



A Case Study on Profitability Analysis of Selected Sugar Industry in India

KEYWORDS

Margin on sales, EBDIT, Gross profit, profitability, sugar industry

Dr. Ashvinkumar H. Solanki

Associate Professor, School of Management, RK University, Rajkot

ABSTRACT Indian Sugar Industry market is one of the largest markets in the world; in volume terms. It remains a key growth drive for world sugar, growing above the Asian and world consumption growth average. Sugar is one of the most important cash crops in the world and hence there is always a wrestle to control its import/export.

In sugar industry analysis of sugar industry based on the 2 region northern and southern in that find EBDIT, EBIT, GROSS PROFIT, PAT, and PBT. From that I have using the t-test of two-sample assuming unequal variance of above 5 variance.

Beside this analysis given end of the report reveals some facts the financial position of the company and performance of last five years. It shows how some sugar company of southern region will performing better then northern region company.

Objectives of the Study

- The main objective of the study is to analyze whether overall profitability of the Indian sugar companies depends upon the age, size, and the region to which the company belongs depending on the margin on sales.
- To study the process of sugar industry.
- To analyze the Growth and Trend of select sugar companies in India.
- To study the productivity of select sugar companies in India.

Tools of Study

T- Test is an inferential test that determines if there is a significant different between the means of two data sets. In other words, a t- test decides if two data sets come from the same population or from different population.

Period of study is last 5 years.

Hypotheses of Study

The following hypotheses were framed to conduct the analysis and evaluate the profitability of the companies in the sugar industry based upon the Margin on sales.

H01: Northern and southern region companies, have, on an average, the same amount of EBDIT.

H02: Northern and southern region companies, have, on an average, the same amount of EBIT.

H03: Northern and southern region companies, have, on an average, the same amount of Gross Profit.

H04: Northern and southern region companies, have, on an average, the same amount of PAT.

H05: Northern and southern region companies, have, on an average, the same amount of PBT.

LIMITATIONS OF THE STUDY

1. Few of the sample companies were not following a uniform accounting period. In such case, the financial data organized in such a way that it related to the twelve months of the relevant accounting year.
2. The financial statements from which the data have been extracted were historical and quantitative in nature. Hence, the study incorporates all the limitations that were inherent in the financial statement.
3. The study considers the financial data 2009 to 2013 only.

TABLE 1 NORTH REGION COMPANY

Sr no	North Region company	Particular	2009	2010	2011	2012	2103	Average
1	Indian Sucrose Ltd.	EBDIT/NS	14.42	22.25	20.28	15.32	20.63	76.396
		EBIT/NS	14.37	20.97	11.19	15.31	17.98	65.436
		Gross Profit/NS	8.15	11.79	5.2	4.03	7.72	30.714
		PBT/NS	3.15	6.83	0.39	0.98	4.82	12.314
		PAT//NS	4.03	4.56	58	0.01	3.39	67.278
2	J K Sugar Ltd.	EBDIT/NS	10.1	8.34	-3.95	0.94	18.9	19.21
		EBIT/NS	8.69	7.39	-4.39	0.72	19.26	16.262
		Gross Profit/NS	2.88	2.36	-9.04	-5.19	-3.85	-9.76
		PBT/NS	-1.04	-2.79	-12.22	-8.45	3.95	-23.71
		PAT//NS	-1.1	-2.77	-7.97	-13.37	2.48	-24.714
3	Khaitan (India)Ltd.	EBDIT/NS	11.46	13.72	2.48	19.1	18.55	50.47

