

<b>CHAPTER</b>  <b>V</b>	<b>COMPARATIVE ANALYSIS OF SUGARCANE PRICES IN CO-OPERATIVE AND PRIVATE SUGAR FACTORIES</b>
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### 5.1 INTRODUCTION:

In our earlier chapter, we have explained the profile of two sugar factories i.e. private and co-operative which are selected for comparative analysis of sugarcane pricing. These two sugar factories are operating in well conditions. The corresponding explanation deals with this.

Every year, the Central Government declares the minimum sugarcane prices. It is obligatory to pay these minimum sugarcane prices to the sugarcane producers. Maharashtra Government also declares the State Advisory Prices. In fixing these prices (SAP) of sugarcane, the total crushing of sugarcane, total sugar production, recovery of sugar, sale of sugar and stock of sugar, fees, salaries, bonuses etc are taken into account. The cost of production is the resultant cost for producing the product and includes the elements of the fixed cost and the variable cost. In fixed cost, the elements included are the interest on the

fixed capital investment, depreciation on fixed assets and other costs. The variable cost includes the cost of raw-material in production, handling charges of it, processing cost, salary and wages of the seasonal and temporary workers, bonus, taxes on the finished product, expenses on sales etc.

Generally the price of sugarcane means the distribution of surplus generated in the process of the manufacture of sugar after deducting all expenses of sugar production.

The cost of production of both sugar factories during the study period is shown in table no. 5.1 and table no. 5.2.

#### **5.2 CO-OPERATIVE SUGAR FACTORY:**

Shri. Shankar Sahakari Sakhar Karkhana Ltd., Sadashivnagar is one of the important co-operative sugar factory in Malshiras Tahshil. Generally in a co-operative sugar factory, cost of production is distributed into eight main heads. They are sugarcane cost, purchases tax, storage charges, payment of wages and salaries, interest, depreciation, administrative cost, subsidies etc.

Table 5.1: The cost of production per M.T. in Rs. during 1981-82 to 1990-91. [Co-operative Unit]

Sr. No.	Particulars	Years										Average
		1981-1982	1982-1983	1983-1984	1984-1985	1985-1986	1986-1987	1987-1988	1988-1989	1989-1990	1990-1991	
1.	Crushing M.T.	278917	329939	230077	247947	255015	254921	250720	222716	286925	416094	277327.1
2.	Recovery	10.98	11.19	11.64	11.23	11.14	10.87	10.66	11.45	11.30	10.94	11.14
3.	Sugar Production in Bags	306198	369605	268520	278862	283803	277382	287518	253395	324027	455395	308470.5
4.	Sugarcane C.T. Charges	48.13	45.87	43.45	48.82	48.97	56.80	70.20	74.48	94.37	100.75	63.16
5.	Purchase Tax	14.63	14.91	16.11	16.27	16.27	16.27	16.27	16.27	16.27	14.91	15.82
6.	Storage Charge	19.06	18.91	30.62	34.54	33.39	36.76	33.65	45.01	57.51	56.77	36.62
7.	For Future Plan	1.83	3.88	3.83	3.24	3.80	2.46	2.33	4.34	4.46	1.41	3.16
8.	Payment And Wages	17.47	16.95	23.99	24.40	25.85	40.50	38.41	43.84	60.85	49.19	34.15
9.	Depreciation	14.76	12.43	21.35	12.55	12.30	11.56	11.78	14.04	11.51	10.51	13.28
10.	Interest	22.23	26.57	28.15	22.80	21.80	21.20	15.78	21.43	18.58	24.80	22.32
11.	Other Administrative Cost	10.53	11.84	17.57	17.83	22.54	10.21	7.30	11.94	12.66	12.61	13.50
12.	Cane Subsidy	3.79	4.18	6.11	5.81	5.80	-	-	-	-	-	5.00
13.	Total Cost	145.42	148.46	179.83	172.35	182.76	195.56	195.72	231.35	276.21	270.85	199.9
14.	Sugarcane Price	201.50	199.00	224.00	278.00	299.00	298.00	318.00	343.00	415.97	392.63	296.91

Source - Factory Office Records

Note - M.T. = Metric Tonnes

C.T. = Cutting and Transport Charges

Table No. 5.1 explains the cost of production of Shri. Shankar Sahakari Sakhar Karkhana Ltd., Sadashivnagar during the period under study.

The sugarcane crushed by the factory increased from 278917 M.Ts in 1981-82 to 416094 M.Ts in 1990-91. The general trend of sugarcane crushed indicate fluctuations in crushing. In 1990-91 record progress is found in the sugarcane crushed i.e. 416094 M.Ts. An average quantity of sugarcane crushed during the decade of 1980's is 277327.1 M.Ts. It shows an increase of 49.18 percent.

