

---

**FINANCIAL MANAGEMENT OF SUGAR FACTORIES:  
A COMPARATIVE STUDY OF CO-OPERATIVE AND  
PRIVATE SUGAR FACTORIES WITH SPECIAL  
REFERENCE TO BELGAUM DISTRICT**

---

**Prof. Dr. Mohammadjaffar M. Bagban \***

**Abstract :**

Financial performance analysis is nothing but the process of identifying the financial strengths and weaknesses of the firm by properly establishing the relationship between the items of balance sheet and profit and loss account. It also helps in short-term and long-term forecasting and growth can be identified with the help of financial performance analysis. The dictionary meaning of 'analysis' is to resolve or separate a thing into its element or component parts for tracing their relation to the things. The analysis of financial statement is a process of evaluating the relationship between the component parts of financial statement to obtain a better understanding of the firm's position and performance. This analysis can be done by management of the firm or by parties outside, namely owners, creditors, and investors. Key Performance Indicators (KPIs) are -1. Revenue, 2. PAT, 3. EBITDA, 4. Interest, 5. Debt outstanding, 6. Production and 7. Return on capital employed.

---

**Keywords:** Financial management, Operational Performance, Co-Operative and Private Sugar Factories,

---

**Introduction:**

The process of identifying the financial strengths and weaknesses of the firm by properly establishing the relationship between the items of balance sheet and profit and loss account is called as financial performance analysis. It also helps in short-term and long-term forecasting. With the help of financial performance analysis growth can be identified.

**KEY PERFORMANCE INDICATORS (KPIs) OF FINANCIAL PERFORMANCE:**

Key Performance Indicators (KPIs) are - 1. Revenue, 2. PAT, 3. EBITDA, 4. Interest, 5. Debt outstanding, 6. Production and 7. Income on capital employed.

---

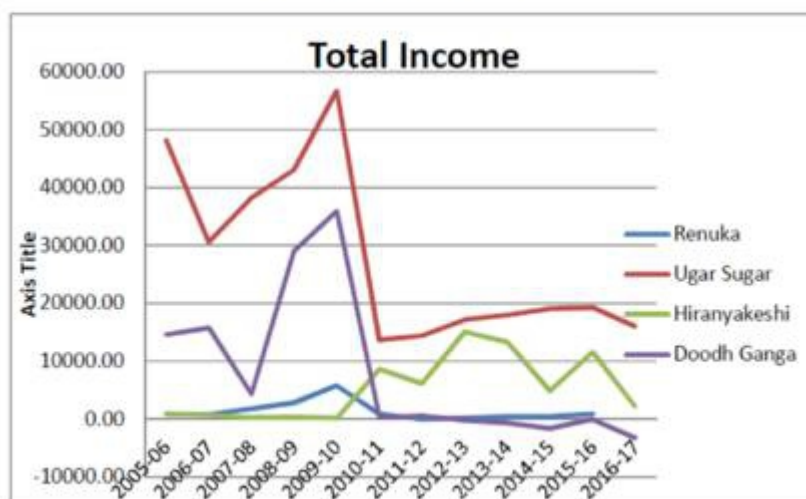
\* *Vice- Principal & Head, Department of Accountancy Devchand College, Arjunnagar*

---

**Table 1- Total Income (Rs. In Lakhs)**

	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
Renuka	913.86	759.90	1818.96	2821.31	5809.27	867.09	11.31
Ugar Sugar	48197.13	30569.86	38257.74	43126.56	56651.45	13,635.18	14,434.40
Hiranyakshi	913.86	677.73	263.28	327.75	146.99	8,610.60	6,111.75
Doodh Ganga	14621.79	15759.62	4288.10	29030.07	35897.81	227.82	626.74
	2012-13	2013-14	2014-15	2015-16	2016-17	AAG	
Renuka	150.00	547.31	464.90	931.83		167.63	
Ugar Sugar	17144.87	17969.66	19117.79	19249.16	15939.76	-2.18	
Hiranyakshi	15083.26	13283.79	4804.90	11573.35	2210.59	522.02	
Doodh Ganga	-223.51	-680.98	-1607.44	-43.51	-3252.88	735.94	

