in PBDIT Margin (%) for selected Retail Companies of India.

“t-Test: Two-Sample Assuming Equal Variances”

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	<i>Pharmaceutical Companies</i>	<i>Retail Companies</i>
Mean	26.6127	-0.1774
Variance	3.6696	454.63
Observations	10	10
“Pooled Variance”	229.15	
Hypothesized Mean Difference	0	



df	18
t Stat	3.95731
“P(T<=t) one-tail”	0.00046
“t Critical one-tail”	1.73406
“P(T<=t) two-tail”	0.00092
“t Critical two-tail”	2.10092

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H0 : There is no significant difference in PBDIT Margin between selected Pharmaceutical and Retail Companies of India.

From the above table it can be seen that P value (Two Tail) is 0.00092 which is smaller than significance value 0.05 (P value < 0.05) which means,

Null Hypothesis (H0) is rejected and it concludes that there is significant difference in PBDIT Margin between selected Pharmaceutical and Retail Companies of India.

## 4.5. PBIT MARGIN (%)

Table 17 : PBIT Margin (%) Pharmaceutical Companies

PHARMACEUTICAL COMPANIES										
PBIT MARGIN (%)										
NAME	202 1-22	202 0-21	201 9-20	201 8-19	201 7-18	201 6-17	201 5-16	201 4-15	201 3-14	201 2-13
Abbott India Ltd	22.3 3	21.9 0	19.8 1	19.0 5	18.9 5	15.1 0	15.3 1	15.0 6	12.8 2	12.3 8
Alkem Laboratories Ltd	20.2 8	26.8 7	20.6 1	17.0 1	18.2 3	19.6 6	22.7 1	16.7 8	19.4 7	24.3 9
Aurobindo Pharma Ltd	15.3 1	26.6 7	19.7 3	17.9 1	23.3 2	23.1 4	25.9 3	25.6 0	25.4 3	14.9 8
Cipla Ltd	27.2 9	24.4 2	23.7 0	20.2 8	17.5 6	11.3 8	15.6 0	16.5 4	20.7 4	24.9 3
Divis Laboratories Ltd	41.4 1	38.6 6	34.2 5	37.6 4	31.9 8	34.5 5	36.9 2	34.6 6	40.2 0	37.2 6
Dr Reddys Laboratories Ltd	15.7 0	23.2 4	23.8 2	16.5 4	8.11	16.4 7	19.5 9	21.2 1	26.0 3	21.5 1
Lupin Ltd	- 0.74	15.1 0	16.9 0	23.9 3	18.1 2	33.3 3	34.4 7	32.9 8	35.3 5	24.6 6
Sun Pharmaceutical Industries Ltd	16.1 3	19.5 2	29.2 1	24.0 1	17.9 7	2.69	- 6.13	- 12.5 6	3.28	27.2 7
Torrent Pharmaceuticals Ltd	25.2 5	26.3 5	25.0 8	24.5 7	20.1 4	25.2 0	50.0 2	27.8 7	30.2 1	26.7 2
Zydus Lifesciences Ltd	20.2 7	25.0 2	29.0 4	30.3 2	26.8 6	20.2 2	35.9 8	28.5 2	24.4 4	17.4 7

Figure 23 : PBIT Margin (%) Pharmaceutical Companies

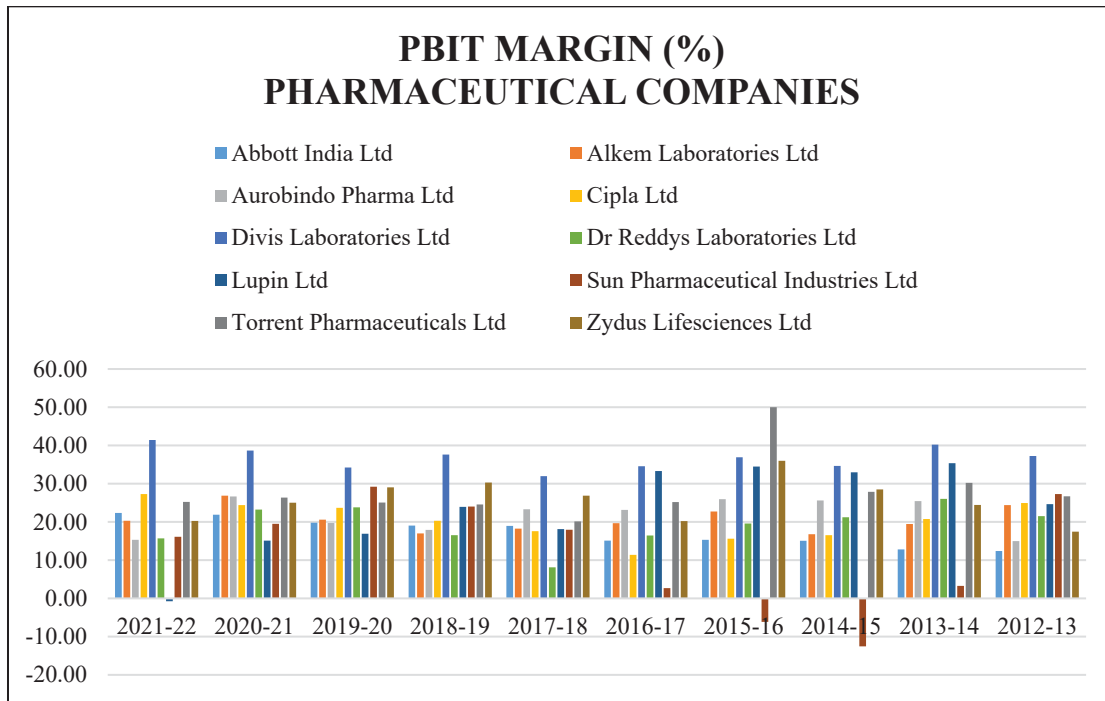


Table 18 :PBIT Margin (%) Retail Companies

RETAIL COMPANIES										
PBIT MARGIN (%)										
NAME	2021-22	2020-21	2019-20	2018-19	2017-18	2016-17	2015-16	2014-15	2013-14	2012-13
Aditya Birla Fashion & Retail Ltd	2.89	-5.36	4.73	4.14	3.07	3.53	1.16	-5.83	-4.24	5.82
Avenue Supermarts Ltd	7.31	6.63	7.47	7.50	8.36	7.31	6.75	6.11	6.35	5.43
Bella Casa Fashion & Retail Ltd	9.73	8.21	10.37	11.28	9.68	7.11	6.35	5.75	6.32	8.76

Cantabil Retail India Ltd	21.79	14.72	13.22	8.56	6.39	6.73	6.51	5.85	-3.83	-23.44
Future Enterprises Ltd	-51.75	-39.55	7.67	12.70	13.13	14.57	6.01	6.09	5.72	7.04
Heads UP Ventures Ltd	-501.52	-586.27	-9.73	1.16	6.66	9.71	17.04	24.38	0.00	0.00
Shoppers Stop Ltd	3.27	-6.52	4.25	3.91	3.22	2.92	4.12	3.97	3.87	4.11
Trent Ltd	16.21	8.40	15.22	8.94	9.78	8.38	8.59	6.59	5.25	9.71
V2 Retail Ltd	3.13	3.18	3.97	5.65	8.32	7.83	10.33	9.82	1.29	0.53
V-Mart Retail Ltd	5.25	4.58	7.47	7.75	9.32	7.02	5.45	8.51	7.58	8.27

