

CHAPTER-6

COMPARATIVE STUDY OF THE SPINNING MILLS
WITH REFERENCE TO COST
ACCOUNTING SYSTEMS

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COMPARATIVE STUDY OF THE SPINNING MILLS
WITH REFERENCE TO COST ACCOUNTING SYSTEMS.

6.1 INTRODUCTION :

Interfirm comparison in respect of cost accounting systems adopted by the sample units under study are presented here in two parts A) Comparison in General B) Comparison with reference to cost accounting systems.

The focus of this chapter is on comparison of performances of the mills and cost accounting systems, to avoid the repetition of full names, short names are used.

The Deccan Co-op. Spinning Mills Ltd., being called the "Decospin Mills", and the Kolhapur Zilla Shetakari Vinakari Sah. Soot Girni Ltd. being called the "Kolhapur Mills".

6.2 COMPARISON IN GENERAL :

6.2.1 MEMBERSHIP :-

In Decospin Mills only weavers are members while in Kolhapur Mills weavers as well as cotton growers are members. The total number of members as on 31.3.92 in Decospin Mills is 532 while that in Kolhapur Mills is 14,440.

Table No. 6.1

Table showing the count group wise yarn production in kgs. from 1989-90 to 1991-92.

Year/Mill	Count group wise yarn production in Kgs.								Total yarn production (Kgs)	
	1 ^s to 10 ^s	11 ^s to 20 ^s	21 ^s to 30 ^s	31 ^s to 40 ^s	41 ^s to 60 ^s	61 ^s to 80 ^s	80 ^s & above			
1989 90										
Decospin		617292	276536	2667955	2112072	32906			5706761	
Kolhapur			2015000	2206532	835000	218000			5274532	
1990 91										
Decospin	1440	68313	1258804	2954499	189945	14279	12564		6009844	
Kolhapur			2842275	2887248	626569	140000			6496092	
1991 92										
Decospin		2537	612880	2682646	1789518	417676			5505367	
Kolhapur		19811	2495614	2545198	910327				6170950	

Source : AIFCOSPIN Annual Year Books, 1990, 1991 & 1992

The above table clearly shows that the Decospin Mills produces all varieties of yarn ranging from 1^s to 120^s, i.e. it produces coarse as well superfine yarn also. Kolhapur mills, on the other hand concentrates on production of yarn ranging between 21^s to 60^s.

62.3 SALE OF CONE YARN :

The yarn which is used for weaving in the powerloom and autoloom industry is called cone yarn. The finished yarn in spinning mills is winded along the cones of suitable sizes considering the weight requirement, hence it is called cone yarn.

Table No. 6.2 below shows the classified summary of sales of the mill. Considering the total sales and sales revenue it seems that the Decospin mills has relatively lower production but higher sales revenue. This is due to the fact that the Decospin mills manufactures fine & superfine qualities of yarn, i.e. higher counts of yarn.

Exports of both the mills are reducing. This may be due to improvement of domestic yarn market. Currently the cotton prices being steady, stability is there, in the market & as such exports are showing decreasing trend. Particularly exports of Kolhapur mills have been decreased considerably, which is evident from following table No.6.2

TABLE NO.6.2

Table Showing the Sale of Corn Yarn by the Mills.

Year/ Mill	Total Sale Yarn		Yarn Sold to Co.op.		Yarn Sold to Traders		Yarn Sold to Export	
	Q	V	Q	V	Q	V	Q	V
<u>1989-90</u>								
Decospin	57.25	3389.65	0.75	16.87	32.01	1979.90	24.99	1388.88
Kolhapur	52.06	2625.00	36.30	1845.26	-	-	15.76	779.74
<u>1990-91</u>								
Decospin	61.18	3614.44	0.76	55.60	38.43	2190.81	21.99	1368.03
Kolhapur	65.15	3074.57	55.33	2562.44	-	-	9.82	512.93
<u>1991-92</u>								
Decospin	57.49	4061.94	0.74	57.88	37.07	2568.64	19.68	1435.42
Kolhapur	58.43	3425.64	53.24	3068.36	-	-	5.19	357.28