(Source: Annual Reports of the SRS Ltd., USW Ltd., SHSSK Ltd. And SDKSSK Ltd. from F.Y. 2005-06 to 2016-17)

**Graph 1 Total Income**

The Table 1 and Graph 1 show the total income earned by the sugar factories of interest located in Karnataka State. Ugar Sugars stood at first place in terms of total income throughout the years. The total income in 2005-06 was Rs. 48197.13 lakhs which increased to Rs. 15939.76 lakhs in 2016-17 with an AAG of -2.18 percent. A drastic increase is observed in Renuka Sugars' total income from Rs. 913.86 lakhs in 2005-06 to Rs. 5809.27 lakhs in 2009-10 but has a decline to Rs. 931.83 lakhs with an AAG of 522.02 percent. Hiranyakeshi has faced a decline in its total income till

2009-10 but had proved and settled at Rs. 2210.59 lakh and witnessed an AAG of 522.02 percent. However, Doodh Ganga's total income growth at 735.94 percent on an average per annum.

**Table 2 Sales Turnover(Rs. In Lakhs)**

	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
<b>Renuka</b>	890.30	827.58	1805.34	2320.64	5634.06	55979.01	63632.30
<b>Ugar Sugar</b>	49400.10	23341.17	50169.88	50364.01	57013.20	59933.43	66309.29
<b>Hiranyakshi</b>	890.30	700.00	256.55	328.35	152.33	28012.88	33457.03
<b>Doodh Ganga</b>	12391.66	15043.95	5926.44	25822.84	30913.20	30179.29	37186.52
	2012-13	2013-14	2014-15	2015-16	2016-17	AAG	
<b>Renuka</b>	64104.30	65771.12	101340.84	99165.77		124.50	
<b>Ugar Sugar</b>	89476.05	83190.80	84671.25	103862.08	75321.56	10.58	
<b>Hiranyakshi</b>	20271.84	28175.74	19260.27	20753.23	22641.20	1653.04	
<b>Doodh Ganga</b>	27529.12	35523.36	35686.00	35832.59	48245.99	34.15	

(Source: Annual Reports of the SRS Ltd., USW Ltd., SHSSK Ltd. And SDKSSK Ltd. from F.Y. 2005-06 to 2016-17)

**Graph 2 Sales Turnover**



As per Table 2 and Graph 2 Sales turnover is the total amount of income generated by a business during the study period. The above table and graph give a comparative picture of sales turnover of sugar factories of interest. During 2005-06 to 2010-11, the sales turnover of Ugar Sugars and Doodh Ganga are on the higher side than that of Renuka and Hiranyakeshi. During 2010-11 to 2014-15 the sales turnover of Renuka is above Hiranyakeshi and Doodh Ganga. Thus, Ugar Sugars and Renuka are efficient income generation. The average annual growth (AAG) in sales turnover of Hiranyakeshi is 1653.04 percent which stands in the first position followed by Renuka with 124.50 percent. Ugar Sugars' AAG in sales changes is 10.58percent, and DoodhGanga's is 34.15 percent.

**Table 3 Total Expenses (Rs. In Lakhs)**

	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
<b>Renuka</b>	803.88	632.36	1584.72	2439.78	5078.76	53,556.87	60,802.40
<b>Ugar Sugar</b>	44818.60	28689.96	33101.10	36600.75	53644.71	73,167.04	79,034.45
<b>Hiranyakeshi</b>	803.88	605.31	229.54	304.98	131.06	36,407.24	39,359.22
<b>Doodh Ganga</b>	14648.61	4840.37	14692.45	25787.31	32100.24	30,310.51	36,650.21
	2012-13	2013-14	2014-15	2015-16	2016-17	AAG	
<b>Renuka</b>	63735.88	70979.32	119934.48	118126.57		134.31	
<b>Ugar Sugar</b>	104875.91	104136.33	104114.09	121982.96	88833.83	9.35	
<b>Hiranyakeshi</b>	35988.54	41194.85	22953.06	30808.57	33423.64	2507.32	
<b>Doodh Ganga</b>	27852.71	36348.54	37632.60	36494.62	52975.62	27.64	

(Source: Annual Reports of the SRS Ltd., USW Ltd., SHSSK Ltd. And SDKSSK Ltd from F.Y. 2005-06 to 2016-17)