Figure 24 : PBIT Margin (%) Retail Companies

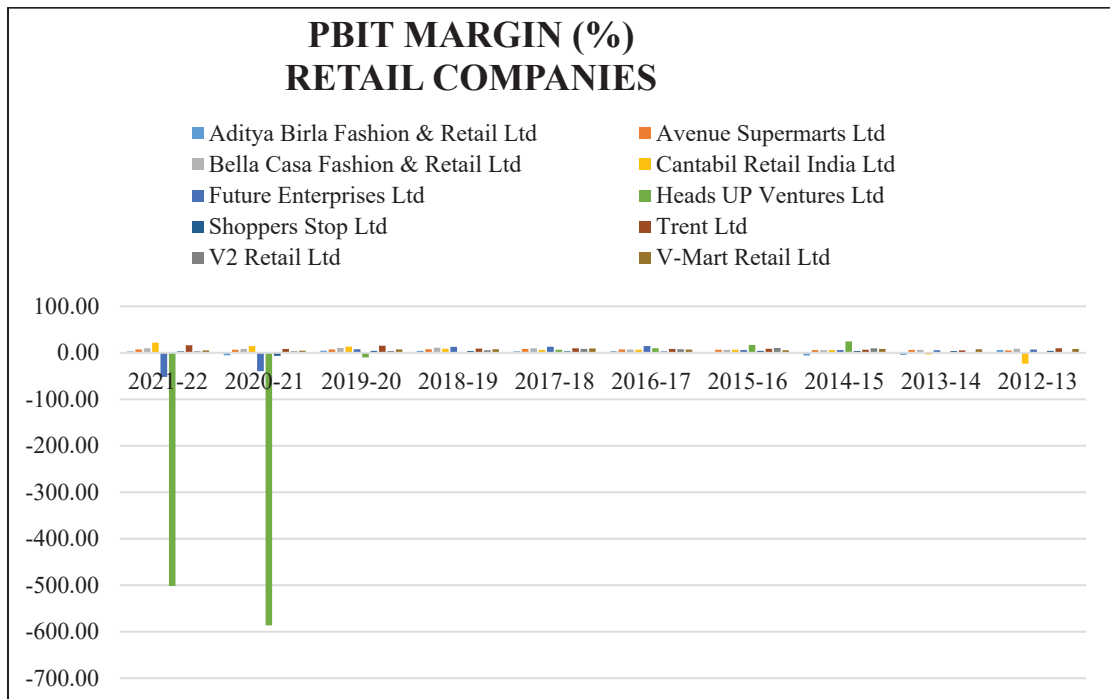


Table 19 : Average of PBIT Margin (%) by Company

PBIT MARGIN (%)		
INDUSTRY	NAME	AVERAGE VALUE
<b>PHARMACEUTICAL COMPANIES</b>	Abbott India Ltd	17.27
	Alkem Laboratories Ltd	20.60
	Aurobindo Pharma Ltd	21.80
	Cipla Ltd	20.24
	Divis Laboratories Ltd	36.75
	Dr Reddys Laboratories Ltd	19.22
	Lupin Ltd	23.41
	Sun Pharmaceutical Industries Ltd	12.14
	Torrent Pharmaceuticals Ltd	28.14
	Zydus Lifesciences Ltd	25.81
<b>RETAIL COMPANIES</b>	Aditya Birla Fashion & Retail Ltd	0.99
	Avenue Supermarts Ltd	6.92
	Bella Casa Fashion & Retail Ltd	8.36
	Cantabil Retail India Ltd	5.65
	Future Enterprises Ltd	-1.84
	Heads UP Ventures Ltd	-103.86
	Shoppers Stop Ltd	2.71
	Trent Ltd	9.71
	V2 Retail Ltd	5.41
	V-Mart Retail Ltd	7.12

Figure 25 : Average of PBIT Margin (%) by Company

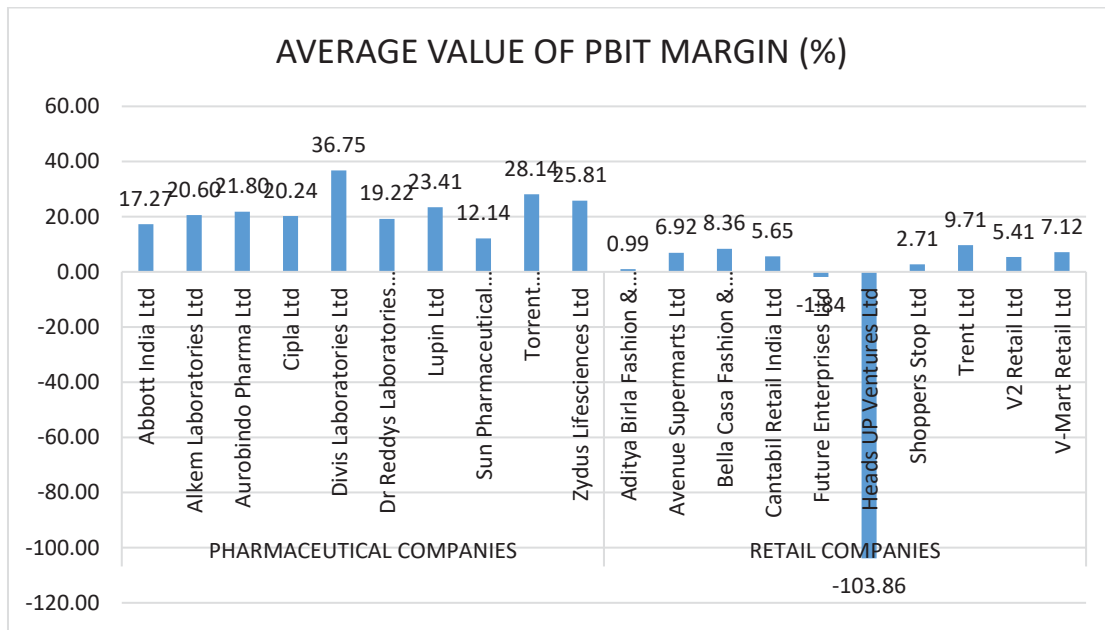
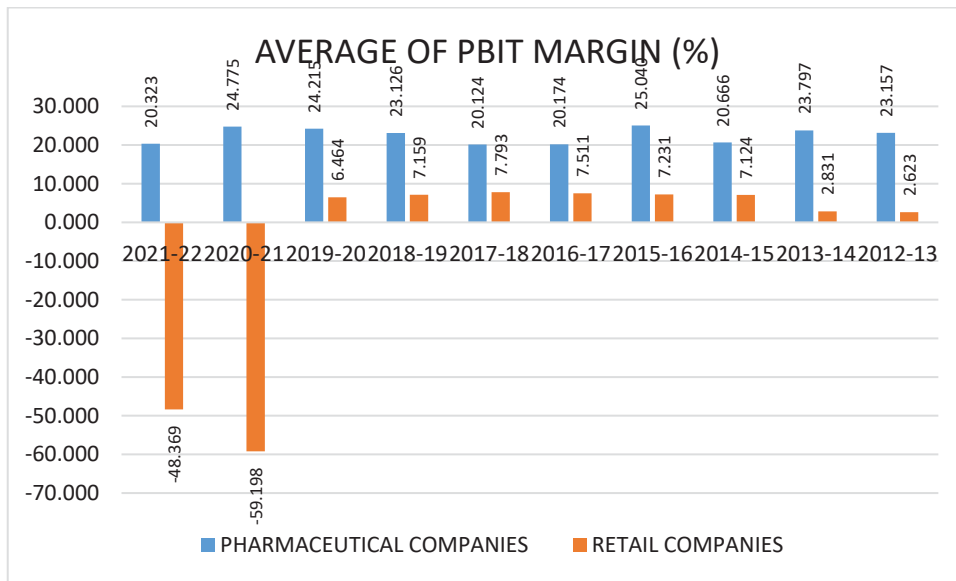


Table 20 : Average of PBIT Margin (%) by Year

PBIT MARGIN (%)		
YEAR	PHARMACEUTICAL COMPANIES	RETAIL COMPANIES
2021-22	20.323	-48.369
2020-21	24.775	-59.198
2019-20	24.215	6.464
2018-19	23.126	7.159
2017-18	20.124	7.793
2016-17	20.174	7.511
2015-16	25.040	7.231
2014-15	20.666	7.124
2013-14	23.797	2.831
2012-13	23.157	2.623

Figure 26 : Average of PBIT Margin (%) by Year



From the above average value of PBIT margin (%) table it can be concluded that in pharmaceutical companies, Divis Laboratories Ltd has highest average value of PBIT margin (%) with value 36.753. Sun Pharmaceutical Industries Ltd has lowest average value of PBIT margin (%) with value 12.139.

In case of retail companies, Trent Ltd has highest average value of PBIT margin (%) with value 9.707. Heads UP Ventures Ltd has lowest average value of PBIT margin (%) with value -103.857.

On an average pharmaceutical companies have higher average value of PBIT margin (%) than selected retail companies.

From the above average of PBIT margin (%) table, it can be concluded that during the year 2021-22 pharmaceutical companies have higher average of PBIT margin (%). During the year 2020-21 pharmaceutical companies have higher average of PBIT margin (%). During the year 2019-20 pharmaceutical companies have higher average of PBIT margin (%). During the year 2018-19 pharmaceutical companies have higher average of PBIT margin (%). During the year 2017-18 pharmaceutical companies have higher average of PBIT margin (%). During the year 2016-17 pharmaceutical companies have higher average of PBIT margin (%). During the year 2015-16 pharmaceutical companies have higher average of PBIT margin (%). During the year 2014-15 pharmaceutical companies have higher average of PBIT margin (%). During the year 2013-14 pharmaceutical companies have higher average of PBIT margin (%). During the year 2012-13 pharmaceutical companies have higher average of PBIT margin (%).

2014-15 pharmaceutical companies have higher average of PBIT margin (%). During the year 2013-14 pharmaceutical companies have higher average of PBIT margin (%). During the year 2012-13 pharmaceutical companies have higher average of PBIT margin (%).

Anova: Single Factor

SUMMARY

<i>Groups</i>	<i>Count</i>	<i>Sum</i>	<i>Average</i>	<i>Variance</i>
Abbott India Ltd	10	172.71	17.271	12.95912
Alkem Laboratories Ltd	10	206.01	20.601	10.38772
Aurobindo Pharma Ltd	10	218.02	21.802	20.06068
Cipla Ltd	10	202.44	20.244	24.69952
Divis Laboratories Ltd	10	367.53	36.753	8.506468
Dr Reddys Laboratories Ltd	10	192.22	19.222	27.06722
Lupin Ltd	10	234.1	23.41	131.0394
Sun Pharmaceutical Industries Ltd	10	121.39	12.139	208.5841
Torrent Pharmaceuticals Ltd	10	281.41	28.141	65.71299
Zydus Lifesciences Ltd	10	258.14	25.814	30.73829

ANOVA

<i>Source of Variation</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>P-value</i>	<i>F crit</i>
“Between Groups”	4013.848	9	445.9831	8.262688	7.23E-09	1.985595



“Within Groups”	4857.799	90	53.97555
Total	8871.647	99	

H0 = There is no significant difference in PBIT Margin (%) for selected Pharmaceutical Companies of India.