SOURCE : AIFCOSPIN Annual Year Books 1990,1991 and 1992

Sr.No.	Particulars	1991-92
	in	Kolhapur
01.	Raw materials	2223.58
02.	Wages	467.69
03.	Salaries	65.29
04.	Stores & Spares	32.78
05.	Packing Materials	74.34
06.	Power & Fuel	348.76
07.	Insurance	4.70
08.	Interest on	48.18
09.	Other Mfg. & Exp.	119.73
10.	Selling and	7.88
	Total Expenses	3392.93
12.	Sales value	3617.30
13.	Gross Profit	+ 224.77
14.	Interest on	134.38
15.	Provision for	99.15
16.	Operating Pr.	- 8.26
17.	Non-Operating	20.71
	Net Profit(+)	+ 11.95
18.	Provision for	
19.	Profit (+) or (18-19)	+ 11.95
20.	Cash gain (before Tax)	+ 111.10

SOURCE - AIFCOSPIN

6.2.4 Financial Results :

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Considering the table No. 6.3 it is quite clear that the Decospin Mill has been consistently maintaining its profitability even in unfavourable conditions in respect of yarn and cotton markets. This has been achieved as a result of sound management, higher technical and productive efficiency and cost consciousness.

On the contrary, the Kolhapur Mills has not been gaining so well. Some of its reasons are labour strike, delayed implementation of modernisation plans and the unfavourable market conditions. From the financial year 1992-93 the mill has been moving towards the improvement in earning capacity. In case of Decospin Mills, there is total professionalisation of management. Every possible attempt is made to improve efficiency and quality; reducing losses, wastage and inefficiencies. Concentration is always there on quality.

6.2.5 SPINDLE UTILISATION : Table No. 6.4

Table showing spindle utilisation and Details of Idle Time.

Particulars	1989-90		1990-91		1991-92	
	Deccan	Kol.	Deccan	Kol.	Deccan	Kol.
Licensed spindles	92052	75240	92052	75240	92052	75240
Installed spindles	83404	69312	82940	75240	82940	75240
% Utilisation on 365 day & 24 hours basis	92.25	92.24	94.65	91.98	95.58	89.86
Idle Spindles %	67.75	07.76	05.35	08.02	04.42	10.14
<u>Idle Spindles due to</u>						
Power cut/power tripping/low voltage	01.27	01.74	01.54	01.74	01.54	00.93
Power failure	00.31	01.37	00.35	00.52	00.37	00.99
Shortage of back process	00.05	00.29	00.07	00.11	00.02	-
Shortage of workers	02.61	02.64	00.49	00.86	00.23	-
Shortage of raw mat.	-	00.26	-	-	-	-
Not working 365 days	02.47	01.10	01.92	-	01.92	01.37
Miscellaneous	01.04	00.36	00.98	04.79	00.34	06.85

Source : AIFCOSPIN
Annuals 1990,1991 & 1992

6.2.5 SPINDLE UTILISATION :

Table 6.4 indicates that in Decospin mills there is maximum utilisation of installed capacity. Idle spindles percentage is more in Kolhapur mills than Decospin. It is more & increasing in the years 1990-91 & 1991-92. Powercut, low voltage, power tripping & power failure are the normal causes for it. Shortage of workers also caused lower utilisation, but currently the state has been improving. The underutilisation in case of Kolhapur mills, which is increasing in this period has occurred due to stoppage of machinery for the purpose of implementation of modernisation plans. In the above table this reason has been classified under miscellaneous.

