The magnitude of the key financial parameters of select companies in indian cotton textile industry - an exploratory evaluation

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ABSTRACT

A major portion of any country's gross domestic product is contributed by its corporate sector. India is a country of more than 1000 million people with 3.28 square million kilometers of land and endowed with million kilometers of natural resources. The success of India depends on the performance of the corporations.

In this context, the Indian cotton textile industry occupies an important place in the economy of the country because of its contribution to the industrial output, employment generation and foreign exchange earnings. This study has been conducted to analyze the performance of selected companies in Indian cotton textile industry. It uses trend analysis, cost analysis, and profitability analysis to examine the performance of seven companies listed in Bombay Stock Exchange. Based on the analysis, it brings out inferences for the cotton textile industry.

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INTRODUCTION

The prosperity of a country depends to a larger extent on the performance of the economy. A major portion of any country's gross domestic product is contributed by its corporate sector. India is a country of more than 1000 million people with 3.28 square million kilometers of land and endowed with million kilometers of natural resources. The success of India depends on the performance of the corporations.

In this context, the Indian cotton textile industry occupies an important place in the economy of the country because of its contribution to the industrial output, employment generation and foreign exchange earnings. To obtain the better understanding of the firm's position, the research study has been conducted in respect of the performance of the selected companies in Indian cotton textile industry.

OBJECTIVES OF THE STUDY

- To review the origin and the progress of the selected companies in Indian cotton textile industry.
- To analyse the Trends of Production, cost and sales of selected companies.
- To examine the cost and profitability parameters of selected companies.

4. To suggest better ways for the development of financial efficiency of the sample companies in Indian cotton textile industry.

METHODOLOGY

In order to analyse the objectives of the research study, the data collected from various sources and are subjected with consistent statistical analysis from the following heads.

Data period

The company wise information has been collected on a number of variables during the period from 1998-99 to 2007-08, covering 10 years.

Sources of data

The basic data for this current study has been collected from the official directory of the Bombay Stock Exchange and the Electronic Data Base **PROWESS** provide by Center for Monitoring Indian Economy **(CMIE)**

Sampling design

For the present study seven companies have been purposively selected from the list of cotton textile companies are listed at Bombay stock exchange (BSE).

Parameters for selection of sample companies

1. Companies having continuous financial data for the last 10 years starting from 1999 to 2008.
2. Turn over is more than or equal to Rs.100 crores in 2007-08.
3. Positive Net worth in 2008.

Sample Companies

1. Abishek Industries Ltd.
2. Alok Industries Ltd.
3. Arvind Ltd.
4. KSL Industries Ltd.
5. Nahar Spinning Mills Ltd.
6. Skumars Nationwide Ltd.
7. Tarun Textile Ltd (TT Ltd)

FRAMEWORK OF ANALYSIS

To examine the primary objectives of the study, the following analysis have been made by the researcher in an efficient manner.

A) Production, cost and sales trends (Time series -Trend analysis)

B) Cost analysis (ANOVA)

C) Profitability analysis (Multi-variate analysis)

Production, Cost and Sales Trends (Time series -Trend analysis)

In order to fulfill the second objective of the study, the following trend analysis has been made by the researcher in respect of Production, Cost and Sales in an efficient manner. The said variables have been examined and resulted as under.

TABLE No. 1. : TREND ANALYSIS OF ABISHEK INDUSTRIES LTD.,

(Rupees in Crores)

YEAR	TREND OF PRODUCTION				TREND OF COST				TREND OF SALES			
	Actual Value	Indices	Trend Value (y_c)	Deviation	Actual value	Indices	Trend value (y_c)	Deviation	Actual value	Indices	Trend value (y_c)	Deviation
1998-99	74.69	100	73.715	0.975	68.65	100	40.171	28.479	76.13	100	65.333	10.797
1999-00	193.87	259.5662	172.229	21.641	151.15	220.1748	122.668	28.482	178.37	234.2966	164.262	14.108
2000-01	309.88	414.8882	270.743	39.137	236.27	344.1661	205.166	31.104	294.34	386.6281	263.191	31.149
2001-02	463.69	620.8194	369.258	94.432	362.17	527.5601	287.663	74.507	471.74	619.6506	362.12	109.62
2002-03	314.14	420.5918	467.772	-153.63	233.19	339.6795	370.16	-136.97	306.85	403.0606	461.049	-154.19
2003-04	490.14	656.2324	566.286	-76.146	353.1	514.3481	452.658	-99.558	463.81	609.2342	559.979	-96.169
2004-05	717.07	960.0616	664.8	52.27	547.23	797.1304	535.155	12.075	705.26	926.3891	658.908	46.352
2005-06	724.54	970.0629	763.315	-38.775	582.75	848.8711	617.652	-34.902	743.3	976.3562	757.837	-14.537
2006-07	832.86	1115.089	861.829	-28.969	667.87	972.8623	700.15	-32.28	816.66	1072.718	856.766	-40.106
2007-08	1049.41	1405.021	960.343	89.067	911.71	1328.055	782.647	129.063	1048.68	1377.486	955.695	92.985
	Yc=24.7993+98.5142x				**Yc=42.3267+82.4974x**				**Yc=33.596+98.9291x**			
	Where origin of x is 1998-99 X represents years, Y= Rupees in crores				**Where origin of x is 1998-99 X represents years, Y= Rupees in crores**				**Where origin of x is 1998-99 X represents years, Y= Rupees in crores**			
	Chi-Square Analysis				**Chi-Square Analysis**				**Chi-Square Analysis**			
	Calculated Value	**Table Value**	**D.F**	**S/NS**	**Calculated Value**	**Table Value**	**D.F**	**S/NS**	**Calculated Value**	**Table Value**	**D.F**	**S/NS**
	699.0886	16.92	9	S	148.4125	16.92	9	S	122.4184	16.92	9	S

Source: Annual Reports of the Companies

S – SIGNIFICANT AT 5% LEVEL NS – NOT SIGNIFICANT AT 5% LEVEL

TABLE No.2 : TREND ANALYSIS OF ALOK INDUSTRIES LTD.,

(Rupees in Crores)

