CHAPTER V
MILL A

5.1 PERFORMANCE ANALYSIS

5.11 The choice of Mill A for the in-depth analysis was due to the reason that despite of sickness in the industry, this particular mill has been operating successfully. One felt the need to understand and identify the PPM related factors which have made this unit a successful unit. Apart from the success story of the unit, it has taken over Mill B and within 6 months of its taking over, a loss-making closed mill was turned around into a profit making mill. Now let us examine the success story.

5.12 I have labelled this unit as successful after measuring the performance of this unit vis-a-vis industry. The profitability ratio of gross profit as percentage of sales was used as a criterion for measurement of performance. As compared to the cotton textile industry standard, the ratio has always been higher. The ratio of the last 15 years, from 1966-1967 to 1980-81 were analysed by using the Analysis of Variance (ANOVA) technique which measures the differences in means within the sample and across. The analysis shows that it is significantly different. Also the means across the textile industry and Mill A are significantly
different. The F ratio was as high as 47 significant at 1% level.

5.13 The other indicator of performance measurement used is price realized per metre of cloth sold. The analysis of balance sheet data shows that from Rs 6/- realised per metre in 1974, it has gone up to Rs 14/- per metre in the year 1984. Thus it has gone up by 133%. Also the sales of cloth and yarn within a decade (74-84) has shown a growth of 375%. However, analysis of the data obtained from internal company records reveal that overall price realised per metre of cloth has gone up to Rs 18.30 in 1984 from Rs 6.48 in 1974. Similarly, for cotton the price realisation has gone up to Rs 12.70 from Rs 5.90, while for non-cotton from Rs 16.94 to Rs 22.33 for the similar periods.

5.14 The other criteria used is that of market share. As discussed earlier, the unit has .75 market share and is ranked 26th out of 261 and falls within the top 10% of the units in terms of market share. At this stage, the competitors are: Kesoram, Swadeshi Cotton, Mafatlal, Kohinoor, D.C.M. Tata, each with .92 market share, Swan (.90), Rachel (.87), Jiyajeeroo (.86), Muir (.81), Sarangapur (.80), Anglo French (.78) and Sreenivas Cotton (.75) By the acquisition of Mill B this mill has got the market share of 1.02. Thus, it has moved into first
category of more than 1% share and the competitors will be different. So, now from 26th rank it has moved to 12th rank and falls in the top 4% of the industry.

5.15 The mill is located at Ahmedabad which is called Manchester of India with 63 mills (32%). The other mill is also located in Ahmedabad, where the rate of closure of mills is high.

5.16 To measure the performance of Mill A, the growth in sales and gross profit was analysed. The analysis reveals that sales has grown four times, while gross profit has gone up only twice. Sales went up from 100 in 77 to 375 in 84, whereas gross profit has gone up to 180 during the same period. If we delete 84, in 83 it showed a higher growth of 203 being highest. The year 82-83 shows the highest growth rate. In terms of sales the growth is gradual while gross profit has been fluctuating. The growth in sales can be attributed to the shift in production mix from cotton to non-cotton, which has a higher value. Ratio analysis of the gross profit as a percentage of sales is also calculated for a decade 74-84. It shows that, against the growth in sales and gross profits, the ratio analysis between gross profit and sales shows a decline. It has gone down from 12.8 to 5.8. There have been fluctuations but definitely it is a downward trend.
5.17 Partial regression and correlation analysis between gross profit and sales shows that $R^2$ is .56. They are positively correlated, so when the sales is going up, the profits are also going up. If there is an increase in sales, gross profit would also go up.

5.2 PRODUCT RANGE

5.21 The product range of Mill A consists of 23 yarn count varieties in cotton cloth. Non-cotton consists of different blends. These are also known as blended fabrics. The yarn itself is blended, ie cotton blended with polyester, which is used for weaving. Within yarn also, there are different types, spun x spun, texturised x texturised, filament, etc. Spun X spun means cotton and polyester fibres are spun together to obtain P/C yarn. The proportion could vary like 50 cotton 50 polyester, 60 cotton 40 polyester, 67:33, etc. Texturised has different finish. Filament is a polyester yarn, derived from chemicals without spinning. Polyester fibre, are short staple and fibrous whereas filament is yarn. There are mainly 11 blends produced by the mill.
1. P/C Both in Warp & Weft
2. P/C Warp and polyester viscose silk weft (PVS)
3. P/C Warp and filament weft (P)
4. Polyester viscose warp x weft (PV)
5. Polynosic ‘cotton warp x weft (PN)
6. P/C Warp x polyester polynosic weft (PP)
7. P/C x polyester viscose
8. P/C x poly silk.
9. PV x filament
10. FL x FL (100% polyester)
11. Cotton x FL

5.22 As in P/C, again the proportion could vary in polynosic viscose also, to give a different blend. For e.g. cotton could be 30%, polynosic 25% and viscose 45% and so on. So, again within in each there are different combinations possible. Mill A has 75 such non-cotton blends.

5.23 As far as width is concerned, the mill produces 30 different widths varying from 51 cms to 155 cms. Different widths are used for different purposes by the end users. For e.g. larger widths for sheeting, sarees and Dhoti, smaller widths for dress materials, shirting, blouses, etc.

5.24 The fabric is folded into different piece lengths and this mill has 12 such lengths. Mostly it is 20 metres, 5 metres, 22 metres, 58.5 metres and others for Dhoti.

The piece lengths indicate the product. Mostly 20 metres are used for non-wearables, shirting and dress material. 5 metres for sarees, 58.5 handkerchiefs. As mentioned earlier a piece of
cloth could be used for different purpose by different consumers. So, one cannot be sure that 5 metres is used only for saree. It could be used for dress material as well as for shirting.