**Graph 3 Total Expenses**



As per Table 3 and Graph 3, Total Expenses is the value of all expenditures incurred by the organization during the study period. The above table and graph, observed that Ugar Sugars and Renuka faced high amount more expenditure when compared to the other two. But Hirnyakeshi is able to manage their expenses during the study period. Ugar Sugars' total expenses are having low AAG of 9.35 percent. Renuka Sugars' total expenses were grown at 134.31 percent in an average and that of Doodh Ganga is 27.64 percent. However, Hiranyakeshi's AAG was higher at 2507.32 percent.

**Table 4 Interest Paid (Rs. In Lakhs)**

	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
<b>Renuka</b>	26.58	24.64	84.06	101.44	92.23	824.00	3698.00
<b>Ugar Sugar</b>	1405.41	897.36	2310.44	1852.60	2370.53	2666.00	2965.00
<b>Hiranyakeshi</b>	26.58	15.36	11.33	12.15	8.28	1864.42	1937.22
<b>Doodh Ganga</b>	1375.44	1986.96	1872.77	1297.91	230.54	1823.41	1985.84
	2012-13	2013-14	2014-15	2015-16	2016-17	AAG	
<b>Renuka</b>	3670.00	3182.00	3362.00	9222.00	--	155.36	
<b>Ugar Sugar</b>	2882.00	3332.00	1481.00	2873.00	3039.00	19.11	
<b>Hiranyakeshi</b>	1469.61	2592.96	2725.45	2855.57	3592.29	2037.82	
<b>Doodh Ganga</b>	2387.18	2225.78	2025.72	3641.66	4498.00	66.67	

(Source: Annual Reports of the SRS Ltd., USW Ltd., SHSSK Ltd. And SDKSSK Ltd. from F.Y. 2005-06 to 2016-17)

**Graph 4 Interest Paid**



As per Table 4 and Graph 4, in case the factory has taken loan, then on predefined frequency it is necessary to pay the interest for the loan. This is what is called as interest paid. From the analysis, it is observed that Ugar Sugars and Doodh Ganga falls on higher side of interest paid on loans from 2005-06 to 2009-10. During 2011-12 to 2014-15 Renuka and Ugar are interest payers. A steep increase is observed in interest paid by the Renuka sugars. Ugar Sugars paid an interest of Rs. 1405.41 lakhs in 2005-06,

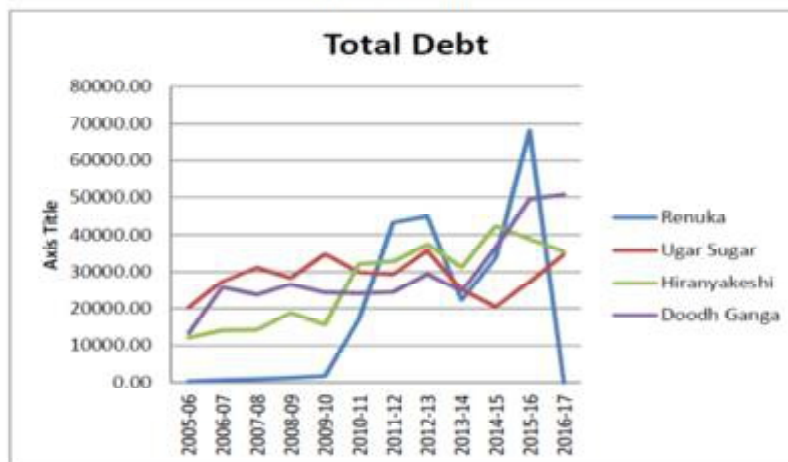
Rs. 2370.53 lakhs in 2009-10 and Rs.3039.00 lakhs in 2016-17 with an AAG of 19.11 percent. However, the AAG of Renuka Sugars was 155.36 percent. Hiranyakeshi's AAG in interest paid is found to be very high at 2037.82 percent.