The recovery rate has been constant round about 11 percent. The average recovery during 1981-82 to 1990-91 is 11.14 percent. This factory is operating in a medium recovery zone but its actual recovery is as in high recovery zone.

Sugar produced by this factory has increased from 306198 bags to 455395 bags during the period under study. The annual average number of sugar bags produced is 308470.5 bags. However there are wide variations in sugar produced from year to years. It shows an increase of 48.73 percent during the study period.

Sugarcane purchase tax paid by the factory has increased from Rs.14.63 per M.T. in 1981-82 to Rs.16.27 per M.T. in 1984-85. It remained same till 1989-90, and for 1990-91 it declined to Rs. 91 per M.T. An average rate of tax per M. tonne of sugarcane purchase is Rs.15.82 per M.T.



The store charges (machinery maintenances etc.) have increased at a rapid rate of Rs.19.06 per M.T. in 1981-82 to Rs.56.77 per M.T. for 1990-91. An average rate during the study period is Rs.36.62 per M.tonne. The store charges increased at high rate by 197.85 percent.

The factory has maintained reserve funds for future plans, like the other sugar factories. An average amount for the future plans is Rs.3.16 per M.T. of sugarcane crushed.

The labour charges paid by the factory has increased from Rs.17.47 per M.T. in 1981-82 to Rs.49.19 per M.T. in 1990-91. It shows a rapid increase in expenditure on wages and salaries. An average amount spent for wages of this factory has been Rs.34.15 per M.T. The percentage of increase is very high i.e. 181.57 percent.

An amount kept towards the wear and tear or depreciation has reduced from Rs.14.76 per M.T. in 1981-82 to Rs.10.51 per M.T. by 1990-91. It shows an average amount of Rs.13.28 per M.T. The percentage of depreciation charges has been minus 28.79 percent.

The factory has raised loans for meeting the requirement of the financing its expenditure. The interest paid on such loans has increased moderately from Rs.22.23 per M.T. in 1981-82 to Rs.24.80 per M.T. by 1990-91. An

average rate is Rs.22.32 per M.T. The percentage of increase has been moderate at 11.56 percent.

The other administrative cost of the factory has increased from Rs.10.53 per M.T. in 1981-82 to Rs.12.61 per M.T. in 1990-91. An average rate is Rs.13.50 per M.T. The percentage of increase of administrative costs is 19.75 percent in study period.

Excluding cane price, the total cost per M.T. of sugarcane crushing increased from Rs.145.42 in 1981-82 to Rs.270.95 in 1990-91. An average rate of total cost of production is Rs.199.9 per M.T. in the study period. It shows an increase of 86.32 percent during the period from 1981-82 to 1990-91.

In the study period price of sugarcane increased near about double. The price of sugarcane increased from Rs.201.50 per M.T. in 1981-82 to Rs.392.63 per M.T. by 1990-91. An average rate of sugarcane price is Rs.296.91 during 1981-82 to 1990-91. It shows an increase 94.85 percent during the study period. The highest price of sugarcane is Rs.415.97 per M.T. in 1989-90 during the study period; means it increased by 106.44 percent as compared to the 1981-82 year.

### 5.3 PRIVATE SUGAR FACTORY:

The Saswad Mali Sugar Factory Ltd., Malinagar is one of the oldest sugar factory in Malshiras Tahshil. This factory is operating successfully since its establishment.

Table 5.2 illustrates the details of its performance. The sugarcane crushed by the factory increased from 200982 M.Ts in 1981-82 to 254499 M.Ts by 1990-91. The general trend of sugarcane crushed shows wide fluctuations. In 1990-91 record progress is found in the sugarcane crushed i.e. 254499 M.Ts. The annual average quantity of sugarcane crushed during the period of 1981-82 to 1990-91 has been 170249.4 M.Ts. It shows an increase of 49.18 percent during the study period.

The recovery of sugarcane has been constant round about 10 percent. An average recovery during 1981-82 to 1990-91 is 10.41.

Sugar produced by this factory has increased from 204550 bags to 261930 bags during the period under study. The annual average number of sugar bags produced is 176684.4. However there are wide variations in sugar produced from year to years. It shows an increase of 28.05 percent during the study period.