“From above table for 9 and 90 degree of freedom”

Fcal is 8.263 and Ftab is 1.986

“Thus, Fcal > Ftab and p-value is smaller than specified  $\alpha$  of 0.05”

So, null hypothesis is rejected and it is concluded that there is significant difference in PBIT Margin (%) for selected Pharmaceutical Companies of India.

“t-Test: Two-Sample Assuming Equal Variances”

	<i>Pharmaceutical Companies</i>	<i>Retail Companies</i>
Mean	22.5397	-5.8831
Variance	4.02411	647.33
Observations	10	10
“Pooled Variance”	325.677	
Hypothesized Mean Difference	0	
df	18	
t Stat	3.52175	
“P(T<=t) one-tail”	0.00122	
“t Critical one-tail”	1.73406	
“P(T<=t) two-tail”	0.00244	

H0 : There is no significant difference in PBIT Margin between selected Pharmaceutical and Retail Companies of India.

From the above table it can be seen that P value (Two Tail) is 0.00244 which is smaller than significance value 0.05 (P value < 0.05) which means,

Null Hypothesis (H0) is rejected and it concludes that there is significant difference in PBIT Margin between selected Pharmaceutical and Retail Companies of India.

#### 4.6. PBT MARGIN (%)

Table 21 : PBT Margin (%) Pharmaceutical Companies

PHARMACEUTICAL COMPANIES										
PBT MARGIN (%)										
NAME	202 1-22	202 0-21	201 9-20	201 8-19	201 7-18	201 6-17	201 5-16	201 4-15	201 3-14	201 2-13
Abbott India Ltd	21.9 4	21.4 8	19.6 1	18.9 9	18.8 4	15.0 3	15.2 2	15.0 4	12.8 2	13.0 0
Alkem Laboratories Ltd	19.8 5	26.0 9	20.0 3	16.5 1	17.6 2	19.1 5	21.2 3	14.5 0	16.3 1	20.9 4
Aurobindo Pharma Ltd	14.5 0	26.4 9	17.9 2	16.0 2	22.8 1	22.6 7	23.4 3	23.9 6	21.3 6	10.3 7
Cipla Ltd	27.0 8	24.1 0	23.4 1	20.1 4	16.7 8	11.0 2	14.3 9	15.1 9	19.3 8	24.5 2
Divis Laboratories Ltd	41.4 0	38.6 5	34.1 4	37.5 6	31.9 5	34.5 0	36.8 6	34.6 0	40.1 2	37.1 8
Dr Reddys Laboratories Ltd	15.4 3	22.8 9	23.4 2	16.0 0	7.44	15.8 9	15.4 7	20.5 7	25.2 3	20.7 8

Lupin Ltd	- 1.37	14.7 4	9.54	20.6 2	17.7 9	33.0 9	34.2 6	32.9 3	35.1 1	24.2 0
Sun Pharmaceutical Industries Ltd	1.96	16.8 1	25.9 5	6.98	3.11	- 0.21	- 14.0 2	- 19.4 4	- 99.0 2	27.2 6
Torrent Pharmaceuticals Ltd	21.7 4	21.1 7	18.1 0	16.2 2	13.2 3	20.7 9	43.1 7	22.9 0	28.4 8	24.0 5
Zydus Lifesciences Ltd	14.5 8	21.7 0	24.5 4	28.8 4	25.7 6	19.8 7	35.6 0	27.7 1	23.3 9	14.4 5

Figure 27 : PBT Margin (%) Pharmaceutical Companies

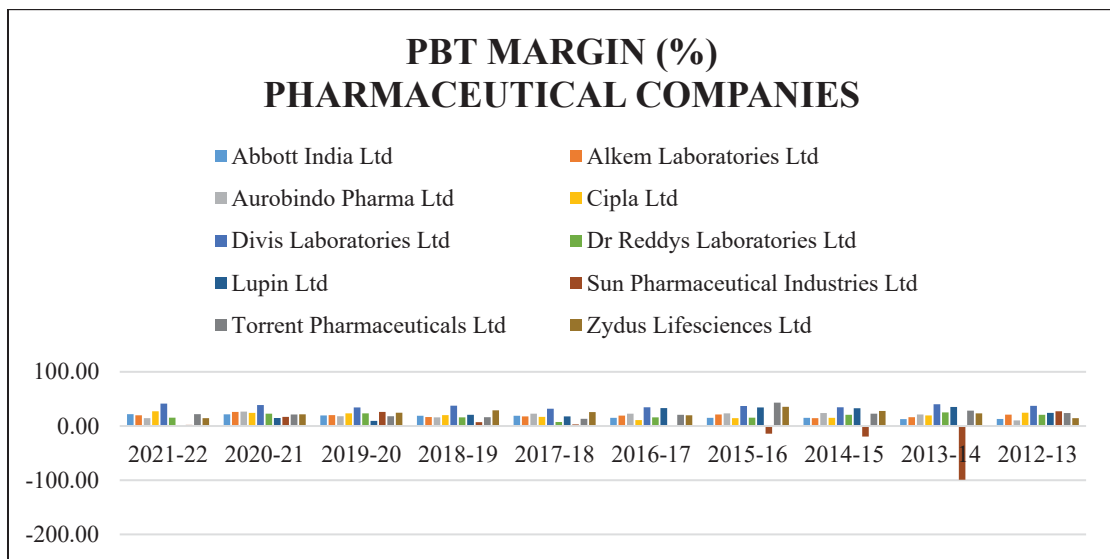


Table 22 : PBT Margin (%) Retail Companies

RETAIL COMPANIES										
PBT MARGIN (%)										
NAME	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
	-22	-21	-20	-19	-18	-17	-16	-15	-14	-13

Aditya Birla Fashion & Retail Ltd	-1.45	- 14.9 8	-0.10	1.83	0.68	0.81	-1.71	- 12.3 2	- 11.3 0	-5.36
Avenue Supermarts Ltd	7.18	6.49	7.22	7.26	7.96	6.28	5.69	4.99	5.17	4.16
Bella Casa Fashion & Retail Ltd	7.46	5.70	7.42	8.40	6.89	4.37	2.55	0.80	2.06	2.11
Cantabil Retail India Ltd	15.5 4	4.87	7.10	5.61	3.88	2.96	3.33	1.85	-8.26	- 30.1 6
Future Enterprises Ltd	- 153. 57	- 120. 39	-8.04	0.04	-0.44	1.15	0.15	0.59	0.01	4.12
Heads UP Ventures Ltd	- 550. 87	- 631. 68	- 14.4 4	0.04	5.97	8.79	15.0 1	18.1 3	0.00	0.00
Shoppers Stop Ltd	-5.56	- 20.5 7	-2.08	3.55	0.81	0.00	1.75	2.28	2.31	2.67
Trent Ltd	8.32	-3.52	7.72	7.47	8.30	7.86	6.45	10.2 2	5.44	8.63
V2 Retail Ltd	-2.59	-2.43	1.49	2.01	8.22	10.9 4	6.24	6.42	-2.22	-5.63
V-Mart Retail Ltd	0.62	-0.89	4.18	6.96	9.20	6.67	5.07	7.92	6.57	6.77

Figure 28 : PBT Margin (%) Retail Companies



Table 23 : Average of PBT Margin (%) by Company

PBT MARGIN (%)		
INDUSTRY	NAME	AVERAGE VALUE
PHARMACEUTICAL COMPANIES	Abbott India Ltd	17.20
	Alkem Laboratories Ltd	19.22
	Aurobindo Pharma Ltd	19.95
	Cipla Ltd	19.60
	Divis Laboratories Ltd	36.70
	Dr Reddys Laboratories Ltd	18.31
	Lupin Ltd	22.09
	Sun Pharmaceutical Industries Ltd	-5.06
	Torrent Pharmaceuticals Ltd	22.99
	Zydus Lifesciences Ltd	23.64
	Aditya Birla Fashion & Retail Ltd	-4.39

<b>RETAIL COMPANIES</b>	Avenue Supermarts Ltd	6.24
	Bella Casa Fashion & Retail Ltd	4.78
	Cantabil Retail India Ltd	0.67
	Future Enterprises Ltd	-27.64
	Heads UP Ventures Ltd	-114.91
	Shoppers Stop Ltd	-1.48
	Trent Ltd	6.69
	V2 Retail Ltd	2.25
	V-Mart Retail Ltd	5.31