**Table 5 Total Debt (Rs. In Lakhs)**

	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
Renuka	371.13	647	987.34	1299.52	1715.86	17158.5	43280.66
Ugar Sugar	20174.01	27348.75	31217.05	28410.6	34851.99	29868.37	29288.25
Hiranyakshi	12123.3	14126.43	14249.75	18826.5	15640.01	32114.95	32835.08
Doodh Ganga	13260.77	25695.36	23707.74	26481.99	24328.14	24114.24	24380.84
	2012-13	2013-14	2014-15	2015-16	2016-17	AAG	
Renuka	44928.73	22322.01	33789.68	68155.75	--	134.94	
Ugar Sugar	35809.57	25124.21	20361.40	27398.81	34742.16	7.45	
Hiranyakshi	37425.05	31314.92	42383.41	38830.29	35452.68	14.19	
Doodh Ganga	29439.42	24792.50	36604.75	49532.70	50681.94	16.37	

(Source: Annual Reports of the SRS Ltd., USW Ltd., SHSSK Ltd. And SDKSSK Ltd. from F.Y. 2005-06 to 2016-17)

**Graph 5 Total Debt**





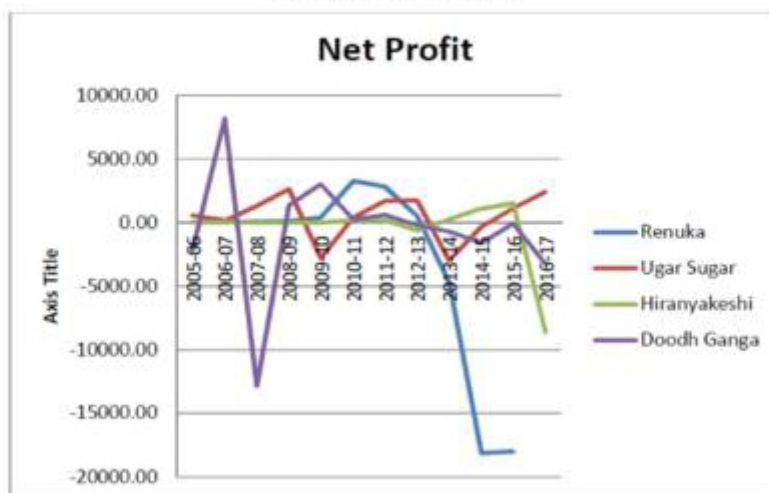
As per Table 5 and Graph 5 total debt is an indicator of the factory's dependency on the outside funds to perform their operations. In 2005-06, Renuka Sugars' total debt was Rs. 371.13 lakhs, which is low as compared to others. But it has grown with an AAG of 134.94 percent. The total debt of Ugar Sugars in 2005-06, was Rs. 20174.01 lakhs and is increased to Rs. 35452.68 lakhs in 2016-17 with an AAG of 7.45percent and is found to be efficient. Hiranyakeshi is having AAG of 14.19percent.

**Table 6 : Net Profit (Rs. In Lakhs)**

	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
<b>Renuka</b>	55.58	54.43	92.79	143.51	410.05	3289.23	2841.21
<b>Ugar Sugar</b>	584.24	176.54	1279.82	2632.81	-2806.24	401.57	1709.24
<b>Hiranyakeshi</b>	55.58	40.73	12.27	2.81	2.37	216.23	209.56
<b>Doodh Ganga</b>	-2176.08	8264.42	-12854.09	1375.63	3017.65	227.82	626.74
	2012-13	2013-14	2014-15	2015-16	2016-17	AAG	
<b>Renuka</b>	518.42	- 4660.89	- 18128.74	- 18028.97		20.49	
<b>Ugar Sugar</b>	1745.01	- 2975.87	- 325.05	1128.28	2427.49	-2.17	
<b>Hiranyakeshi</b>	- 633.45	264.68	1112.11	1518.01	- 8571.85	725.39	
<b>Doodh Ganga</b>	- 223.51	- 680.98	- 1607.44	- 43.51	- 3252.88	621.82	

(Source: Annual Reports of the SRS Ltd., USW Ltd., SHSSK Ltd. And SDKSSK Ltd. from F.Y. 2005-06 to 2016-17)

**Graph 6 Net Profit**



As per Table 6 and Graph 6, Net profit, also referred to as the bottom line net income, or net earnings, is a measure of the profitability of a factory after accounting for all costs.