Tabel 5.2: The Cost Of Production Per M.T. In Rs. During 1981-82 To 1990-91. (Private Unit)

Sr. No.	Particulars	Years										Average
		1981-1982	1982-1983	1983-1984	1984-1985	1985-1986	1986-1987	1987-1988	1988-1989	1989-1990	1990-1991	
1.	Crushing M.T.	200982	198464	126082	166247	144497	138503	171507	131956	169677	254499	170249
2.	Recovery	10.18	10.12	10.91	10.07	10.51	10.40	10.13	10.40	11.05	10.29	10.41
3.	Sugar Production in Bags	204550	200782	137615	187781	152453	144378	174010	135860	187485	281930	176684
4.	P.M.T.Can Price in Rs.	202.00	187.63	220.13	251.00	283.39	273.24	277.18	301.93	352.52	352.30	270.13
5.	Cane Procurement	6.25	2.07	2.24	3.99	2.04	2.56	2.24	1.92	1.59	6.54	3.14
6.	H and T	49.42	37.13	38.37	50.35	44.80	52.89	55.17	59.59	78.32	78.11	54.42
7.	Purchase Tax	12.60	13.54	16.27	16.20	16.27	16.27	16.27	16.27	16.42	14.37	15.45
8.	Stores Consumed	10.28	9.89	12.28	11.15	11.04	11.65	12.42	13.83	14.82	16.35	12.37
9.	Gunny Bags	7.89	7.76	11.10	16.15	14.06	10.84	11.61	14.16	16.63	17.48	12.77
10.	Repair and Maintenance	5.93	8.84	10.76	7.68	8.97	8.90	8.03	10.22	14.30	12.53	9.62
11.	Power and Fuel	7.72	3.16	4.86	4.63	4.73	6.64	6.46	6.93	11.54	12.88	6.46
12.	Salary and Wages	28.99	36.68	56.16	50.63	60.69	78.27	65.83	64.40	109.65	77.46	62.88
13.	Administrative Expenditure	5.17	6.71	9.76	8.88	8.68	12.41	11.35	10.80	13.60	12.66	10.00
14.	Interest	11.14	23.49	38.04	15.53	19.22	22.97	24.75	19.35	21.28	27.27	22.30
15.	Depreciation	2.79	2.84	7.06	8.12	9.67	15.27	7.10	11.09	11.08	7.98	8.30
16.	Total Cost Including Caneprice	345.18	339.74	427.03	444.31	485.88	511.91	498.43	530.49	661.75	635.91	488.15
17.	Cost Excluding Cane Price	143.18	152.11	206.90	193.31	201.33	238.67	221.23	228.56	309.23	283.61	217.81
18.	Cost Excluding Cane Price and Relative Expenses	74.91	99.37	150.02	122.77	137.06	166.95	147.55	150.78	212.90	184.60	144.69

Source - Factory office records.

Note - M.T. = Metric tonne.

H.T. = Harvesting and transport.



Sugarcane purchase tax paid by the factory has shown an increase from Rs.12.60 per M.T. in 1981-82 to Rs.16.27 in 1983-84. It remained constant till 1988-89. Then next year the per M.T. sugarcane purchase tax slightly increased to Rs.16.42 per M.T. In 1990-91 the sugarcane purchase tax declined to Rs.14.37 per M.T. The average rate of sugarcane purchase tax is Rs.15.45 per M.T. In the year 1989-90, the rate of purchase tax is highest i.e. Rs.16.42 per M.T. The total increase in sugarcane purchase tax during the study period is Rs.14.05 percent from 1981-82 to 1990-91.

The store charges have increased from Rs.10.28 per M.T. in 1981-82 to Rs.16.35 per M.T. by 1990-91. An average of store charges per year are Rs.12.37 per M.T. The increase in store charges is 59.05 percent during the period from 1981-82 to 1990-91.

The labour charges paid by the factory has increased from Rs.28.99 per M.T. to Rs.77.46 by 1990-91. It shows an average amount of 62.88 per M.T. The factory expense on salary and wages is Rs.78.27 per M.T. in 1986-87, it is the highest amount of salary and wages during the study period from 1981-82 to 1990-91. The table shows the rapid increase in expenditure on wages and salaries. An average amount spent for wages has been Rs.62.88 per M.T. The percentage of increase is very high i.e. 167.20 percent

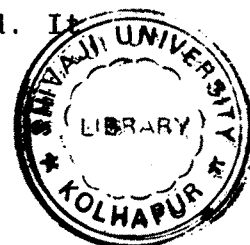
during the study period. The highest amount of salary and wages in 1989-90 i.e. Rs.109.65 per M.T.