YEAR	TREND OF PRODUCTION				TREND OF COST				TREND OF SALES			
	Actual Value	Indices	Trend Value (y_c)	Deviation	Actual value	Indices	Trend value (y_c)	Deviation	Actual value	Indices	Trend value (y_c)	Deviation
1998-99	289.98	100	77.43	212.55	239.26	100	89.68	149.58	267.05	100	70.2	196.85
1999-00	347.65	119.88	289.96	57.69	279.7	116.90	248.24	31.46	329.69	123.4563	276.06	53.63
2000-01	462.82	159.60	502.48	-39.66	381.58	159.48	406.8	-25.22	443.3	165.9989	481.91	-38.61
2001-02	596.64	205.75	715	-118.36	463.48	193.71	565.37	-101.89	563.67	211.0728	687.77	-124.1
2002-03	831.36	286.69	927.53	-96.17	681.06	284.652	723.93	-42.87	790.69	296.0831	893.62	-102.93
2003-04	1025.28	353.56	1140.05	-114.77	807.79	337.620	882.49	-74.7	1046.98	392.0539	1099.48	-52.5
2004-05	1268.7	437.51	1352.58	-83.88	987.76	412.839	1041.05	-53.29	1196	447.8562	1305.34	-109.34
2005-06	1420.7	489.93	1565.1	-144.4	1098.7	459.207	1199.61	-100.91	1400.2	524.3213	1511.19	-110.99
2006-07	1871.3	645.32	1777.63	93.67	1423	594.750	1358.17	64.83	1805.9	676.2404	1717.05	88.85
2007-08	2223.48	766.77	1990.15	233.33	1669.74	697.876	1516.73	153.01	2122.04	794.6227	1922.9	199.14
	Yc=135.094+212.525x				**Yc=68.8793+158.561x**				**Yc=135.653+205.856x**			
	Where origin of x is 1998-99 X represents years, Y= Rupees in crores				**Where origin of x is 1998-99 X represents years, Y= Rupees in crores**				**Where origin of x is 1998-99 X represents years, Y= Rupees in crores**			
	Chi-Square Analysis				**Chi-Square Analysis**				**Chi-Square Analysis**			
	Calculated Value	**Table Value**	**D.F**	**S/NS**	**Calculated Value**	**Table Value**	**D.F**	**S/NS**	**Calculated Value**	**Table Value**	**D.F**	**S/NS**
	690.0056	16.92	9	S	312.0105	16.92	9	S	644.791	16.92	9	S

Source: Annual Reports of the Companies

S – SIGNIFICANT AT 5% LEVEL NS – NOT SIGNIFICANT AT 5% LEVEL

TABLE No.3 : TREND ANALYSIS OF ARVIND INDUSTRIES LTD.,

(Rupees in Crores)

YEAR	TREND OF PRODUCTION				TREND OF COST				TREND OF SALES			
	Actual Value	Indices	Trend Value (y_c)	Deviation	Actual value	Indices	Trend value (y_c)	Deviation	Actual value	Indices	Trend value (y_c)	Deviation
1998-99	937.41	100	1002.2	-64.79	849.44	100	928.11	-78.67	902.33	100	1005.59	-103.26
1999-00	1165.2	124.299	1110.49	54.71	1111.3	130.82	995.73	115.57	1205.8	133.631	1111.04	94.76
2000-01	1854.6	197.84	1218.79	635.81	1709.1	201.20	1063.36	645.74	1850.2	205.046	1216.49	633.71
2001-02	664.49	70.8857	1327.08	-662.59	548.62	64.586	1130.99	-582.37	698.23	77.3807	1321.95	-623.72
2002-03	1512.2	161.316	1435.38	76.82	1134.9	133.60	1198.61	-63.71	1475.9	163.565	1427.4	48.5
2003-04	1437	153.294	1543.67	-106.67	1152.7	135.70	1266.24	-113.54	1407.3	155.962	1532.85	-125.55
2004-05	1672.8	178.449	1651.96	20.84	1312.4	154.50	1333.87	-21.47	1660.1	183.979	1638.3	21.8
2005-06	1578.3	168.368	1760.26	-181.96	1201.9	141.49	1401.5	-199.6	1588.1	175.999	1743.75	-155.65
2006-07	1882.87	200.858	1868.55	14.32	1462.95	172.22	1469.12	-6.17	1832.4	203.074	1849.2	-16.8
2007-08	2190.36	233.660	1976.84	213.52	1840.97	216.72	1536.75	304.22	2180.87	241.693	1954.66	226.21
	Yc=893.907+108.294x				**Yc=860.479+67.6270x**				**Yc=900.137+105.452x**			
	Where origin of x is 1998-99 X represents years, Y= Rupees in crores				**Where origin of x is 1998-99 X represents years, Y= Rupees in crores**				**Where origin of x is 1998-99 X represents years, Y= Rupees in crores**			
	Chi-Square Analysis				**Chi-Square Analysis**				**Chi-Square Analysis**			
	Calculated Value	**Table Value**	**D.F**	**S/NS**	**Calculated Value**	**Table Value**	**D.F**	**S/NS**	**Calculated Value**	**Table Value**	**D.F**	**S/NS**
	723.1164	16.92	9	S	814.6807	16.92	9	S	695.5348	16.92	9	S

Source: Annual Reports of the Companies

S – SIGNIFICANT AT 5% LEVEL NS – NOT SIGNIFICANT AT 5% LEVEL

TABLE No.4 : TREND ANALYSIS OF KSL INDUSTRIES LTD.,

(Rupees in Crores)

YEAR	TREND OF PRODUCTION				TREND OF COST				TREND OF SALES			
	Actual Value	Indices	Trend Value (y_c)	Deviation	Actual value	Indices	Trend value (y_c)	Deviation	Actual value	Indices	Trend value (y_c)	Deviation
1998-99	335.04	100	189.514	145.526	285.41	100	171.767	113.643	330.78	100	190.517	140.26
1999-00	436.14	130.175	213.962	222.178	367.45	128.7446	191.114	176.336	427.25	129.1644	213.846	213.40
2000-01	313.46	93.5589	238.411	75.049	299.88	105.0699	210.46	89.42	324.76	98.18006	237.175	87.58
2001-02	89.16	26.6117	262.859	-173.699	84.8	29.71164	229.806	-145.006	84.73	25.61521	260.504	-175.77
2002-03	34.93	10.4256	287.308	-252.378	32.67	11.44669	249.153	-216.483	34.45	10.41478	283.833	-249.38
2003-04	83.56	24.9403	311.756	-228.196	80.07	28.05438	268.499	-188.429	87.17	26.35286	307.161	-219.99
2004-05	160.99	48.0509	336.205	-175.215	138.19	48.41807	287.846	-149.656	153.62	46.44174	330.49	-176.87
2005-06	358.74	107.073	360.653	-1.913	300.55	105.3046	307.192	-6.642	348.9	105.478	353.819	-4.91
2006-07	518.94	154.88	385.102	133.838	435.54	152.6015	326.538	109.002	516.43	156.1249	377.148	139.28
2007-08	664.36	198.292	409.55	254.81	563.7	197.5053	345.885	217.815	646.88	195.562	400.477	246.40
	Yc=165.065+24.4485x				**Yc=152.421+19.3464x**				**Yc=167.189+23.3288x**			
	Where origin of x is 1998-99 X represents years, Y= Rupees in crores				**Where origin of x is 1998-99 X represents years, Y= Rupees in crores**				**Where origin of x is 1998-99 X represents years, Y= Rupees in crores**			
	Chi-Square Analysis				**Chi-Square Analysis**				**Chi-Square Analysis**			
	Calculated Value	**Table Value**	**D.F**	**S/NS**	**Calculated Value**	**Table Value**	**D.F**	**S/NS**	**Calculated Value**	**Table Value**	**D.F**	**S/NS**
	1165.964	16.92	9	S	939.2159	16.92	9	S	1141.615	16.92	9	S

