

COST OF PRODUCTION AND SALES PERFORMANCE

- 4.0 Introduction
- 4.1 Analysis of Cost of Production of Cotton Textile Mills under Public and Private Sector
 - 4.1.1 Trends of Material Cost and Its Analysis
 - 4.1.2 Conversion Cost and Its Analysis
 - 4.1.3 Trends of Wages and Salary Cost and Its Analysis
 - 4.1.4 Trends of Power and Fuel Cost and Its Analysis
 - 4.1.5 Trends of Expenditure on Stores and Spares
 - 4.1.6 Depreciation Cost and Its Analysis
 - 4.1.3 Trends of Cost of Production per Unit of Output
- 4.2 Sales Achievement
 - 4.2.1 Net Sales (Turnover) of Cotton Textile Mills Under Study
 - 4.2.2 Sales per Employee
- 4.3 Graphical Highlights
- 4.4 Mean and 't' values of the Performance Indicators and Significance of Mean Differences
- 4.5 Summing Up
- References

4.0 INTRODUCTION

An important factor that affects the performance of manufacturing concerns is the cost trend. Cost of production affects the price of output and reflects the degree of operational efficiency and productivity in use of various factors of production of an enterprise. Not only the operational performance are reflected with this figure rather the financial performance of the enterprise fully depends on it. Hence, it is an indicator of both operational and financial performance of an enterprise.

With a view to find out the actual reasons for poor performance of public sector cotton textile mills as compared to the mills under to private sector, an attempt has been made to analyse the structure of cost of production of the mills of BTMC and BTMA as per the objectives stated in the Chapter-1. The structure of cost of production of textile mills takes into account only those elements of costs, which are essential for production of yarn.

There are other expenses viz. administrative expenses which are related to administration of the office and selling and distribution expenses which are related to selling procedures of the products. "Though only the production of goods is not the end rather a means, and production of goods can not be completed if without the function of office and selling department, yet it can not be ignored in any way that production department works as a 'pivotal point' in any manufacturing organization"¹. However, our study has kept itself restricted to analysis the cost of production only, other than the costs which are not directly related to production of yarn.

4.1 ANALYSIS OF COST OF PRODUCTION OF COTTON TEXTILE MILLS UNDER PUBLIC AND PRIVATE SECTOR

Saha S. K². in his study analysed the structure of cost of production of BTMC spinning mills. Following the techniques applied by him we have tried to

make a comparative analysis of cost of production between the cotton textile mills under public and private sector in order to understand the trend of different costs, the significance of them in the total cost of production and to compare the same among the mills under both the sectors. The total cost of production may be broadly classified into raw materials cost and conversion cost. Conversion cost is subdivided into wages and salary cost and factory overhead. The main elements of factory overhead are power and fuel costs, stores and spares expenses, depreciation, insurance etc. However, our discussions and analysis have been made showing the trend of cost of the cotton textile mills under public and private sector under the following heads:

1. *Material costs,*
2. *Conversion costs,*
3. *Wages and salary costs,*
4. *Power and fuel costs,*
5. *Expenditure on stores and spares,*
6. *Depreciation cost,*
7. *Cost of production per unit of output.*

4.1.1 Trend of Material Costs and its Analysis :

Trend of Material costs

It is apparent from Appendix-2, that the material cost in all the mills under public sector increased up to 1991-92 with a few exceptions in 1988-89, 1990-91 and in 1991-92. These might be due to decrease in production. Material cost in the public mills started increasing again from 1994-95. Only a few mills provided an exception to this upward trend (viz., Mills-A₁, A₂, A₆ and A₁₀). But during 1996-97, the material cost in all the mills decreased again which was probably due to decreases in their production.

In the private sector, an increasing material cost was witnessed during the years from 1987-88 to 1995-96. Only a few mills provided an exception to this upward trend. In 1996-97, the last year of the study period, an increase in material cost was observed in case of Mills-B₁, B₇, B₉ and B₁₀, whereas the cost in Mills-B₂, B₃, B₄, B₅ and B₆ decreased in the same year, possibly because of decrease in their production.

The major idea, which could be formed from the Appendix-2, that the cost of material of the mills under both the sectors increased gradually. This increase in the cost of material contributed to the increase in the total cost of production. This increase was due to the increase in the price level of raw cotton and also in the volume of production.

It appears from the Table 4.1 that the relative share of material cost to the total cost of production of public sector Mills-A₃, A₄, A₅ and A₈ changed as their material cost changed during the study period. But the relative share of material cost to the total cost of production in Mill-A₆ during 1989-90 and 1990-91, in Mill-A₇ during 1988-89 and 1989-90, in Mill-A₉ during 1988-89, 1989-90 and 1991-92, in Mill-A₁₀ during 1988-89, 1990-91, 1992-93 and 1993-94 decreased though their material cost increased during the said years. The above changes in all the mills resulted in the change of the average relative share of material cost to the total cost of production in all the public mills as a whole in the same direction as their material cost changed during the study period. On the other hand, in the private sector, it appears that the relative share of material cost to the total cost of production in Mills-B₂, B₄ and B₈ changed as their material cost changed all through the period. But the relative share of material cost to the total cost of production in Mill-B₁ during 1988-89 and 1994-95; in Mill-B₃ during 1988-89 and 1990-91; in Mill-B₆ during 1990-91, 1991-92, 1993-94 and 1994-95; in Mill-B₇ during 1991-92 and 1995-96; in Mill-B₉ during 1995-96 and 1996-97 and relative share in Mill-B₁₀ during 1993-94 decreased although their material cost

Table – 4.1: Relative Share of Material Cost in the Total Cost of Production (in percentage).

Years		Mills										
		1987-88	1988-89	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	Average
PUBLIC SECTOR	A ₁	54.07	37.10	52.64	54.18	53.44	48.19	46.96	53.72	55.79	52.40	50.85
	A ₂	57.20	58.32	57.77	56.06	58.79	55.49	57.37	56.97	65.39	44.55	56.79
	A ₃	55.54	55.85	56.91	60.44	62.86	56.96	52.50	56.08	61.59	31.30	55.00
	A ₄	62.10	58.78	58.13	58.95	60.64	52.23	42.50	58.48	65.54	50.55	56.79
	A ₅	42.29	53.90	54.46	57.52	60.01	48.77	42.06	56.48	59.86	34.23	50.96
	A ₆	58.99	57.63	55.13	52.21	53.12	47.90	46.09	52.19	48.98	24.65	49.69
	A ₇	58.21	57.93	55.75	56.50	58.61	56.16	45.11	56.32	64.42	56.07	56.51
	A ₈	46.78	49.99	52.42	52.87	53.58	47.58	44.36	54.61	59.88	26.54	48.86
	A ₉	57.53	55.92	53.01	54.85	53.87	41.72	40.37	47.06	48.65	25.97	47.90
	A ₁₀	47.31	46.27	49.53	49.70	51.98	49.75	47.45	46.88	40.83	10.76	44.05
	Ave	54.00	53.17	54.58	55.33	56.69	50.48	46.48	53.88	57.09	35.70	51.74
PRIVATE SECTOR	B ₁	57.39	56.25	62.10	57.67	67.16	73.73	76.06	73.19	72.04	74.21	66.98
	B ₂	48.53	48.53	48.53	43.84	64.42	64.57	60.19	67.01	70.33	69.59	58.55
	B ₃	54.48	50.63	54.95	54.31	57.70	53.44	48.62	57.72	65.70	63.59	56.11
	B ₄	61.90	56.70	28.17	56.98	57.81	60.14	63.72	70.74	74.58	47.48	57.82
	B ₅	-	-	NA	85.04	87.30	84.36	79.56	85.37	84.57	85.42	84.52
	B ₆	-	-	70.06	59.55	56.36	61.46	60.27	59.67	65.44	74.90	63.46
	B ₇	-	-	57.74	65.65	62.97	68.82	71.22	74.91	68.09	69.25	67.33
	B ₈	-	-	56.85	56.85	56.85	59.71	59.89	65.03	65.68	69.55	61.30
	B ₉	-	-	-	-	NA	55.97	60.22	72.23	71.03	68.37	65.56
	B ₁₀	-	-	-	-	NA	65.99	62.61	70.40	75.52	69.68	68.84
	Ave	55.58	53.03	54.06	59.99	63.82	64.82	64.24	69.63	71.30	69.20	62.57

Source: Compiled from Annual Reports of BTMC and Member Mills of BTMA, necessary calculations have been made.

Notes: i) '—' Indicates the period before establishment and commencement of production.
ii) NA = Not Available.

increased gradually during these years. On an average the relative share of material cost to the total of production in all the private textile mills taken together decreased in 1988-89 and 1993-94 with the corresponding increase in their total material cost. This might be due to some uneven increase in other elements of cost which increased the total cost of production and due to both total production and productivity of raw cotton increased during the said periods.

We also observed from the above table that the average share of material cost to the total cost of production in all the mills under public sector as a whole was 51.74% during the period under study. Average percentage of material cost in Mills-A₁₀, A₉, A₈, A₆, A₁ and A₅ was lower than the combined average and it was higher than the combined average in Mills-A₇, A₄, A₂ and A₃. While on the other hand, this share of material cost to the total cost of production in all the private mills, as a whole was 62.57% during the period. Mills-B₂, B₃, B₄ and B₈ formed lower percentage of material cost than the combined average and Mills-B₁, B₅, B₆, B₇, B₉ and B₁₀ formed higher percentage of cost than the combined average. The lower share of material cost in some public mills indicates the use of inferior raw material and production of low-quality yarns. The use of inferior raw materials might be resulted in lower productivity, higher wastage and higher loss of value thus resulting in higher cost of production.

Analysis of Material Cost :

Material cost should proportionately vary with the volume of production having per unit material cost remaining the same as it is directly related to production.

The Table-4.2 shows that the percentage of increase or decrease in average material cost in the textile mills under public sector was not in line with the percentage of increase or decrease in their average volume of production.

Table-4.2 :Changes in Material Cost and Corresponding Changes in Production

Sector	Items	1987-88	1988-89	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97
P U B L I C S E C T O R	Average material costs in lakh Tk.	399.27	386.19	538.69	625.26	662.55	575.15	480.13	542.85	665.61	318.93
	% of increase/decrease in average material cost over the previous year	NA	(03.28)	39.49	16.07	5.96	(13.19)	(16.52)	13.06	22.61	(52.08)
	Average volume of production in 32s count in lakh Kg	10.02	11.08	12.70	13.15	13.14	11.54	9.87	8.85	8.14	3.90
	%of increase/decrease in average volume of production over the previous year.	NA	10.58	14.62	03.54	(00.08)	(12.18)	(14.47)	(10.33)	(08.02)	(52.09)
P R I V A T E S E C T O R	Average material cost in lakh Tk.	680.78	745.05	692.89	904.67	1120.94	1384.65	1603.36	2323.13	2702.39	2529.17
	% of increase/decrease in average material cost over the previous year	NA	09.44	(07.00)	30.56	23.91	23.53	15.80	44.89	16.33	(06.10)
	Average volume of production in 32s count in lakh Kg.	17.53	18.41	17.62	17.33	21.05	25.30	29.20	31.25	32.37	37.32
	%of increase/decrease in average volume of production over the previous year.	NA	05.02	(04.29)	(01.65)	21.47	20.19	15.42	07.02	03.58	15.29

Notes : i) NA=Not Applicable, ii) Brackets indicate negative changes.