An amount kept towards wear and tear or depreciation are increasing. It has increased from Rs.2.79 per M.T. in 1981-82 to Rs.7.96 per M.T. by 1990-91. It shows an average amount of Rs.8.30 per M.T. during the period of 1981-82 to 1990-91. The percentage of depreciation has increased by 447.31 percent in 1986-87 as compared to the year 1981-82.

The other administrative cost of the factory has increased from Rs.5.17 per M.T. in 1981-82 to Rs.12.66 per M.T. in 1990-91. An average rate is Rs.10.00 per M.T. The percentage of increase of administrative cost is 144.87 percent during the study period.

The factory has raised loans for meeting the requirement of the its increasing expenditure. The interest paid on such loans has increased moderately from Rs.11.14 per M.T. in 1981-82 to Rs.27.27 per M.T. in 1990-91. An average rate is Rs.22.30 per M.T. The percentage of increase has been moderate at 144.79 percent.

Total cost per M.T. of sugarcane crushing excluding sugarcane price increased form Rs.143.18 in 1981-82 to Rs.283.61 by 1990-91. An average rate of total cost of production is Rs.217.81 per M.T. during the study period. It



shows an increase of 98.8 percent. The highest total cost per M.T. is Rs.309.23 in the year 1989-90, i.e. 115.97 percent increase as compare to 1981-82.

#### **5.4 FACTORS AFFECTING THE SUGARCANE PRODUCTION:**

Generally the fluctuations of sugarcane yield is observed which is because of the following reasons.

**A) Sugarcane Prices:** If a sugar factory raises the sugarcane price, the production of sugarcane also rises. Raising prices motivate the sugarcane growers to undertake sugarcane production. On the other hand if the prices of sugarcane are low, the sugarcane production is not affordable to the cane growers because the cost of cultivation increases as compared to the sugarcane prices. As a result the sugarcane growers are not interested in producing the sugarcane. It seems that when the supply of sugarcane to the factory is less, the factories give extra price to the sugarcane growers. As a result the supply of sugarcane increases in the next season. But the Government of Maharashtra does not permit to charge extra price to the sugarcane growers. In this case sugar factories deposit the excess amount in various schemes, such as fixed deposit, non refundable funds, small savings etc. During our study period, there are no wide fluctuations in the sugarcane prices. The sugarcane prices were constant and related to the minimum sugarcane

prices fixed by the CACP.

B) **Irrigation:** Irrigation affects the yield of sugarcane. Irrigation facilities motivate the farmers to cultivate sugarcane. Sugar factories are very much interested in installing irrigation facilities for their regions. This makes them self sufficient in the supply of raw-material i.e. sugarcane.

C) Better climatic conditions and the sufficient rain also increases the supply of sugarcane. For example in 1982-83 and 1987-88 there was a scanty rainfall, so the yield of the sugarcane declined in the corresponding years. In the year 1989-90 due to sufficient rainfall, sugarcane yield has again gone up in 1990-91.

D) Many sugar factories give some incentives to the sugarcane growers. So as to increase the yield of sugarcane. The main objective behind it is to increase the sugarcane supply. The incentives are generally in the form of new variety seeds of sugarcane, fertilisers, pesticides etc.

#### **5.5 COMPARATIVE ANALYSIS:**

Here an attempt has been made to compare the performance of two different sugar factories i.e. co-operative and private undertakings so far selected for this research work. The variables of the comparison are the crushing of sugarcane, sugar production, cane prices paid,

cost of cane procurement, cost of harvesting and transport, salaries and other administrative costs etc. All these variables implies in determining the sugarcane prices, because the final sugarcane prices are determined after deducting the major heads of expenditure of the sugar factories. Whereas sugarcane is the main raw-material to the sugar industry. The advances against the cane supply is generally made as the first instalment of sugarcane bill to its suppliers. Some sugar factories pay second instalment. The last instalment is paid after assessing the financial position/ performance of a sugar factory. If remains something that is being distributed among the cane suppliers as final bill.

The cane prices differ factory to factory. But the minimum cane prices determined by the Central Government and SAP declared by the state Government are paid. In Maharashtra almost all sugar factories pay the sugarcane prices more than minimum.

Let us see the performance of two sugar factories.

Table 5.3: Comparative Performance of Sugarcane Crushing in Co-operative And Private Sugar Factories.

Season	Sugarcane Crushing (M.T.)				Ratio of Co-op to Private
	Co-op	Annual growth(%)	Private	Annual Growth (%)	
1981-82	278917	-	200982	-	1.39
1982-83	329939	18.29	198464	- 1.25	1.66
1983-84	230077	-30.26	126082	-36.47	1.82
1984-85	247947	7.77	166247	31.86	1.49
1985-86	255015	2.85	144497	-13.08	1.76
1986-87	254921	0.04	138503	- 4.15	1.84
1987-88	250720	-1.65	171587	23.89	1.46
1988-89	222716	-11.17	131956	-24.00	1.69
1989-90	286925	28.83	199677	51.32	1.44
1990-91	416094	45.02	254499	27.46	1.63
Average	277327.1	-	173249.4	-	1.60

Source - Factory's office records.