5.25 Company produces 15 product lines which are as follows:

1. Sheetng  
2. Poplin  
3. Long cloth  
4. Twill  
5. Cambric  
6. Suiting  
7. Lawn  
8. Saree  
9. Mulmull  
10. Dhoti  
11. Shirting  
12. Hanky  
13. Khesh  
14. Lungi  
15. Drill

5.26 Product lines are as per the end users uses. Shirting and dress materials are combined. However, as far as mill is concerned it is mainly in shirting i.e. 60% shirting and 40% could be dress materials. Each product line has depth in terms of bleached, dyed, printed, etc. Shirting has fifteen types followed by saree and poplin 9, suitin 7, and so on.

5.3 PRODUCT MIX ANALYSIS

5.31 The percentage and growth analysis shows that like the rest of the industry, the mill has increased its production in the non-cotton sector. The following graph on the next page shows the growth of cotton vs. non-cotton, along with the total growth in the production.
CLOTH PRODUCTION - MILL

YEARS

MTRS IN CRORES

77  78  79  80  81  82  83  84

YEARS
5.32 MILL 'A'

The non-cotton production of Mill A from 1977 to 1984 shows an increase of 295%, while the industry analysis shows an increase of 956% between year 1970 to 1981. If one analyses, the growth rate from the data available for the similar period 1977 to 1981 in case of Mill A, increase is of 66%, while industry growth showed, just 3% increase. Thus, in the non-cotton category the growth rate of mill is more than 20 times during the later period as compared to the industry. However, in terms of volume, the actual production figures of 3% at the industry level is quite high as compared to the 66% in the case of mill.

5.33 From 1977 to 1981 in the industry, cotton and non-cotton share has almost remained constant 77% and 23% respectively. The mills share is high by 4% in non-cotton and low by 4% in cotton. Thus the difference in shares is not much.

5.34 Similarly for cotton, both at the industry level as well as at the mill level, growth has become negative. At the industry level, the growth has been fluctuating, while in case of Mill A it has been consistently going down. For Mill A there has been a negative growth of 10% as compared to the 2% at the industry level. Thus, decline has also been relatively fast.
5.35 The market share analysis from 1977 to 1981 shows that the Company's share in cotton market has gone down by .1% i.e. from .7 to .6% while in the non-cotton market it has added .3 i.e. from .4 to .7%. If we consider the handloom and powerloom sector in the cotton market, the share has moved down from .3 to .2%. As stated earlier, however, in the overall market its share has been .6%. Thus, it has gained share in non-cotton and lost in cotton. One has to keep in mind here that product life cycle of cotton is on the decline while that of non-cotton is on the growth state. Please refer to graph in previous chapter. Thus, the company has lost its share in the declining market and gained in growth market. It is relatively, easy to gain share in the growth market than in declining market. With the freezing on the expansion of the mills, if the mill gains in one, it has to lose in other, as it cannot expand its production base.

5.36 Let us further analyse the cotton market. The average count of the mill has gone up from 44 in 74 to 50 in 1981. This shows that the company is operating largely in the fine and superfine quality segments. The Company has 13% market share in this quality segment during 1979-81. Thus, even though overall market share is low it has strength in these two segments. If we look at the data given by
the Company to the National Sample Survey the market share in medium and superfine category works out to 9%. The definition of the quality differs, hence this variation. So, if we segment the market on the basis of quality, this is the picture we get about the market share.

5.37 There are total 11 varieties in the non-cotton. Each is a combination of different yarn in warp and weft. Out of these 11 items, blend variety which has a polyester cotton warp and waft and another which has polyester cotton warp and filament weft constitute 94% of the total production of non-cotton. Former being 30% and later 64%. Rest of the varieties have less than 1% share of the non-cotton production.

5.38 When we look at the product items, polyester cotton warp and filament weft have 235(45%) items, as compared to 169(33%) items in blended variety. Polyester viscose warp and weft and polyester viscose warp and filament weft have 47(9%) and 4 (8%) items respectively. Rest of the items have less than 8 (1.5%).

5.39 Growth analysis shows that polyester viscose warp and weft has achieved the highest percentage growth rate of 3648. However, as the percentage of total non-cotton production of the mills, the proportion
of P/V. varies between 2.5% to .08%. This is followed by polyester viscose warp and filament weft which has again percentage growth rate of 1058 within a span of 4 years. As the proportion of the non-cotton, the percentage varies from 1% to .16%. Over the years polyester cotton warp and filament weft has achieved a percentage growth rate of 582 as compared to blended varieties percentage 212.

5.40 From the above analysis we gather that, polyester cotton warp and weft and polyester cotton warp and filament weft are important. At the same time polyester viscose is small but growing fast.

5.41 With the freeze on the expansion of capacity, mills had to go in for higher value products to achieve a higher growth rate. Otherwise there would be stagnation or decline. Thus, the change in the product mix has helped the company to achieve higher sales turnover.

5.4 PRODUCT-LINE ANALYSIS

5.41 For each product line, growth and market share analysis was carried out.

1. The growth analysis shows growth in the production of cotton, non-cotton and total production.
2. Percentage analysis shows-

(a) The share of the total production by each line.

(b) Both in cotton and non-cotton, percentage of each line to total cotton and total non-cotton production respectively.

(c) The proportion of cotton and non-cotton in each line.

3. Market share analysis shows the company's share in the total mill market segment that is share of the industry. Both in cotton and non-cotton markets.