Percentage of increase in volume of production was 14.62 in 1989-90 and in 1990-91 it was 3.54 over the previous year, whereas the percentages of increases in average material cost were 39.49 in 1989-90 and 16.07 in 1990-91 becoming much higher than the changes in production. Again the percentages of decrease in average volume of production in 1992-93 was (12.18) and in 1993-94 it was (14.47), whereas the percentages of decrease in average material cost was Tk. (13.19) in 1992-93 and (16.52) in 1993-94, be coming somewhat higher than the rate of changes in production. But during 1988-89, 1991-92, 1994-95 and in 1995-96 the fact was somewhat different. Because in 1988-89, the percentage of

increase in volume of production was 10.58 as against a decrease of (03.28%) in material cost. Again the percentage of decrease in production was (00.08%) 1991-92, (10.33) in 1994-95 and (0.8.02) in 1995-96 as against a higher increase in material cost in these particular years, 1996-97 was the only year when the percentage of decrease in average material cost of all the mills under public sector was (52.08), almost same with the corresponding decrease in their average production. In private sector, the percentage of increase or decrease in average material cost was in the same line with the corresponding increase or decrease in average production of the textile mills under this sector almost all the years under study. A consistent increase in material cost with the corresponding increase in production was shown during 1991-92, 1992-93 and 1993-94. Only in 1988-89 and 1994-95 the percentage of increase in material cost was much higher than the increase in production. Moreover, in 1989-90 material cost decreased in high rate than the corresponding decrease in production. Even in 1996-97 material cost decreased by (06.10%), in the opposite direction of increase in production by 15.29%. The above analysis indicates a better efficiency in material management of private sector mills as compared to the mills under public sector.

Material Cost Per Kg of Yarn:

A study of the figures arranged in Table-4.3 reveals, that the average material cost in all the mills under public sector as a whole was Tk. 52.62 per kg of yarn during the study period. The cost registered an increasing trend and reached at the peak of Tk. 83.49 in 1996-97 from Tk. 40.18 in 1987-88 with a sudden break in 1988-89 and 1992-93. Individually, in case of all the mills the material cost per unit increased through out the period of study except in two or three years, and thus registered an increasing trend. Mill-A₈ recorded the lowest average material cost of Tk. 46.32 per kg followed by Mills-A₃, A₂, A₁ and A₆ respectively. But its cost varied in a range of 46.67, higher than that of Mills-A₃ and A₆ and also that of combined position. In Mill-A₅ the average material cost

Table 4.3: Material Cost Per Kg of Yarn (Output) in Taka.

Mills	Years	1987-88	1988-89	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	Average	Range
	PUBLIC SECTOR	A ₁	42.81	20.35	44.88	48.90	48.81	48.68	56.86	60.84	78.59	82.24	53.30
A ₂		33.27	35.17	38.98	40.52	46.67	46.31	50.09	57.33	83.86	90.06	52.23	56.79
A ₃		39.76	36.71	38.35	45.50	49.90	42.85	43.57	64.56	77.35	70.24	50.88	40.64
A ₄		44.54	39.10	44.91	51.67	54.19	47.76	48.21	63.06	82.93	76.56	55.29	43.82
A ₅		34.20	44.11	49.22	52.75	61.13	52.93	59.03	71.95	96.60	81.05	60.30	62.40
A ₆		46.61	43.65	45.52	47.48	48.93	44.83	51.45	62.37	82.42	72.45	54.57	38.77
A ₇		44.57	36.66	41.36	46.45	50.26	68.13	45.24	63.85	86.69	83.01	56.62	50.03
A ₈		27.54	31.05	36.79	41.42	41.57	39.09	40.94	56.59	74.00	74.21	46.32	46.67
A ₉		43.68	43.95	52.77	52.99	56.82	44.95	43.10	61.49	77.41	95.66	57.91	52.56
A ₁₀		44.82	38.79	42.11	53.36	57.11	49.59	51.94	58.33	82.29	109.37	58.77	70.58
Ave		40.18	36.96	43.49	48.73	51.54	48.51	49.04	62.04	82.21	83.49	54.62	46.53
PRIVATE SECTOR	B ₁	62.82	61.63	74.10	70.85	124.29	188.48	99.93	84.70	99.33	83.24	94.94	126.85
	B ₂	30.31	32.20	33.45	38.04	47.00	48.53	41.32	49.32	54.90	55.60	43.07	25.29
	B ₃	41.15	40.77	50.54	59.83	72.08	60.72	55.35	74.66	102.42	96.93	65.45	61.65
	B ₄	36.78	38.09	18.00	36.51	38.56	41.35	48.29	73.05	84.32	45.42	46.04	66.32
	B ₅	-	-	NA	78.16	77.65	69.38	62.03	84.06	99.66	99.02	81.42	37.63
	B ₆	-	-	45.95	43.06	39.89	44.75	42.63	49.00	70.52	72.04	50.98	32.15
	B ₇	-	-	48.60	70.41	51.83	57.32	61.28	85.25	79.10	82.14	66.99	36.65
	B ₈	-	-	53.92	51.94	57.36	68.66	61.57	76.10	86.65	83.55	67.47	34.71
	B ₉	-	-	-	-	NA	67.90	42.82	66.96	59.46	25.44	52.52	42.46
	B ₁₀	-	-	-	-	NA	43.97	42.41	69.83	111.19	80.93	69.67	68.78
	Ave	42.77	43.17	46.37	56.10	63.58	69.11	55.76	71.29	84.76	72.43	63.86	41.99

Notes : i) '-' indicates the period before establishment and commencement of production,

ii) NA= Not Available.

per kg of yarn during the period of study was Tk. 60.30 which was the highest in comparing to all the other mills under public sector as well as the combined position of all the mills. Its cost varied in a range of 62.40 from Tk. 34.20 to Tk. 96.60 which was the highest in comparison to the ranges of all other mills. Next to Mill-A₅, the average material cost per kg of yarn was Tk. 58.77 in Mill-A₁₀, Tk. 57.91 in Mill-A₉, Tk. 56.62 in Mill-A₇ and Tk. 55.29 in Mill-A₄. Their range of variation was 70.58, 52.56, 50.03 and 43.82 respectively.

On the other hand, although the material cost per kg of yarn in the mills under private sector fluctuated occasionally, their overall trends were towards an increasing one. The average unit cost in Mill-B₁ was the highest varied in a range of 126.85 which was also the highest in comparison to that of other private sector mills. In Mill-B₂, the average material cost per kg of yarn was the lowest than the cost in all other mills. The cost per kg varied from Tk. 30.31 in 1987-88 to Tk. 55.60 in 1996-97 forming a range of 25.29, the lowest among the range of other mills indicating that the variation in cost was the least in comparison to other mills. In case of Mills-B₄, B₆ and B₉ the average material cost per kg of yarn were Tk. 46.04, Tk. 50.98 and Tk. 52.52 respectively, gradually higher than that of Mill-B₂ but lower than the combine position of all mills under the sector. The cost in Mill-B₆ varied from Tk. 39.89 in 1991-92 to Tk. 72.04 in 1996-97, constituting a range of 32.15 which was lower than that in Mills-B₄ and B₉. The average unit cost in Mills-B₃, B₇, B₈, B₁₀ and B₅ were Tk. 65.45, Tk. 66.99, Tk. 67.47, Tk. 69.67 and Tk. 81.42 respectively higher than the combined average position of Tk. 63.86. The cost in Mills-B₈, B₇ and B₅ varied in a range of 34.71, 36.65 and 37.63, higher than the range of Mills-B₁₀ and B₃ and also than the combined range. The average material cost per kg of yarn in all the private mills taken together was Tk. 63.86 during the period of study constituting a range of 41.99 covering its variation. This combined average cost of private sector was higher than that of public sector but its range of variation was lower indicating a steady trend as compared to that of public sector. Therefore, it may be concluded that the per unit

material cost in the selected mills under both the sector was not constant during the period of study, rather it increased year by year with a few exceptions. This might be due to (i) increase in price of raw cotton, which is fully an external factor and (ii) due to decrease in productivity of material, which is surely an internal factor and thereby controllable factor. If the price of material i.e., raw cotton could be analysed, it would have been possible to find out the external factor responsible for this increase. But as the information regarding prices was not available, this could not be done.

4.1.2 Conversion Cost and Its Analysis:

Conversion cost means those expenses, which are required to convert raw material into finished goods. In no other way materials can be converted into finished goods without the help of man and machine, the monetary term of which is known as conversion cost. Thus, two related expenses i.e., wage and salaries and factory overhead come under this head. The following Table-4.4 is presented to compare the conversion cost in the sample cotton textile mills under public and private sector.

From the perusal of the Table-4.4, it is quite evident that both the average conversion cost and its percentage to the total cost of production in the mills under public sector exhibited an upward trend up to 1989-90 but fluctuated thereafter and during 1990-91, 1993-94, 1995-96 and 1996-97 they changed in the opposite direction of each other i.e., the average conversion cost increased but its relative share in total cost of production decreased in 1990-91 and 1995-96 and vice-versa in 1993-94 and 1996-97. The average conversion cost per kg of yarn in the public sector mills registered an increasing trend during the period of study. But the average conversion cost per unit in the private sector mills did not show any specific trend. Rather it fluctuated in a range from Tk. 30.85 in 1993-94 being the

Table-4.4 : Conversion Cost, Its Relative Share to Total Cost of Production and Cost per kg of Output.

Sector	Items	1987-88	1988-89	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97
P U B L I C S E C T O R	Average conversion cost in lakh Tk.	340.12	354.69	450.91	507.18	505.90	541.23	531.02	465.14	477.08	438.67
	Conversion cost as percentage of total cost of production	46.00	46.83	45.43	44.67	43.31	49.53	53.05	46.12	42.67	64.30
	Average conversion cost per Kg of output in Tk.	34.49	32.33	36.44	39.68	39.67	47.90	57.02	53.54	64.13	224.35
P R I V A T E S E C T O R	Average conversion cost in lakh Tk.	515.39	646.95	673.57	626.51	701.79	781.81	857.31	972.88	1134.90	1225.92
	Conversion cost as percentage of total cost of production	44.43	46.98	45.94	40.13	36.18	35.18	35.76	30.37	28.70	30.79
	Average conversion cost per kg of output in Tk.	33.96	37.74	37.73	37.24	35.49	36.34	30.85	31.23	34.25	32.01

Sources: i) Appendix-3;

ii) Annual Reports of BTMC and Member Mills of BTMA; necessary calculations have been made.

lowest and Tk. 37.74 in 1988-89, being the highest. The average conversion cost in the private sector mills in absolute amount increased continuously throughout the period except in 1990-91 due to initial year of operation of Mill-B₅; but as a share of the total cost of production it was decreasing from 1989-90 and came

down to Tk. 35.18 in 1992-93, it increased slightly in 1993-94 and again came down to Tk. 28.70 in 1996-97 and further went up to Tk. 30.79 in 1996-97.

4.1.3 Trend of Wages and Salary Cost and Its Analysis:

The cost of wages and salaries occupies the second highest position in the cost structure of the textile mills. As productivity of material depends on the performance of labour to a great extent, this element needs greater control and attention. It should be noted that total cost of production would include total wages of labourers and that portion of the salary expenses, which constitute a part of the overhead. But all wages and salary expenses are included by all sample mills in finding out cost of goods sold. Though the breakup of total employees are given as per officer, staff and workers, the breakup of salary and wages expenses were not available. As such the total of wages and salary expenses are taken here as an element of cost of production.

As it is clear from Appendix-4, that there was a constant increase in wages and salary cost up to 1992-93 in case of every mills under the public sector. Although the cost decreased in some mills during 1993-94, 1994-95, and 1996-97 an overall increase in cost was observed since 1992-93 in all the public mills. The public sector average amount of wages and salary cost in all the mills taken together went up to Tk. 285.61 lakh in 1996-97 showing 179% increase over 1987-88.