During the study period the sugarcane crushing ratio in co-operative to private sugar factory is illustrated in table 5.3. Co-operative sugar factory is more efficient than the private sugar factory. The annual growth rate of sugarcane crushing in private and co-operative sugar factories are nearly similar. In the year 1983-84 and 1988-89 the annual growth rate of sugarcane crushing of both of the factories was negative, particularly in private sugar

factory, annual growth rate is more frequently negative (see table 5.3). Due to the sufficient rainfall in 1989-90, the sugarcane crushing in both the factories increased to a great extent in the corresponding year i.e. 1990-91.

In the year 1982-83 the sugarcane crushing has increased by 18.29 percent as compared to the last years performance of co-operative sugar factory. But the sugarcane crushing was less by 1.25 percent in private sugar factory during the same year. In 1982-83 the sugarcane crushing is more as compared to the year 1983-84. Both sugar factories have a negative sugarcane crushing in 1983-84. In 1984-85 the sugarcane crushing in both sugar factories has increased. However, an average rate of crushing is more than the co-operative. In 1985-86 the crushing has slightly increased as compared to the previous year in co-operative sugar factory. Whereas the sugarcane crushing was less in private sector for the same year. In the year 1987-88, the sugarcane crushing rate was negative in co-operative sugar factory. On the other hand the sugarcane crushing in private sugar factory has increased by 23.89 percent in the same year.

Table 5.4: Comparative Performance of Sugar Production in Bags

Season	Sugar Production in Bags				Ratio of Sugar production co-op. to private
	Co-op	Annual growth (%)	Private	Annual Growth (%)	
1981-82	306198	-	204550	-	1.50
1982-83	369605	20.71	200782	1.84	1.54
1983-84	268520	-27.35	137615	-31.46	1.95
1984-85	278862	0.26	167781	21.92	1.66
1985-86	283803	1.77	152453	- 9.14	1.86
1986-87	277382	-2.26	144378	- 5.30	1.92
1987-88	267518	-3.56	174010	20.52	1.54
1988-89	253395	-5.28	135860	-21.92	1.87
1989-90	324027	27.87	187485	38.00	1.73
1990-91	455395	40.54	261930	39.71	1.74
Average	308471	-	176684	-	1.75

Source - Factory's office records.

The sugar production ratio of the co-operative sugar factory is more than one every year as compared to the private sugar factory. So it can be said that the co-operative sugar factory since its production capacity is higher, is producing more than the private sugar factory. In 1987-88 the sugar production in private sugar factory has increased by 20.52 percent as compared to the last year's



performance, but in co-operative sugar factory the sugar production is less by 3.56 percent as compared to the last year. In 1989-90 and 1990-91 the sugar production in both sugar factories has gone up. So there are no variations in the sugar production in both these sugar factories (See table 5.4).

Table 5.5: Comparative Performance of Cane Price Per M.T. In Rs.

Season	Cane Price				Ratio of Co-op. to Private
	Co-op	Annual growth (%)	Private	Annual Growth (%)	
1981-82	201.50	-	202.00	-	1.00
1982-83	199.00	1.24	187.63	- 7.11	1.06
1983-84	224.00	12.56	220.13	17.32	1.01
1984-85	278.00	24.11	251.00	14.02	1.11
1985-86	299.00	7.55	283.39	12.90	1.06
1986-87	298.00	-0.33	273.24	- 3.58	1.09
1987-88	318.00	6.71	277.18	1.44	1.55
1988-89	343.00	7.86	301.93	9.93	1.14
1989-90	415.97	21.27	352.52	16.76	1.18
1990-91	392.63	-5.61	352.30	-0.06	1.11
Average	296.91	-	270.13	-	1.10

Source - Factory's office records.



The ratio of sugarcane price in co-operative sugar factory indicates that the co-operative sugar factory has given more remunerative sugarcane prices as compared to private sugar factory. In short the ratio of sugarcane price of co-operative sugar factory is more than one. However the sugarcane price given by the co-operative sugar factory is slightly more than the private sugar factory. Generally it is found that the sugarcane prices of both factories are increasing every year except in the years 1986-87 and 1990-91 as compared to the previous years. The highest sugarcane price paid by private and co-operative sugar factory was in the year 1989-90 i.e. Rs.415.97 per M.T. in co-operative and Rs.352.52 per M.T. in private sugar factory (see table 5.5).