5.42 POPLIN

5.42 This is an important product line of the mill constituting about 40% of its total production. Over the years, it has remained almost the same. The fluctuations are not much and it seems to be the standard and stable product line of the company. In terms of growth also, it has not had any phenomenal growth. However, cotton production of poplin has gone down from 100 as base in '77 to 60 in '84, compared to this the non-cotton poplin has gone up from 100 to 387% over the same period, hence the emphasis has shifted from cotton to non-cotton. It has many varieties of poplin like bleached, coloured, printed, 2 x 1, 2 x 2, oxford, cord, etc. The printed poplin constitutes 56% of the total poplin production. It is significant to note here that poplin has 50% of the non-cotton production and 25% of the cotton.
So, in non-cotton, it has more share as far as the company is concerned. Most of the additions and deletions as we see later on are in non-cotton. In non-cotton market the company has gained market share from .88% in 77 to 1.25% in 81. Even though, at the industry level, poplin constitutes a larger share of 45% of the non-cotton market, its growth is not much. Thus, company has increased its market share in a near stagnant market. As far as cotton market is concerned the company has 0.5% share of the total cotton poplin market. However, as mentioned earlier since the company is operating only in fine and superfine segment, if we consider only these qualities, then the company has 75% share (1979-81) which is quite high. However, growth of this product line is negative in the industry, in spite of high share of about 30% of the wearables. The decline is very high in quality segments in which company is operating.

5.43 SHIRTING

5.431 Shirting and dress materials are combined together. However, as stated earlier the company is mainly in shirting. The share of shirting materials as a % to total cloth production of the company has reduced from 31% in '77 to 17% in the year 84. The share between cotton and non-cotton from 80:20 has changed marginally to 75:25.
however, both in case of cotton as well as non-cotton. the share of shirting has gone down. It is steep in non-cotton while in cotton it is only marginal. There are highest number of 16 varieties in shirting. Mainly it is leno, butta and suci.

5.432 The growth analysis shows, a marginal growth in non-cotton while in cotton the growth is negative. The growth in total production of shirting as compared to 1977 has been negative from 100 it has come down to 77 in 1984.

5.433 In the total cotton shirting market, the company has a share of around 2.5% If we consider fine and superfine segment only, company’s production is higher hence probably it must be higher medium quality. Most of the production is in higher medium quality, so the share comes to around 3%. Shirting constitutes 8% of the wearables. The production in fine quality has gone down. However, in the superfine count it has shown highest percentage of growth of 227. Company seems to have a high market share. Although, it is difficult to work out exact market share due to the problem stated earlier. In the non-cotton market, the Company's share has been fluctuating every alternate year. However, in the year '81 the share works out to 3%. In the industry, shirting has highest percentage rate of growth (190) and high share (35%) in the non-cotton
sector. There are maximum changes. in terms of additions and deletions in this line.

5.44 DHOTI

5.441 This line accounts for 10% of the total production. Also, for cotton and non-cotton it has almost same share of production. The proportion between cotton and non-cotton has come to 50:50 from 95:5. Thus the non-cotton production has increased, even though as percentage to total non-cotton production it has increased only by 8%. While cotton has been stagnant, non-cotton has had a steep rise, which is highest as compared to other product lines. From base of 100 in 77, the percentage growth rate has gone up to 2513 in the year 1984. In non-cotton market the product has gained market share substantially. It has increased by 8% over 5 years. The non-cotton market of dhoti is growing but has a low share of 2%.

5.442 The company has about 2% market share in the total cotton dhoti market. While in fine and superfine market, its share is 13%, which is high. At the industry level production of fine and superfine as well as total dhoti has been decreasing. In terms of share of dhoti in total wearable cotton market it is low (4%). Also, its overall growth has gone down to 57%. In the fine category share of dhoti is
negligible, whereas in superfine it has a large share of 17%. Same is true when we take up non-cotton dhoti. About 14.7% of cotton dhoti production is of superfine variety. As far as growth is concerned, in all the categories it has been steeply going down. Thus, the market appears to be declining. Even in superfine category in which company has a greater share, there has been a negative of 37%.

5.45 CAMBRIC AND LAWN

5.451 To enable comparison at industry and firm's level, both, these product lines have been combined. However, non-cotton lawn is not produced by the mill and in cotton between the two, cambric has larger share of 80%.

5.452 Out of the total production of the company both together have a 14% share. Whereas, if we take only total cotton production then it is 18%. Thus, it has a larger share in cotton. There has been wide fluctuations over the years between the cotton, non-cotton ratios in this category. It varies from 95:5 to 70:30. The growth analysis shows that as a category there has been growth in production. The production has doubled. One notices positive growth in both cotton as well as non-cotton. In non-cotton growth has been in cambric. The growth has jumped up to 502% at the same time it has been fluctuating
especially in the years '78 and '82. It has shown a negative growth in these two years.

5.453 In the non-cotton market, this line has a positive growth, (177) and share of 7%, whereas the company has a share of 2%. However, the share of the company has been increasing over the years.

5.454 On an overall basis in the market, the company seems to have been loosing share. During the three year period, it has lost 3% share of the market. The same picture is seen, even in the fine and superfine segment. The company has lost its share from 3.5% in 79 to 3.2% in 81.

5.455 Cambric even though has a low share of 6.3% in the cotton wearable market, has the highest positive growth rate. This is the only product line which has shown a positive growth. However, one notices that in superfine segment the growth is negative whereas in fine segment the growth is highest (357). As a percentage of both fine and superfine quality cambric constitutes 50% of the production. Hence it is a very important product in this product - market combination. If we take up the production of cambric at the industry level, fine superfine has the 40% of it and also positive high growth in the fine. Thus from the analysis one can conclude that company is loosing share in a growing
5.46 SAREE

5.461 This line constitutes about 9% of the total production. The share has increased by about 5% from 1977. In cotton and non-cotton also the share is almost same, except in '81 and '84, when the share of non-cotton is higher to the total non-cotton production. The proportion of saree production between cotton and non-cotton from 85:15 has changed to 40:60 in the year '84. Thus, the production of non-cotton sarees has gone up.