In the private sector though the wages and salary cost, in case of some mills fluctuated since 1990-91, the over all trends in all the mills were towards increase. The average amount spent on wages and salary in all the mills as a whole was Tk. 263.87 lakh in 1987-88 but it went up to Tk. 328.04 lakh showing an increase of 124.32% over the decade under study, which was 54.68% lower than that of the public sector. Therefore, it may be concluded that the average wages

and salary cost in the textile mills under private sector recorded a steady trend in comparison to that of public sector.

From a perusal of the Table-4.5, it can be inferred that the wages and salary cost in the mills under public sector also increased in the relative sense i.e., as a share of the total cost of production during the ten years of study as it increased in absolute amount. The cost constituted a major share of the total cost of production in 1996-97, the last year of the study period in case of all the mills except Mill-A₇, rising their relative share by 11% in Mill-A₃, being the lowest and 277% in case of Mill-A₁₀, being the highest over the year 1987-88. The relative share of this element to the total cost of production increased in 1996-97 over the year 1987-88 for all the mills except Mill-A₇ in which the share in 1996-97 was lower than that of 1987-88. Taking into consideration the average relative share of wages and salary cost to the total cost of production in all the public mills taken together was 44.39% in 1996-97 showing an increase of 98.61% over the year 1987-88. Mills-A₁, A₂, A₇ and A₉ had average wages and salary cost forming less than 25% of total cost, Mills-A₃, A₄, A₆ and A₁₀ had the cost constituting more than 25% of the same and Mills-A₅ and A₈ had more than 30% of the same.

But in the private sector, the situation was reverse to that in public sector. Although a minor fluctuation was observed in the relative share of wages and salary cost during the period of study but the overall trend was towards decrease in case of all the mills other than Mills-B₅, B₈, B₉ and B₁₀ in which the share increased by insignificant percentage. The average relative share of this element was lower in 1996-97 as compared to the year 1987-88 in all the mills except Mills-B₅, B₈ and B₉ in which this was slight higher. The combined position of all the mills under private sector taken together in the relative share of wages and salary cost to the total cost of production was 9.60% showing (55.56%) decrease over 1987-88. Mills-B₅, B₇, B₈, B₉ and B₁₀ had an average cost forming less than 10% of total cost, Mills-B₁, B₃ and B₆ had the cost constituting more than 10% while only Mills-B₂ and B₄ had more than 20%.

Table – 4.5: Relative Share of Wages and Salary Cost in Total Cost of Production.

(in percentage)

Mills	Years	1987-88	1988-89	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	Average
	PUBLIC SECTOR	A ₁	19.07	26.33	21.11	20.64	23.90	27.19	27.96	26.52	19.47	27.82
A ₂		18.07	18.78	20.69	21.64	21.78	25.37	23.03	24.99	21.31	40.28	23.59
A ₃		23.61	21.49	22.26	20.95	20.83	25.68	28.36	28.15	26.16	56.19	27.37
A ₄		23.58	26.04	25.82	24.47	23.70	29.54	39.69	26.43	22.76	31.92	27.40
A ₅		29.69	27.44	31.16	29.11	28.10	36.62	48.27	32.97	29.49	55.28	34.51
A ₆		27.02	27.51	28.54	21.37	21.76	26.14	27.77	25.57	30.06	45.02	28.08
A ₇		27.63	27.38	18.86	16.95	16.45	18.97	26.84	21.02	18.07	23.45	21.56
A ₈		25.72	24.57	25.22	25.07	26.17	31.96	35.78	30.05	27.54	58.19	31.03
A ₉		12.56	13.94	16.13	16.36	17.22	23.24	27.29	25.93	27.28	43.39	22.33
A ₁₀		16.52	16.98	17.27	17.61	19.27	20.32	25.94	28.32	34.44	62.36	25.90
Ave.		22.35	23.05	22.71	21.42	21.92	26.50	31.09	27.00	25.66	44.39	26.61
PRIVATE SECTOR	B ₁	21.32	17.57	18.25	23.87	18.85	11.48	9.09	5.55	5.55	5.07	13.66
	B ₂	23.52	23.52	23.52	23.52	23.52	23.10	27.01	19.62	17.05	17.91	22.23
	B ₃	17.39	14.99	16.35	14.22	13.15	15.55	15.23	12.16	10.44	10.57	14.01
	B ₄	24.18	26.77	26.20	23.94	23.03	19.39	38.74	15.63	12.30	19.02	22.92
	B ₅	-	-	NA	4.33	6.04	7.12	5.10	3.42	3.56	4.34	4.84
	B ₆	-	-	13.12	12.73	12.45	11.11	11.88	9.57	8.83	12.56	11.53
	B ₇	-	-	6.82	3.58	3.95	6.24	6.34	5.99	6.12	6.29	5.67
	B ₈	-	-	7.15	9.57	8.95	8.44	8.45	6.98	7.41	7.41	8.05
	B ₉	-	-	-	-	NA	6.21	9.15	7.79	7.20	7.51	7.57
	B ₁₀	-	-	-	-	NA	5.06	5.41	3.96	3.57	5.27	4.65
	Ave.	21.60	20.71	15.92	14.47	13.74	11.37	13.64	9.07	8.20	9.60	13.83

Source: Compiled from Annual Reports of BTMC and Member Mills of BTMA, necessary calculations have been made.

Notes: i) '—' Indicates the period before establishment and commencement of production,
ii) NA = Not Available.

Analysis of Wages and Salary Cost:

For a constant number of worker and employees engaged in the production process, the total wages and salary cost may change due to changes in production or due to changes in rate of wages and salary. We only analysed the internal factor i.e., changes in production which have direct influence on the total cost of production and thereby on per unit cost of production. The following Table-4.6 are presented showing the changes in wages and salary cost with the corresponding changes in production.

The Table-4.6 shows that the average production of the sample mills under public sector increased by 10.58% in 1988-89 whereas the average wages and salary cost increased by only 05.27% over the previous year; again in 1994-95 decrease in wages and salary cost was by (91.02%) whereas the production decreased by only (10.33%); which were surely a good sign. But in 1989-90 the percentage of increase in wages and salary cost was almost doubled and it was more than doubled in 1990-91 as compared to the percentages of increases in production during these particular years. Even, during 1991-92, 1992-93, 1993-94, 1995-96 and 1996-97, the average wages and salary cost of the mills increased by 05.92%, 13.22%, 03.87%, 03.98% and 04.34% respectively when the production in the said years decreased by (00.07%), (12.18%), (14.47%), (8.22%) and (52.09%) respectively.

Looking at the private sector, it can be inferred that the nature of the changes in wages and salary cost was better as compared to public sector. Under this sector decrease in the average wages and salary cost was (19.22%) in 1989-90, where as the average production decreased by only (04.29%). During 1991-92 and 1994-95 the wages and salary cost decreased by (03.37%) and (23.25%) respectively when the production increased by 21.47% and 07.21% respectively. Again in 1992-93 and 1996-97 the percentages of increases in this element of cost were much lower than the corresponding increases in production. The rate of

Table-4.6: Sectoral Changes in Wages and Salary Cost and Corresponding Changes in Production.

Sector	Items	1987-88	1988-89	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97
PUBLIC SECTOR	Average Wages and Salary costs in lakh Tk.	159.49	167.90	214.69	232.19	245.94	278.46	289.23	263.26	273.73	285.61
	% of increase/decrease in average Wages and Salary cost over the previous year	NA	05.27	27.87	08.15	05.92	13.22	03.87	(91.02)	03.98	04.34
	Average volume of production in 32s counts in lakh kg	10.02	11.08	12.70	13.15	13.14	11.54	9.87	8.85	8.14	3.90
	% of increase/decrease in average volume of production over the previous year.	NA	10.58	14.62	03.54	(00.07)	(12.18)	(14.47)	(10.33)	(08.02)	(52.09)
PRIVATE SECTOR	Average Wages and Salary costs in lakh Tk.	263.87	297.09	239.99	252.50	243.99	255.26	378.53	290.51	300.25	328.04
	% of increase/decrease in average Wages and Salary cost over the previous year	NA	12.59	(19.22)	05.21	(03.37)	04.62	48.29	(23.25)	03.35	09.26
	Average volume of production in 32s counts in lakh kg	17.53	18.41	17.62	17.33	21.05	25.30	29.20	31.25	32.37	37.32
	% of increase/decrease in average volume of production over the previous year.	NA	05.02	(04.29)	(01.65)	21.47	20.19	15.42	07.21	03.58	15.29

Sources: Appendix-1 and Appendix-4; necessary calculations have been made.

Notes: i) NA= Not Applicable;
ii) Brackets indicate negative changes.

increase in the cost was also somewhat lower than the rate of increase in production in 1995-96. Only in 1988-89, 1990-91 and 1993-94, the situation was unfavourable. Because, the increase in wages and salary cost was more than doubled than the increase in production in 1988-89; the cost increased by 05.21% when the production decreased by (01.65%) in 1990-91; and in 1993-94 the cost increased by 48.29%, not matched by an increase in production which was only 15.42%. The overall trend of wages and salary cost both in absolute amount and in relative sense indicates better efficiency in labour management of private sector as compared to public sector.

Wages and Salary Cost-per Kg of Yarn:

It is apparent from Table-4.7 that like per unit material cost, wages and salary cost per kg of yarn was continuously rising in case of all the mills under public sector and for all the years under study with a few exceptions in two or three years. The maximum increase was observed in 1996-97 for all the mills. The rate of wages and salary cost in this year was two to eleven times higher over 1987-88 in case of Mills-A₁ to A₈ and it was seventeen times and forty times higher in case of Mills-A₉ and A₁₀ respectively over 1987-88. The public sector average wages and salary cost per kg of yarn went up to Tk. 155.40 in 1996-97 from Tk. 16.63 in 1987-88. The yearly average unit cost was lower than the combined average in case of Mills-A₇, A₂, A₁, A₄, A₃ and A₉ whereas it was higher than the combined average in case of Mills-A₆, A₈, A₅ and A₁₀.

In private sector although a minor fluctuation was observed occasionally in almost all the mills individually and collectively, the average wages and salary cost per kg of yarn taking all the private mills together registered a downward trend and came down to Tk. 9.67 in 1996-97 from Tk. 16.39 in 1987-88. The average cost per kg of yarn in this element was lower than the combined position

Table 4.7: Wages and Salary Cost Per Kg of Yarn in Taka.

Mills	Years	1987-88	1988-89	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	Average	Range
PUBLIC SECTOR	A ₁	15.10	14.44	18.00	18.63	21.83	27.46	33.85	30.04	27.42	43.66	25.04	29.22
	A ₂	10.51	11.33	13.96	15.64	17.29	21.17	20.10	25.15	27.32	81.42	24.39	70.91
	A ₃	16.90	14.12	15.00	15.77	16.54	19.31	23.54	32.40	32.86	126.09	31.25	111.97
	A ₄	16.91	17.33	19.95	21.45	21.17	27.01	45.02	28.50	28.80	48.34	27.45	31.43
	A ₅	24.01	22.46	28.17	26.69	28.62	39.74	67.74	42.00	45.74	130.90	45.61	108.44
	A ₆	21.35	20.84	23.57	19.43	20.04	24.46	31.00	30.55	50.58	132.33	37.42	112.90
	A ₇	21.16	17.33	13.99	13.94	14.11	23.01	26.92	23.83	24.32	34.73	21.33	20.79
	A ₈	15.14	15.26	17.70	19.64	20.31	26.26	33.02	31.14	34.04	162.71	37.52	147.57
	A ₉	9.53	10.96	16.05	17.69	18.16	25.04	29.13	33.89	43.41	159.85	36.37	150.32
	A ₁₀	15.65	14.24	14.69	18.91	21.17	20.25	28.40	35.23	69.41	633.96	87.25	619.72
	Ave	16.63	15.83	18.11	18.78	19.92	25.37	33.75	31.27	38.39	155.40	37.36	139.57
PRIVATE SECTOR	B ₁	23.34	19.26	21.77	29.32	34.88	29.35	11.95	6.42	7.65	5.69	18.96	29.19
	B ₂	14.69	15.60	16.21	20.41	17.16	17.36	18.54	14.44	13.31	14.31	16.20	7.10
	B ₃	13.14	12.07	15.04	15.67	16.43	17.67	17.34	15.72	16.28	16.11	15.55	5.60
	B ₄	14.37	17.99	16.73	15.34	15.36	13.33	29.36	16.14	13.90	18.20	17.07	16.03
	B ₅	-	-	NA	3.98	5.37	5.86	3.98	3.36	4.19	5.03	4.54	2.50
	B ₆	-	-	8.60	9.21	8.81	8.09	8.41	7.86	9.51	12.08	9.07	4.22
	B ₇	-	-	5.74	3.84	3.25	5.19	5.46	6.81	7.11	7.46	5.61	4.21
	B ₈	-	-	6.78	8.75	9.04	9.70	8.68	8.17	9.78	8.90	8.73	3.00
	B ₉	-	-	-	-	NA	7.53	6.51	7.22	6.03	2.79	6.02	4.74
	B ₁₀	-	-	-	-	NA	3.37	3.65	3.30	5.26	6.12	4.34	2.82
	Ave	16.39	16.23	12.98	13.32	13.79	11.75	11.39	8.94	9.30	9.67	12.38	7.99

Sources : Appendix-1 and Appendix-4; necessary calculations have been made.