In 2005-06, the net profit is positive except Doodh Ganga which faced a net loss of Rs. -2176.08 lakhs. In 2006-07, net profit of Doodh Ganga was high at Rs. 8264.42 lakhs and that of Hiranyakeshi was low at 40.73 lakhs. Likewise, in 2007-08 Doodh Ganga and in 2009-10 Ugar Sugars faced a net loss.

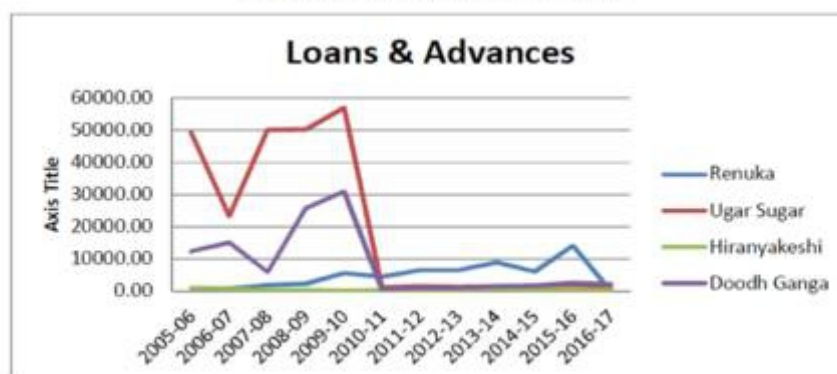
Loss of AAG, Hiranyakeshi Sugars stood at first place with 725.39 percent and Doodh Ganga Sugars at second place with 621.82 percent. Ugar sugars recorded negative AAG of -2.17 percent

**Table 7**  
**Loans and Advances (Rs. In Lakhs)**

	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
<b>Renuka</b>	890.30	827.58	1805.34	2320.64	5634.06	4394.48	6465.04
<b>Ugar Sugar</b>	49400.10	23341.17	50169.88	50364.01	57013.20	1255.82	1494.48
<b>Hiranyakshi</b>	890.30	700.00	256.55	328.35	152.33	342.56	390.62
<b>Doodh Ganga</b>	12391.66	15043.95	5926.44	25822.84	30913.20	563.02	1013.35
	2012-13	2013-14	2014-15	2015-16	2016-17	AAG	
<b>Renuka</b>	6465.04	8809.02	5988.98	14173.47	0.00	44.84	
<b>Ugar Sugar</b>	1414.24	1565.82	1473.97	1903.39	1363.43	-0.25	
<b>Hiranyakshi</b>	376.81	677.89	362.71	280.58	293.47	3.67	
<b>Doodh Ganga</b>	975.04	1537.61	1710.10	2612.60	2066.29	35.91	

(Source: Annual Reports of the SRS Ltd., USW Ltd., SHSSK Ltd. And SDKSSK Ltd. from F.Y. 2005-06 to 2016-17)

**Graph 7 Loans and Advances**





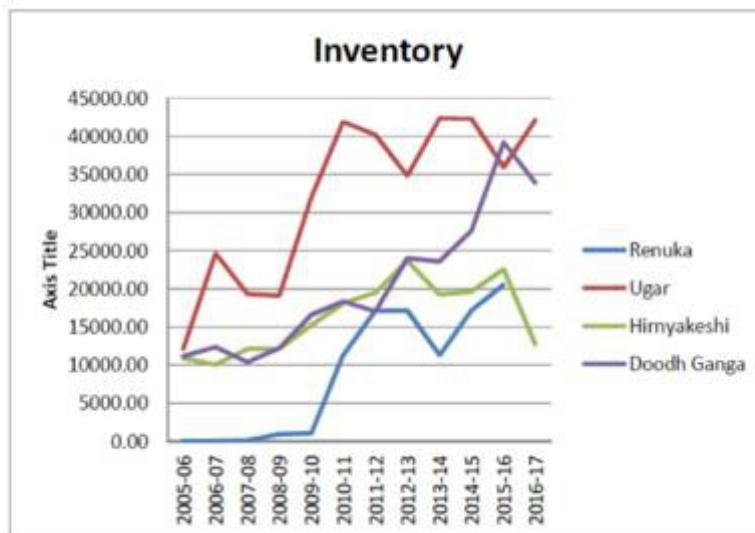
As per Table 7 and Graph 7, Ugar Sugars stood at first place in terms of loans and advances given during 2005-06 to 2009-10. Thereafter, Renuka sugars stood at first place till 2015-16. Renuka Sugars occupies first place in terms of growth in loans and advances with an AAG of 82.90 percent. Hiranyakeshi occupies second position with an AAG of 44.84 percent, followed by Doodh Ganga with 35.91 percent.