The co-operative sugar factory do not spent any amount on cane procurement. Since its members are cane growers and the factory is Managing Special Agricultural Deptt. So, its duty is to develop the cane quality and survey the cane and for guide the farmers. But private sugar factory has to spend more amount as a cost of cane procurement because it has no cane grower share holders to the required amount. Some times private sugar factory spent more amount to collect sugarcane. Private sugar factory has spent on an average Rs.3.14 per M.T. as a cane procurement cost. In 1981-82 and in 1990-91 the factory has spend Rs.6.25 and Rs.6.54 per M.T. respectively i.e. highest amount in the

study period. In the year 1990-91, the factory spent 311.32 percent excess amount than the previous year on cane procurement (see table 5.6).

Table 5.6: Comparative Performance of Cost of Cane Procurement Per M.T. in Rs.

Season	Cost of Procurement		
	Co-operative	Private	Annual Growth (%)
1981-82	-	6.25	-
1982-83	-	2.07	-66.88
1983-84	-	2.24	8.21
1984-85	-	3.99	78.13
1985-86	-	2.04	-48.87
1986-87	-	2.56	25.49
1987-88	-	2.24	12.50
1988-89	-	1.92	-14.29
1989-90	-	1.59	-17.19
1990-91	-	6.54	311.32
Average	-	3.14	-

Source - Factory office records.

**Table 5.7: Comparative Performance of Cost of Harvesting And Transport Per M.T. In Rs.**

Season	Cost of H and T				Ratio of Co-op to Private
	Co-op	Annual growth (%)	Private	Annual Growth (%)	
1981-82	48.13	-	49.42	-	0.97
1982-83	45.87	-4.70	37.13	-24.87	1.24
1983-84	43.45	-5.28	38.37	3.34	1.13
1984-85	48.42	11.44	50.35	31.22	0.96
1985-86	48.97	1.14	44.80	-11.02	1.09
1986-87	56.60	15.58	52.89	18.06	1.07
1987-88	70.20	24.03	55.17	4.31	1.27
1988-89	74.48	7.00	59.59	8.01	1.25
1989-90	94.37	26.71	78.32	31.43	1.20
1990-91	100.75	6.76	78.11	-0.27	1.29
Average	63.60	-	54.42	-	1.17

Source - Factory's office records.

Table 5.7 illustrates that the cost of harvesting and transport is more in private sugar factory as compared to co-operative except two years, i.e. 1981-82 and 1984-85. Harvesting and transport ratio of co-operative to private is more than one except one year. The H and T ratio of co-operative sugar factory has increased in the year 1986-87

and 1987-88. The highest annual growth rate of H and T is 26.71 percent in the year 1989-90 in co-operative sugar factory and 31.43 percent in the same year in private sugar factory as compared to the previous year. The annual growth rate of H and T cost in private sugar factory has increased in the years 1984-85, 1986-87 and 1989-90. Out of total cost of production (excluding sugarcane price) 31.82 percent cost belongs to H and T expense in co-operative sugar factory and 24.99 percent in private sugar factory. An average cost of H and T is Rs.63.6 per M.T. in co-operative and Rs.54.42 per M.T. in private sugar factory.

Table 5.8 illustrates the rate of store charges. The co-operative sugar factory made the combined head of store charges and machinaery maintenance but in private sugar factory there is a seperate heads of these two cost items. However the ratio of store charges of co-operative to private sugar factory is high. The co-operative sugar factory spent on an average Rs 36.63 per M.T. and private sugar factory spent Rs 12.37 per M.T.

Table 5.8: Comparative Performance of Rate of Store Charges Per M.T. in Rs.

Season	Store Charges				Ratio of Co-op. to Private
	Co-op	Annual growth (%)	Private	Annual Growth (%)	
1981-82	19.06	-	10.28	-	1.85
1982-83	18.91	-0.79	9.89	-3.79	1.91
1983-84	30.62	61.92	12.28	24.17	2.49
1984-85	34.54	12.80	11.15	-9.20	3.10
1985-86	33.39	-3.33	11.04	- 0.99	3.02
1986-87	36.76	10.09	11.65	5.53	3.16
1987-88	33.65	-8.46	12.42	6.61	2.71
1988-89	45.01	33.76	13.83	11.35	3.25
1989-90	57.51	27.77	14.82	7.16	3.88
1990-91	56.77	-1.29	16.35	10.32	3.47
Average	36.62	-	12.37	-	2.96

Source - Factory's office records.