Notes : i) '-' indicates the period before establishment and commencement of production,
ii) N A= Not Available.

in case of Mills-B₅ to B₁₀ and it was higher than the combined position in case of Mills-B₁, B₂, B₃ and B₄. Thus it may be concluded that the mills under private sector showed better efficiency in labour management in comparison to the mills under public sector. The reasons for increase or decrease in wages and salary cost may be increase or decrease in productivity of workers and employee or in rate of wages and salary.

4.1.4 Trends of Power and Fuel Cost and Its Analysis :

Like direct material cost, wages and salary cost, power and fuel cost is also supposed to be directly variable with the volume of production. Appendix-5, exhibits and that the power and fuel cost in all the mills under public sector was showing an upward trend up to 1991-92, except Mill-A₁ in which the cost decreased from Tk. 169.00 lakh in 1987-88 to Tk. 128.89 lakh in 1991-92. But during 1992-93 to 1996-97 all the mills were showing a downward trend in this element of cost unlike material cost and wages and salary cost. The average power and fuel cost in all the public mills came down to Tk. 43.43 lakh in 1996-97 from Tk. 80.41 lakh in 1987-88 registering a downward trend from 1992-93 onward.

But under private sector in Mills-B₁, B₂, B₃, B₄ and B₆ although the power and fuel cost decreased occasionally but the overall trends were towards increase. Mill-B₅ was the only exception in which the overall trend was decreasing. Again a continuous upward trend was shown in case of Mills-B₇, B₈, B₉ and B₁₀ over the period of study. The average power and fuel cost in all the private mills taken together continuously recorded a rising trend and went up to Tk. 243.09 lakh in 1996-97 from Tk. 92.17 lakh in 1987-88.

Table-4.8 shows the power and fuel cost as percentage of total cost of production of the selected textile mills during 1987-88 to 1996-97. It was found

Table 4.8 : Power and Fuel Cost as Percentage of Total Cost of Production.

Mills	Years	1987-88	1988-89	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	Average
	PUBLIC SECTOR											
A ₁		11.76	15.15	8.73	8.52	8.56	8.24	7.70	6.90	5.64	5.91	8.71
A ₂		14.23	12.31	12.19	12.21	11.49	11.62	11.38	9.61	7.55	7.05	10.96
A ₃		11.97	12.65	12.08	11.75	11.19	11.26	11.11	8.46	6.94	5.57	10.30
A ₄		7.51	8.03	7.41	6.95	6.58	6.35	5.47	4.83	4.20	4.56	6.19
A ₅		7.38	8.18	8.00	8.70	7.92	7.79	6.76	6.68	5.21	6.19	7.30
A ₆		9.03	9.77	11.93	10.10	9.07	9.76	9.46	7.52	7.18	6.17	8.95
A ₇		10.12	10.15	10.57	9.90	9.35	9.63	8.42	7.66	6.77	6.26	8.88
A ₈		14.11	13.71	13.90	13.17	11.42	12.37	12.19	9.53	8.34	6.54	11.53
A ₉		9.15	9.84	9.16	9.76	10.09	10.10	9.52	7.42	6.78	4.49	8.60
A ₁₀		10.19	12.15	11.87	11.40	10.24	10.98	10.38	9.72	8.95	2.79	9.87
Ave		10.55	11.19	10.53	10.25	9.59	9.83	9.24	7.83	6.76	5.55	9.13
PRIVATE SECTOR												
B ₁		10.53	8.81	8.79	9.52	7.22	6.61	6.32	6.32	6.21	3.08	7.34
B ₂		9.41	9.40	8.66	8.30	8.40	7.61	8.33	7.15	6.77	8.08	8.21
B ₃		7.18	7.67	8.05	7.10	5.21	4.99	5.84	5.04	4.37	5.28	6.07
B ₄		6.17	6.57	5.52	8.88	9.46	9.16	7.91	6.91	6.45	8.22	7.53
B ₅		-	-	NA	8.36	2.88	4.74	8.11	6.96	7.52	6.22	6.40
B ₆		-	-	9.26	11.33	11.34	11.11	10.87	11.04	8.56	5.78	9.91
B ₇		-	-	12.18	10.96	8.10	5.99	5.57	4.56	4.32	5.44	7.14
B ₈		-	-	10.27	10.63	10.90	10.81	10.28	7.96	7.38	8.46	9.59
B ₉		-	-	-	-	NA	5.89	7.79	6.85	8.08	11.25	7.97
B ₁₀		-	-	-	-	NA	6.64	6.70	5.96	6.23	8.23	6.75
Ave		8.32	8.11	8.96	9.39	7.94	7.36	7.77	6.88	6.59	7.00	7.83

Source : Compiled from Annual Reports of BTMC and Member Mills of BTMA; calculations have been made.

- Notes : i) '—' indicates the period before establishment and commencement of production,
ii) N A= Not Applicable.

that the average power and fuel cost taking all the mills together as a whole was 9.13% in public sector higher than that of 7.83% in private sector. In case of six public mills (Mills-A₁, A₄, A₅, A₆, A₇ and A₉) power and fuel cost comprised less than 10% of total cost of production while three mills had more than 10% of the same. In case of private mills, all the ten mills had the cost constituting less than 10% of total cost of production.

Analysis of Power and Fuel Cost:

It could not be known that the power and fuel cost of the sample mills include whether only the direct power and fuel cost or also the indirect part. From the theoretical point of view, power and fuel cost is a direct element of cost which should proportionately vary with volume of output, if efficient factory management is ensured. The figures in respect to this element of cost and their changes with the volume of production are provided in Table-4.9.

The Table-4.9, explains that the mills under public sector achieved some efficiency in the years 1988-87, 1991-92 and 1994-95. Because the increase in average production was by 10.58% in 1988-89, whereas the power and fuel cost increased by only 07.59%; in 1991-92 the power and fuel cost decreased by (0.3.09%) when the production decreased by only (0.07%); and an efficiency was shown in 1994-95 when the cost in this element decreased by (15.39%) as against the decrease in production by (10.33%). But the years 1989-90, 1990-91, 1992-93, 1993-94, 1995-96 and 1996-97 indicate some inefficiency in management in controlling the power and fuel cost as the percentages of increase in cost were higher and the percentages of decreases in cost were lower than the corresponding increase and decrease in volume of production during these years.

A look into private sector finds that the increase in average power and fuel cost was by 02.75% in the year 1991-92, by 06.67% in 1992-93, by 12.37% in

Table-4.9: Sectoral Changes in Power and Fuel Cost and Corresponding Changes in Production.

Sector	Items	1987-88	1988-89	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97
PUBLIC SECTOR	Average power & Fuel cost in lakh Taka	80.41	86.51	105.36	116.05	112.46	110.43	95.53	80.83	78.06	43.43
	% of increase/ decrease in average power & Fuel cost over the previous year	NA	07.59	21.79	10.15	(03.09)	(01.05)	(13.49)	(15.39)	(03.43)	(44.36)
	Average volume of production in 32s counts in lakh kg	10.02	11.08	12.70	13.15	13.14	11.54	9.87	8.85	8.14	3.90
	%of increase/ decrease in average volume of production over the previous year.	NA	10.58	14.62	03.54	(00.07)	(12.18)	(14.47)	(10.33)	(08.02)	(52.09)
PRIVATE SECTOR	Average power & Fuel cost in lakh Tk.	92.17	108.08	121.46	142.78	146.70	156.48	175.83	204.86	224.84	243.09
	% of increase/ decrease in average power & Fuel cost over the previous year	NA	17.26	12.38	17.55	02.75	06.67	12.37	16.51	09.75	08.12
	Average volume of production in 32s counts in lakh kg	17.53	18.41	17.62	17.33	21.05	25.30	29.20	31.25	32.37	37.32
	%of increase/ decrease in average volume of production over the previous year.	NA	05.02	(04.29)	(01.65)	21.47	20.19	15.42	07.21	03.58	15.29

Sources: Appendix. 1 and Appendix-5; necessary calculations have been made.

Notes: i) NA= Not Applicable
ii) Brackets indicate negative changes.

1993-94 and by 08.12% in 1996-97, lower than the corresponding increases in average volume of production in the said years by 21.47%, 20.19%, 15.42% and

15.29% respectively indicating a better efficiency of management of the private sector mills in controlling the power and fuel cost. But during 1988-89, 1994-95 and 1995-96, the power and fuel cost increased by 17.26%, 16.51% and 09.75% respectively, two to three times higher than the increases in production of these particular years. The situation in 1989-90 and 1990-91 worsened abruptly showing decrease in volume of production by (04.29%) and (01.65%) and increase in power and fuel cost by 12.38% and 17.55% respectively.

Power and Fuel Cost Per Kg of Yarn (Out put):

The position of power and fuel cost per unit of output in the textile mills under study during 1987-88 to 1996-97 are analysed through the Table-4.10. A study of the figures presented in the table draws our attention to the fact that the power and fuel cost per unit increased during the first half and as well as the second half of the study period in case of all the mills under public sector except Mill-A₁, although a fluctuation was observed occasionally in all the mills. The average power and fuel cost per kg of yarn in all the public sector mills taken together was Tk 14.81 in 1996-97 generating 91.59% increase over 1987-88. The average cost in Mills-A₄, A₁, A₅, A₇ and A₃ was lower than the combined average of Tk. 9.42 and it was higher than the combined average in case of Mills-A₂, A₆, A₉, A₈ and A₁₀.