5.462 The growth analysis suggests that there is a positive growth of this line in total production as well as in both cotton and non-cotton. However, in non-cotton it is high as compared to the cotton. Year 1984, shows a quantum jump, otherwise it has been gradual. In a non-cotton market, which has a high growth of 179 and low share of 3.5%, the share of this company is increasing. From 1.3% in 1977, it has gone up to 3.5% in 1981. Over the years, the share of saree is increasing in non-cotton.

5.463 In cotton market, the share of saree comes to around 2%. However when we look at only fine and superfine segments, the company has 51% share of the market which is higher as compared to its share.
of other product lines in this segment. Now let us look at the cotton market. Saree constitutes about 2.5% of the total cotton wearable market. In fine and superfine variety also it has a share of 2%. If we take superfine variety also it has a share of 2%. If we take up total production of cotton sarees than the fine quality has 2% share while superfine 3%.

5.464 The growth analysis shows that this line has overall negative growth. However, in fine segment it has a positive growth of 188% whereas in superfine again it is negative. The growth of saree in this line, in both the segments also gives the same picture. Thus, the company has a very high share in a not so growing market. If we combine both the segments then it becomes not-so-growing as compared to only fine wherein the growth is high positive.

5.47 SHEETING AND LONG CLOTH

5.471 These are combined because at the industry level figures are combined. Together they have 5% share of the total production. From 2% the share has gone up to 5%. However, the line’s share as a percentage of total cotton production has gone up from 3% to 8%, whereas in non-cotton it is only 2%. The sheeting and long cloth proportions has been
varying. In the sense, in some years long cloth is produced more, whereas in other years it has been sheeting. However, the difference is only 3% at the most. Except in the year 1984, there is no non-cotton production in sheeting. In long cloth also, the non-cotton production started from 1978 only. Overall there is a positive growth in both cotton, non-cotton, as well as total production. If we look at sheeting and long cloth, separately an entirely different picture emerges. The cotton sheeting growth is extremely high from 100 it has gone up to 4086 which is highest growth in cotton. In long cloth, the growth is negative so, on average it shows positive growth. The growth in total long cloth production is negative. The share of cotton sheeting, is higher compared to long cloth, as a total cloth production. In fact in '84, the share comes to 7% only in case of long cloth.

5.472 In the industry, as far as total cotton wearable market is concerned, the share of this line is as high as 28%. But the share of this line, as a proportion to total fine as well as superfine market is hardly 2%. Thus the market is small. The growth analysis suggests that overall growth of this line is negative while in superfine segment there is a high growth of 200%. This happens to be same when we look at the share of fine and
superfine variety to the total production of this line.

5.473 In the overall cotton wearable market of this line company's share is just 2%. Whereas, if we take up only fine and superfine segments the market share is as high as 65%. This is company's highest share in the cotton wearables as compared to the other product lines.

5.474 In the non-cotton segment the company's share is very low (.5%) but has been increasing. The growth of this line in industry is negative and fluctuating. The share of this line in industry is fluctuating from 10% in '77 the share has gone down to 5% in '81 in the non-cotton market.

5.475 The ratio of cotton and non-cotton has changed from 95:5 to 77:23. In '84 there has been change. In the sense in sheeting, non-cotton was introduced and about 8% of the total production of sheeting was of non-cotton. Also, as stated earlier, cotton long cloth was reduced.

5.48 SUITING

5.481 This line accounts for only 1% of the production, even in cotton as well as non-cotton the share is same. Till '79 there has been no production of suitings in non-cotton and after '80 the production
in cotton suiting has become negligible. In '83 and '84 mostly it has been non-cotton. The growth analysis shows that this line has had a negative growth. In cotton, the growth has gone upto 90% whereas in non-cotton from the year '80 i.e. when the product, was introduced, the growth has jumped upto 5328%. Which is extremely high.

5.482 The proportion, between cotton and non-cotton has been fluctuating. In some years it is 100% cotton whereas in other years it has been non-cotton.

5.483 In the non-cotton market, suiting has had a positive growth, but a low share of 5%. Company's share in this market is only 2%.

5.484 In cotton market, the share of company is only 4%. Also, in fine and superfine segment it is 4%. However, in suitings, share of the company in both total as well as in quality segments has been reducing over years.

5.485 In the overall wearable cotton market, also the share of suiting is as low as 2.3%. Even in fine and superfine segment the share of suiting is low. In case of suiting, the share of fine and superfine comes to 3.6%.

5.486 The growth in all the market i.e. total fine, superfine has been negative. Thus, the company has
a low share in low growth and small market.

5.49 MULMULL

5.491 This line has very small share of (.1%) of the total production. However, the share has slightly increased over the years. The company does not produce any non-cotton mulmulls. Out of total cotton production, this line accounts for .3%. The share has been gradually increasing over the years. This indicates a positive growth over the years, except in 82-83 when it had a negative growth. The non-cotton market for this line, shows negative growth and also small share of 3%.

5.492 In overall cotton wearable market this line has low share of 2% however, the superfine and fine categories together constitute 50% of the mulmull's production. In fine segment the share of mulmull is 16%, whereas in superfine it is still high 24%. As far as growth is concerned there is negative growth in the overall cotton wearable market. In fine segment there is a positive growth of 345, while in superfine it is negative. Again if we take up mulmull, the growth of fine is positive. Thus, within a low growth mulmull market, fine is growing. Here I would like to point out that in the industry data, mulls includes voiles whereas the mill data has only mull. Printed voiles are only in
the saree category hence includes printed voile sarees also.