Sr no	North Region company	Particular	2009	2010	2011	2012	2103	Average
		EBIT/NS	7.33	11.18	1.12	14.1	9.94	35.718
		Gross Profit/NS	-6.7	-8.92	-18.88	-2.46	-1.61	-37.282
		PBT/NS	-17.06	-18.06	-23.77	-7.8	-7.39	-68.168
		PAT//NS	-1.15	-19.48	-24.93	-7.8	-7.39	-54.838
4	Naraingrh Sugar Mills Ltd.	EBDIT/NS	18.96	13.47	12.77	16.55	10.71	63.892
		EBIT/NS	19.42	13.72	13	16.55	10.71	64.832
		Gross Profit/NS	7.15	6.43	4.67	5.06	4.03	24.116
		PBT/NS	5.7	5.54	3.57	3.6	2.62	18.934
		PAT//NS	4.74	4.18	2.88	2.84	2.13	15.066
5	Oswal Overseas Ltd.	EBDIT/NS	9.09	10.46	10.39	2.96	0.62	33.024
		EBIT/NS	8.96	10.01	10.05	2.73	0.5	31.85
		Gross Profit/NS	6.55	7.93	4.98	0.28	-2.36	19.268
		PBT/NS	1.17	3.62	0.34	-0.03	-6.73	3.754
		PAT//NS	0.66	3.13	0.45	-2.28	-6.54	0.652
6	Oudh Sugar Mills Ltd.	EBDIT/NS	24.42	4.72	9.36	11.4	16.87	53.274
		EBIT/NS	24	4.61	9.22	10.79	15.7	51.76
		Gross Profit/NS	42.12	-15.63	3.78	-2.3	7.89	29.548
		PBT/NS	4.87	-20.84	-8.45	-4.1	4.53	-27.614
		PAT//NS	3.34	-15.25	-5.68	-4.39	3.06	-21.368
7	Piccadilly Agro Industries Ltd.	EBDIT/NS	14	18.31	25.03	16.39	14.79	76.688
		EBIT/NS	11.36	16.57	22.45	13.41	13.37	66.464
		Gross Profit/NS	11.36	15.33	21.74	12.48	11.81	63.272
		PBT/NS	8.54	12.29	18.91	9.42	9.33	51.026
		PAT//NS	6.46	5.73	12.77	6.74	6.36	32.972
8	Ravalgon Sugar Farm Ltd.	EBDIT/NS	11.45	19.21	12.98	-0.41	-4.45	42.34
		EBIT/NS	14.83	16.92	3.88	-3.3	-14.75	29.38
		Gross Profit/NS	12.97	18.06	8.55	-5.08	-10.53	32.394
		PBT/NS	10.6	13.97	-1.03	-8.23	-27.59	9.792
		PAT//NS	7.54	10.03	0.11	-7.88	-27.5	4.3
9	Simbhaoli Sugar Ltd.	EBDIT/NS	10.89	23.21	-1.91	7.5	-1.92	39.306
		EBIT/NS	8.78	11.02	-4.82	3.12	-3.84	17.332
		Gross Profit/NS	35.28	9.25		2.64	5.19	48.208
		PBT/NS	-5.76	8.82	-11.8	-9.87	-18.62	-22.334
		PAT//NS	-6.67	10.27	-5.89	1.29	-4.46	-1.892
10	Sir Shadi Lal Enterprise Ltd.	EBDIT/NS	8.07	6.62	-5.38	-6.02	3.98	4.086
		EBIT/NS	14.03	11.57	4.07	-5.66	5.7	25.15
		Gross Profit/NS	5.47	7.46	-1.27	-11.88	-0.35	-0.29
		PBT/NS	-0.15	3.74	-4.99	-14.69	2.44	-15.602
		PAT//NS	-1.95	3.16	-4.08	-10.5	-2.17	-13.804
11	Rana Sugar Ltd.	EBDIT/NS	5.32	19.8	7.67	16.32	15.84	52.278
		EBIT/NS	4.32	21.98	7.16	16.04	15.85	52.67
		Gross Profit/NS	-7.03	10.52	-0.24	0.75	5.53	5.106
		PBT/NS	-28.92	4.02	-4.68	-3.69	8.59	-31.552
		PAT//NS	-21.3	3.68	-2.52	-7.27	-4.92	-28.394