In contrast, the cost per unit in the mills under private sector also increased during the first half of the study period except Mills-B₅ and B₇ in which the unit cost decreased during this half of period from the initial year. But during the second half, the unit cost in this element increased in Mills-B₂, B₃, B₄, B₈ and also in B₁₀ over the year 1987-88 while in case of the remaining mills i.e., Mills-B₅, B₆, B₇ and B₉, the cost decreased over the initial year. The average power and fuel cost per unit in all the private mills taken together was Tk. 7.29 during the period of study and the cost increased by 91.59% in 1996-97 over 1987-88. The average

Table 4.10 : Power and Fuel Cost per Kg of Yarn (Output) in Taka

Mills	Years	1987-88	1988-89	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	Average	Range
	PUBLIC SECTOR	A ₁	9.31	8.31	7.44	7.69	7.82	8.33	9.33	7.82	7.95	9.27	8.33
A ₂		8.28	7.42	8.22	8.83	9.12	9.70	9.94	9.67	9.69	14.24	9.51	6.82
A ₃		8.57	8.32	8.14	8.84	8.88	8.47	9.22	9.74	8.72	12.50	9.14	4.36
A ₄		5.39	5.34	5.72	6.09	5.88	5.81	6.20	5.21	5.32	6.90	5.79	1.69
A ₅		5.97	6.70	7.23	7.98	8.07	8.65	9.49	8.51	8.08	14.66	8.53	8.69
A ₆		7.14	7.40	9.40	9.19	8.35	9.13	10.56	8.99	12.08	18.14	10.04	11.00
A ₇		7.75	6.43	7.84	8.14	8.01	11.67	8.45	8.68	9.11	9.27	8.54	5.24
A ₈		8.31	8.51	9.76	10.32	8.86	10.17	11.25	9.88	10.31	18.27	10.56	9.96
A ₉		6.95	7.73	9.12	10.55	10.65	10.89	10.17	9.70	10.78	16.53	10.31	9.58
A ₁₀		9.65	10.19	10.09	12.24	11.25	10.95	11.36	12.10	18.05	28.35	13.42	18.70
Ave		7.73	7.64	8.30	8.99	8.69	9.38	9.60	9.03	10.01	14.81	9.42	7.17
PRIVATE SECTOR	B ₁	11.53	9.65	10.49	11.69	13.36	16.90	8.30	7.32	8.56	3.45	10.13	13.45
	B ₂	5.88	6.24	5.97	7.20	6.13	5.72	5.72	5.26	5.29	6.45	5.99	1.94
	B ₃	5.42	6.18	7.41	7.82	6.51	5.66	6.65	6.52	6.82	8.05	6.70	2.63
	B ₄	3.67	4.42	3.52	5.69	6.31	6.30	6.00	7.14	7.29	7.86	5.82	4.34
	B ₅	-	-	NA	7.68	2.56	3.90	6.32	6.85	8.86	7.21	6.20	5.12
	B ₆	-	-	6.08	8.19	8.03	8.90	7.69	9.07	9.23	5.56	7.84	3.51
	B ₇	-	-	10.25	11.76	6.66	4.99	4.79	5.19	5.02	6.45	6.89	6.97
	B ₈	-	-	9.74	9.71	11.00	12.43	10.57	9.32	9.74	10.17	10.34	3.11
	B ₉	-	-	-	-	NA	7.15	5.54	6.35	6.76	4.19	6.00	2.96
	B ₁₀	-	-	-	-	NA	4.43	4.54	5.92	9.17	9.56	6.72	5.13
	Ave	6.63	6.62	7.64	8.72	7.57	7.64	6.61	6.89	7.67	6.90	7.29	2.11

Sources : Appendix-1 and Appendix-5; calculations have been made.

Notes : i) '—' indicates the period before establishment and commencement of production,
ii) N A= Not Applicable.

power and fuel cost per unit in Mills-B₄, B₂, B₉, B₅, B₃, B₁₀ and B₇ was lower than the combined average whereas it was higher than the combined position in case of Mills-B₆, B₈ and B₁. It can be concluded that in general the power and fuel cost per unit in the mills under private sector was lower than that in the mills under public sector in all the years under study which means that the private sector mills achieved better efficiency in controlling power and fuel cost.

4.1.5 Trend of Expenditure on Stores and Spares (Repair Cost):

As the expenditure on stores and spares depends upon the use of plant and machinery's in production process, it is supposed to be shown an increasing trend

Table-4.11 Trend of Expenditure on Stores and Spares and Its Relative Proportion to total Cost of Production.

Sec tor	Items	1987-88	1988-89	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97
PUBLIC SECTOR	Average Repair cost in lakh Taka	22.03	29.67	34.68	34.08	31.85	33.42	27.13	22.62	21.26	11.20
	Repair cost as % of Total cost of production	03.03	4.05	3.54	3.02	2.76	3.01	2.51	2.30	1.76	1.39
PRIVATE SECTOR	Average Repair cost in lakh Taka.	55.45	70.27	43.79	44.05	49.20	58.44	68.13	80.27	109.24	112.90
	Repair cost as % of total cost of production.	04.01	4.64	2.52	2.35	2.25	1.93	2.26	2.03	2.17	2.18

Sources: i) Appencix-6;

ii) Annual Reports of BTMC and Member Mills of BTMA.

with the passage of time. As the plant and machinery remain new in the earlier years of establishment the repairing costs become lower and with the age of mills, this cost is supposed to increase gradually. Table 4.11 exhibited the trend of expenditure on stores and spares in the textile mills under study.

From Table-4.11 it is clear that repair cost in public sector mills under study increased up to 1989-90 over the previous year but its relative share of total cost of production showed a decrease in the year 1989-90 over the previous year. The cost decreased in 1990-91 and 1991-92 and increased in 1992-93 both in absolute amount and in the relative sense i.e., percentage share in total cost. This might be due to disproportionate increase or decrease in other elements of cost. During the succeeding years the average repair cost of the public sector mills decreased continuously in absolute amount and also as a share of the total cost of production. But in the private sector, the average repair cost of the mills continuously increased over 1989-90 the year of abrupt decrease in cost to Tk. 43.79 lakh from Tk. 70.27 lakh in 1988-89; but as a share of total cost of production the cost remained almost static within Tk. 2.52 and Tk. 2.03 from 1989-90 onward except in 1992-93 in which it was only Tk. 1.93.

Analysis of Expenditure on Stores and Spares:

The expenditure on stores and spares i.e., repair cost may increase with the length of life of a machine both in volume and per unit. In the situation when productivity of machine falls but the repair cost increases, the existing machine requires replacement³. As is clear from the Table-4.12 the average repair cost per unit of out put of the mills under public sector did not show any significant change during the years under study rather the per unit cost remained almost static throughout the period. But a decrease in repair cost as against the increase in production during 1990-91 and also higher rates of decreases in cost as compared

Table-4.12: Sectoral Changes in Repair Cost per Unit with the Corresponding Changes in Production.

Sector	Items	1987-88	1988-89	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97
PUBLIC SECTOR	Average Repair cost in lakh Tk.	22.03	29.67	34.68	34.08	31.85	33.42	27.13	22.62	21.26	11.20
	Average production in lakh kg	10.02	11.08	12.70	13.15	13.14	11.54	9.87	8.85	8.14	3.90
	% of changes in Repair cost over previous years.	NA	34.68	16.89	(1.73)	(6.54)	4.93	(18.82)	(16.62)	(6.01)	(47.32)
	% of changes in volume of production	NA	10.58	14.62	3.54	(0.08)	(12.18)	(14.47)	(10.33)	(8.02)	(52.09)
	Repair cost per unit of output.	2.20	2.68	2.73	2.59	2.42	2.90	2.75	2.56	2.61	2.87
PRIVATE SECTOR	Average Repair cost in lakh Tk.	55.45	70.27	43.79	44.05	49.20	58.44	68.13	80.27	109.24	112.90
	Average production in lakh kg	17.53	18.41	17.62	17.33	21.05	25.30	29.20	31.25	32.37	37.32
	% of changes in Repair cost over previous years.	NA	26.73	(37.68)	0.59	11.69	18.78	16.58	17.82	36.09	3.35
	% of changes in volume of production	NA	5.02	(04.29)	(01.65)	21.47	20.19	15.42	07.02	03.58	15.29
	Repair cost per unit of output.	3.16	3.82	2.49	2.54	2.34	2.31	2.33	2.57	3.37	3.03

Notes: i) NA=Not Applicable.

ii) Brackets indicate negative changes.

to volume of production during 1991-92, 1993-94 and 1994-95 indicate better efficiency in management of production process during the said years. A consistent change in repair cost with the corresponding change in production was observed during 1989-90, 1995-96 and 1996-97. The repair cost abruptly increased only in 1988-89 and 1992-93 by 34.68% and 4.93% respectively as against 10.58% increase and (12.18%) decrease in volume of production respectively. Lack of planned maintenance and correct lubrication resulted into premature wear of various parts and frequent machinery breakdown, thus pushing higher the stores and spares cost.

In private sector, the average repair cost per unit of output in the combined position of the mills decreased to Tk. 2.49 in 1989-90 from Tk. 3.82 in 1988-85 and remained almost static up to 1994-95. After then it increased and reverted back to its original level i.e., Tk. 3.03 in 1996-97. Some efficiency was achieved in 1989-90, when the repair cost decreased by (37.68%) as against the decrease in production by only (4.29%); and also achieved in 1991-92, 1992-93 and 1996-97, when the repair cost increased at a lower rate as compared to the rate of increases in production. But an opposite picture was shown during the other years, when the repair cost increased at a higher rate than the increase in production.

4.1.6 Depreciation Cost and Its Analysis :

Depreciation is supposed to be equal in absolute sense and also as a percentage of total cost of production for all the years if straight-line method of charging depreciation is used. But it must decrease in absolute sense if diminishing balance method is used. All the textile mills under BTMC (public sector) used diminishing balance method of charging depreciation, but in private sector some mills used diminishing balance method, while some mills used straight-line method of charging depreciation and some of them changed the

Table 4.13: Depreciation Cost as Percentage of Total Cost of Production.

Mills	Years	1987-88	1988-89	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	Average
	PUBLIC SECTOR											
A ₁		11.55	14.51	7.00	10.70	7.73	11.43	9.88	10.08	10.30	10.64	10.38
A ₂		8.63	6.84	6.11	5.63	4.82	4.27	3.63	4.07	2.33	5.41	5.17
A ₃		7.61	5.22	4.48	3.79	3.26	3.13	3.41	3.19	6.38	4.92	4.54
A ₄		0.74	12.00	4.14	6.06	5.69	6.91	9.69	7.47	5.39	7.52	6.56
A ₅		1.06	1.02	0.97	0.80	0.74	0.82	1.32	1.05	0.76	1.35	0.99
A ₆		0.76	0.88	2.09	14.15	14.19	13.70	14.18	12.66	13.74	20.33	10.67
A ₇		0.69	0.82	11.30	13.93	12.78	12.35	15.68	12.18	9.01	10.78	9.95
A ₈		7.91	6.65	5.25	4.41	4.41	4.42	4.49	3.42	2.43	4.82	4.82
A ₉		19.05	17.99	18.38	16.06	15.00	19.51	18.40	16.17	15.08	21.41	17.71
A ₁₀		23.69	20.26	17.20	16.83	15.88	15.19	12.10	12.28	13.13	21.90	16.85
Ave		8.17	8.62	7.69	9.24	8.45	9.17	9.28	8.26	7.86	10.91	8.76
PRIVATE SECTOR												
B ₁		44.96	45.31	39.07	49.07	33.72	29.09	32.15	32.49	31.03	25.86	36.28
B ₂		0.93	0.91	0.84	0.79	0.80	0.62	0.71	0.71	0.50	0.84	0.77
B ₃		0.14	4.02	4.14	3.67	3.30	3.67	3.89	3.09	2.38	1.96	3.03
B ₄		4.82	4.39	4.43	4.73	4.17	6.46	5.05	3.99	3.50	4.21	4.58
B ₅		-	-	NA	18.69	21.00	16.91	21.00	10.55	9.06	11.58	15.54
B ₆		-	-	7.71	12.75	16.72	13.43	11.54	11.06	8.48	9.98	11.46
B ₇		-	-	15.00	10.52	11.84	10.44	9.35	8.44	8.69	9.00	10.41
B ₈		-	-	15.98	20.40	17.28	14.87	13.44	11.22	8.92	7.04	13.64
B ₉		-	-	-	-	NA	17.10	15.60	10.08	10.54	10.24	12.71
B ₁₀		-	-	-	-	NA	17.60	17.87	12.05	8.75	9.80	13.21
Ave		12.71	13.66	12.45	15.08	13.60	13.02	13.06	10.37	9.19	9.05	12.16

Notes : i) '-' indicates the period before establishment and commencement of production.

ii) NA= Not Applicable,

method used during the period under review. Total amount of depreciation might increase due to acquisition of new machinery and it might also show a downward trend when the assets are sold out or its effective accounting life expires.