Figure 29 : Average of PBT Margin (%) by Company

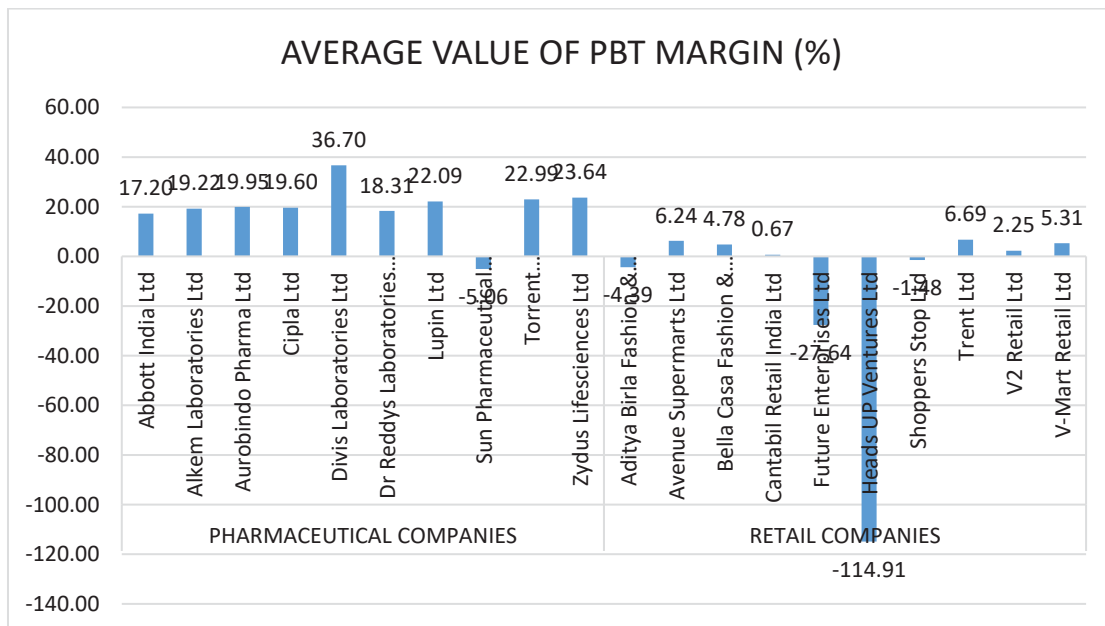
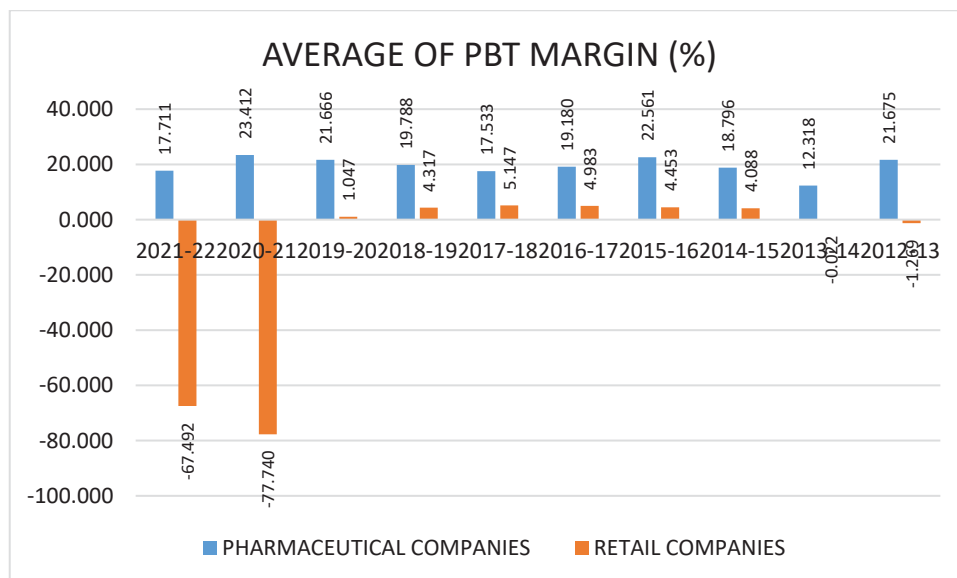


Table 24 : Average of PBT Margin (%) by Year

PBT MARGIN (%)		
YEAR	PHARMACEUTICAL COMPANIES	RETAIL COMPANIES
2021-22	17.711	-67.492
2020-21	23.412	-77.740
2019-20	21.666	1.047
2018-19	19.788	4.317
2017-18	17.533	5.147
2016-17	19.180	4.983
2015-16	22.561	4.453
2014-15	18.796	4.088
2013-14	12.318	-0.022
2012-13	21.675	-1.269

Figure 30 : Average of PBT Margin (%) by Year



From the above average value of PBT margin (%) table it can be concluded that in pharmaceutical companies, Divis Laboratories Ltd has highest average value of PBT margin (%) with value 36.696. Sun Pharmaceutical Industries Ltd has lowest average value of PBT margin (%) with value -5.062.

In case of retail companies, Trent Ltd has highest average value of PBT margin (%) with value 6.689. Heads UP Ventures Ltd has lowest average value of PBT margin (%) with value -114.905.

On an average pharmaceutical companies have higher average value of PBT margin (%) than selected retail companies.

From the above average of PBT margin (%) table, it can be concluded that during the year 2021-22 pharmaceutical companies have higher average of PBT margin (%). During the year 2020-21 pharmaceutical companies have higher average of PBT margin (%). During the year 2019-20 pharmaceutical companies have higher average of PBT margin (%). During the year 2018-19 pharmaceutical companies have higher average of PBT margin (%). During the year 2017-18 pharmaceutical companies have higher average of PBT margin (%). During the year 2016-17 pharmaceutical companies have higher average of PBT margin (%). During the year 2015-16 pharmaceutical companies have higher average of PBT margin (%). During the year 2014-15 pharmaceutical companies have higher average of PBT margin (%). During the year 2013-14 pharmaceutical companies have higher average of PBT margin (%). During the year 2012-13 pharmaceutical companies have higher average of PBT margin (%).

Anova: Single Factor

SUMMARY

<i>Groups</i>	<i>Count</i>	<i>Sum</i>	<i>Average</i>	<i>Variance</i>
Abbott India Ltd	10	171.97	17.197	11.40078
Alkem Laboratories Ltd	10	192.23	19.223	10.65598
Aurobindo Pharma Ltd	10	199.53	19.953	25.50809



Cipla Ltd	10	196.01	19.601	27.0471
Divis Laboratories Ltd	10	366.96	36.696	8.550049
Dr Reddys Laboratories Ltd	10	183.12	18.312	27.98808
Lupin Ltd	10	220.91	22.091	149.2372
Sun Pharmaceutical Industries Ltd	10	-50.62	-5.062	1320.507
Torrent Pharmaceuticals Ltd	10	229.85	22.985	68.13572
Zydus Lifesciences Ltd	10	236.44	23.644	41.8366

---

ANOVA

<i>Source of Variation</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>P-value</i>	<i>F crit</i>
“Between Groups”	9420.198	9	1046.689	6.190251	9.36E-07	1.985595
“Within Groups”	15217.8	90	169.0866			
Total	24637.99	99				

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H<sub>0</sub> = There is no significant difference in PBT Margin (%) for selected Pharmaceutical Companies of India.

“From above table for 9 and 90 degree of freedom”

F<sub>cal</sub> is 6.19 and F<sub>tab</sub> is 1.986

“Thus, F<sub>cal</sub>>F<sub>tab</sub> and p-value is smaller than specified  $\alpha$  of 0.05”

So, null hypothesis is rejected and it is concluded that there is significant difference in PBT Margin (%) for selected Pharmaceutical Companies of India.

Anova: Single Factor

SUMMARY

<i>Groups</i>	<i>Count</i>	<i>Sum</i>	<i>Average</i>	<i>Variance</i>
Aditya Birla Fashion & Retail Ltd	10	-43.9	-4.39	38.8206
Avenue Supermarts Ltd	10	62.4	6.24	1.471467
Bella Casa Fashion & Retail Ltd	10	47.76	4.776	7.562604
Cantabil Retail India Ltd	10	6.72	0.672	150.9728
Future Enterprises Ltd	10	-276.38	-27.638	3391.379
Heads UP Ventures Ltd	10	- 1149.05	-114.905	63480.13
Shoppers Stop Ltd	10	-14.84	-1.484	52.25854
Trent Ltd	10	66.89	6.689	14.48621
V2 Retail Ltd	10	22.45	2.245	30.27825
V-Mart Retail Ltd	10	53.07	5.307	10.22289

ANOVA

<i>Source of Variation</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>P-value</i>	<i>F crit</i>
“Between Groups”	126283.1	9	14031.45	2.088711	0.038581	1.985595
“Within Groups”	604598.3	90	6717.759			
Total	730881.4	99				

$H_0$  = There is no significant difference in PBT Margin (%) for selected Retail Companies of India.

“From above table for 9 and 90 degree of freedom”

$F_{cal}$  is 2.089 and  $F_{tab}$  is 1.986

“Thus,  $F_{cal} > F_{tab}$  and p-value is smaller than specified  $\alpha$  of 0.05”

So, null hypothesis is rejected and it is concluded that there is significant difference in PBT Margin (%) for selected Retail Companies of India.

“t-Test: Two-Sample Assuming Equal Variances”

	<i>Pharmaceutical Companies</i>	<i>Retail Companies</i>
Mean	19.464	-12.249
Variance	10.3794	1023.06
Observations	10	10
“Pooled Variance”	516.72	
Hypothesized Mean Difference	0	
df	18	
t Stat	3.11955	
“P(T<=t) one-tail”	0.00296	
“t Critical one-tail”	1.73406	
“P(T<=t) two-tail”	0.00592	
“t Critical two-tail”	2.10092	

$H_0$  : There is no significant difference in PBT Margin between selected Pharmaceutical and Retail Companies of India.

From the above table it can be seen that P value (Two Tail) is 0.00592 which is smaller than significance value 0.05 (P value < 0.05) which means,

Null Hypothesis (H0) is rejected and it concludes that there is significant difference in PBT Margin between selected Pharmaceutical and Retail Companies of India.