TABLE 2 SOUTH REGION COMPANY

SR No	South Region Company	Particular	2009	2010	2011	2012	2013	Average
1	Bannari Amman Sugar Ltd.	EBDIT/NS	24.87	27.59	18.39	19.34	20.86	94.362
		EBIT/NS	24.76	26.58	17.49	19.19	20.71	92.162
		Gross Profit/NS	23.25	26.89	15.55	15.17	17.48	84.356
		PBT/NS	18.63	22.57	6.87	9.39	13.01	60.062
		PAT//NS	16.86	16.23	6.5	8.94	10.64	50.658
2	Dalmia Bharat Sugar & inds.Ltd.	EBDIT/NS	28.08	23.87	-47.19	13	15.73	20.906
		EBIT/NS	28.79	21.58	10.07	8.89	15.22	72.374
		Gross Profit/NS	19.79	15.59	5.94	5.95	9.17	49.104
		PBT/NS	14.78	9.52	-60.33	0.08	1.89	-35.572
		PAT//NS	9	6.39	0.46	0.13	1.83	16.346
3	Dharani sugar & Chemicals Ltd.	EBDIT/NS	25.05	19.17	9.54	13.92	16.35	70.95
		EBIT/NS	24.86	18.75	9.37	13.59	15.98	69.766
		Gross Profit/NS	14.6	15.41	2.76	5.99	7.07	40.174
		PBT/NS	11.44	13	0.25	2.63	2.92	27.904
		PAT//NS	4.63	7.93	0.42	1.67	2.09	15.068
4	E I D-Parry (India) Ltd.	EBDIT/NS	27.37	30	12.07	17.49	17.06	90.342
		EBIT/NS	9.31	18.03	0.32	6.25	11.67	36.244
		Gross Profit/NS	24.04	26.91	9.47	13.69	10.19	76.148
		PBT/NS	17.56	20.68	2.82	8.92	4.78	50.936
		PAT//NS	9.24	5.21	3.38	2.54	1.82	20.734
5	Empee Sugar & Chemicals Ltd.	EBDIT/NS	19.87	20.04	18.21	14	13.92	74.904
		EBIT/NS	18.55	19.65	18.48	16.9	13.6	76.3
		Gross Profit/NS	11.21	8.78	5.55	-10.33	-5.72	14.066
		PBT/NS	4.21	1.26	-14.14	-12.86	-13.39	-24.208
		PAT//NS	2.02	1.98	-9.62	-9.47	-9.08	-16.906
6	Gayatri Sugar Ltd.	EBDIT/NS	6.63	16.26	22.44	9.96	12.22	57.734
		EBIT/NS	5.96	16.91	21.78	9.86	12.06	56.922
		Gross Profit/NS	-8.74	1.17	3.2	-0.98	-0.33	-5.416
		PBT/NS	-18.48	-8.59	-8.69	-6.74	-7.23	-43.946
		PAT//NS	-19.19	-8.59	32.93	-6.74	-7.23	-3.036
7	Jeypore Sugar Ltd.	EBDIT/NS	20.28	25.81	11.71	14.33	15.61	75.252
		EBIT/NS	20.44	25.53	22.36	14.48	15.32	85.874
		Gross Profit/NS	6.95	16.14	-0.19	4.05	8.33	28.616
		PBT/NS	0.42	11.56	-5.58	0.58	5.47	8.074
		PAT//NS	1.67	7.96	-4.45	0.99	3.22	6.814
8	K C P Sugar & Industries. Corn. Ltd.	EBDIT/NS	18.32	19.73	13.06	14.92	17.31	69.492
		EBIT/NS	16.13	18.32	10.65	12.29	16.01	60.592
		Gross Profit/NS	16.16	18.16	12.48	12.98	15.95	62.97
		PBT/NS	10.29	14.15	4.87	9.68	13.34	41.658
		PAT//NS	6.29	9.59	6.09	8.05	9.29	31.878
9	Kothari Sugar & Chemical Ltd.	EBDIT/NS	3.13	9.3	8.85	10	7.85	32.85
		EBIT/NS	9.55	11.43	12.33	11.5	9.68	46.746
		Gross Profit/NS	5.57	9.64	9.65	9.92	8.32	36.444
		PBT/NS	0.45	5.7	4.68	5.84	4.42	17.554
		PAT//NS	0.32	3.38	2.83	2.61	1.98	9.536
10	Parry's Sugar Industries Ltd.	EBDIT/NS	19.22	1.44	2.47	12.52	6.2	36.89
		EBIT/NS	17.8	-2.37	3.99	10.92	6.1	31.56
		Gross Profit/NS	7.95	-11.99	-16.24	0.74	-7.97	-21.134
		PBT/NS	-10.99	-32.12	-25.01	-5.19	-12.84	-75.878