Appendix-6, exhibits that some mills showed a decreasing trend in depreciation cost with slight fluctuations in one or two years, some mills showed a mixed trend (such as Mills-A₄, A₆, A₇), while some mills showed an over all upward trend during the period under study. For example, in case of Mill-A₁, the depreciation cost went up to Tk. 180.45 lakh in 1996-97 from Tk. 166.00 lakh in 1987-88. The average depreciation cost for all the public sector mills was towards increase (i.e. Tk. 83.99 lakh in 1996-97 over Tk. 68.29 lakh in 1987-88). But the average depreciation cost for all the private mills showed an upward trend throughout the period, and the cost went up to Tk. 350.30 lakh in 1996-97 over Tk.110.29 lakh in 1987-88. Mills-B₃, B₆ and B₈ showed a mixed trend while B₇ showed an increasing trend throughout the period. In case of other mills, the depreciation cost fluctuated during the years but these overall trends were towards increase except Mill-B₅ in which the trend of cost was towards decrease. The fluctuations might occurred due to inclusion or exclusion of new or old assets.

Depreciation cost as percentage of total cost of production (Table-4.13) in the mills under public sector was lower as compared to that in the mills under private sector. The average cost taking all the mills for the entire period was found to be 8.76% in case of public sector as against 12.16% in case of private sector. Six public mills had the cost less than 10% of the total cost of production while four such mills had more than 10% of the same. Among private sector mills only three mills had depreciation cost forming less than 10% of total cost of production, six mills had more than 10% and one mill had above 30%. The reasons for lower depreciation cost in public mills might be lower written down value of plant and machinery being old age than that of private sector mills.

4.1.7 Trend of Cost of Production Per Unit of Output :

Cost of production per unit of output is an important criterion of efficiency. The lower the cost per unit of output, the higher would be the efficiency of the enterprise. The Table-4.14 is presented to judge this fact in the textile mills under public and private sector.

Looking at the data provided in Table-4.14, one can safely conclude that cost of yarn per kg in all the textile mills under public sector showed an upward trend throughout the period of study although a sudden break was there in one or two years. The average cost of production in all the mills as a whole during the study period was Tk. 117.63 per kg. Unit cost in Mills-A₂, A₃, A₄ and A₇ was less than Tk. 100, in Mills-A₈ and A₁, it was more than Tk. 100 and in case of Mills-A₆, A₅, A₉ and A₁₀ cost per unit were above Tk. 120. The maximum unit cost was Tk. 203.26 in Mill-A₁₀.

Under private sector, the overall trend of cost per kg of yarn was also increasing in all the selected mills. But the average cost per unit in all the mills, as a whole for the entire period was Tk. 95.21, much lower than that of public sector. Average cost of yarn per kg in Mills-B₆, B₂, B₄ and B₉ was less than the sector average of Tk. 95.21, it was more than the average in Mills-B₅, B₇ and B₁₀ and in case of only Mills-B₈, B₃ and B₁ it was above Tk. 100. Thus the lower cost per kg of yarn in private sector mills indicate higher efficiency as compared to that of public sector mills.

4.2 SALES ACHIEVEMENT

The figure of sales is the index of progress made by a concern. Every business enterprise, whether in public or private sector, must pay due attention

Table 4.14: Cost of Production of Yarn Per Kg (In average 32s count)

Mills	Years	1987-88	1988-89	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	Average
	PUBLIC SECTOR	A ₁	79.17	54.85	85.27	90.26	91.33	101.01	121.10	113.26	140.86	156.95
A ₂		58.17	60.30	67.48	72.27	79.38	83.46	87.31	100.63	128.25	202.14	93.94
A ₃		71.59	65.72	67.39	75.28	79.38	75.22	82.97	115.11	125.58	224.38	98.26
A ₄		71.73	66.53	77.25	87.65	89.35	91.44	113.45	107.84	126.53	151.45	98.32
A ₅		80.88	81.83	90.39	91.70	101.87	108.53	140.34	127.39	155.13	236.81	121.49
A ₆		79.02	75.74	82.56	90.94	92.11	93.58	111.63	119.50	168.29	293.93	120.73
A ₇		76.57	63.28	74.19	82.22	85.77	121.32	100.29	113.37	134.58	148.06	99.97
A ₈		58.87	62.11	70.18	78.34	77.59	82.17	92.29	103.62	123.59	279.63	102.84
A ₉		75.92	78.59	99.55	108.09	105.47	107.76	106.75	130.66	159.11	368.38	134.03
A ₁₀		94.75	83.84	85.03	107.37	109.87	99.67	109.47	124.41	201.54	1016.65	203.26
Ave		74.67	69.28	79.93	88.41	91.21	96.42	106.56	115.58	146.35	307.84	117.63
PRIVATE SECTOR	B ₁	109.46	109.57	119.31	122.85	185.06	255.63	131.39	115.72	137.87	112.16	139.90
	B ₂	62.46	66.34	68.93	86.78	72.95	75.15	68.64	73.59	78.06	79.90	73.28
	B ₃	75.54	80.52	91.97	110.17	124.92	113.61	113.86	129.35	155.89	152.43	114.83
	B ₄	59.42	67.19	63.87	64.08	66.70	68.76	75.79	103.26	113.07	95.65	77.78
	B ₅	-	-	NA	91.90	88.94	82.24	77.97	98.46	117.85	115.92	96.18
	B ₆	-	-	65.59	72.31	70.79	72.81	70.74	82.13	107.76	96.18	71.59
	B ₇	-	-	84.17	107.26	82.30	83.29	86.05	113.81	116.16	118.62	98.96
	B ₈	-	-	94.83	91.36	100.90	114.99	102.81	117.01	131.93	120.14	109.25
	B ₉	-	-	-	-	NA	121.32	71.10	92.71	83.71	37.21	81.21
	B ₁₀	-	-	-	-	NA	66.64	67.74	99.19	147.24	116.14	99.39
	Ave	76.72	80.91	84.10	93.34	99.07	105.44	86.61	102.52	118.95	104.44	95.21

Source : Necessary calculations have been made from the Annual Reports of BTMC and Member Mills of BTMA.

Notes : i) '-' indicates the period before establishment and commencement of production.
ii) N A= Not Applicable.

towards effective marketing of its products. Because the efficiency and success of an enterprise depend much upon the effective disposal of goods or services and the level of inventory is the minimum possible one. Desai⁴, indicated sales performance as the single most influencing factor on profits. Saha⁵, Sobhan and Ahmed⁶, also used this indicator in their studies. In the words of Agarwal⁷, "The importance of sales can be compared with the importance of blood in human body. The body does not function properly on account of inadequacy of blood, similarly a business concern does not function profitably if the sales are not adequate. The earnings of a business concern are affected by its sales trend to a great extent".

4.2.1 Net Sales (Turnover) of Cotton Textile Mills Under Study:

It was observed (Appendix 7) that the net sales in most of the selected textile mills under public sector registered a rising trend during 1987-88 to 1991-92 first half of the study period. During the last half of the study period (1992-93 to 1996-97) the fluctuations in the net sales of all the public sector mills was occurred but the overall trend was towards falling in all the cases. A look into private sector further shows that in three private sector mills the net sales registered a continuous rising trend through out the period under study while the trend was rising up to 1995-96 in three cases. In the other private mills the net sales fluctuated occasionally.

Table-4.15 gives us a more clear picture of sales performance of the mills under the two sectors. The data presented in the above table tells us that the average net sales went down in all the public sector mills during the second half of the study period as compared to the first half except Mills-A₇ and A₁₀ where the average sales during the second half increased by 26.30% and 5.49% respectively over the first half. The decline in sales was limited to below 15% to 30% in case

of five mills viz., Mills-A₁, A₃, A₄, A₆ and A₉. The performance was the worst in Mill-A₅ where the sales decreased by above 40% during the same period.

Table-4.15: Enterprise Level Trends in Net Sales during 1987-88 to 1996-97.

(Figure in lakh Tk.)

PUBLIC SECTOR				PRIVATE SECTOR			
Mills	Average Net Sales (1987-88 to 1991-92)	Average Net Sales (1992-93 to 1996-97)	Percentage Change	Mills	Average Net Sales (1987-88 to 1991-92)	Average Net Sales (1992-93 to 1996-97)	Percentage Change
A ₁	1642.63	1382.31	(15.85)	B ₁	1062.11	3026.31	184.93
A ₂	1134.18	1028.01	(9.36)	B ₂	985.71	1508.16	53.00
A ₃	1128.37	901.63	(20.09)	B ₃	1790.51	2787.40	55.68
A ₄	715.68	534.73	(25.28)	B ₄	3190.63	5617.18	76.05
A ₅	559.77	300.57	(46.30)	B ₅	650.05	942.84	45.04
A ₆	884.29	662.96	(25.03)	B ₆	779.72	1883.48	141.56
A ₇	1602.65	2024.16	26.30	B ₇	3910.58	12004.14	206.97
A ₈	796.46	695.72	(12.65)	B ₈	1268.74	2462.45	94.09
A ₉	611.78	493.62	(19.31)	B ₉	—	1991.32	NA
A ₁₀	812.63	857.22	5.49	B ₁₀	—	4134.81	NA

Source: Appendix-8; necessary calculations have been made.

Notes : i) '—' indicates the period before establishment and commencement of production,

ii) NA= Not Applicable; iii) Brackets indicate negative changes.

But in the private sector the sales achievement was superior in all the mills during the second half of the study period as compared to their counterparts in public sector. Mills-B₁, B₂, B₃ and B₄ (denationalised mills) achieved 184.93%,

53.00%, 55.68% and 76.65% increase in sales during 1992-93 to 1996-97 over their average sales during 1987-88 to 1991-92. Mills-B₅, B₆, B₇ and B₈ also succeeded in increasing sales by 45.00%, 141.56%, 206.97% and 94.09% respectively during the same period.

Sectoral Trend in Sales :

Table-4.16 brings out the sectoral trends in sales of cotton textile industry in Bangladesh. The average annual sales in the combined position of all the public sector mills decreased by (10.19%) during 1992-97 over 1987-92 while the same of all the private sector mills increased by 114.80% during 1992-97 over 1987-92. Taking individual years, we notice that the average sales of all the public mills taken as a whole registered a rising trend during 1987-88 to 1990-91. It declined notably in 1991-92, again it increased during 1992-93 and 1993-94 but showed a falling trend thereafter. The average sales of the said mills fell down to Tk. 412.55 lakh in 1996-97 from Tk. 854.93 lakh in 1987-88 showing a decline of (51.74%). In private sector, the average sales of all the mills taken together generated a continuous rising trend throughout the study period. The average sales of these mills went up to Tk. 4397.33 lakh in 1996-97 from Tk. 1383.40 lakh in 1987-88 registering 217.86% increase.

Table-4.16: Sectoral Trends in Net Sales during 1987-88 to 1996-97. (Figure in Lakh Taka)

Years Sectors	1987- 88	1988-89	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	Average 1987-92	Average 1992-97	% change
Public (32s ave. count)	854.93	927.74	1107.42	1162.57	891.56	1102.53	1105.89	984.66	834.84	412.55	988.84	888.09	(10.19)
Private (32s ave. count)	1383.40	1559.00	1613.11	1757.00	2150.58	2442.95	3060.58	3939.07	4339.12	4397.33	1692.62	3635.81	114.80

Note: i) Brackets indicate negative changes.