5.50 HANKY

5.50 This category has come into picture only in the year 1983. Probably before that it was included in mulmul. This line has a share of 5% in the overall production of the mill while it constitutes 1% of the cotton production. There is no non-cotton production of this line. Within 2 years there has been high growth and increase in market share. At the industry level there is no such product-line category both in cotton and non-cotton hence further analysis could not be carried out. It is a non-wearable product unlike other products.

5.51 KHESH

5.511 This line was also introduced only in the year 1983. It has a very low share of .90% in the overall production, while .2% of the cotton production and .01% of the non-cotton production. However, the share within 2 years has shown increase.

5.512 Like hanky, this product line category also does not appear in the industry data hence no further analysis could be carried out. But it is a product, which is worn by men along with dhoti. It is about 1.5 metre kept on the shoulder /neck.
5.52 **LUNGI**

5.52 This line introduced in '83 and only in non-cotton. It has a very low share of .08% of the total production and .18% of the non-cotton production. Within a two year period, the share has increased. There is no product line category at the industry level.

5.53 **DRILL**

5.531 This product is shown only in 1984 with a limited production of 324 metres in cotton. This works out to a negligible share.

5.532 With this, the product-line analysis ends. The presentation of this analysis in matrix form will be done in the next chapter for the purpose of drawing conclusions and working out alternative strategies for the company.

5.54 **BUTTA**

5.542 I have taken up this separately for the analysis, because the company has almost a monopoly in the market. There are only two other mills producing this i.e. Raipur Mills (A'bad), Shree Ram Mills (B'bay), Raipur again belongs to the same group. Now Shree Ram Mills have stopped the production. The mill has a special machine to cut
and seal the butta pattern after it is woven. The special machine is used for finish purposes which only these 3 other mills have. Weaving can be done on any loom. Since they have a monopoly of this product, it happens to be their strength. They have constraint on the production capacity of this item, because the special machine is required. The percentage analysis shows that it has 3% of the total production of the mill. Since there was a freeze on the expansion of capacity in terms of looms installations, the growth in total production has a marginal rate of growth which is due to the productivity and efficiency. So, the total production and the Butta as a percentage of production has remained almost at the same level. However, the company has reduced its cotton butta production and has increased the same in non-cotton. From '79 when the proportion between cotton and non-cotton butta was 95:5 it has now changed to 80:20. About 5% of the cotton production is of butta whereas it is only 1% of the total non-cotton production.

5.542 The growth analysis shows, marginal growth in total production of butta, negative in case of cotton with '77 as a base and quantum jump in non-cotton. From 100 in 77, non-cotton has gone upto 3686 in '84.
5.543 Two of the main product lines in butta are sarees, and shirting and dress materials. 36" width material is used for shirting, dress material and blouses whereas more than 48" width is for sarees. Most of the 36" width market is in south i.e. Madras while saree market is mainly in Bombay. Bombay and Madras centres consume most of the butta production of the mill. The proportion of saree and shirting and dress material is 60% and 40% respectively. By increasing the shift from cotton to non-cotton, the value per metre of butta material has gone up. In the light of production constraint which was stated earlier, on one side and strong position in the market on the other hand this seems to be the right direction.

5.55 CARBONIZED

5.551 Mill sector was not allowed to use 100% polyester in warp and weft as per government policy. Hence, mills at the weaving stage took polyester-cotton and later on while processing, carbonization process was used whereby the cotton content of the material was burnt thus leaving polyester. The material produced by this process was known as carbonized. Now the policy is changed. Because of this reason, carbonized has been taken separately for the analysis.
5.552 Percentage analysis shows that there has been a gradual increase in the production of carbonized cloth. From 6% of the total non-cotton production in 1977 it has gone up to 50%. The growth is also rapid from base of 100 in 1977 it has gone up to 3199 in 81. Cotton is not considered as it is not relevant.

5.56 EXPORTS

5.561 The purpose of analysis of exports is to see how important the export market is for the company. What role it plays? To know the importance of exports, percentage of exports to total sales is calculated. Instead of revenue figures, the sales figures are taken for analysis. Sales include sale of cotton and yarn only whereas revenue has the income from other sources. However, the sales of cotton and yarn constitutes 98% of the revenue. The figures are taken from the balance sheet of the company for the period (1974-1984).

5.562 The percentage to sales analysis, over the years, suggests that exports constitute about 1.5% of the total sales. From 5.5% in 1974 it has reduced to 1.5%. This indicates that exports does not play an important role in the company. However, the growth analysis shows, a marginal growth in exports. Till
'78 it was negative and then becomes positive. On the basis of analysis, we can conclude that as a policy, company is not concentrating any efforts on the export market. Further, to understand the relationship between exports and sales, a partial approach of regression and correlation was used. with export sales as an independent variable and total sales as a dependent variable. R^2 works out as low as .26 which means that only 26% of the variations in sales data is explained by exports. The analysis reveals the role played by exports and its importance in the total sales of the mill.