		PAT//NS	0.17	-28.43	-22.66	-1.39	-12.84	-54.878
11	Ponni Sugar (Erode) Ltd.	EBDIT/NS	16.97	30.72	6.44	12.27	13.78	69.156
		EBIT/NS	16.62	30.24	5.54	11.86	12.64	66.788
		Gross Profit/NS	15.79	29.75	6.1	11.67	12.09	65.728
		PBT/NS	13.43	28.73	4.76	10.61	6.63	58.856
		PAT//NS	8.93	15.1	6.84	6.58	8.99	39.248
12	Prudential Sugar Corp. Ltd.	EBDIT/NS	12.29	7.36	9.85	10.49	7.39	41.468
		EBIT/NS	10.41	7	9.83	10.48	7.37	39.194
		Gross Profit/NS	-3.38	9.82	6.23	7.03	4.95	20.69
		PBT/NS	0.62	0.2	2.63	3.59	2.33	7.506
		PAT//NS	0.18	-1.28	0.7	2.93	1.56	2.842
13	Rajshree Sugar & Chemicals Ltd.	EBDIT/NS	21.52	26.27	9.37	14.17	14.93	74.316
		EBIT/NS	20.65	25.31	8.64	12.94	14.22	70.384
		Gross Profit/NS	14.29	17.6	-3.18	3.33	5.48	33.136
		PBT/NS	10.25	12.81	-3.06	1.82	1.4	22.1
		PAT//NS	6.34	8.27	-5.98	-0.25	1.22	8.624
14	Sakthi Sugar Ltd.	EBDIT/NS	17.07	16.86	6.76	12.06	7.29	54.208
		EBIT/NS	16.52	15.09	6.45	11.65	7.01	51.112
		Gross Profit/NS	23.32	13.48	-4.17	1.06	-4.4	32.81
		PBT/NS	-1.6	10.89	-3.79	-4.85	-10.03	-1.356
		PAT//NS	-6.77	7.54	-4.17	-4.33	-7.47	-9.224
15	Shree Renuka Sugar Ltd.	EBDIT/NS	13.35	17.03	11.9	11.63	9.57	55.824
		EBIT/NS	13.32	16.83	11.77	11.61	9.34	55.398
		Gross Profit/NS	-3.52	11.65	5.73	4.4	3.67	18.994
		PBT/NS	6.5	9.69	8.75	3.53	1.3	28.73
		PAT//NS	5.28	6.42	7.44	1.32	0.81	20.622
16	Sri Chamundeswari Sugar Ltd.	EBDIT/NS	24.99	26.43	21.36	14.04	12.78	89.376
		EBIT/NS	20.27	29.19	20.8	13.35	12.63	86.136
		Gross Profit/NS	8.12	16.01	12.17	7.26	5.98	44.756
		PBT/NS	0.35	6.02	7.18	2.08	1	15.83
		PAT//NS	0.21	5.87	5.01	1.4	0.68	12.626
17	Thiru Arooran Sugar Ltd.	EBDIT/NS	9.37	21.73	4.45	6.94	12.23	44.936
		EBIT/NS	9.06	21.37	3.77	5.38	10.85	41.75
		Gross Profit/NS	5.68	3.34	7.78	3.03	5.45	20.92
		PBT/NS	-0.33	12.41	-5.39	0.1	1.39	7.068
		PAT//NS	0.42	6.97	0.65	0.1	0.7	8.28