Source: Annual Reports of the Companies

S – SIGNIFICANT AT 5% LEVEL NS – NOT SIGNIFICANT AT 5% LEVEL

TABLE No.5 : TREND ANALYSIS OF NAHAR SPINNING MILLS LTD.,

(Rupees in Crores)

YEAR	TREND OF PRODUCTION				TREND OF COST				TREND OF SALES			
	Actual Value	Indices	Trend Value (y_c)	Deviation	Actual value	Indices	Trend value (y_c)	Deviation	Actual value	Indices	Trend value (y_c)	Deviation
1998-99	298.74	100	209.93	88.807	260.74	100	186.122	74.618	298.15	100	213.886	84.26
1999-00	299.43	100.23	271.56	27.866	276.51	106.0482	240.772	35.738	321.24	107.744	273.957	47.28
2000-01	385.46	129.028	333.19	52.264	318.34	122.091	295.421	22.919	356.5	119.570	334.028	22.47
2001-02	379.25	126.949	394.82	-15.578	341.9	131.1268	350.071	-8.171	378.29	126.879	394.099	-15.80
2002-03	420.7	140.824	456.46	-35.76	385.23	147.7449	404.721	-19.491	437.99	146.902	454.17	-16.18
2003-04	380.09	127.23	518.09	-138.002	343.4	131.7021	459.371	-115.971	372.62	124.977	514.242	-141.6
2004-05	431.66	144.493	579.72	-148.064	397.03	152.2705	514.021	-116.991	432.3	144.994	574.313	-142.0
2005-06	480.2	160.741	641.35	-161.156	420.13	161.1299	568.671	-148.541	473.53	158.822	634.384	-160.8
2006-07	905.73	303.183	702.98	202.742	763.84	292.9508	623.32	140.52	890.5	298.675	694.455	196.04
2007-08	891.5	298.42	764.61	126.881	813.34	311.9353	677.97	135.37	880.94	295.4687	754.526	126.41
	Yc=148.301+61.6319x				**Yc=131.472+54.6498x**				**Yc=153.815+60.0712x**			
	Where origin of x is 1998-99 X represents years, Y= Rupees in crores				**Where origin of x is 1998-99 X represents years, Y= Rupees in crores**				**Where origin of x is 1998-99 X represents years, Y= Rupees in crores**			
	Chi-Square Analysis				**Chi-Square Analysis**				**Chi-Square Analysis**			
	Calculated Value	**Table Value**	**D.F**	**S/NS**	**Calculated Value**	**Table Value**	**D.F**	**S/NS**	**Calculated Value**	**Table Value**	**D.F**	**S/NS**
	246.6361	16.92	9	S	191.5396	16.92	9	S	235.5083	16.92	9	S

Source: Annual Reports of the Companies

S – SIGNIFICANT AT 5% LEVEL NS – NOT SIGNIFICANT AT 5% LEVEL

TABLE No.6 : TREND ANALYSIS OF SKUMARS NATIONWIDE LTD.,

(Rupees in Crores)

YEAR	TREND OF PRODUCTION				TREND OF COST				TREND OF SALES			
	Actual Value	Indices	Trend Value (y_c)	Deviation	Actual value	Indices	Trend value (y_c)	Deviation	Actual value	Indices	Trend value (y_c)	Deviation
1998-99	533.75	100	445.24	88.51	407.9	100	382.357	25.543	507.09	100	404.8	102.29
1999-00	619.05	115.9813	526.26	92.79	451.13	110.5982	441.946	9.184	584.05	115.1768	489.76	94.29
2000-01	734.93	137.6918	607.29	127.64	562.85	137.9873	501.535	61.315	696.86	137.4233	574.72	122.14
2001-02	803.17	150.4768	688.31	114.86	730.31	179.0414	561.124	169.186	792.93	156.3687	659.68	133.25
2002-03	673.16	126.119	769.33	-96.17	607.93	149.039	620.713	-12.783	613.11	120.9075	744.64	-131.53
2003-04	633.86	118.756	850.36	-216.5	604.17	148.1172	680.303	-76.133	608.04	119.9077	829.6	-221.56
2004-05	335.62	62.87963	931.38	-595.76	294.19	72.12307	739.892	-445.702	344.36	67.90905	914.56	-570.2
2005-06	907.41	170.0066	1012.41	-105	713.68	174.9645	799.481	-85.801	889.51	175.4146	999.52	-110.01
2006-07	1315.99	246.5555	1093.43	222.56	988.54	242.3486	859.07	129.47	1229.54	242.4698	1084.48	145.06
2007-08	1541.52	288.8094	1174.45	367.07	1144.38	280.5541	918.659	225.721	1605.72	316.6538	1169.45	436.27
	Yc=364.214+81.024x				**Yc=322.767+59.5892x**				**Yc=319.835+84.9610x**			
	Where origin of x is 1998-99 X represents years, Y= Rupees in crores				**Where origin of x is 1998-99 X represents years, Y= Rupees in crores**				**Where origin of x is 1998-99 X represents years, Y= Rupees in crores**			
	Chi-Square Analysis				**Chi-Square Analysis**				**Chi-Square Analysis**			
	Calculated Value	**Table Value**	**D.F**	**S/NS**	**Calculated Value**	**Table Value**	**D.F**	**S/NS**	**Calculated Value**	**Table Value**	**D.F**	**S/NS**
	699.0886	16.92	9	S	421.8556	16.92	9	S	729.0446	16.92	9	S

Source: Annual Reports of the Companies

S – SIGNIFICANT AT 5% LEVEL NS – NOT SIGNIFICANT AT 5% LEVEL

TABLE No.7 : TREND ANALYSIS OF TT LTD.,

(Rupees in Crores)

YEAR	TREND OF PRODUCTION				TREND OF COST				TREND OF SALES			
	Actual Value	Indices	Trend Value (y_c)	Deviation	Actual value	Indices	Trend value (y_c)	Deviation	Actual value	Indices	Trend value (y_c)	Deviation
1998-99	87.77	100	-24.224	111.994	76.19	100	-25.481	101.671	86.94	100	-25.703	112.643
1999-00	100.61	114.6291	34.481	66.129	88.14	115.6845	28.373	59.767	101.11	116.2986	33.214	67.896
2000-01	107.29	122.2399	93.186	14.104	94.04	123.4283	82.227	11.813	104.64	120.3589	92.131	12.509
2001-02	102.12	116.3495	151.891	-49.771	91.81	120.5014	136.082	-44.272	103.25	118.7601	151.048	-47.798
2002-03	136.29	155.2808	210.596	-74.306	123.47	162.0554	189.936	-66.466	133.93	154.0488	209.965	-76.035
2003-04	141.44	161.1485	269.302	-127.862	130.2	170.8886	243.79	-113.59	139.18	160.0874	268.881	-129.701
2004-05	165.64	188.7205	328.007	-162.367	149.83	196.6531	297.644	-147.814	163.29	187.8192	327.798	-164.508
2005-06	332.43	378.7513	386.712	-54.282	300.96	395.0125	351.499	-50.539	331.15	380.8949	386.715	-55.565
2006-07	586.99	668.782	445.417	141.573	526.33	690.8124	405.353	120.977	591.53	680.3888	445.632	145.898
2007-08	638.91	727.9367	504.122	134.788	587.66	771.3086	459.207	128.453	639.21	735.2312	504.549	134.661
	Yc=82.9287+58.7050x				Yc=79.3353+53.8542x				Yc=84.62+58.9169x			
	Where origin of x is 1998-99 X represents years, Y= Rupees in crores				Where origin of x is 1998-99 X represents years, Y= Rupees in crores				Where origin of x is 1998-99 X represents years, Y= Rupees in crores			
	Chi-Square Analysis				Chi-Square Analysis				Chi-Square Analysis			
	Calculated Value	Table Value	D.F	S/NS	Calculated Value	Table Value	D.F	S/NS	Calculated Value	Table Value	D.F	S/NS
	116.5548	16.92	9	S	34.7818	16.92	9	S	73.6905	16.92	9	S