5.57 ADVERTISING

5.571 The analysis of advertising expenses over a decade from the balance sheet, reveals a three fold growth in advertising expenses. However, if we take advertisement expenses as a percentage of sales, from .64% in '74 it has gone down to .51% in '84. In between the ratio fluctuates. The highest being .72% in the year 1977 and lowest .34% in 1983. Thus there appears to be no policy guidelines for setting up of advertisement budgets. Also, the expenses are not even 1% of the total sales of the company. Inspite of this, the company is quite successful as compared to other mills. Further, a
Partial approach of correlation and regression analysis, with Ad. expenses as independent variable and sales as a dependent variable was used. It shows, $R^2 = 0.74$ which means 74% of the variations in sales are explained by this factor. Since the relationship is positive, if we increase the ad expenses the sales would also go up. This finding is in contradiction to the general feeling that advertising does not play much role in textile marketing. In other words there was a feeling that the influence of advertising on purchase decision is not much. Advertising just serves the purpose of creating awareness. However, in the light of this analysis one has to reconsider the general impression. On one hand, the regression analysis suggests a positive relationship between ad expenses and sales and on the other hand, in spite of the mill having a very low advertising budget, it has been successful shows, that advertising is not that critical, for the success of the Mill. So, we can conclude that advertising is not that a determining factor as far as success is concerned in case of this mill.

5.58 PRINTS

5.581 Out of a total of 759 items, 7.5% are printed items. If we take up total production the printed production is about 35% of the total. However, the
share of prints show a decline from 35% to 14%. The total production of prints also shows decline in growth after 1981. Within this, the sheeting and saree has shown a positive growth. Sheetig has achieved highest percentage growth of 1642 over years.

5.582 The five printed product lines are sheeting, poplin, cambric, saree and shirting. Out of these, poplin on an average has 56% of the printed production followed by 16% by saree. There are wide fluctuations in shirting and cambric lines which has 14% and 9% share of the total printed production.

5.583 In terms of share of prints in each line, average of eight years shows that sheeting has 98% followed by 67% in saree and 43% in poplin and 32% in cambric and lowest 14% in shirting. Thus we can conclude that mill is not so strong as far as print is concerned.
5.51 The purpose of the analysis is to identify the strengths and weaknesses of mill A and also to understand the relationship between product mix and performance. As stated in the beginning of this chapter, that by acquiring mill B, the company has increased its share in the market and moved to no.1 category. Now in this category, apart from this mill there are twelve other mills. Hence, the competitive analysis is done only, as compared to these mills. However, there are some small mills which are very successful but are not considered. The following chart highlights this aspect.
### 5.52 COMPETITIVE ANALYSIS

<table>
<thead>
<tr>
<th>Name of the mill</th>
<th>Market Share</th>
<th>Ordinary profit to sales (74-84) %</th>
<th>Product range ranks</th>
<th>Distribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Binny</td>
<td>1.96</td>
<td>6.40 Loss</td>
<td>High 5</td>
<td>Own-wide</td>
</tr>
<tr>
<td>Calico</td>
<td>1.60</td>
<td>0.54 Loss</td>
<td>High 5</td>
<td>Own-wide</td>
</tr>
<tr>
<td>Century</td>
<td>1.44</td>
<td>1.70 Not so high 4</td>
<td>Low</td>
<td></td>
</tr>
<tr>
<td>Bombay Dyeing</td>
<td>1.43</td>
<td>5.60 High 5</td>
<td>Own-wide</td>
<td></td>
</tr>
<tr>
<td>Morarjee</td>
<td>1.36</td>
<td>0.22 Not so high 4</td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>Laxmi vishnu</td>
<td>1.23</td>
<td>0.05 Not so high 4</td>
<td>Medium</td>
<td></td>
</tr>
<tr>
<td>Hindustan*</td>
<td>1.18</td>
<td>1.60 -</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Ambica</td>
<td>1.66</td>
<td>0.36 Loss</td>
<td>Low 1</td>
<td>Low</td>
</tr>
<tr>
<td>Standard</td>
<td>1.13</td>
<td>1.80 N.A</td>
<td>High 5</td>
<td>Medium</td>
</tr>
<tr>
<td>Swadeshi</td>
<td>1.07</td>
<td>0.82 N.A</td>
<td>Medium 3</td>
<td>Medium</td>
</tr>
<tr>
<td>Empress*</td>
<td>1.03</td>
<td>0.07 -</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>India United (NTC)</td>
<td>1.02</td>
<td>0.10 -</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Mill A</td>
<td>1.02</td>
<td>0.51 Low 1</td>
<td>Upcountry</td>
<td></td>
</tr>
</tbody>
</table>

* These mills are excluded since Empress is closed and India United is an NTC mill where it is government management. Now let us look at each mill separately in terms of Product range.

### 5.53 CENTURY

It is 100% cotton mill producing very high quality / high value cotton fabrics. Its main strength is,
that it exports about 75% of its cotton grey sheeting, and has a monopoly in producing black cloth which is used for the manufacturing of umbrellas. Thus, the range is not that very high but, it has more strength in the non-wearable market. It is a diversified company, with a low distribution net-work.

5.54 BOMBAY DYEING
Has a wide range of fabrics, both wearables as well as non-wearables. It has strength in high quality sheetings. It has almost a monopoly in the wide width printed sheeting. It manufactures towels, shirting and dress materials, blankets, saree, dhoti, flannel, suiting. It has a wide distribution net-work of its own. It has gone in for vertical integration for diversification.

5.55 BINNY
Has again a wide range. It is known for casement for school uniform, and is the supplier to government organisations and defence. It has shirting, sheeting towels, suiting, flannel. It is known for suiting, blankets. It has its own retail outlets and wide distribution net-work, which is wider than Bombay Dyeing. The mill like Bombay Dyeing, caters to both wearables as well as non-wearables segments.
5.56 **CALICO**
Also has a wide range like Bombay Dyeing and Binny and has its own wide distribution network. Has both wearables and non-wearables.

5.57 **AMBICA**
Has a very poor distribution network. Does not have a strength in non-wearables. Is known for sarees, dress material, shirting, long cloth and poplin.