Table 5.9: Comparative Performance of Ratio of Salary and Wages Per M.T. In Rs.

Season	Salary and Wages				Ratio of Co-op to Private
	Co-op	Annual growth (%)	Private	Annual Growth (%)	
1981-82	17.47	-	28.99	-	0.60
1982-83	16.95	-2.98	36.68	26.53	0.46
1983-84	23.99	41.53	56.16	53.11	0.43
1984-85	24.40	1.71	50.63	-9.85	0.48
1985-86	25.85	5.94	60.69	19.87	0.43
1986-87	40.50	56.67	78.27	28.97	0.52
1987-88	38.41	-5.16	65.83	-15.89	0.58
1988-89	43.84	14.14	64.40	-2.17	0.68
1989-90	60.85	38.80	109.65	70.26	0.55
1990-91	49.19	19.16	77.46	-29.36	0.64
Average	34.15	-	62.88	-	0.54

Source - Factory's office records.

Table 5.9 gives the detail information of salaries in both sugar factories. The ratio of salary and wages of co-operative to private sugar factory is always less than one. The private sugar factory spent more amount on salary and wages as compared to co-operative sugar factory. Actually the total workers working in co-operative sugar factory are more than private sugar factory. The co-

operative sugar factory spent on an average Rs 34.15 per M.T. on salary and wages. Whereas the private sugar factory spend Rs 62.88 per M.T. on salary and wages. Both sugar factories have spent an increasing amount of cost on salaries and wages in 1989-90. The co-operative sugar factory spent Rs 60.85 per M.T. and private sugar factory spent Rs 109.65 per M.T. on salaries and wages in 1989-90

Table 5.10: Comparative Performance of Rate of Interest Per M.T. in Rs.

Season	Interest				Ratio of Co-op. to Private
	Co-op	Annual growth (%)	Private	Annual Growth (%)	
1981-82	22.23	-	11.14	-	2.00
1982-83	26.57	19.52	23.49	110.86	1.13
1983-84	28.15	5.95	38.04	61.94	0.74
1984-85	22.80	-19.01	15.53	-59.17	1.47
1985-86	21.63	-5.13	19.22	23.76	1.13
1986-87	21.20	-1.99	22.97	19.51	0.92
1987-88	15.78	-25.57	24.75	7.75	0.64
1988-89	21.43	35.80	19.35	-21.82	1.11
1989-90	18.58	-13.30	21.28	9.97	0.87
1990-91	24.80	33.48	27.27	28.15	0.91
Average	22.32	-	22.30	-	1.00

Source - Factory's office records.



Table 5.10 illustrates that the ratio of interest per M.T. is averagely similar in private as well as co-operative sugar factory. The highest interest paid by co-operative and private sugar factory is in the year 1983-84. i.e Rs 28.15 per M.T. and Rs 38.04 per M.T. respectively.

Table 5.11: Comparative Performance of Rate of Depreciation Per M.T. in Rs.

Season	Depreciation				Ratio of Co-op. to Private
	Co-op	Annual growth (%)	Private	Annual Growth (%)	
1981-82	14.76	-	2.79	-	5.29
1982-83	12.43	15.79	2.84	1.79	4.38
1983-84	21.35	71.76	7.06	148.59	3.02
1984-85	12.55	-41.22	8.12	15.01	1.55
1985-86	12.30	1.99	9.67	19.09	1.27
1986-87	11.56	-6.02	15.27	57.91	0.76
1987-88	11.78	1.90	7.10	-53.50	1.66
1988-89	14.04	19.19	11.09	56.20	1.27
1989-90	11.51	-18.02	11.08	-0.09	1.04
1990-91	10.51	-8.69	7.96	-28.16	1.32
Average	13.28	-	8.30	-	1.6

Source - Factory's office records.

The ratio of depreciation per M.T as indicated in Table 5.11 shows that the co-operative sugar factory has more amount of depreciation as compared to private sugar factory. Only in the year 1986-87 the depreciation of private sugar factory is more than the co-operative sugar factory. Co-operative sugar factory has maximum Rs 21.35 per M.T. as depreciation cost in the year 1983-84. That is the amount is greater by 71.76 percent as compared to the previous year. Co-operative sugar factory has an average depreciation of Rs.13.28 per M.T. and private sugar factory has an average of Rs 8.30 per M.T. during the study period.