#### 4.7. RETURN ON ASSETS (%)

Table 25 : Return on Assets (%) Pharmaceutical Companies

PHARMACEUTICAL COMPANIES										
RETURN ON ASSETS (%)										
NAME	202 1-22	202 0-21	201 9-20	201 8-19	201 7-18	201 6-17	201 5-16	201 4-15	201 3-14	201 2-13
Abbott India Ltd	18.9 0	17.9 8	16.7 1	15.3 1	16.6 0	13.3 9	15.7 9	16.6 6	17.4 2	15.9 5
Alkem Laboratories Ltd	11.7 0	15.6 4	13.8 8	10.9 6	10.5 0	14.9 7	14.5 1	9.01	10.4 7	11.6 3
Aurobindo Pharma Ltd	6.73	13.4 2	9.58	8.43	11.4 7	13.1 0	12.9 4	14.8 2	13.6 6	7.26
Cipla Ltd	11.6 2	10.7 4	11.3 6	10.2 5	8.59	6.24	9.59	7.77	10.7 4	13.1 1
Divis Laboratories Ltd	22.1 5	18.2 2	16.1 2	16.5 7	12.7 7	16.9 6	22.0 3	18.9 2	20.9 2	19.1 3
Dr Reddys Laboratories Ltd	6.62	10.1 0	15.0 8	7.86	3.31	8.41	7.71	10.2 0	13.3 2	10.5 5
Lupin Ltd	- 0.84	5.75	3.51	7.81	7.19	17.6 0	19.8 8	21.7 7	26.4 1	17.8 8
Sun Pharmaceutical Industries Ltd	- 0.24	5.48	8.36	2.16	0.83	- 0.06	- 3.13	- 3.93	- 20.4 4	5.58

Torrent Pharmaceuticals Ltd	8.88	9.67	7.89	6.19	4.07	10.61	23.91	9.57	17.59	16.28
Zydus Lifesciences Ltd	4.83	7.99	8.53	10.86	8.96	5.99	22.83	17.32	14.47	8.98

Figure 31 : Return on Assets (%) Pharmaceutical Companies

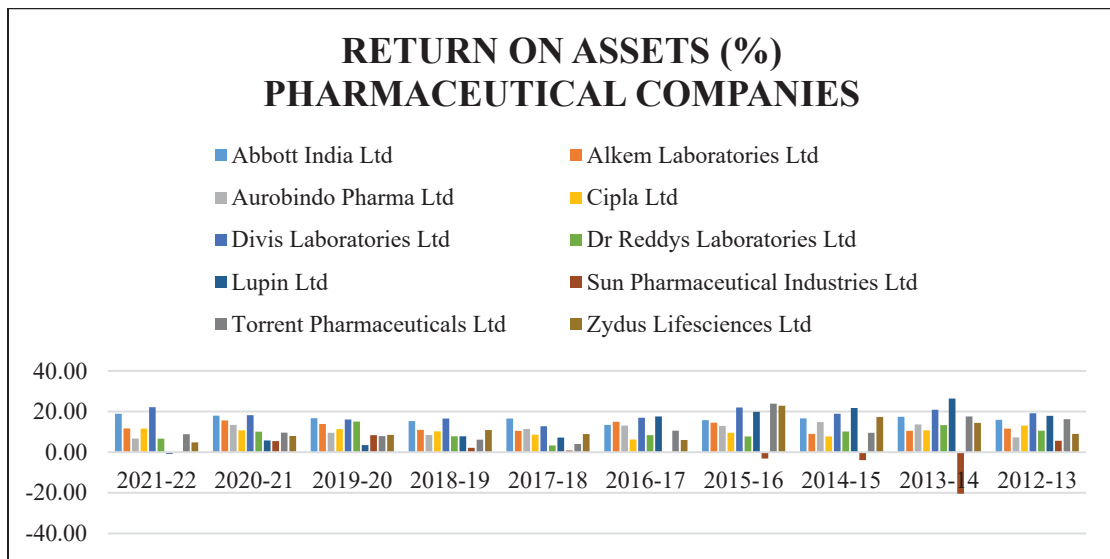


Table 26 : Return on Assets (%) Retail Companies

RETAIL COMPANIES										
RETURN ON ASSETS (%)										
NAME	2021-22	2020-21	2019-20	2018-19	2017-18	2016-17	2015-16	2014-15	2013-14	2012-13
Aditya Birla Fashion & Retail Ltd	-0.69	-6.65	-1.49	4.85	2.05	1.06	-2.25	-10.66	-8.71	-2.39
Avenue Supermarts Ltd	10.49	8.53	11.17	13.38	13.98	8.31	10.31	8.97	8.90	6.21

Bella Casa Fashion & Retail Ltd	6.86	3.55	7.45	6.98	4.70	4.24	2.68	0.78	1.92	1.90
Cantabil Retail India Ltd	7.67	2.25	3.66	5.55	10.47	2.49	3.69	2.15	-7.39	-26.15
Future Enterprises Ltd	-29.06	-10.30	-2.09	0.19	-0.11	0.42	0.12	0.58	0.02	3.17
Heads UP Ventures Ltd	-15.25	-6.33	-54.01	-0.48	6.72	10.50	14.35	18.19	-25.42	-84.97
Shoppers Stop Ltd	-2.29	-7.82	-3.46	3.18	0.65	-1.08	1.31	2.27	2.23	2.72
Trent Ltd	3.19	-0.89	2.86	4.97	5.04	4.88	3.76	5.09	2.85	2.99
V2 Retail Ltd	-1.67	-1.39	1.43	4.41	7.98	16.28	2.71	2.40	-1.16	-1.43
V-Mart Retail Ltd	0.55	-0.38	4.03	9.75	14.13	8.94	7.21	11.35	8.56	7.83

Figure 32 : Return on Assets (%) Retail Companies

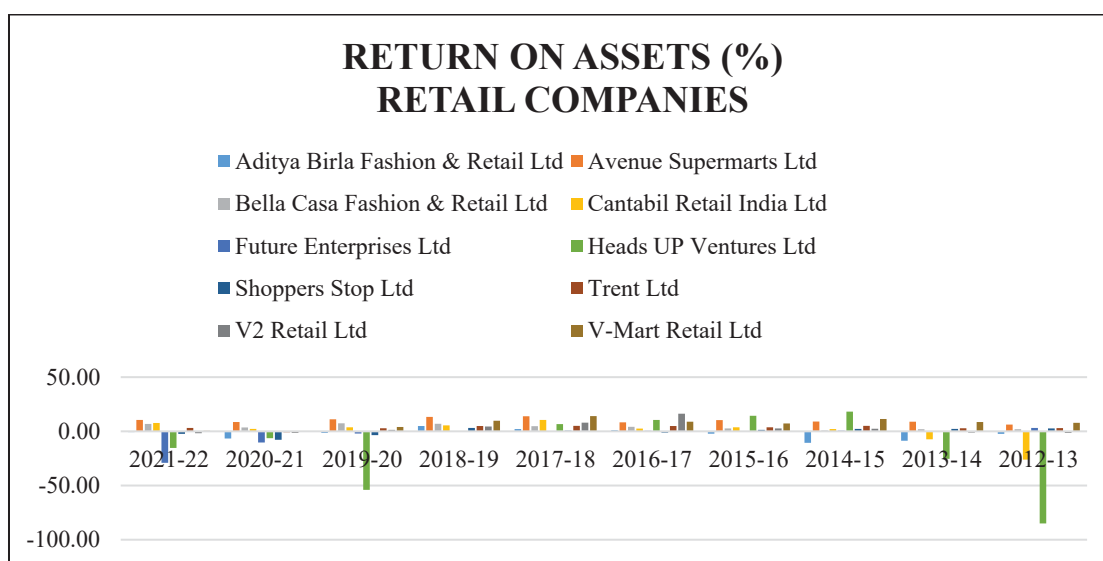


Table 27 : Average of Return on Assets (%) by Company

RETURN ON ASSETS (%)		
INDUSTRY	NAME	AVERAGE VALUE
PHARMACEUTICAL COMPANIES	Abbott India Ltd	16.47
	Alkem Laboratories Ltd	12.33
	Aurobindo Pharma Ltd	11.14
	Cipla Ltd	10.00
	Divis Laboratories Ltd	18.38
	Dr Reddys Laboratories Ltd	9.32
	Lupin Ltd	12.70
	Sun Pharmaceutical Industries Ltd	-0.54
	Torrent Pharmaceuticals Ltd	11.47
	Zydus Lifesciences Ltd	11.08
	Aditya Birla Fashion & Retail Ltd	-2.49

<b>RETAIL COMPANIES</b>	Avenue Supermarts Ltd	10.03
	Bella Casa Fashion & Retail Ltd	4.11
	Cantabil Retail India Ltd	0.44
	Future Enterprises Ltd	-3.71
	Heads UP Ventures Ltd	-13.67
	Shoppers Stop Ltd	-0.23
	Trent Ltd	3.47
	V2 Retail Ltd	2.96
	V-Mart Retail Ltd	7.20