Source: Annual Reports of the Companies

S – SIGNIFICANT AT 5% LEVEL NS – NOT SIGNIFICANT AT 5% LEVEL

Inferences - trend analysis

Table No.1 reveals that the actual value of Production, Cost, Sales and its Indices shows an increasing trend except in the year 2002-03 during the period of the study in the Abishek Industries ltd. Based on the Least Square Linear Equation, the Production was Yc=24.7993+98.5142x, Cost was Yc= 42.3267+82.4974x and Sales was Yc=33.596+98.9291x.The average increase in production was Rs.98.5142 crores per year, cost was Rs.82.4974 crores per year and sales was Rs.98.9291 crores per year. The trend values of Production, Cost and Sales shows an upward movement through out the study period. The difference between the actual values and trend values were negative during the years 2002-03, 2003-04, 2005-06 and 2006-07 and they were positive in the remaining years.

Table No.2 depicts that the actual value of Production, Cost, Sales and its Indices shows an increasing trend during the entire period of the study in Alok Industries ltd. Based on the Least Square Linear Equation, the Production was Yc = 135.094+212.525x, Cost was Yc=68.8793+ 158.561x and Sales was Yc=135.653+205.856x.The average increase in production was Rs.212.525 crores per year, cost was Rs. 158.561crores and sales was Rs.205.856 crores per year. The trend values of Production, Cost and Sales shows an upward movement through out the study period. The difference between the actual values and trend values were negative during the years 2000-01 to 2005-06 and they were positive in the remaining years.

Table No.3 brings forth that the actual value of Production, Cost, Sales and its Indices shows that the fluctuating trend during the entire period of the study in Arvind Ltd . Based on the Least Square Linear Equation, the Production was Yc= 893.907+ 108.294x, Cost was Yc= 860.479+67.6270x and Sales was Yc= 900.137+105.452x.The average increase in production was Rs. 108.294 crores per year, cost was Rs. 67.6270 crores and sales was Rs.105.452 crores per year. The trend values of Production, Cost and Sales shows an upward movement through out the study period. The difference between the actual values and trend values were negative during the years 1998-99, 2001-02, 2003-04, 2005-06, 2006-07 and they were positive in the remaining years.

Table No.4 denotes that the actual values of Production, Cost, Sales and its Indices shows that an increasing trend in the first two years and it was decreased in the next three years and then increased to the next five years up to the period of the study in KSL Industries Ltd. Based on the Least Square Linear Equation, the Production was Yc =165.065+24.4485x, Cost was Yc=152.421+ 19.3464x and Sales was Yc=167.189+23.3288x .The average increase in production was

Rs.24.4485crores per year, cost was Rs. 19.3464 crores and sales was Rs. 23.3288 crores per year. The trend values of Production, Cost and Sales shows an upward movement through out the study period. The difference between the actual values and trend values were negative during the years 2001-02 to 2005-06 and they were positive in the remaining years.

Table No.5 obvious that the actual values of Production, Cost, Sales of Nahar Spinning Mills Ltd and its Indices shows that an increasing trend in the first five years and it was decreased in the next year and then increased to the next three years and then finally decreased in the last year. Based on the Least Square Linear Equation, the Production was Yc =148.301+61.6319x, Cost was Yc=131.472+54.6498x and Sales was Yc=153.815+60.0712x .The average increase in production was Rs.61.6319crores per year, cost was Rs.54.6498 crores and sales was Rs.60.0712 crores per year. The trend values of Production, Cost and Sales shows an upward movement through out the study period. The difference between the actual values and trend values were negative during the years from 2001-02 to 2005-06 and they were positive in the remaining years.

Table No.6 shows that the actual value of Production, Cost, Sales and its Indices shows an increasing trend except in the four years and decreased in the next three years and finally increased in the last three years during the period of the study in SKumars Nation wide Ltd. Based on the Least Square Linear Equation, the Production was Yc=364.214+81.024x, Cost was Yc=322.767 +59.5892x and Sales was Yc=319.835+84.9610x. The average increase in production was Rs.81.024 crores per year, cost was Rs.59.5892 crores per year and sales was Rs.84.9610 crores per year. The trend values of Production, Cost and Sales shows an upward movement through out the study period. The difference between the actual values and trend values were negative during the years 2002-03 to 2005-06 and they were positive in the remaining years.

Table No.7 shows that the actual value of Production, Cost, Sales and its Indices shows an increasing trend except in the year 2001-02 during the period of the study in Tarun Textiles Ltd. Based on the Least Square Linear Equation, the Production was Yc=82.9287+58.7050x, Cost was Yc=79.3353+53.8542x and Sales was Yc=84.62+58.9169x.The average increase in production was Rs.58.7050 crores per year, cost was Rs.53.8542 crores per year and sales was Rs.58.9169 crores per year. The trend values of Production, Cost and Sales shows an upward movement through out the study period. The difference between the actual values and trend values were negative during the years 2001-02 to 2005-06 and they were positive in the remaining years.

Inferences – chi-square analysis

The significance of the difference between the actual and the trend values of Production, Cost and Sales of all the sample companies were examined by applying the statistical Chi-square ($\div^2$) test. The calculated Chi-square value of Production, cost and sales were greater than the tabulated value of 16.92 at 5% level of significance with 9 degrees of freedom in all the sample companies, which implies that the difference between the actual values and the trend values of production, Cost and Sales are significant in all the sample companies.

Cost Analysis (Analysis of Variance)

Cost Analysis refers to the break up of total cost into certain elements or sub-divisions. Such analysis is essential for the purpose of accounting and control over cost. The present chapter fulfills the third objective of the study that the cost analysis has been made by the researcher from the following ratios which have been influenced in respect of total cost.

Determining Ratios on Total Cost

A) Ratio of Raw materials Cost

B) Ratio of Power and Fuel Cost

C) Ratio of Employee Cost

D) Ratio of Other Manufacturing Expenses

E) Selling and Administrative Expenses

In order to find out whether the difference in the above mentioned ratios among the selected seven companies are significant or not, the analysis of variance has been applied and are presented as under.