5.58 **LAXMI VISHNU**
Is known mainly for sarees and dress material in wearables. It is poor in terms of distribution network. Now, if we do the competitive analysis product line wise, we get the following picture.
## PRODUCT LINE COMPETITIVE ANALYSIS

<table>
<thead>
<tr>
<th>Product Line</th>
<th>Market Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>Butta</td>
<td>Almost monopoly</td>
</tr>
<tr>
<td>2 X 2 Printed Voile Sarees</td>
<td>Khatau</td>
</tr>
<tr>
<td>2 X 2 Cambric</td>
<td>Mafatlal, Khatau Premier</td>
</tr>
<tr>
<td>Dhoti</td>
<td>Premier, Morarjee</td>
</tr>
<tr>
<td>Text by Text Sarees and dress materials</td>
<td>Garden, Vimal</td>
</tr>
<tr>
<td>Shirting</td>
<td>Madura Coats mafatlal and Premier.</td>
</tr>
<tr>
<td>Polyester Sarees</td>
<td>Khatau, Vimal, Garden, Morarjee and Victoria.</td>
</tr>
<tr>
<td>Suiting less than Rs 100 per metre</td>
<td>Mafatlal, Bhilwara, Jiyajee.</td>
</tr>
</tbody>
</table>

5.51 Out of these mills, some of the mills are registered with art silk industry like Garden and Vimal which do not have controls unlike the mill sector has, while Bhilwara and Jiyajee are in the wool sector. However, one cannot ignore competition from whichever field it comes. So, inspite of earlier exclusion at the industry level we may have to consider it for the competitive analysis.

The analysis shows that having a wide range of products in general does not help the mills to increase profits. So also wide distribution network. Having large size and high market share in general, also does not necessarily give results unless the market share is high in specific product - market combination.

### ANALYSIS OF PRODUCT ADDITIONS AND DELETIONS
5.61 A total number of 759 product items over 8 years (1977-84) period have been analysed. A product item, in this case is a combination of variables consisting of yarn counts, sort numbers, product mix, product line, width, sub-category in product line, and piece lengths. A new product item means change in any one or more of these variables. For e.g. all the other variables might be same but width may be different or all the variables may be different.

5.62 Out of the total items, 68% are non-cotton and 32% cotton. Accordingly, the changes are more in non-cotton as compared to cotton. Shirting accounts for 24% of the total product items followed very closely by poplin 23%, saree 17% and suiting 13%. Rest of the product lines have less than 10%. Except Butta which accounts for 10% of the product items, changes are more in cotton otherwise it is higher in non-cotton.

5.63 The analysis of number of product items in each year, reveals that till 82 there was stability whereas in 83 and 84 changes were maximum. Total number of items in the 77 was 78 which came to 97 in 81 and again 73 in the year 82. Afterwards there has been significant changes, as the number of items which jumped up to as high as 271 (36%) and a peak of 595 (78%) during the years 83 and 84.
respectively. On an average, it works out to 95 product items each year, which is true till 82 but changes thereafter. Using a range gives a better picture than averages.

5.64 To identify the products which were stable, product stability analysis was done. It revealed the life span of the product items. For the purpose of this analysis 442 (58%) product items, which were introduced recently in 84 are not considered, since we do not know whether they will survive after a year or not. However, those products which were not dropped were taken up for the analysis. Similarly products introduced in the year 83 will fall, in those having survived for 2 years, which may not be the case, as it might be continued further also. But however, it has been taken in the category of 2 years life-span. The analysis reveals that 12% of the total (317) product items analysed, have been stable and never dropped during 8 year analysis period. About 18% of these items are butta products. 30% of the yarn counts in cotton are stable within this group counts 70s/95s/ has 30% of the stable items followed closely by 40s/40s/. Similarly non-cotton, which has only 3 items, 62 polyester cotton and 2/80 p/c x 61 Filament are the only stable counts. If we look at it from product-line point of view, poplin and shirting each has 25% of the stable products, this
is followed by saree and dhoti 18%. In the case of non-cotton dhoti and poplin are the stable product.

5.65 On the other extreme, products which have survived only for a year constitute 33% of the total product items analysed. Out of these 75% are non-cotton items. Products introduced in the year 1983 constitutes 96% of the product items which have survived for a year. This means that many product items which were introduced in the year 1983 were dropped in the subsequent years. Similar is the case for products which have survived for 2 years. Those products which survived for 1, 2 years and throughout together constitutes 75% of the product items. Other years together 3, 4, 5, 6 and 7 year account for only 25%.

5.66 The analysis of products added and deleted/dropped suggests, that out of total 680 items, new products introduced. 65% were introduced in the year '84, followed by 29% in '83. Out of these, 74% are non-cotton. In cotton, the changes are more in '84, as 61% of the cotton items were added in '84 as compared to 34% in '83. As far as non-cotton is concerned, it is 67% and 27% respectively. Similarly, the products deleted were maximum 72% in the year '84, followed by 17% in '82 and 9% in '80. There are no deletions in the years '78, '81 and
'83. Thus, as far as introductions are concerned, years '83 and '84 dominate but when it comes to deletions, the years are 1984 and 1982. Deletions show that 84% are for non-cotton within that 81% are in '84. For cotton it is 58% in '84 and 24% in '82.

5.57 As far as cotton is concerned, changes are more in terms of additions (35%) and deletions (28%) in yarn counts 2/110s. The changes also occurring in counts 62s/62/s, 70s/70s/36s/38s and 82s/62s.

5.68 The product line analysis, shows that shirt, poplin, suiting, saree and cambric together has 86% of additions and 91% of the deletions. In the year 84 shirt has 26% of total additions and 24% of deletions whereas poplin has 22 and 23% respectively. This is followed by 16 and 14% in case of both suiting and sarees. This is consistent with what was said earlier. These product lines have larger share of the total product items also. In suiting 94% of the changes are in non-cotton. This is followed by 87% additions in non-cotton poplin. For shirt, and cambric it goes down to 78%.