6.2.6 AVERAGE CONVERSION COST :

The table 6.5 shows the average conversion cost per spindle shift in paise

Table No.6.5

Table showing average conversion cost per spindle shift in Paise

Particulars	1980 90		1990 91		1991-92	
	Deco.	Kolha	Deco.	Kolha	Deco	Kolha.
1. Wages	58.98	53.67	70.37	62.88	74.00	63.18
2. Salaries	-	6.87	4.35	8.84	-	8.82
3. Stores/spares	5.62	4.28	6.76	8.44	14.99	10.50
4. Packing Material	10.23	6.87	11.61	9.95	13.08	10.04
5. Power & fuel	45.45	38.75	53.08	46.08	57.42	47.11
6. Insurance	1.85	0.76	1.24	0.80	1.86	0.63
7. Interest	14.46	20.98	11.88	14.57	23.90	7.88
8. Miscellaneous Exp.	14.28	11.22	16.06	9.50	14.43	11.16
9. Total (Excl. Depre- ciation)	150.87	143.40	175.35	161.72	199.68	159.32
10. Depreciation	16.77	12.59	16.24	11.88	20.76	13.39
11. Total Cost	167.64	155.99	191.59	173.60	221.44	172.75
12. Average count of yarn produced	42.33	37.20	41.00	34.01	44.45	35.16
13. Average production per spindle shift	77.94	69.34	77.88	71.90	78.27	71.42

Source : AIFCOSPIN Annuals 1990, 1991, 1992

The above table clearly indicates that the conversion cost is higher in Decospin Mills. This is due to production of higher counts of yarn by the mill as seen in the table. Average production of Decospin Mills is higher because in this mill there is maximum utilisation of installed capacity.

6.2.7 PROFITABILITY OF THE MILLS PER WORKING SPINDLE :

Table No. 6.6

Table showing the profitability of the mills per working spindle.

Particulars	1989 90		1990 91		1991-92	
	Deco.	Kolha	Deco	Kolha	Deco	Kolha
1. Working Spindles	82811	69312	82963	73762	82940	75240
2. Average count	42.33	37.20	41.00	34.01	44.45	35.16
3. Percentage capacity utilisation	92.25	92.24	94.65	91.98	95.58	89.86
4. Production/spindle shift converted to 40 ^s	77.94	69.34	77.88	71.90	78.27	71.42
5. Cash gain/working spindle in Rs	+614.09	+277.44	+519.65	+70.32	+575.19	+147.67
6. Net profit per working spindle in Rs.	+434.57	+150.26	+357.30	49.32	+297.95	+15.89
7. <u>Rank on the basis of</u>						
a. Cashgain/working spindle	-	-	19	65	12	24
b. Netprofit/working spindle	12	37	17	62	11	21

Source : AIFCOSPIN

Annuals year Book 1990,1991, 1992

Table 6.6 above indicates the profitability of the mills per working spindle from 1989-90 to 1991-92. It is clearly evident from the table that the Decospin Mill is surpassing Kolhapur Mills in every aspect. i.e. average count, percentage utilisation, production per spindle shift, cash gain & net profit per working spindle etc.

At the same time the Decospin Mills has been maintaining its position at higher ranks in All India Levels as is seen in the above table. In respect of ranks, Decospin has been consistent but Kolhapur mills suffered a serious set back in 1990-91, which has further improved in 1991-92.

6.3 COMPARISON OF COST ACCOUNTING SYSTEMS

After having considered the general organisation of the mills in comparison, let us take into account the comparative results of cost accounting systems. As studied in the first part of this chapter, cost structure of both the mills is quite similar to each other. The lower profitability of Kolhapur mills is due to underutilisation of the installed capacity, labour strike, lower counts produced, delay in implementation of modernisation programme, burden of interest, increase in electricity rates etc.

Also both the mills being member of All India Federation of Co op. Spinning Mills Ltd., follow uniform cost accounting procedures & practices. Still there are some differences and an attempt has been made to bring them into focus.

Let us consider them in order of elements of cost.

6.3.1 COTTON COST :-

This is the main raw material in spinning mill. It constitutes 60 to 70% of total cost of the yarn. It is observed while comparing that in both the mills in respect of accounting for cotton cost, there is no much difference. Still there are two points of difference noted as below

- a) In Decospin mill, issues of cotton bales are priced on the basis of lot price to which the bales relate, while in Kolhapur mills such issues priced on average price basis. This has the direct impact on the mixing rates computed to know clean cotton cost.
- b) The percentage of wastage in Decospin mills is assumed at 15% for carded yarn & 35% for combed yarn, while than in Kolhapur mills it is assumed 14% and 34% resp.