Table No.8 : Analysis of Variance - Parameters on Total Cost

Selected Ratios	F	Table Value	S/NS (5%)
A). Ratio of Raw materials Cost	50.0644	2.25	S
B). Ratio of Power and Fuel Cost	28.1756	2.25	S
C). Ratio of Employee Cost	85.1548	2.25	S
D). Ratio of Other Manufacturing Expenses	67.2725	2.25	S
E). Selling and Administrative Expenses	21.0299	2.25	S

Source : Compiled From Annual Reports of the Companies

It is inferred from the table No.6 that the calculated value of F value is more than the table value of 2.25. Hence it is significant at 5% level .Thus the hypothesis that there is a significant relationship between the ratios of Total cost among the selected seven companies in Indian cotton textile industry.

C). Profitability Analysis (Multi-Variate Analysis)

It is necessary to analyze and interpret the profitability indicators which have been selected to represent the efficiency in profitability;

1. Gross Profit Ratio (X1)
2. Net Profit Ratio (X2)
3. Operating Profit Ratio (X3)
4. Return on Capital Employed (X4)
5.Return on Net Worth Ratio (X5)
6. Operating Ratio (X6)
7. Net Profit to Net worth Ratio (X7)
8. EPS (X8)

The above mentioned ratios have been calculated from the annual reports of the companies and are subjected to the appropriate statistical analysis using mean, standard deviation and coefficient of variation which have been presented in APPENDIX in an efficient manner.

For the purpose of establishing the definite relationship between Gross profit ratio and profitability ratios among the selected companies, Karl Pearson's Correlation Coefficient can be applied. It applies the interdependence of the set of variables upon each other in such a way that changes in the one are in sympathy with changes in the other. For finding the inter correlation coefficient between the profitability ratios of Sample companies are presented as under.

Inter Correlation Coefficient Matrix - Profitability Ratios

TABLE No.9.1 : ABISHEK INDUSTRIES LTD.

VARIABLES	GRP (X1)	NPR(X 2)	OPR(X 3)	ROCE(X 4)	RONW(X5)	OPR(X6)	NPNW(X7)	EPS(X8)
GRP (X1)	1							
NPR (X2)	**0.9399	1						
OPR (X3)	*0.6549	0.5492	1					
ROCE (X4)	0.4547	0.6243	0.332	1				
RONW (X5)	**0.8371	**0.9176	*0.6657	0.5315	1			
OPR (X6)	**0.9052	**0.9117	0.4189	0.3795	**0.7705	1		
NPNW (X7)	*0.7931	**0.9273	0.4743	0.61141	**0.9635	**0.7865	1	
EPS (X8)	0.5815	0.5878	**0.9324	0.57249	0.7210	0.3998	0.5819	1

TABLE No.9.2 : ALOK INDUSTRIES LTD

VARIABLES	GRP (X1)	NPR(X 2)	OPR(X 3)	ROCE(X 4)	RONW(X5)	OPR(X6)	NPNW(X7)	EPS(X8)
GRP (X1)	1							
NPR (X2)	**0.9325	1						
OPR (X3)	**0.9828	**0.9383	1					
ROCE (X4)	**-0.9327	-**0.8391	**-0.8691	1				
RONW (X5)	**-0.7676	-0.6196	-0.6989	**0.8501	1			
OPR (X6)	*0.7217	*0.6345	0.5922	**-0.8357	**-0.7742	1		
NPNW (X7)	*-0.7288	-0.5418	*-0.6591	**0.8584	**0.9486	*-0.7186	1	
EPS (X8)	**0.8872	**0.8706	**0.9484	*-0.7337	-0.5655	0.3310	-0.5316	1

The above table 9.1 reveals that the correlation of profitability ratios of Abishek Industries Ltd in Indian Cotton Textile Industry. It is learnt from the table that there is significant positive correlation between X1 and X2, X5, X6 at 1% level and X1 and X3, X7 at 5% level. In case of X2 there is significant positive correlation between X2 and X5, X6 and X7 at 1% level. Regarding X3 there is a close relationship between X3 and X8 at 1% level and X3 and X5 at 5% level. A close took at the table led us to conclude that X5 is positively correlated with X6 and X7 at 1% level of significance. Likewise X6 is correlated with X7 at 1% level.

In case of Alok Industries Ltd, a penetrating observation of the table 9.2 infers that X1 has significant positive correlation with X2 and X3, X8 and X1 has significant negative correlation with X4 and X5 at 1% level and X1 has significant positive correlation with X6 and negative correlation with X7 at 5% level. Like wise X2 has significant positive correlation with X3, X8 and significant negative correlation with X4 at 1% level. Then X2 is positively correlated with X6 at 5% level of significance. In case of X3 there is close relationship with X3 and X8 which has positive correlation and with X4 which has negative correlation at 1% level of significance and has significant negative correlation with X3 and X5 and X7 at 5% level. There is a significant positive correlation between X4 and X5, X7 and negative correlation with X6 at 1% level and significant negative correlation with X8 at 5% level. Regarding X5 there is a positive correlation with X7 and has significant negative correlation with X6 at 1% level. Likewise there is a significant negative correlation between X6 and X7 at 5% level.

TABLE No.9.3 : ARVIND INDUSTRIES LTD.

VARIABLES	GRP (X1)	NPR(X 2)	OPR(X 3)	ROCE(X 4)	RONW(X5)	OPR(X6)	NPNW(X7)	EPS(X8)
GRP (X1)	1							
NPR (X2)	0.4698	1						
OPR (X3)	*0.7188	**0.8541	1					
ROCE (X4)	0.6293	**0.9232	**0.8755	1				
RONW (X5)	*0.7218	*0.7067	**0.7756	**0.8904	1			
OPR (X6)	0.6179	**0.9562	**0.8471	**0.9452	**0.8212	1		
NPNW (X7)	0.1241	**0.8394	*0.7397	*0.7387	0.5159	*0.7508	1	
EPS (X8)	*0.6334	**0.9678	**0.9089	**0.9535	**0.8011	**0.9576	*0.7331	1

TABLE No.9.4 : KSL INDUSTRIES LTD

VARIABLES	GRP (X1)	NPR(X 2)	OPR(X 3)	ROCE(X 4)	RONW(X5)	OPR(X6)	NPNW(X7)	EPS(X8)
GRP (X1)	1							
NPR (X2)	**0.8374	1						
OPR (X3)	**0.9859	*0.7577	1					
ROCE (X4)	*0.7372	**0.9555	*0.6377	1				
RONW (X5)	**0.7686	**0.9529	*0.6735	**0.9962	1			
OPR (X6)	0.331	*0.7122	0.2139	**0.8401	**0.8135	1		
NPNW (X7)	**0.7708	**0.9573	*0.6748	**0.9969	**0.9996	**0.8081	1	
EPS (X8)	**0.9766	**0.894941	**0.9607	**0.78998	**0.8142	0.4082	**0.8162	1

Regarding Arvind Ltd, table 9.3 explains that X1 is positively correlated with X3, X5 and X6 at 5% level. Likewise X2 is correlated with X3, X4, X6, X7 and X8 at 1% level and with X5 at 5% level. A close observation of the table reveals that X3 has significant positive correlation with X4, X5, X6 and X8 at 1% level and with X7 at 5% level. In case of X4, it is positively correlated with X5, X6 and X8 at 1% level and with X7 at 5% level. Likewise X5 is correlated with X6 and X8 at 1% level. There is a close relationship between X6 and X8 at 1% level and X6 and X7 at 5% level. In case of X7 there is a positive correlation with X8 at 5% level.