**Table 8 Inventory**

	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12
Renuka	112.18	100.17	186.9	1002.24	1135.96	11,359.50	17,191.61
Ugar Sugar	12215.4	24620.67	19311.45	19171.39	32022.25	41,947.88	40,204.56
Hiranyakeshi	10950.17	10072.11	12134.94	12127.73	15312.84	18,144.02	19,544.27
Doodh Ganga	11216.25	12424.75	10398.8	12288.04	16660.8	18,335.70	17,080.61
	2012-13	2013-14	2014-15	2015-16	2016-17	AAG	
Renuka	17,191.61	11,359.50	17,191.61	20,588.38		151.4	
Ugar Sugar	34,860.43	42,369.76	42,342.71	36,008.84	42,208.77	16.69	
Hiranyakeshi	23,707.24	19,294.82	19,648.80	22,544.36	12,765.30	3.7	
Doodh Ganga	23,999.48	23,637.64	27,669.69	39,183.34	33,858.94	12.32	

(Source: Annual Reports of the SRS Ltd., USW Ltd., SHSSK Ltd. And SDKSSK Ltd. from F.Y. 2005-06 to 2016-17)

**Graph 8 Inventory**



As per Table 8 and Graph 8, an **increase in inventory** indicates that a factory has purchased more goods than it has sold. **Increasing inventory** requires a cash outflow. Cash outflows have a negative effect on the factory's cash balance. Ugar Sugars stood at first place in Inventory during 2005-06 to 2016-17 except in 2015-16. Thereafter, Renuka sugars stood at second place till 2016-17 except in 2015-16. Renuka Sugars occupies first place in growth in inventory with an AAG of 151.64 percent. Ugar occupied second position with an AAG of 16.69 percent, followed by Doodh Ganga with 12.32 percent. All the sugar factories have witnessed an increasing tendency in the Inventory.

#### OPERATIONAL PERFORMANCE OF SELECTED SUGAR FACTORIES

##### (1) SHREE HIRANEYKESHI S.S.K.N., SANKESHWAR

##### Operational Performance from 2005-06 to 2016-17

Sr. No	Season (Year)	Duration of the Season (Units)	Total Crushing In Metric tonnes	Net Sugar Bag In Quintals	Sugar Recovery %	Cap. Utilization (%)
1	2005-06	Old -153 New -174	882356	1045900	11.86	94.61
2	2006-07	Old – 242 New– 223	11.48753	1218160	10.60	94.37
3	2006-08	Old – 197 New- 163	844695	968230	11.46	94.88
4	2008-09	Old – 105 New- 80	467382	492050	10.53	94.65
5	2009-10	Old – 119 New- 144	758709	793200	10.44	94.77
6	2010-11	Old – 155 New- 175	922632	977160	10.59	94.72
7	2011-12	Old – 114 New-133	770596	839700	10.90	94.77

8	2013-13	Old – 120 New-130	742445	754100	10.96	<b>94.21</b>
9	2013-14	Old – 128 New-137	780976	8.60.00	11.01	<b>94.57</b>
10	2014-15	New-138	830756	893900	10.76	<b>94.53</b>
11	2015-16	New-111	671726	76300	11.37	<b>94.69</b>
12	2016-17		275177	269900	9.78	<b>94.81</b>

(Source: Annual Reports of the SRS Ltd., USW Ltd., SHSSK Ltd. And SDKSSK Ltd. from F.Y. 2005-06 to 2016-17)