Figure 33 : Average of Return on Assets (%) by Company

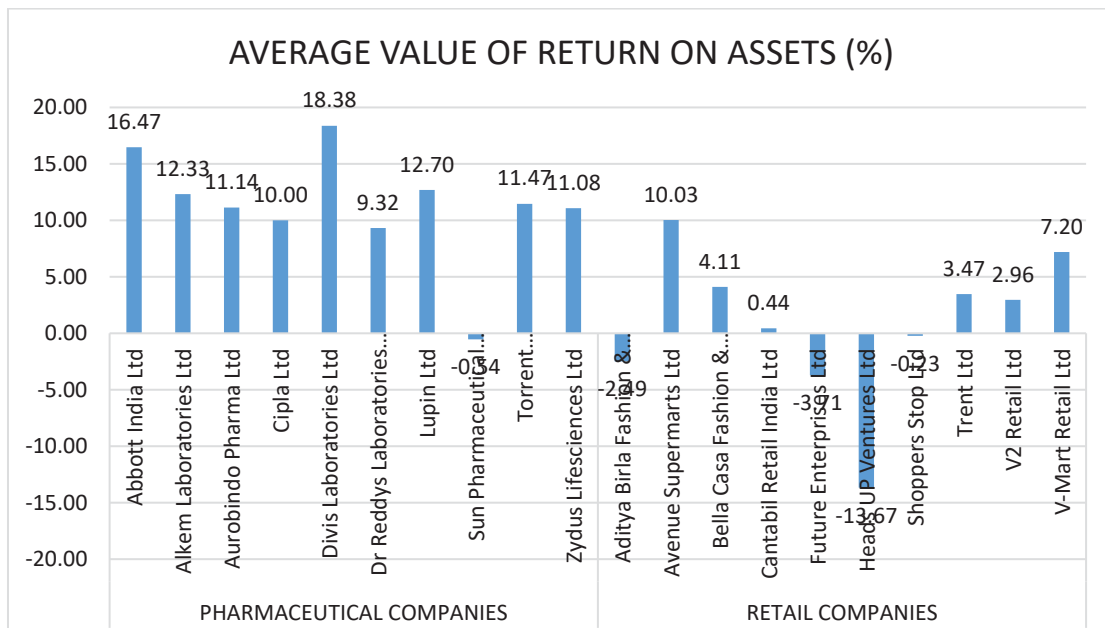
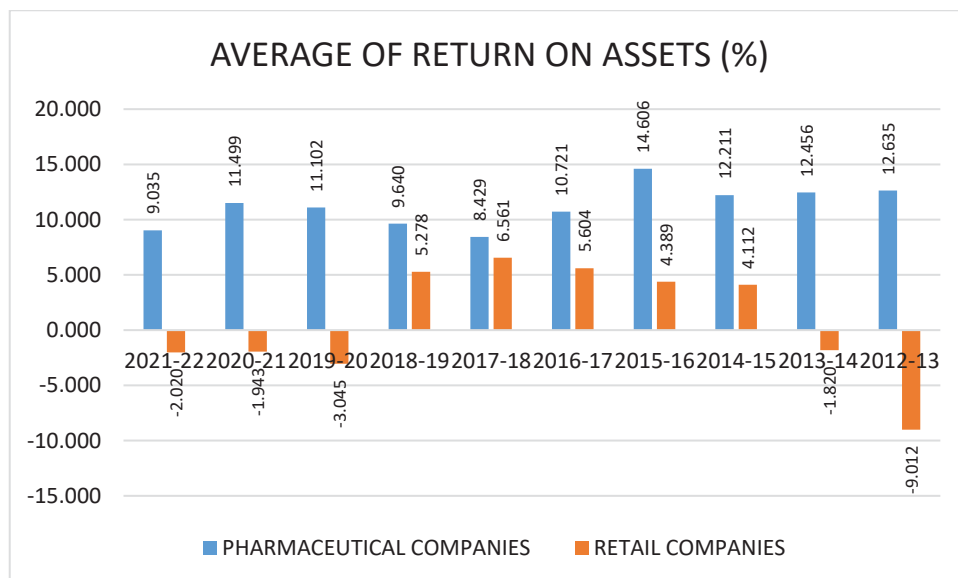




Table 28 : Average of Return on Assets (%) by Year

RETURN ON ASSETS (%)		
YEAR	PHARMACEUTICAL COMPANIES	RETAIL COMPANIES
2021-22	9.035	-2.020
2020-21	11.499	-1.943
2019-20	11.102	-3.045
2018-19	9.640	5.278
2017-18	8.429	6.561
2016-17	10.721	5.604
2015-16	14.606	4.389
2014-15	12.211	4.112
2013-14	12.456	-1.820
2012-13	12.635	-9.012

Figure 34 : Average of Return on Assets (%) by Year



From the above average value of return on assets (%) table it can be concluded that in pharmaceutical companies, Divis Laboratories Ltd has highest average value of return on assets (%) with value 18.379. Sun Pharmaceutical Industries Ltd has lowest average value of return on assets (%) with value -0.539.

In case of retail companies, Avenue Supermarts Ltd has highest average value of return on assets (%) with value 10.025. Heads UP Ventures Ltd has lowest average value of return on assets (%) with value -13.67.

On an average pharmaceutical companies have higher average value of return on assets (%) than selected retail companies.

From the above average of return on assets (%) table, it can be concluded that during the year 2021-22 pharmaceutical companies have higher average of return on assets (%). During the year 2020-21 pharmaceutical companies have higher average of return on assets (%). During the year 2019-20 pharmaceutical companies have higher average of return on assets (%). During the year 2018-19 pharmaceutical companies have higher average of return on assets (%). During the year 2017-18 pharmaceutical companies have higher average of return on assets (%). During the year 2016-17 pharmaceutical companies have higher average of return on assets (%). During the year 2015-16 pharmaceutical companies have higher average of return on assets (%). During the year 2014-15 pharmaceutical companies have higher average of return on assets (%). During the year 2013-14 pharmaceutical companies have higher average of return on assets (%). During the year 2012-13 pharmaceutical companies have higher average of return on assets (%).

Anova: Single Factor

SUMMARY

<i>Groups</i>	<i>Count</i>	<i>Sum</i>	<i>Average</i>	<i>Variance</i>
Abbott India Ltd	10	164.71	16.471	2.306988
Alkem Laboratories Ltd	10	123.27	12.327	5.075023

Aurobindo Pharma Ltd	10	111.41	11.141	8.506877
Cipla Ltd	10	100.01	10.001	4.063388
Divis Laboratories Ltd	10	183.79	18.379	8.526543
Dr Reddys Laboratories Ltd	10	93.16	9.316	11.22612
Lupin Ltd	10	126.96	12.696	82.554
Sun Pharmaceutical Industries Ltd	10	-5.39	-0.539	64.06692
Torrent Pharmaceuticals Ltd	10	114.66	11.466	36.12183
Zydus Lifesciences Ltd	10	110.76	11.076	30.94067

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ANOVA

<i>Source of Variation</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>P-value</i>	<i>F crit</i>
“Between Groups”	2256.993	9	250.777	9.896941	2.1E-10	1.985595
“Within Groups”	2280.495	90	25.33884			
Total	4537.488	99				

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H<sub>0</sub> = There is no significant difference in Return on Assets (%) for selected Pharmaceutical Companies of India.

“From above table for 9 and 90 degree of freedom”

F<sub>cal</sub> is 9.897 and F<sub>tab</sub> is 1.986

“Thus, F<sub>cal</sub>>F<sub>tab</sub> and p-value is smaller than specified  $\alpha$  of 0.05”

So, null hypothesis is rejected and it is concluded that there is significant difference in Return on Assets (%) for selected Pharmaceutical Companies of India.

Anova: Single Factor

SUMMARY

<i>Groups</i>	<i>Count</i>	<i>Sum</i>	<i>Average</i>	<i>Variance</i>
Aditya Birla Fashion & Retail Ltd	10	-24.88	-2.488	23.79335
Avenue Supermarts Ltd	10	100.25	10.025	5.623961
Bella Casa Fashion & Retail Ltd	10	41.06	4.106	5.605271
Cantabil Retail India Ltd	10	4.39	0.439	108.7396
Future Enterprises Ltd	10	-37.06	-3.706	92.02467
Heads UP Ventures Ltd	10	-136.7	-13.67	1097.726
Shoppers Stop Ltd	10	-2.29	-0.229	12.08725
Trent Ltd	10	34.74	3.474	3.276249
V2 Retail Ltd	10	29.56	2.956	31.56089
V-Mart Retail Ltd	10	71.97	7.197	20.97242

ANOVA

<i>Source of Variation</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>P-value</i>	<i>F crit</i>
“Between Groups”	3904.344	9	433.816	3.095568	0.002773	1.985595
“Within Groups”	12612.69	90	140.141			

Total            16517.03      99

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H0 = There is no significant difference in Return on Assets (%) for selected Retail Companies of India.

“From above table for 9 and 90 degree of freedom”

Fcal is 3.096 and Ftab is 1.986

“Thus, Fcal>Ftab and p-value is smaller than specified  $\alpha$  of 0.05”

So, null hypothesis is rejected and it is concluded that there is significant difference in Return on Assets (%) for selected Retail Companies of India.