The above table 9.4 reveals that the correlation of profitability ratios of KSL Industries Ltd. in Indian Cotton Textile Industry. It is learnt from the table that there is significant positive correlation between X1 and X2, X3, X5, X7 and X8 at 1% level and X1 and X4, at 5% level. In case of X2 there is significant positive correlation between X2 and X4, X5, X7 and X8 at 1% level and with X3 at 5% level. Regarding X3 there is a close relationship between X3 and X8 at 1% level and X3 and with X6 at 5% level. A close took at the table led us to conclude that X4 is positively correlated with X5, X6, X7 and X8 at 1% level of significance and with X4, X5 and X7 at 5% level. Likewise X5 is correlated with X6, X7 and X8 at 1% level. Likewise X6 is positively correlated with X7 at 1% level and X7 is correlated with X8 at 1% level of significance.

TABLE No.9.5 : NAHAR SPINNING MILLS LTD.

VARIABLES	GRP (X1)	NPR(X 2)	OPR(X 3)	ROCE(X 4)	RONW(X5)	OPR(X6)	NPNW(X7)	EPS(X8)
GRP (X1)	1							
NPR (X2)	**0.8001	1						
OPR (X3)	**0.9462	**0.8274	1					
ROCE (X4)	**0.7813	**0.8554	**0.8269	1				
RONW (X5)	**0.7894	**0.8134	*0.7599	**0.9623	1			
OPR (X6)	0.5793	0.5715	0.3676	0.6217	**0.7685	1		
NPNW (X7)	*0.7560	**0.7913	*0.7138	**0.9347	**0.9925	**0.7885	1	
EPS (X8)	**0.8172	**0.9491	**0.9038	**0.9377	**0.8487	0.4692	**0.8109	1

TABLE No.9.6 : SKUMARS NATIONWIDE LTD

VARIABLES	GRP (X1)	NPR(X 2)	OPR(X 3)	ROCE(X 4)	RONW(X5)	OPR(X6)	NPNW(X7)	EPS(X8)
GRP (X1)	1							
NPR (X2)	0.4004	1						
OPR (X3)	*0.6483	**0.7867	1					
ROCE (X4)	0.6052	**0.8138	**0.9106	1				
RONW (X5)	*0.7298	**0.8304	*0.7575	**0.8816	1			
OPR (X6)	0.5863	0.4426	0.5297	0.5298	0.6064	1		
NPNW (X7)	*0.6388	0.6015	*0.6402	0.4016	0.5065	0.2788	1	
EPS (X8)	0.5938	**0.8321	**0.9519	**0.9738	**0.8549	0.6153	0.48154	1

Regarding Nahar Spinning Mills Ltd, table 9.5 explains that X1 is positively correlated with X2, X3, X4, X5 and X6 at 1% level and with X7 at 5% level of significance. Likewise X2 is correlated with X3, X4, X5, X7 and X8 at 1% level. A close observation of the table reveals that X3 has significant positive correlation with X4 and X8 at 1% level and with X5 at 5% level. In case of X4, there is positive correlation with X5, X7 and X8 at 1% level. There is a close relationship between X6 and X7 at 1% level. In case of X7 there is a positive correlation with X8 at 1% level of significance.

In case of SKumars Nationwide Ltd, a penetrating observation of the table 9.6 brings as to average and infers that X1 has significant positive correlation with X3, X5 and X7 at 5% level. Like wise X2 has significant positive correlation with X3, X4, X5 and X8 at 1% level. In case of X3 there is close relationship with X4 and X8 at 1% level and with X5 and X7 at 5% level. There is a significant positive correlation between X4 and X5, X8 at 1% level. Regarding X5 there is a positive correlation with X8 at 1% level.

TABLE No.9.7 : TT LTD

VARIABLES	GRP (X1)	NPR(X 2)	OPR(X 3)	ROCE(X 4)	RONW(X5)	OPR(X6)	NPNW(X7)	EPS(X8)
GRP (X1)	1							
NPR (X2)	*0.6948	1						
OPR (X3)	**0.8810	*0.6592	1					
ROCE (X4)	-0.0022	0.3054	0.0662	1				
RONW (X5)	0.0114	0.3818	-0.1858	*0.7322	1			
OPR (X6)	-0.0116	0.4375	-0.2739	0.4958	**0.9097	1		
NPNW (X7)	0.0508	0.4599	-0.1535	*0.6586	**0.9859	**0.9258	1	
EPS (X8)	*0.7471	*0.7277	**0.9549	0.2378	-0.0878	-0.1843	-0.0565	1

The above table 9.7 reveals that the correlation of profitability ratios of Tarun Textiles Ltd. in Indian Cotton Textile Industry. It is learnt from the table that there is significant positive correlation between X1 and X3 at 1% level and X1 and X2, X8 at 5% level. In case of X2 there is significant positive correlation between X2 and X3, X8 at 5% level. Likewise X3 is positively correlated with X8 at 1% level. Regarding X4 there is a close relationship between X4 and X5, X7 at 5% level. A close took at the table led us to conclude that X5 is positively correlated with X6 and X7 at 1% level. Likewise X6 is correlated with X7 at 1% level.

Multiple Regression Analysis

Multiple Regression analysis is used to ascertain the percentage of contribution of each independent variable on the dependant variable. In this section, the regression analysis is taking some of the variables related to the determinants of Profitability of selected companies in Indian cotton Textile industry.

The Regression model is fitted for the Profitability Ratios are;

$Y=ß_0 + ß_1 X_1 + ß_2 X_2 + ß_3 X_3 + ß_4 X_4 + ß_5 X_5 + ß_6 X_6 + ß_7 X_7$.

The following dependent and the independent variables have been used to analyse the determinants of Profitability of selected companies in Indian cotton Textile industry.