**(2) THE UGAR SUGAR WORKS LTD., UGAR-KHURD**  
**Operational Performance from 2005-06 to 2016-17**

Sr. No	Season (Year)	Duration of the Season (Units)	Total Crushing In Metric tonnes	Net Sugar Bag In Quintals	Sugar Recovery %	Cap. Utilization (%)
1	2005-06	187	15,53,989.057	1786413	11.50	83.07
2	2006-07	187	16,30,901.0258	1828294.20	11.21	87.22
3	2007-08	193	15,66,740.656	17,95,311.20	11.47	81.10
4	2008-09	143	11,31,233.57	12,39,603.00	10.96	79.09
5	2009-10	160	14,27,046.162	16,46,700.70	11.54	89.18
6	2010-11	177	15,99,326.082	18,00,433.20	11.26	90.34
7	2011-12	132	13,22,909.706	15,69,203.30	11.86	100.24
8	2012-13	131	11,38,781.744	11,99,602.00	10.53	86.96
9	2013-14	127	13,20,081.375	15,21,677.70	11.53	103.92
10	2014-15	144	15,76,354.616	18,30,251.40	11.61	109.48
11	2015-16	129	15,80,711.705	17,60,358.90	11.17	122.50
12	2016-17	82	8,50,677.058	8,95,828.50	10.53	103.75

(Source: Annual Reports of the SRS Ltd., USW Ltd., SHSSK Ltd. And SDKSSK Ltd. from F.Y. 2005-06 to 2016-17)

**(3) SHREE DOODHGANGA KRISHNA S.S.K.N., CHIKODI**  
**Operational Performance from 2005-06 to 2016-17**

Sr. No	Season (Year)	Duration of the Season (Units)	Total Crushing In Metric tonnes	Net Sugar Bag In Quintals	Sugar Recovery %	Cap. Utilization (%)
1	2005-06	148	6,80,884.772	8,06,859	11.85	83.78
2	2006-07	179	9,34,230.609	10,74,495	11.50	95.02
3	2007-08	167	7,85,050.848	9,10,532	11.60	85.64
4	2008-09	109	6,02,920.171	6,72,574	11.16	100.84

5	2009-10	160	8,38,811.452	9,89,387	11.80	95.56
6	2010-11	186	9,32,804.765	11,19,097	12.00	91.47
7	2011-12	153	7,85,124.254	9,34,513.04	11.90	93.45
8	2012-13	129	7,06,759.419	8,26,610.52	11.70	100.45
9	2013-14	124	8,36,695.088	10,27,990.00	12.29	123.58
10	2014-15	141	10,07,779.506	12,14,040.00	12.05	131.01
11	2015-16	128	10,10,180.022	11,87,800	11.76	145.00
12	2016-17	83	7,01,878.932	8,14,010.00	11.60	41.36

(Source: Annual Reports of the SRS Ltd., USW Ltd., SHSSK Ltd. And SDKSSK Ltd. from F.Y. 2005-06 to 2016-17)

The Operational Performance of the selected sugar factories is given in the above tables.

### CONCLUSIONS:

The analysis of financial statement is a comparison made between private and cooperative sugar factories to obtain better understanding of the sugar factories' position and performance. This analysis can be done by management of the firm or by parties outside, namely owners, creditors, and investors. It also helps in short-term and long-term forecasting and growth can be identified with the help of financial performance analysis

### REFERENCES:

- Financial Performance of Co-operative Sugar Factories in Maharashtra, Financial Year 2000-01 to 2006-07, V.S.I., Pune
- Foulke, Roy A., op cit, p.418
- Foulke, Roy.A., Practical Financial Statement Analysis, Tata McGraw Hill Publishing Co. Ltd., New Delhi, Ed. 1972, p.326
- Gole, V.L., Fitzgerald's Analysis And Interpretation of Financial Statements Sydney, Butterworth, 1966, p.51
- Goyal ManMohan – "Principles of Management Accounting", Sahitya Bhawan, Agra, p.434
- Guthman, H.G., Corporation Finance – Principles and Problems Chaitanya Publishing House, Allahabad, 8th Edition, p.146
- Ibid, p.53
- Kennedy, R. D. McMullan, S.Y., op. cit., p.416-417
- Kennedy, R. D., McMullan, S.Y op. cit. p.349
- Schall, L.D, and Haley, C.W. - Introduction to Financial Management, Tata McGraw Hill Publishing Co. Ltd., New Delhi, Ed. 1979, p.412