The falling trend in sales of public sector mills was mainly due to falling trend in their production and low quality of yarn query regarding this, all the mill authorities under public sector as well as private sector mentioned “smuggled yarn at low price” was the main reason for falling in their sales. The linear trend of sales using least square method is presented in Figure-4.7.

4.2.2 Sales Per Employee :

Sales per employee reflects the efficiency of manpower in terms of sales, as used by Rao⁸. The net sales per employee in the selected textile mills in Bangladesh are presented in the Table-4.17.

It is evident from the above table that the average sales per employee in almost all the mills under public sector was much lower than that of private mills. It indicates the better efficiency of manpower in the mills under private sector as compared to public sector's. In public sector the average sales per employee was less than Tk. 300.00 in Mills-A₅, A₈, A₉ and A₁₀; it was between Tk. 190.00 to Tk. 110.00 per employee in Mills-A₁, A₃, A₄ and A₆. Mill-A₂ had the highest sales per employee of Tk. 126.36 followed by Mill-A₇ of Tk. 126.07.

But in the private sector, the sales per employee was Tk. 110.90 in Mill-B₂, while Mills-B₃, B₄ and B₆ had the same between Tk. 150 to Tk. 200. However, Mill-B₁₀ achieved the highest sales per employee of Tk. 567.28 followed by Mill-B₇ of Tk. 552.54 and Mill-B₅ of Tk. 363.40. The average sales per employee taking all the private mills together went up to Tk. 335.73 in 1996-97 from Tk. 92.98 in 1987-88 registering an increase of 263.82%, but the same of all the public mills taken as a whole went down to Tk. 49.19 in 1996-97 from Tk. 93.87 in 1987-88 showing a decline of (47.60%).

Table 4.17: Sales Per Employee.

Mills	Years	1987-88	1988-89	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	Average
	PUBLIC SECTOR											
A ₁		127.50	109.20	122.20	121.70	54.10	128.70	153.40	62.50	109.40	63.50	105.22
A ₂		123.60	147.40	128.10	126.30	77.50	111.70	231.50	152.70	93.80	71.00	126.36
A ₃		85.30	104.50	122.40	113.70	139.10	131.70	97.60	116.80	110.80	36.70	105.86
A ₄		84.10	97.40	97.20	109.90	118.10	70.20	127.20	125.40	140.60	84.70	105.48
A ₅		77.50	91.30	79.90	84.70	88.10	72.90	70.10	79.20	85.80	29.80	75.93
A ₆		84.90	98.20	97.50	129.70	141.50	101.30	124.30	129.70	77.80	38.10	102.30
A ₇		84.40	58.50	133.50	149.30	118.90	162.40	131.10	168.00	157.60	97.00	126.07
A ₈		81.80	83.10	90.40	89.50	70.40	76.20	80.20	127.10	95.30	28.40	82.24
A ₉		111.40	127.00	105.60	128.40	59.30	127.60	106.80	90.70	83.60	32.00	97.24
A ₁₀		78.30	95.90	112.40	91.00	40.70	110.20	139.00	127.20	56.50	10.70	86.19
Ave		93.88	101.25	108.92	114.42	90.77	109.29	126.12	117.93	101.12	49.19	101.29
PRIVATE SECTOR												
B ₁		83.60	107.10	125.10	91.80	112.70	137.80	271.10	446.60	371.80	671.50	241.91
B ₂		72.90	62.80	72.70	62.20	96.90	113.00	139.00	198.40	175.00	116.30	110.92
B ₃		103.40	135.20	152.50	143.40	167.90	179.30	175.50	245.50	317.80	267.30	188.78
B ₄		109.20	113.20	117.80	126.20	117.10	149.20	168.60	231.30	237.80	211.30	158.17
B ₅		-	-	NA	283.90	252.80	260.60	357.50	584.80	540.90	264.00	363.40
B ₆		-	-	80.60	161.80	195.30	141.60	198.80	221.90	236.70	213.20	181.24
B ₇		-	-	385.40	540.20	447.10	543.30	705.90	619.00	638.10	541.30	552.24
B ₈		-	-	164.60	173.40	197.40	164.80	229.20	298.90	303.50	296.20	228.50
B ₉		-	-	-	-	NA	226.40	293.40	255.60	296.30	356.40	285.62
B ₁₀		-	-	-	-	NA	403.20	567.00	760.60	685.80	419.80	567.28
Ave		92.28	104.58	156.96	197.86	198.40	231.92	310.60	386.19	380.37	335.73	239.49

Source : Annual Reports of BTMC and Member Mills of BTMA, necessary calculations have been made.

Notes : i) '-' indicates the period before establishment and commencement of production.
ii) NA = Not Applicable.

4.3 GRAPHICAL HIGHLIGHTS

Fig.4.1 : Cost Structure of The Cotton Textile Industry

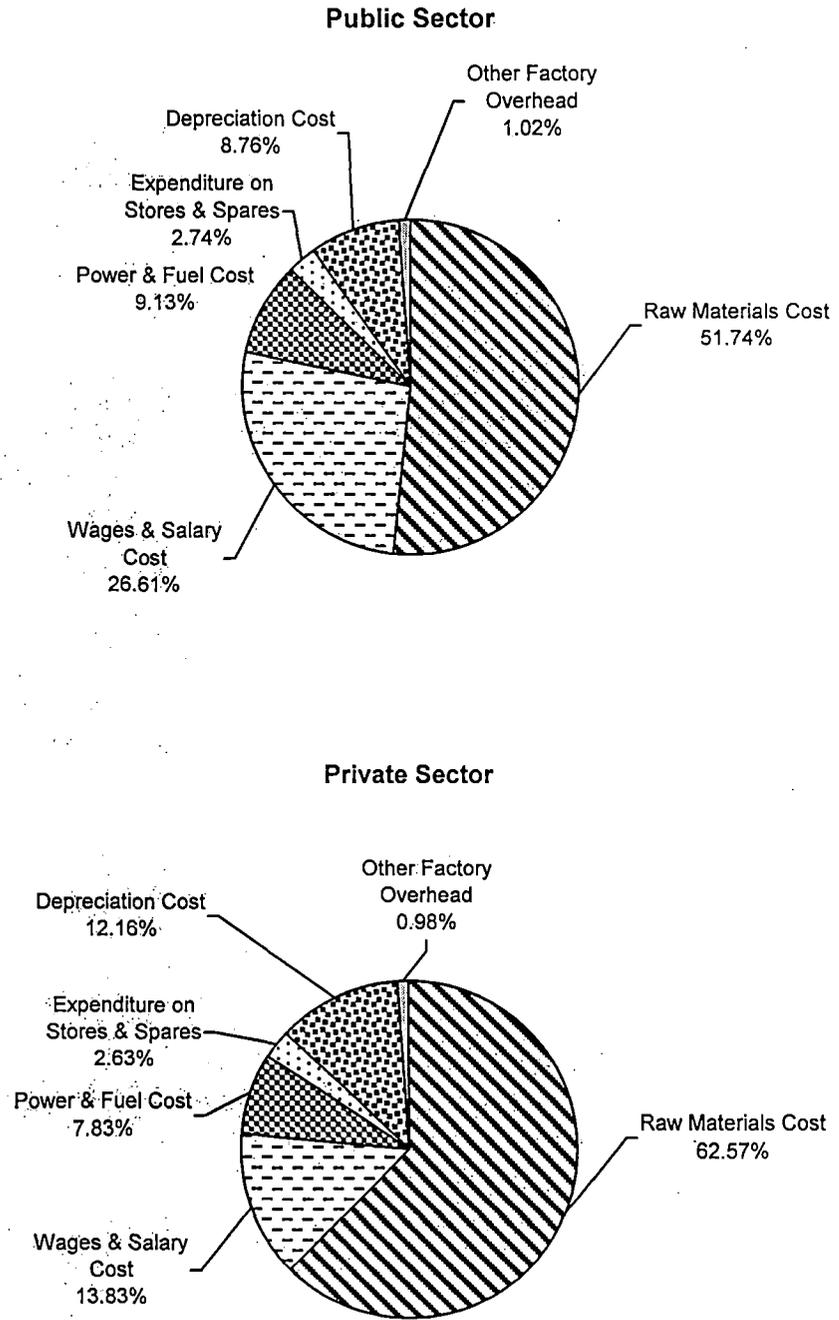


Fig. 4.2 : Material Cost as % of Total Cost of Production

(Source : Table-4.1)

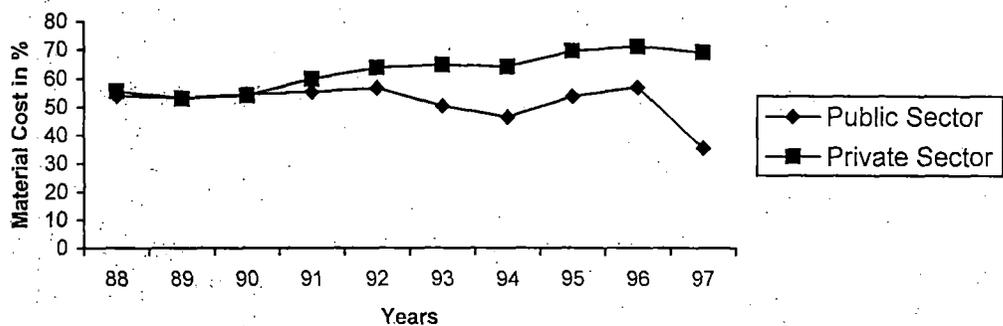


Fig. 4.3 : Wages & Salary Cost as % of Total Cost of Production

(Source : Table-4.5)

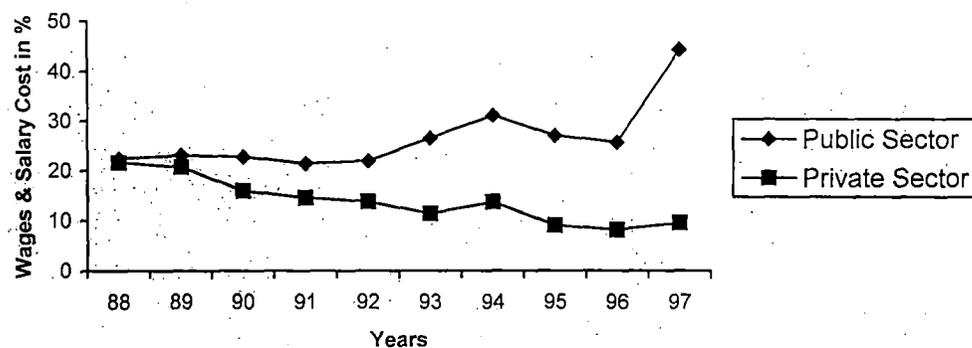


Fig. 4.4 : Power & Fuel Cost as % of Total Cost of Production

(Source : Table-4.8)

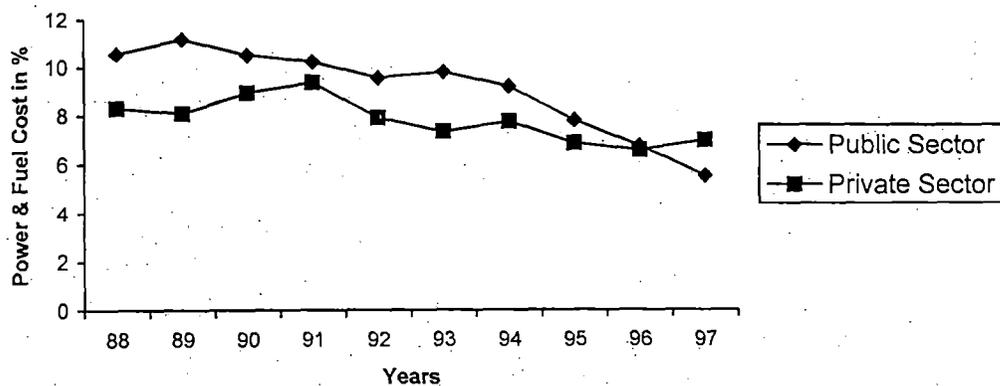


Fig. 4.5 : Cost of Production of Yarn per kg

(Source : Table-4.14)