Ø	**Dependant variable**	**- Gross profit Ratio (Intercept)**
Ø	**Independent variable**	**- Net Profit Ratio(X_1)**
	Operating Profit Ratio(X_2)	- Operating Ratio(X_5)
	Return on Capital Employed(X_3)	- Net Profit to Net worth Ratio(X_6)
	Return on Net worth(X_4)	- Earnings per Share(X_7)

Regression Equation of Sample Companies

1. **Abishek industries Ltd $Y = -11.3233 + 0.0428 X_1 + 2.0675 X_2 + 0.4276 X_3 + 0.2258 X_4 + 2.1167 X_5 - 0.0292 X_6 - 2.4285 X_7$.**
2. Alok industries Ltd $Y = -32.5804 - 0.34764 X_1 + 0.13614 X_2 + 0.42136 X_3 + 0.38349 X_4 + 8.65854 X_5 - 0.38976 X_6 + 1.1903 X_7$.
3. Arvind industries Ltd $Y = -11.26953 – 0.0301 X_1 + 0.9808 X_2 + 0.4801 X_3 - 0.1464 X_4 + 6.1329 X_5 - 0.0893 X_6 - 0.6646 X_7$.
4. KSL industries Ltd $Y = -0.17865 + 0.54651 X_1 + 1.03325 X_2 - 0.60991 X_3 - 0.2328 X_4 + 9.9947 X_5 + 0.93501 X_6 - 0.59178 X_7$.
5. **Nahar Spinning Mills Ltd $Y = -3.25804 + 0.0575 X_1 + 0.98638 X_2 - 0.25891 X_3 + 0.18141 X_4 + 1.08782 X_5 - 0.12673 X_6 - 0.21232 X_7$.**
6. Skumars Nation Wide Ltd $Y = 3.24849 - 0.2823 X_1 + 0.4301 X_2 + 0.54681 X_3 + 0.32086 X_4 + 0.35972 X_5 + 0.02517 X_6 - 0.6744 X_7$.
7. TT Ltd $Y = -1.9481 + 0.60425 X_1 + 0.99574 X_2 + 0.0584 X_3 - 0.0172 X_4 + 1.25268 X_5 - 0.0245 X_6 - 0.8938 X_7$.

MODEL SUMMARY

Sample Companies	Multiple R	R Square	Adjusted R Square	Standard Error
Abishek industries Ltd	0.9963	0.9926	0.9669	0.98996
Alok industries Ltd	0.9999	0.9999	0.9994	0.1156
Arvind industries Ltd	0.9992	0.9984	0.9928	0.3398
KSL industries Ltd	0.99901	0.9980	0.9911	0.264
Nahar Spinning Mills Ltd.,	0.99901	0.9980	0.9911	0.264
SKumars Nation Wide Ltd	0.99465	0.9893	0.9520	0.7488
TT Ltd	0.9998	0.9997	0.9986	0.0408

Analysis of Variance – Profitability Parameters

The multiple regression Analysis of Abishek industries ltd reveals that the multiple co efficient determination in Rsquare is 0.9926(ie.99.26% variation in the Gross profit Ratio) and Alok industries Ltd is 0.9999 (ie. 99.99% variation) and Arvind Ltd I is 0.9928 (ie. 99.28% variation) and KSL industries Ltd is 0.9973 (ie.99.73% variation) and Nahar Spinning Mills Ltd is 0.99801(ie. 99.8% variation) and SKumars Nation Wide Ltd is 0.9893(ie.98.93%variation) and TT Ltd is 0.9928 (ie. 99.28%) of the variation in the Gross profit ratio. So the seven variables together explain about the mentioned variation in the Gross Profit Ratio of all the sample companies.

The Analysis of Variance of the sample companies are presented in APPENDIX- II .

Conclusion

- Based on the Cost perfrormance, there has been some improvement in controlling operating cost in Arvind, Nahar and KSL industries Ltd., Hence it is suggested that steps to be taken to control the operating cost of the above companies.
- It is significant to note that the gross profit ratio has shown an improvement over the initial period except in Abishek Industries Ltd. This indicates the scope for profit potential if effective management of funds is carried on. It is high time that the monetary authorities

gave due attention to the financial viability of the sample companies.

- All the selected companies should properly check in increasing cost of bought – ins and concentrate on increasing the proportion of various profitability parameters so that they will increase an efficiency in their operations.
- It is suggested that the systematic, prompt and regulation of low of information and its analysis is important for the selected companies for improving their profitability parameters and also appropriate organizational arrangement should be made for the successful implementation of management information system and financial efficiency of the companies.

In this age of competition intensity, it is necessary for the cotton textile industry is to develop winning strategies based on the company's advantages and customer needs. Many companies have come up with alternate strategies that are wrong or for which the timing is unsuitable. The key is to build on the core competence the organization with appropriate strategies as needed. To be most effective, a company's values and strategies should be reflected across all management practices of the company. Apart from some minor problem, the performance of the select companies in Indian cotton textile industry was good. If the above suggestions were successfully implemented means, the company will reach a highest target in the future.

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Appendix-I

Cost Analysis

Table 1.1 Ratio of Raw Materials Consumed to Net Sales

(In Percentage)

YEARS	SAMPLE COMPANIES						
	ABISHEK	ALOK	ARVIND	KSL	NAHAR	SKUMARS	TT
1999	66.21	79.59	57	83.08	51.55	65.61	74.37
2000	58.27	75.77	46.53	82.78	48.05	59.4	76.18
2001	57.55	77.53	43.36	87.79	53.09	64.33	76.57
2002	47.26	75.84	32.72	93.6	47.85	77.25	73.73
2003	39.95	75.93	34.01	84.9	44.66	85.01	79.99
2004	47.58	66.64	37.2	84.53	50.24	80.1	79.59
2005	45.5	70.12	37.34	82.91	48.22	73.8	77.3
2006	43.04	62.04	31.78	67.75	44.57	72.02	82.96
2007	45.34	61.42	33.23	64.87	45.5	72.12	84.16
2008	50.73	57.64	40.47	68.99	51.59	62.73	86.42
Mean	50.143	70.252	39.364	80.12	48.532	71.237	79.127
SD	8.1189	7.8290	7.8620	9.5214	3.0337	8.1936	4.2751
Kurtosis	0.1040	-1.4663	1.7825	-0.87609	-1.3335	-0.8695	-0.9567
Skewness	0.8880	-0.4545	1.3679	-0.58827	0.0357	0.1925	0.4607
Range	26.26	21.95	25.22	28.73	8.52	25.61	12.69
Minimum	39.95	57.64	31.78	64.87	44.57	59.4	73.73
Maximum	66.21	79.59	57	93.6	53.09	85.01	86.42

Source: Compiled from the Annual Reports of the Companies

Table 1.2 : Ratio of power & fuel cost to net Sales

(In Percentage)

YEARS	SAMPLE COMPANIES						
	ABISHEK	ALOK	ARVIND	KSL	NAHAR	SKUMARS	TT
1999	7.55	2.78	6.47	0.95	6.5	1.7	4.4
2000	8.83	1.59	11.28	0.98	5.4	2.49	3.85
2001	8.42	1.39	13.9	1.28	6.71	1.91	4.62
2002	9.21	2.16	10.64	2.44	6	1.66	5.26
2003	11.2	2.19	10.73	2.67	7.09	2.35	3.87
2004	10.1	2.56	11.19	2.22	8.54	2.5	4.65
2005	9.12	4.15	10.77	2.23	8.43	1.96	5.05
2006	8.44	4.77	9.04	8.68	11.46	1.7	2.56
2007	10.08	4.97	9.38	7.97	13.57	1.63	1.69
2008	9.09	5.73	9.86	7.01	15.57	0.99	1.95
Mean	9.204	3.229	10.326	3.643	8.927	1.889	3.79
SD	1.0354	1.5437	1.9009	3.0142	3.4590	0.4418	1.2852
Kurtosis	0.4708	-1.4173	2.1667	-0.9876	-0.1442	0.5406	-1.0163
Skew ness	0.4801	0.4532	-0.2640	0.9483	1.0368	-0.3202	-0.7024
Range	3.65	4.34	7.43	7.73	10.17	1.51	3.57
Minimum	7.55	1.39	6.47	0.95	5.4	0.99	1.69
Maximum	11.2	5.73	13.9	8.68	15.57	2.5	5.26