6.3.2 WAGES :

In both the mills wages are paid as per payscales and there is much similarity in accounting for labour. Still the Decospin mills being the former in establishment its wage bill is comparatively higher. As such its wage cost is more to that of Kolhapur mills as is clear from the following table.

Table No. 6.7

Table showing the average worker wages of both the mills.

Sr.No.	Year	Decospin	Kolhapur
1.	1989-90	47.00	45.50
2.	1990-91	52.19	49.75
3.	1991-92	61.93	60.55

Source : Records of Spinning Mills

In Decospin mills wages are considered department-wise for costing purposes, while in Kolhapur mills they are considered in total.

Labour costs are considered normally per spindle shift. Such labour costs per spindle shift for both the mills are presented below

Table No. 6.8

Table showing the labour cost per spindle shift in paise.

Mill	1980 90	1990 91	1991 92
Deccan	58.98	74.32	74.00
Kolhapur	60.54	71.72	72.00

Source : AIFCOSPIN Annuals 1990, 1991, 1992

It is clear from the above table that the labour cost per spindle shift is higher in Decospin mills. Higher wage rates and longer services of employees are the reasons for this.

6.3.3 STORES & SPARES :

The system adopted in respect of stores & spares is almost similar in both the mills. Still there are some differences which are mentioned below.

In Decospin mills due to computerisation of data there is no store ledger. Only bin cards are there.

Kolhapur mills maintains both bin cards and store ledger. In Decospin mills monthly summary of issues made to

departments during the month is made & sent to Accounts section. In Kolhapur mills no such practice is followed.

In Decospin mills ABC analysis system and stock levels are operated, in Kolhapur mills these are not in operation.

6.3.4 ELECTRICITY :

Both the mills purchase electricity from MSEB, but there is no record showing separately the electricity purchased and electricity generated.

In Decospin mills separate power meters are placed for recording power consumption of each department separately. It enables to know the power cost for operating a machine or the department for a particular period. In Kolhapur mills, no such separate meters are placed for recording departmental power consumption.

6.3.5 PACKING MATERIALS :

This is a direct cost. The packing is as per consumer specifications & pricing is made accordingly. In Decospin mills packing costs are charged at Rs. 2.50 per kg. for export sales & Rs. 1.30 per kg. for local sales. In Kolhapur mills these rates are Rs. 2.90 per kg. and Rs. 0.90 per kg. respectively.

6.3.6 INTEREST ON LOANS :

Both the mills are paying interest on loans. In case of Decospin only term loans are there while in Kolhapur

mills both the term loans as well as working capital loans are there. Payment of interest on monthly basis is considered for costing purposes. The Kolhapur mills has been suffering from financial shortage particularly due to delaying the modernisation programmes. This interest payment has also affected the profitability of the mill.

6.3 7 OVERHEADS :

Major portion of overheads is depreciation, insurance, maintenance of building, machinery, vehicles, legal expenses, fees and other administrative expenses.

Normally there seems no difference in respect of treatment of overheads. In both the mills the overheads are within limits and there is reasonable control over them.

6.4 VALUATION OF CLOSING STOCK :

There are following types of closing stocks with the mills.

- A) Cotton stock
- B) Yarn stock
- C) Work in process/semi-finished stock.

A) VALUATION OF COTTON STOCK :

In both the mills valuation of closing stock is made on the basis cost or market price whichever is less. Market prices of respective of cotton qualities

on the date of closing are taken into account for this purpose. Cost for this purpose means sum of actual price paid transport, octroi, insurance & other incidental charges. Physical verification of cotton stocks on the closing date is done for this purpose.

B) VALUATION OF YARN STOCKS :

This is 100% finished stock & hence it is valued at total cost. If its packing work is not complete, then its relative portion of cost is excluded. Finished and packed yarn is valued at total cost.

C) VALUATION OF WORK IN PROGRESS :

The cotton which has used in blow room for processing & has passed further in processes is valued at cost plus certain percentage of expenses of the department concerned.

In Decospin mill, valuation of such stocks which is complete upto 50% and 75% only is considered separately.

This is valued considering the completion stage. The cotton which is processed less than 50% is valued at cotton prices. Physical verification is done for this purpose.