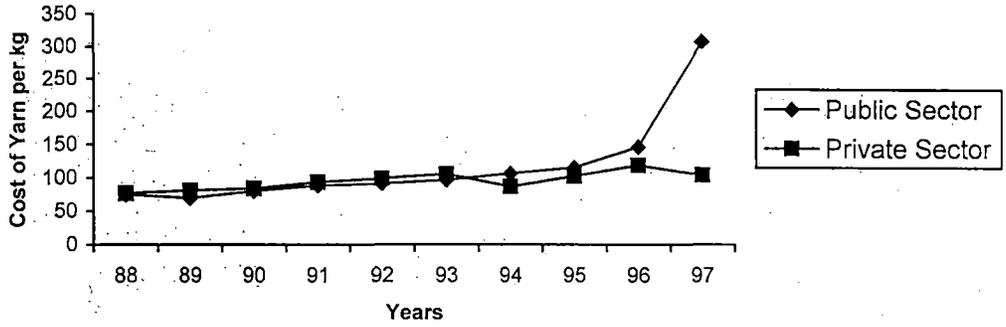


Fig. 4.6 : Sales Trend

(Source : Table-4.16)

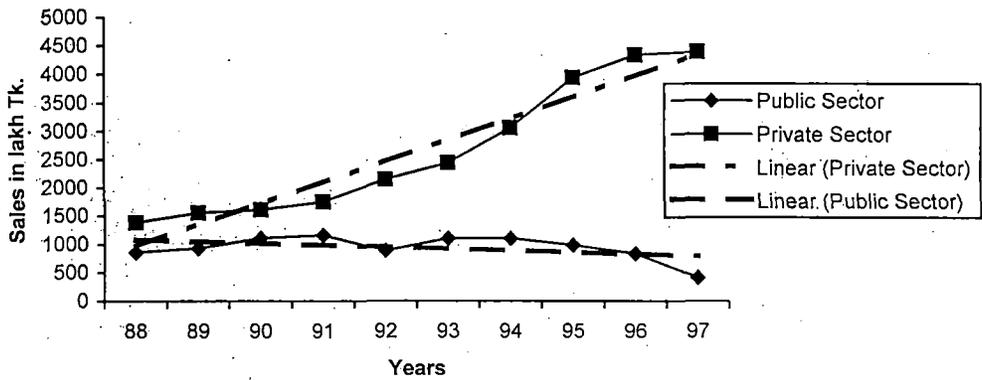


Fig. 4.7: Sales per Employee

(Source : Table-4.17)

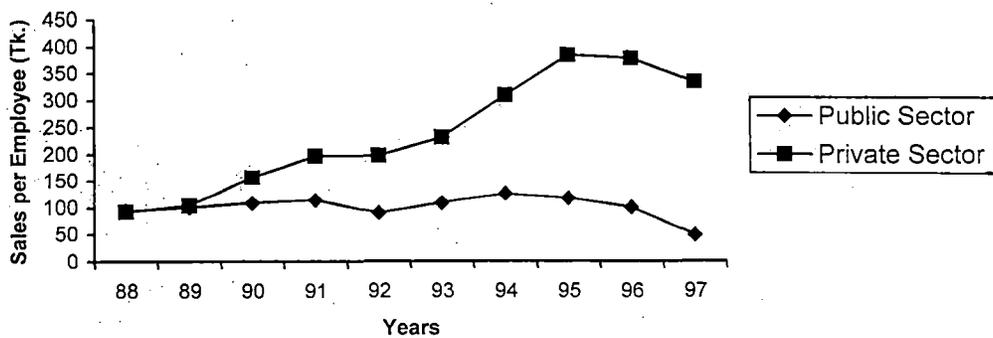


Table 4.18: Mean and 't'-values of the Performance Indicators for Public and Private Sector: 1987-88 to 1996-97.

Table No.		P ₁ 4.1	P ₂ 4.4	P ₃ 4.5	P ₄ 4.8	P ₅ 4.11	P ₆ 4.14	P ₇ 4.17
Year s & Parameters								
P U B L I C S E C T O R	1987-88	54.00	46.00	22.35	10.55	03.03	74.67	93.88
	1988-89	53.17	46.83	23.05	11.19	04.05	69.28	101.25
	1989-90	54.58	45.43	22.71	10.53	03.54	79.93	108.92
	1990-91	55.33	44.67	21.42	10.25	03.02	88.41	114.42
	1991-92	56.59	43.31	21.92	9.59	02.76	91.21	90.77
	1992-93	50.48	49.53	26.50	9.83	03.01	96.42	109.29
	1993-94	46.48	53.05	31.09	9.24	02.51	106.56	126.12
	1994-95	53.88	46.12	27.00	7.83	02.30	115.58	117.93
	1995-96	57.09	42.67	25.66	6.76	01.76	146.35	101.12
	1996-97	35.70	64.30	44.39	5.55	01.39	307.84	49.19
	X ₁	51.74	48.191	26.609	9.132	02.736	117.625	101.289
	SD ₁	6.432	6.413	6.930	1.835	0.790	70.504	21.260
	V ₁	41.372	41.130	48.025	3.368	0.625	4970.855	452.006
P R I V A T E S E C T O R	1987-88	55.58	44.43	21.60	8.32	04.01	76.72	92.28
	1988-89	53.03	46.98	20.71	8.11	04.64	80.91	104.58
	1989-90	54.06	45.94	15.92	8.96	02.52	84.10	156.96
	1990-91	59.99	40.13	14.47	9.39	02.35	93.34	197.86
	1991-92	63.82	36.18	13.74	7.04	02.25	99.07	198.40
	1992-93	64.82	35.18	11.37	7.36	01.93	105.44	231.92
	1993-94	64.24	35.76	13.64	7.77	02.26	86.61	310.60
	1994-95	69.63	30.37	9.07	6.88	02.03	102.52	386.19
	1995-96	71.30	28.70	8.20	6.59	02.17	118.95	380.37
	1996-97	69.20	30.79	9.60	7.00	02.18	104.44	335.73
	X ₂	62.567	37.446	13.632	7.740	02.634	95.21	239.489
	SD ₂	6.653	6.662	4.605	0.939	0.918	13.204	108.448
	V ₂	44.264	44.386	21.203	0.881	0.842	174.336	11760.920
t-values	3.700*	3.674*	4.856*	2.133*	0.266	0.988	3.955*	

Notes : i) P = Performance Indicator; ii) * denotes significant at 0.05 level of significance..

4.4 MEAN AND 't' VALUES OF THE PERFORMANCE INDICATORS AND SIGNIFICANCE OF MEAN DIFFERENCES

The mean and 't' values and the actual values of the performance indicators used for analysing costs and sales performance of public and private sector textile mills are provided in Table 4.18.

The Table reveals that the mean differences of five indicators are significant at 0.05 level of significance. These indicators are given below :

P_1 = Materials cost as % of Total cost.

P_2 = Conversion cost as % of Total cost.

P_3 = Wages and salary cost as % of Total cost.

P_4 = Power and fuel cost as % of Total cost.

P_7 = Sales per employee.

The 't' values of the above indicators are greater than the table value of 't' (2.101) at 0.05 level of significance. But the mean differences of stores and spares as % of total cost (P_5) and cost of production per kg of yarn (P_6) are not significant at 0.05 level of significance.

4.5 SUMMING UP

After going through the above analysis of cost of production in the selected textile mills, it can be concluded that the direct cost i.e., material cost, wages and salary cost, power and fuel cost were not varying proportionately with the volume of output in the public sector mills; the cost decreased at lower rate than the rate of decreases in production and the costs increased as against the decreases in production. But the situation was far better in case of private sector. The average cost of production in all the public sector mills taken together went up to Tk. 304.84 in 1996-97 registering 312.27% increase over 1987-88, while in

case of private sector the same went up to Tk 104.44 in 1996-97 registering 36.13% increase over 1987-88. In public sector Mill-A₁₀ recorded the highest cost per kg of yarn (Tk. 203.26) followed by Mill-A₉ (Tk 134.03), A₅ (Tk 121.49) and Mill-A₆ (Tk. 120.73) proving to be more inefficient among all. In contrast, private mill B₁ recorded the highest cost per kg (Tk. 139.90) followed by B₃ (Tk 114.83) and B₈ (Tk.109.25) proving their more inefficiency in management. The higher average cost of production in the public sector mills was mainly due to increasing material cost, wages and salary, power and fuel and also increasing conversion cost. The average percentage of material cost to total cost of production and average material cost per unit in all the private mills taken together was higher but its range of variation was lower indicating a steady trend as compared to that of public sector. Better quality of raw material and price level changes resulted in higher material cost as stated by some private owners. But on average the lower percentage of wages and salaries and power and fuel cost to total cost of production as well as lower average per unit cost in these elements in the case of private sector mills indicate better efficiency of management as compared to public sector. Over staffing and increase in wages and salary by the government was the main reason for increasing wages and salary cost in public sector textile mills.

Thus efforts should be made at all levels by BTMC mills to reduce cost of production especially wages and salary cost, material cost and to control power and fuel cost. The management of public sector Mills-A₁₀, A₉, A₅ and A₆ as well as of private Mills-B₁, B₃ and B₈ should be more serious to pull down their cost of production as far as possible. The importance of cost control and cost reduction can not be over emphasised in this regard.

Our further analysis of sales achievement of the cotton textile industry leads us to conclude that the sales achievement of the mills under private sector was superior as compared to their counterparts in public sector. The average net

sales went down during the second half of the study period in all the public sector mills and the overall trend taking all the public mills together was increasing up to 1990-91 but it was falling during 1994-95 to 1996-97. On the other hand, all the private sector mills could be able to increase their sales remarkably during the second half over the first half of the study period and the average net sales taking all the private mills as a whole showed a continuous increasing trend throughout the period. Our investigation through sales per employee also indicates a better efficiency of manpower in terms of sales in private sector mills as compared to public sector mills. Mill managers of public sector mentioned that smuggled yarn, high price of yarn, poor marketing capability etc. affected their estimated sales during the period. Managers of the private sector mills also mentioned that high price of yarn and smuggled yarn affected their sales to a great extent.

REFERENCES

1. Saha, S. K. (1991), *A study on the structure of Cost of Production and its Analysis –A case study on BTMC Spinning Mills*, Bureau of Business Research, University of Dhaka, p. 31.
2. Saha, S. K. (1991), op. cit, p. 31.
3. Saha, S. K. (1991), op. cit, p. 61.
4. Desai, Ashok V. (1983), *Technology and Market Structure under Government Regulation—A case of Textile Industry*, Economic and Political Weekly, vol. 18, No. 5, “quoted in Bhattacharya, H. P. and Selvanathan, K. *Profitability Management—A study of the Cotton Textile Industry*, Indian Management, vol. 25, No. 9, 1986, p. 76.
5. Saha, S. K. (1992), *An Evaluation of Privatisation Policy in Bangladesh: A Case of Denationalised Cotton Mills*, Dhaka University Journal of Business Studies, vol. 13 (1), pp. 107-108.
6. Sobhan, R. and Ahmed, M. (1980), *Public Enterprise in an Intermediate Regime— A Study in the Political Economy of Bangladesh*, BIDS. Dhaka, pp. 406-407.
7. Agarwal, N. P. (1981), *Analysis of Financial Statements*, National Publishing House, New Delhi, India, p. 62.
8. Rao, Nageshwar (1985), *Role and Achievement of Public Enterprises*, Vohra Publishers and Distributors, New Delhi, India, pp. 171-173.