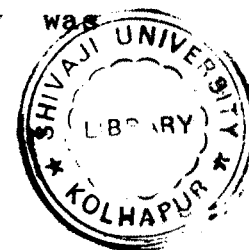
Table 5.12 indicates the ratio of other administrative costs. There are some differences in the administrative system of the units, automatically this results. The variations in administrative cost of both sugar factories system of the units. The maximum administrative cost in co-operative sugar factory was of Rs.22.54 per M.T. in the year 1985-86 and minimum Rs.7.30 per M.T. in the year 1987-88. On the other hand the maximum administrative cost of private sugar factory was Rs.13.60 per M.T. in the year 1989-90 and minimum Rs.5.17 per M.T. in the year 1981-82. An average administrative cost in co-operative sugar factory was Rs.13.50 per M.T. and Rs.10.00 per M.T. in private sugar factory.

Table 5.12: Comparative Performance of the Ratio of Other Administrative Cost Per M.T. in Rs.

Season	Administrative Cost				Ratio of Co-op. to Private
	Co-op	Annual growth (%)	Private	Annual Growth (%)	
1981-82	10.53	-	5.17	-	2.04
1982-83	11.84	12.44	6.71	29.79	1.76
1983-84	17.57	48.40	9.76	45.45	1.80
1984-85	17.83	1.48	8.88	-9.02	2.00
1985-86	22.54	26.42	8.68	-2.25	2.60
1986-87	10.21	-54.70	12.41	42.97	0.82
1987-88	7.30	-28.50	11.35	-8.54	0.64
1988-89	11.94	63.56	10.80	-4.85	1.11
1989-90	12.66	6.03	13.60	25.93	0.93
1990-91	12.61	-0.39	12.66	-6.91	1.00
Average	13.50	-	10.00	-	1.35

Source - Factory's office records.

Table 5.13 illustrates an expenditure on the sugarcane subsidy of the co-operative sugar factory. However the co-operative sugar factory has given subsidies only for the first five years of the study period. An average sugarcane subsidy amount is Rs.5.00 per M.T. The maximum amount of subsidy given by co-operative sugar factory was



Rs.6.11 per M.T. in the year 1983-84. This amount is larger by 46.17 percent as compared to previous year. The private sugar factory has no head of sugarcane subsidy. Moreover, it is not interested in such incentives.

Table 5.13: Expenditure on The Sugarcane Subsidy Per M.T. In Rs.

Season	Co-op	Annual growth %
1981-82	3.79	-
1982-83	4.18	10.29
1983-84	6.11	46.17
1984-85	5.81	-4.91
1985-86	5.90	1.55
1986-87	-	-
1987-88	-	-
1988-89	-	-
1989-90	-	-
1990-91	-	-
Average	5.00	-

Source - Factory office records.

Table 5.14: Comparative Performance of the Ratio of Total Cost of Production Per M.T. Excluding Sugarcane Price.

Season	Total Cost of Production				Ratio of Co-op. to Private
	Co-op	Annual growth (%)	Private	Annual Growth (%)	
1981-82	145.42	-	143.18	-	1.02
1982-83	148.46	2.09	152.11	6.24	-0.98
1983-84	179.63	21.00	206.90	36.02	-0.87
1984-85	172.35	-4.05	193.31	-6.57	-0.89
1985-86	182.76	6.04	201.33	4.15	-0.91
1986-87	195.56	7.00	238.67	18.55	-0.82
1987-88	195.72	0.08	221.23	-7.31	-0.88
1988-89	231.35	18.20	228.56	3.31	1.01
1989-90	276.21	19.39	309.23	35.29	0.89
1990-91	270.95	-1.90	283.61	-8.29	0.96
Average	199.90	-	217.81	-	0.92

Source - Factory's office records.

The ratio of total cost of production in private sugar factory indicates more cost of production as compared to the co-operative sugar factory. An average total cost of production in co-operative sugar factory was Rs.199.9 per M.T. And average total cost of production in private sugar factory was Rs.217.81 per M.T. Maximum total cost of production in co-operative as well as in private sugar

factory was recorded in the year 1989-90. It was Rs.276.21 and Rs.309.23 per M.T. respectively. In the year 1983-84 the percentage of total cost of production had suddenly increased in private as well as co-operative sugar factory. About 21 percent in co-operative and 36.02 percent in private was recorded as compared to their previous performance.

#### 5.6 CONCLUSIONS:

The cost of production is divided into fixed costs and variable costs. Generally the cost of production per M.T. of private sugar factory is higher than the cost of production per M.T. of co-operative sugar factory. In both sugar factories the major share of cost of harvesting and transport and salary and wages is higher. If the sugar factories are successful in keeping these two types of cost minimum, they can be able to pay more prices to the sugarcane growers. So sugar factories should try to minimise the cost of production of sugar.