“t-Test: Two-Sample Assuming Equal Variances”

	<i>Pharmaceutical Companies</i>	<i>Retail Companies</i>
Mean	11.2334	0.8104
Variance	3.48625	25.9522
Observations	10	10
“Pooled Variance”	14.7192	
Hypothesized Mean Difference	0	
df	18	
t Stat	6.07485	
“P(T<=t) one-tail”	4.8E-06	
“t Critical one-tail”	1.73406	
“P(T<=t) two-tail”	9.7E-06	
“t Critical two-tail”	2.10092	

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H0 : There is no significant difference in Return on Assets (%) between selected Pharmaceutical and Retail Companies of India.

From the above table it can be seen that P value (Two Tail) is 9.7E-06 which is smaller than significance value 0.05 (P value < 0.05) which means,

Null Hypothesis (H0) is rejected and it concludes that there is significant difference in Return on Assets (%) between selected Pharmaceutical and Retail Companies of India.

#### 4.8. RETURN ON CAPITAL EMPLOYED (%)

Table 29 : Return on Capital Employed (%) Pharmaceutical Companies

PHARMACEUTICAL COMPANIES										
RETURN ON CAPITAL EMPLOYED (%)										
NAME	202 1-22	202 0-21	201 9-20	201 8-19	201 7-18	201 6-17	201 5-16	201 4-15	201 3-14	201 2-13
Abbott India Ltd	36.3 7	33.6 0	30.5 4	33.6 4	22.9 5	19.2 8	20.6 8	23.4 4	23.4 7	21.3 5
Alkem Laboratories Ltd	19.8 0	24.6 7	21.0 9	17.2 9	19.2 2	20.4 7	24.4 6	13.4 7	15.3 9	18.7 2
Aurobindo Pharma Ltd	9.92	25.6 9	19.8 7	19.2 5	23.8 6	25.9 2	22.5 2	24.1 4	22.2 9	12.2 2
Cipla Ltd	15.7 2	16.7 5	16.8 6	15.6 3	13.9 3	9.39	11.9 0	10.1 7	13.2 1	16.3 3
Divis Laboratories Ltd	30.2 9	27.2 8	23.9 0	25.4 8	19.7 9	25.0 3	24.5 5	22.8 7	25.0 4	23.1 2
Dr Reddys Laboratories Ltd	12.2 5	18.1 7	18.4 6	13.3 4	6.13	13.1 4	10.6 1	14.2 5	18.5 9	15.9 8
Lupin Ltd	- 0.46	8.66	10.2 8	15.3 6	11.1 7	27.5 3	23.0 5	25.6 4	31.6 7	24.2 9

Sun Pharmaceutical Industries Ltd	8.20	8.15	13.4 5	10.1 2	6.68	0.90	- 4.23	- 5.58	- 27.9 1	6.38
Torrent Pharmaceuticals Ltd	19.5 0	18.5 3	18.2 0	15.8 4	5.45	12.3 8	30.1 2	12.0 2	24.0 8	24.3 5
Zydus Lifesciences Ltd	11.8 0	14.2 7	14.0 7	16.8 5	11.6 3	8.23	29.1 0	23.8 1	19.3 3	12.8 2

Figure 35 : Return on Capital Employed (%) Pharmaceutical Companies

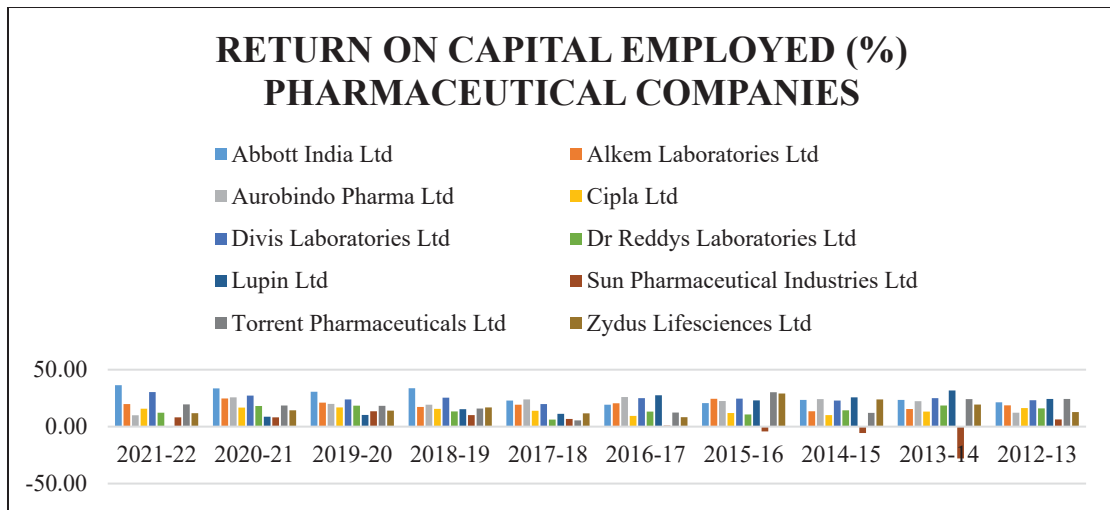


Table 30 : Return on Capital Employed (%) Retail Companies

RETAIL COMPANIES										
RETURN ON CAPITAL EMPLOYED (%)										
NAME	202 1-22	202 0-21	201 9-20	201 8-19	201 7-18	201 6-17	201 5-16	201 4-15	201 3-14	201 2-13
Aditya Birla Fashion & Retail Ltd	3.77	- 4.92	10.3 1	13.7 8	8.60	9.40	- 6.02	- 16.9 7	- 11.4 2	5.79

Avenue Supermarts Ltd	15.5 2	12.5 5	16.2 4	25.8 3	25.4 3	17.8 3	23.3 8	20.1 2	20.5 5	15.2 1
Bella Casa Fashion & Retail Ltd	25.7 8	14.9 0	29.0 4	32.4 3	35.9 3	50.3 0	8.92	3.93	9.29	8.91
Cantabil Retail India Ltd	21.2 3	11.0 5	12.9 6	19.0 6	10.8 3	11.1 9	11.3 2	10.1 3	- 5.56	- 31.0 9
Future Enterprises Ltd	- 217. 19	- 5.65	3.64	5.49	5.58	5.94	5.96	7.45	0.03	4.38
Heads UP Ventures Ltd	- 17.3 7	- 7.74	- 40.6 2	3.72	25.0 0	40.8 4	28.5 2	33.7 8	3.92	- 227. 25
Shoppers Stop Ltd	4.37	- 5.71	6.55	13.9 2	1.16	- 2.05	2.26	4.07	3.94	4.82
Trent Ltd	8.68	3.42	9.73	11.2 5	6.74	6.45	5.10	6.73	3.27	3.32
V2 Retail Ltd	3.47	2.95	5.06	13.9 8	16.7 9	22.9 5	3.48	3.27	- 1.47	- 1.74
V-Mart Retail Ltd	5.14	3.61	13.7 6	26.4 5	32.0 3	25.3 7	18.3 1	28.8 3	25.1 4	21.0 4



Figure 36 : Return on Capital Employed (%) Retail Companies



Table 31 : Average of Return on Capital Employed (%) by Company

RETURN ON CAPITAL EMPLOYED (%)		
INDUSTRY	NAME	AVERAGE VALUE
PHARMACEUTICAL COMPANIES	Abbott India Ltd	26.53
	Alkem Laboratories Ltd	19.46
	Aurobindo Pharma Ltd	20.57
	Cipla Ltd	13.99
	Divis Laboratories Ltd	24.74
	Dr Reddys Laboratories Ltd	14.09
	Lupin Ltd	17.72
	Sun Pharmaceutical Industries Ltd	1.62
	Torrent Pharmaceuticals Ltd	18.05
	Zydus Lifesciences Ltd	16.19
	Aditya Birla Fashion & Retail Ltd	1.23

<b>RETAIL COMPANIES</b>	Avenue Supermarts Ltd	19.27
	Bella Casa Fashion & Retail Ltd	21.94
	Cantabil Retail India Ltd	7.11
	Future Enterprises Ltd	-18.44
	Heads UP Ventures Ltd	-15.72
	Shoppers Stop Ltd	3.33
	Trent Ltd	6.47
	V2 Retail Ltd	6.87
	V-Mart Retail Ltd	19.97