5.69 Butta has 12% of the additions and 6% of the deletions in the year 84. In '83, it has 7% of the products added. Thus, no significant changes have
taken place as far as butta is concerned. 50% of the additions are in non-cotton. The changes are more in cotton (90% sarees) and in non-cotton (92% shirtings).

5.70 The analysis of non-cotton, (table below) shows that out of 12 categories, changes have taken place mostly in p/c x p/c (blended) p/c x filament, pv, and p/c x pv. P/c x filament has 45% of the total additions and deletions made in the non-cotton category. This is followed by 34% and 29% in p/c x p/c. P/v has 9% and 11% while p/c and pv has 8% and 12% respectively.

TABLE

<table>
<thead>
<tr>
<th>Mix</th>
<th>Additions in '84</th>
<th>Additions in '83</th>
<th>Deletions in '84</th>
<th>Deletions in '83</th>
</tr>
</thead>
<tbody>
<tr>
<td>p/c x p/c (Blended)</td>
<td>34</td>
<td>28</td>
<td>29</td>
<td>63</td>
</tr>
<tr>
<td>p/c x Filament</td>
<td>44</td>
<td>45</td>
<td>49</td>
<td>0</td>
</tr>
<tr>
<td>pv</td>
<td>9</td>
<td>9</td>
<td>11</td>
<td>0</td>
</tr>
<tr>
<td>p/c x pv</td>
<td>8</td>
<td>7</td>
<td>12</td>
<td>0</td>
</tr>
</tbody>
</table>

5.71 In other mixes, like poly silk, polynosic, cotton X FL, PV X filament, P/c warp and filament weft etc., there are negligible changes over the years.
5.7 RAW MATERIAL CONSUMPTION ANALYSIS

5.71 The purpose of this analysis is to understand the direction in which the product mix is moving. It is one more indicator of product mix. Earlier we have used and analysed production figures, to understand the product mix decisions. The price per kg for various raw material is arrived at, and growth in the consumption is calculated for a decade 1974-84. The figures are taken from the company's balance sheets.

5.72 For cotton the prices per kg have gone up over the years and there have been fluctuations. The lowest being Rs 12.11 per kg in the year 1975 and highest Rs 18.99 per kg in 1984. However, the degree of variations is not high. This is indicated by the price range. The growth analysis of cotton consumption, shows only a marginal growth. Out of 10 years, 5 years has a positive growth and another 5 years negative growth. This is in line with whatever has been said earlier, that cotton production has gone down. However, cotton is also used in blended/mixed fabrics hence one does not see a gradual decline as in case of cotton production. There is always the impression in the textile industry, that prices of raw material especially cotton determine the product mix decisions and performance of the mill. In fact it
has been one of the critical factors. To test this, a partial approach of regression was used, with the prices of cotton regressed with sales over a decade. The analysis showed $R^2$ as only .38, which means only 38% of the variations in sales were explained by the prices of cotton. And when it was done with gross profit, it went down to .15.

The analysis shows that the price of cotton does not have a critical role in determination of performance of this company. The similar analysis of cotton prices with cotton production shows $R^2$ = .50. It means that if the prices of cotton is going up, the production of cotton fabric is coming down. The cotton prices explain 50% of the variations in the cotton production. The price of raw material does determine the product mix decisions, but not performance. Further analysis of the impact of cotton prices on the product mix is carried out in multiple regression models. For non-cotton this analysis could not be carried out as relevant categories did not match. However, one can see from the raw data that, unlike cotton the relationship is positive, because the prices of raw material is going up, so also the production of non-cotton fabrics. Polynosic viscose was introduced in the year 1977. Its prices are higher than cotton. In 1981 it was 162% higher. In '77 and '78 it was lower than cotton. There is a
steep rise in the prices of polynosic viscose fibre. The growth analysis shows fluctuations like cotton. However, the production of polyester viscose fabrics started only in 1980. The time lag is understandable as first it has to be made into yarn by mixing it with polyester. So, this does not give any clear direction. However, the production analysis shows that it has been having a high rate of growth since the time it was introduced. Probably the consumption of polynosic fibre is low as compared to polyester content.

5.73 The analysis of the consumption of texturised yarn reveals a very high growth. Over the years it has been rapidly increasing. From 100 in '74, it has gone upto 2202. The price analysis suggests that prices of texturised yarn are highest. The company seems to be buying yarn and not manufacturing it. The prices have not gone up so much. This clearly indicates that company is moving in the direction of text by text fabrics. From the production figures it is difficult to conclude because only in a few items texturised is shown. But, an interview with an agent of the mill also revealed the same. He said that company wants to specialise in Text by Text sarees in the long run, and that is one of the directions in which product policy is moving. So, we can conclude
that Text by Text fabrics will increase its share in the total production of the company over the years. Evaluation of this policy shall be taken up in the next chapter.

5.74 The consumption of polyester fibre also, shows steady growth. However, it is not as high as text. The prices are also lower than text, but higher than polynosic. In the year 84, there has been a sharp jump as compared to the other years. The analysis of consumption figures, points out to the product policy direction. Apart from the changes made in the production pattern, from 1982 onwards, company started selling its yarn outside on one hand and buying grey cloth from outside, processing it and selling it. However, the percentage is small but atleast appears that they are moving in that direction. This is a radical product policy management change. In the light of the government ban on expansion, it appears that this is a right direction. Otherwise how does one achieve growth? Thus, addition of high value items on one hand and the radical product management change on the other hand, has helped the company to grow even when the industry is on the decline and with ban on expansion of weaving capacities.

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