Table 3 T-Test: Two-Sample Assuming Unequal Variances
1. EBDIT

	North	South
Mean	46.4512727	61.93918
Variance	499.692827	454.9972
Observations	11	17
Hypothesized Mean Difference		0
df		21
t Stat		1.822849
P(T<=t) one-tail		0.041298
t Critical one-tail		1.720743
P(T<=t) two-tail		0.082597
t Critical two-tail		2.079614

Interpretation:

Since the significant value is 0.05, the null hypothesis is

rejected. Hence, it can be said that the sugar companies located in the northern and southern region of India did not have, on an average, the same amount of profitability in terms of EBDIT. Comparing the Means, it is concluded that southern region companies had higher EBDIT.

2. EBIT

	North	South
Mean	41.53218	61.13541176
Variance	373.2361	341.1199509
Observations	11	17
Hypothesized Mean Difference		0
df		21
t Stat		-2.66775
P(T<=t) one-tail		0.007201
t Critical one-tail		1.720743
P(T<=t) two-tail		0.014402
t Critical two-tail		2.079614

Interpretation:

Since the significant value is 0.05, the null hypothesis is rejected. Hence, it can be said that the sugar companies located in the northern and southern region of India did not have, on an average, the same amount of profitability in terms of EBIT. Comparing the Means, it is concluded that southern region companies had higher EBIT.

3. Gross Profit

	North	South
Mean	35.43306	18.66309091
Variance	756.6516	782.5939739
Observations	17	11
Hypothesized Mean Difference	0	
df	21	
t Stat	1.559381	
P(T<=t) one-tail	0.066925	
t Critical one-tail	1.720743	
P(T<=t) two-tail	0.13385	
t Critical two-tail	2.079614	

Interpretation:

Since the significant value is 0.05, the null hypothesis is rejected. Hence, it can be said that the sugar companies located in the northern and southern region of India did not have, on an average, the same amount of profitability in terms of Gross Profit. Comparing the Means, it is concluded that southern region companies had higher Gross Profit.

4. PAT

	North	South
Mean	-2.24927	9.366588235
Variance	1087.866	551.2677784
Observations	11	17
Hypothesized Mean Difference	0	
df	17	
t Stat	-1.01363	
P(T<=t) one-tail	0.162485	
t Critical one-tail	1.739607	
P(T<=t) two-tail	0.32497	
t Critical two-tail	2.109816	

Interpretation:

Since the significant value is 0.05, the null hypothesis is rejected. Hence, it can be said that the sugar companies located in the northern and southern region of India did not have, on an average, the same amount of profitability in terms of PAT. Comparing the Means, it is concluded that southern region companies had higher PAT.

5. PBT

	North	South
Mean	-8.46909	9.724588
Variance	1014.411	1384.895
Observations	11	17
Hypothesized Mean Difference	0	
df	24	
t Stat	-1.38052	
P(T<=t) one-tail	0.090076	
t Critical one-tail	1.710882	
P(T<=t) two-tail	0.180151	
t Critical two-tail	2.063899	

Interpretation:

Since the significant value is 0.05, the null hypothesis is rejected. Hence, it can be said that the sugar companies located in the northern and southern region of India did not have, on an average, the same amount of profitability in terms of PBT. Comparing the Means, it is concluded that southern region companies had higher PBT.

CONCLUSION

The Indian sugar industry uses sugarcane in the production of sugar and hence, the maximum number of companies is likely to be found in the sugarcane growing state of India, including Uttar Pradesh, Maharashtra, Gujarat, Tamil nadu, Karnataka and Andhra Pradesh. Profit are the measured of overall efficiency of the business. That is financial used to assess the ability of a business to generate earnings as compared their expenses and other relevant price will incurred during a specific period of time. The study suggests that selected companies of the sugar industry will have an efficient control over their indirect expenses, and to have an efficient and effective monitoring and control system. It will be also suggested that the government of India need to take some measurement to revised the sugar prices, and initiate research and development programs, and it should be create awareness among the farmer about new technologies. There is scope for future in extension of the present research as an exclusive study in the field of profitability in various industries.

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