In Kolhapur mills the process stock determination & valuation is done by the technical staff of the mill. The quantity, the stage of completion & valuation are

decided by the technical staff. Treatment of packing cost is similar to that of Decospin mills.

6.5 COMPARATIVE COST SHEETS :

After comparing the cost accounting systems now let us have a glance at the cost sheets of the spinning mills for last three years, which are presented in as under

Table No. 6.9

Cost sheets

on separate page.

The table 6.9 clearly indicates some results as under

1. The cost of cotton consumed has a direct relation to net profit. As a result, when it is low (40.65%) in 1989 90 in Decospin mills its net profit is 10.68%. On the contrary when it is high (70.12%) in 1991 92 in Kolhapur mills its net profit has been reduced to 0.40%
2. The direct expenses i.e., wages, electricity & packing materials are normally stable during the period under review.
3. Among the factory overheads, depreciation and other expenses are also normally stable.

		1989-90			
		Decospin		Kolhapur	
1)	Cotton : Purchases	158610		174754	
	Add Op.Stock	72093		34970	
		230703		209224	
Less: Cotton waste & Cotton Seeds		12352		10045	
Closing Stock		61218		49195	
Cost of Cotton Consumed		157133	40.15	1e49984	55.96
2)	<u>Direct Expenses</u>				
	Wages	48508	12.55	34514	12.88
	Electricity	39528	10.23	27330	10.20
	Packing Materials	8939	2.31	6740	2.51
Total		254108		218568	
Add -Opening Work in Progress		6703		4066	
		260811		222634	
Less: Closing Work in Progress		5877		4365	
Prime Cost		253934		218269	
3)	<u>Factory Overhead</u>				
	Depreciation	14861	3.85	8150	3.04
	Interest on Loans & Deposits	9835	2.54	15363	5.73
	Other Expenses	5043	1.56	11962	4.46
Works Cost		284673		253744	
4)	General and Office Overheads	48267	12.49	7253	2.71
		332940		260997	
Add : Opening Yarn Stock		31044		8814	
		363984		269811	
Less : Closing Stock Yarn		20958		7985	
Less : Hardwaste		585		-	
Cost of Production		342441		261826	

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5) Selling and Distribution Overheads	27.81	0.72	8.83	0.33	21.37	0.79	11.84	3.36	40.01	0.87	6.11	0.23
	345222		262709		264681		319091		450241		259367	
6) Net Profit	41230	10.68	5300	1.98	66.59	2.45	65.14	2.00	96.07	2.09	10.49	0.40
7) Sales Realisation.	386502		268009		271340		325605		459848		260416	
8) Quantity of Yarn Sold (Lakh Kgs)	63.13		54.93		48.32		64.63		61.80		43.01	
9) Net Profit Per Kg. of Yarn Sold in Rs.	6.54		0.96		1.37		1.01		1.55		0.24	

SOURCE : RECORDS OF THE CONCERNED SPINNING MILLS

4. The payment of interest on loans & deposits is more in Kolhapur mills compared to Decospin mills. Interest payment of Decospin is more in 1991-92 due to modernisation loan.
5. Compared to Decospin mills, General and office overheads of Kolhapur mills are lower & unstable.
6. The selling & distribution overheads of Decospin mills are below 1% & that of Kolhapur mills are below 0.5%. Their share in total cost is almost negligible.
7. Considering the net profit earned per kg. of yarn sold. The Decospin mills is profitable with three years average of 3.15% to Kolhapur mills with average of 0.74%.

6.6 CONCLUDING REMARKS :

Considering the overall performance the Decospin Mills is comparatively working better than Kolhapur mills.

It has earned a name & reputation in the textile market. Compared to Kolhapur mills, its productivity, profitability, efficiency & capacity utilisation are all higher. It is leading in exports also. Average conversion cost of Decospin mills is higher as it concentrates more on quality. The comparison discloses that there are no vast differences in cost accounting systems adopted by them.

The conclusions drawn from the discussion made in the preceding pages are presented in chapter number SEVEN which is the last chapter of the study in hand.