Figure 37 : Average of Return on Capital Employed (%) by Company

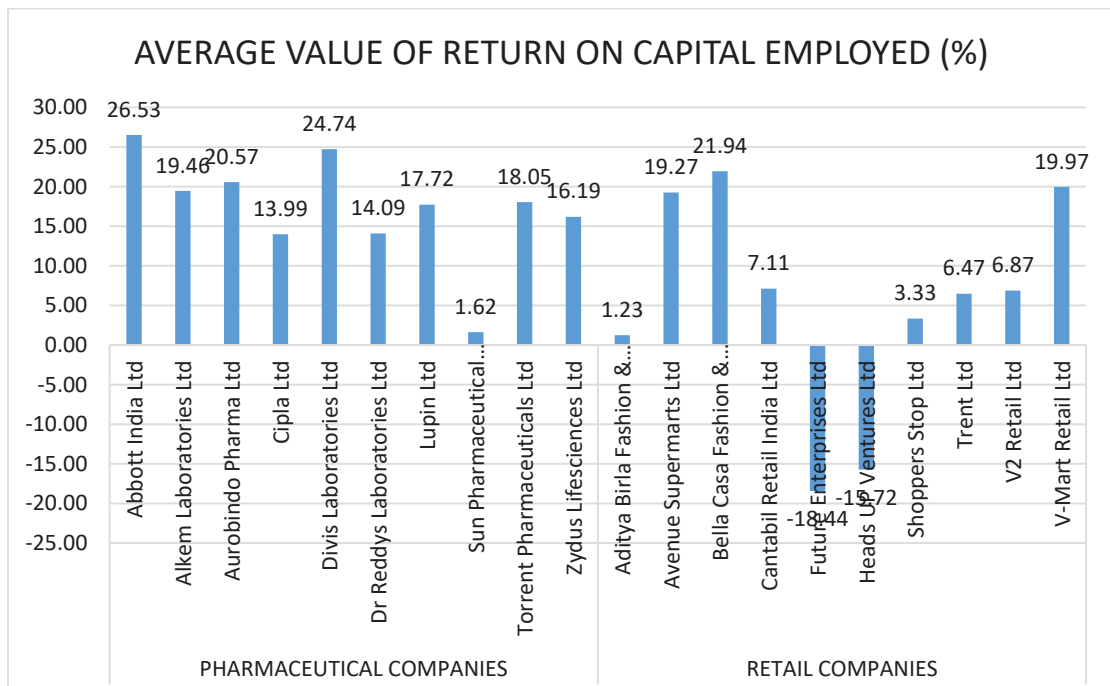
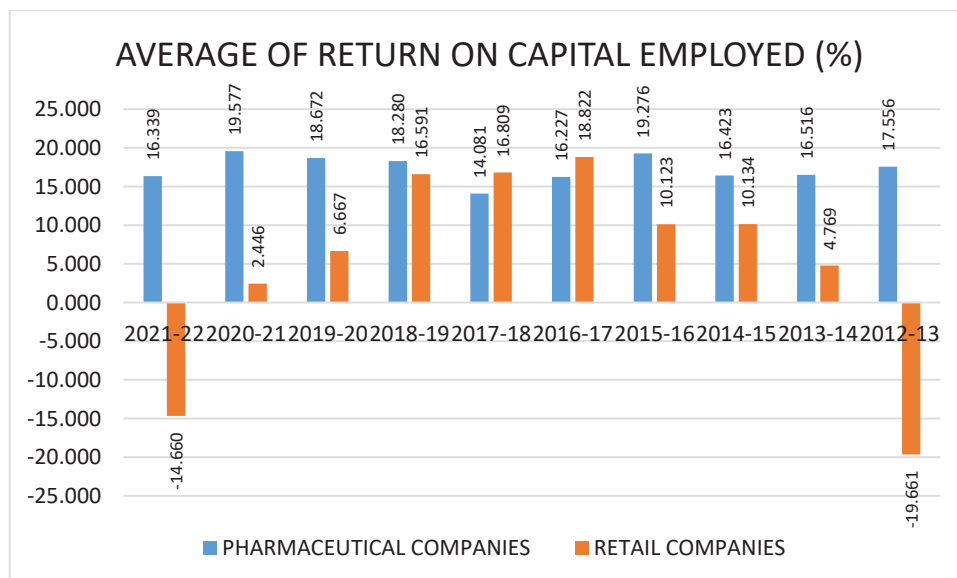


Table 32 : Average of Return on Capital Employed (%) by Year

RETURN ON CAPITAL EMPLOYED (%)		
YEAR	PHARMACEUTICAL COMPANIES	RETAIL COMPANIES
2021-22	16.339	-14.660
2020-21	19.577	2.446
2019-20	18.672	6.667
2018-19	18.280	16.591
2017-18	14.081	16.809
2016-17	16.227	18.822
2015-16	19.276	10.123
2014-15	16.423	10.134
2013-14	16.516	4.769
2012-13	17.556	-19.661

Figure 38 : Average of Return on Capital Employed (%) by Year



From the above average value of return on capital employed (%) table it can be concluded that in pharmaceutical companies, Abbott India Ltd has highest average value of return on capital employed (%) with value 26.532. Sun Pharmaceutical Industries Ltd has lowest average value of return on capital employed (%) with value 1.616.

In case of retail companies, Bella Casa Fashion & Retail Ltd has highest average value of return on capital employed (%) with value 21.943. Future Enterprises Ltd has lowest average value of return on capital employed (%) with value -18.437.

On an average pharmaceutical companies have higher average value of return on capital employed (%) than selected retail companies.

From the above average of return on capital employed (%) table, it can be concluded that during the year 2021-22 pharmaceutical companies have higher average of return on capital employed (%). During the year 2020-21 pharmaceutical companies have higher average of return on capital employed (%). During the year 2019-20 pharmaceutical companies have higher average of return on capital employed (%). During the year 2018-19 pharmaceutical companies have higher average of return on capital employed (%). During the year 2017-18 retail companies have higher average of return on capital employed (%). During the year 2016-17 retail companies have higher average of return on capital employed (%). During the year 2015-16 pharmaceutical companies have higher average of return on capital employed (%). During the year 2014-15 pharmaceutical companies have higher average of return on capital employed (%). During the year 2013-14 pharmaceutical companies have higher average of return on capital employed (%). During the year 2012-13 pharmaceutical companies have higher average of return on capital employed (%).

Anova: Single Factor

SUMMARY

<i>Groups</i>	<i>Count</i>	<i>Sum</i>	<i>Average</i>	<i>Variance</i>
Abbott India Ltd	10	265.32	26.532	39.86535

Alkem Laboratories Ltd	10	194.58	19.458	12.63286
Aurobindo Pharma Ltd	10	205.68	20.568	30.06046
Cipla Ltd	10	139.89	13.989	7.527232
Divis Laboratories Ltd	10	247.35	24.735	7.704561
Dr Reddys Laboratories Ltd	10	140.92	14.092	15.54595
Lupin Ltd	10	177.19	17.719	104.6178
Sun Pharmaceutical Industries Ltd	10	16.16	1.616	144.9999
Torrent Pharmaceuticals Ltd	10	180.47	18.047	50.69389
Zydus Lifesciences Ltd	10	161.91	16.191	39.77697

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ANOVA

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<i>Source of Variation</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>P-value</i>	<i>F crit</i>
“Between Groups”	4250.508	9	472.2787	10.41581	7.16E-11	1.985595
“Within Groups”	4080.825	90	45.3425			
Total	8331.333	99				

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H<sub>0</sub> = There is no significant difference in Return on Capital Employed (%) for selected Pharmaceutical Companies of India.

“From above table for 9 and 90 degree of freedom”

F<sub>cal</sub> is 10.416 and F<sub>tab</sub> is 1.986

“Thus,  $F_{cal} > F_{tab}$  and p-value is smaller than specified  $\alpha$  of 0.05”

So, null hypothesis is rejected and it is concluded that there is significant difference in Return on Capital Employed (%) for selected Pharmaceutical Companies of India.

Anova: Single Factor

SUMMARY

<i>Groups</i>	<i>Count</i>	<i>Sum</i>	<i>Average</i>	<i>Variance</i>
Aditya Birla Fashion & Retail Ltd	10	12.32	1.232	107.7675
Avenue Supermarts Ltd	10	192.66	19.266	20.799
Bella Casa Fashion & Retail Ltd	10	219.43	21.943	227.6056
Cantabil Retail India Ltd	10	71.12	7.112	229.8912
Future Enterprises Ltd	10	-184.37	-18.437	4891.579
Heads UP Ventures Ltd	10	-157.2	-15.72	6162.175
Shoppers Stop Ltd	10	33.33	3.333	27.02862
Trent Ltd	10	64.69	6.469	7.760321
V2 Retail Ltd	10	68.74	6.874	67.31856
V-Mart Retail Ltd	10	199.68	19.968	94.65173

ANOVA

<i>Source of Variation</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>P-value</i>	<i>F crit</i>
“Between Groups”	17199.27	9	1911.03	1.614513	0.122949	1.985595

“Within Groups”	106529.2	90	1183.658
Total	123728.5	99	

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H0 = There is no significant difference in Return on Capital Employed (%) for selected Retail Companies of India.

“From above table for 9 and 90 degree of freedom”

Fcal is 1.615 and Ftab is 1.986

“Thus, Fcal > Ftab and p-value is smaller than specified  $\alpha$  of 0.05”

So, null hypothesis is accepted and it is concluded that there is no significant difference in Return on Capital Employed (%) for selected Retail Companies of India.

“t-Test: Two-Sample Assuming Equal Variances”

	<i>Pharmaceutical Companies</i>	<i>Retail Companies</i>
Mean	17.2947	5.204
Variance	2.86866	169.008
Observations	10	10
“Pooled Variance”	85.9384	
Hypothesized Mean Difference	0	
df	18	
t Stat	2.91637	
“P(T<=t) one-tail”	0.00461	
“t Critical one-tail”	1.73406	
“P(T<=t) two-tail”	0.00921	
“t Critical two-tail”	2.10092	

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H0 : There is no significant difference in Return on Capital Employed (%) between selected Pharmaceutical and Retail Companies of India.

From the above table it can be seen that P value (Two Tail) is 0.00921 which is smaller than significance value 0.05 (P value < 0.05) which means,

Null Hypothesis (H0) is rejected and it concludes that there is significant difference in Return on Capital Employed (%) between selected Pharmaceutical and Retail Companies of India.