Source: Compiled from the Annual Reports of the Companies

Table 1.3 : Ratio of Employee Cost to Net Sales

(In Percentage)

YEARS	SAMPLE COMPANIES						
	ABISHEK	ALOK	ARVIND	KSL	NAHAR	SKUMARS	TT
1999	5.79	1.06	5.13	0.14	5.17	2.76	2.59
2000	7.81	1.24	6.86	0.14	5.64	2.76	2.09
2001	6.75	1.08	7.31	0.2	6.26	2.43	2.58
2002	6.61	1.2	6.61	0.55	6.52	2.28	2.71
2003	8.66	1.09	6.8	1.31	6.34	3.04	2.27
2004	8.41	1.46	7.66	1.44	7.29	3.41	2.48
2005	8.06	1.63	7.26	0.55	7.61	2.39	2.59
2006	8.56	2	8.35	0.52	7.95	2.5	1.4
2007	9.89	2.66	10.99	0.73	7.28	2.45	0.94
2008	11.46	3.68	10.58	0.62	7.92	2.32	1.09
Mean	8.2	1.71	7.755	0.62	6.798	2.634	2.074
SD	1.6492	0.8577	1.8002	0.4493	0.95960	0.3614	0.6753
Kurtosis	0.5501	2.3091	0.3180	0.0292	-1.0318	1.0643	-0.9851
Skewness	0.5727	1.6533	0.8385	0.8940	-0.3824	1.2686	-0.8932
Range	5.67	2.62	5.86	1.3	2.78	1.13	1.77
Minimum	5.79	1.06	5.13	0.14	5.17	2.28	0.94
Maximum	11.46	3.68	10.99	1.44	7.95	3.41	2.71

Source: Computed from the Annual Reports of the Companies

Table 1.4 : Ratio of Manufacturing Expenses to Net Sales

(In Percentage)

YEARS	SAMPLE COMPANIES						
	ABISHEK	ALOK	ARVIND	KSL	NAHAR	SKUMARS	TT
1999	3.57	7.08	11.91	1.33	17.04	8.1	2.9
2000	4.15	5.98	14.04	1.42	16.91	7.41	2.04
2001	4.46	5.76	15.81	2.19	17.93	6.32	3.37
2002	5.28	3.2	15.59	1.34	19.84	4.04	4.37
2003	5.87	2.65	15.37	1.45	19.99	3.88	3.61
2004	6.11	4.29	15.02	0.92	17.66	3.39	3.91
2005	6.31	4.35	15.23	5.44	20.04	3.73	4.08
2006	6	4.84	17.64	6.18	18.49	3.15	2.4
2007	6.63	5.32	19.43	5.79	9.69	2.38	0.91
2008	6.11	5.99	17.15	5.26	7.75	2.14	1.18
Mean	5.449	4.946	15.719	3.132	16.534	4.454	2.877
SD	1.0389	1.3594	2.0469	2.2163	4.3025	2.0823	1.2111
Kurtosis	-0.7300	-0.445	0.9589	-2.102	1.1258	-0.6604	-1.057
Skewness	-0.8288	-0.296	0.0101	0.4590	-1.5101	0.8524	-0.5087
Range	3.06	4.43	7.52	5.26	12.29	5.96	3.46
Minimum	3.57	2.65	11.91	0.92	7.75	2.14	0.91
Maximum	**6.63**	**7.08**	**19.43**	**6.18**	**20.04**	**8.1**	**4.37**

Source: Computed from the Annual Reports of the Companies

Table 1.5 : Ratio of Selling & Administrative Expenses to Net Sales

(In Percentage)

YEARS	SAMPLE COMPANIES						
	ABISHEK	ALOK	ARVIND	KSL	NAHAR	SKUMARS	TT
1999	3.93	1.54	8.69	2.06	6.82	5.59	5.69
2000	7.47	1.82	9.79	2.66	6.09	10.14	6.48
2001	7.33	1.39	4.77	3.67	5.93	8.31	7.34
2002	7.5	0.63	4.3	2.27	5.44	6.72	5.04
2003	9.21	3.08	4.43	4.58	5.77	8.22	6.72
2004	10.07	1.93	4.41	2.79	6.08	7.98	7.08
2005	10.51	3.5	3.35	2.29	5.95	6.58	6.83
2006	9.67	4.15	3.71	3.02	8.09	5.68	6.67
2007	9.79	4.46	8.29	2.14	7.83	8.1	7.71
2008	8.96	4.48	8.74	1.86	8.81	6.55	7.44
Mean	8.444	2.698	6.048	2.734	6.681	7.387	6.7
SD	1.9589	1.4089	2.4942	0.8404	1.1564	1.4112	0.8140
Kurtosis	2.3240	-1.650	-1.9060	1.5156	-0.6605	0.0109	0.7132
Skewness	-1.4252	0.0495	0.4756	1.3481	0.9035	0.5245	-0.993
Range	6.58	3.85	6.44	2.72	3.37	4.55	2.67
Minimum	3.93	0.63	3.35	1.86	5.44	5.59	5.04
Maximum	10.51	4.48	9.79	4.58	8.81	10.14	7.71

Source: Compiled from the Annual Reports of the Companies

Appendix – II

Profitability Analysis

Table 2.1 : Profitability Ratios

(In Percentage)

Company	Gross Profit Ratio (X1)			Net Profit To Net Sales (X2)		
	Mean	SD	CV	Mean	SD	CV
Abishek	13.61	5.16	37.91	4.76	2.03	42.64
Alok	13.41	4.42	32.96	7.09	1.26	17.77
Arvind	14.19	3.8	26.77	9.34	9.16	98.07
KSL	9.72	5.47	56.27	6.33	4.39	69.35
Nahar	15.59	2.65	16.99	5.48	2.59	47.26
Skumars	11.69	3.24	27.71	8.56	5.74	67.05
TT	3.14	1.04	33.12	1.37	0.53	38.68
Overall	11.62	3.68	33.11	6.13	3.67	54.40

Source: Compiled from Annual Reports of the Companies

Table 2.2 : Profitability Ratios

(In Percentage)

Company	Operating Profit To Net Sales (X3)			Return on Capital Employed (X4)		
	Mean	SD	CV	Mean	SD	CV
Abishek	20.90	3.40	16.27	10.70	5.24	48.97
Alok	20.81	4.47	21.48	14.29	3.37	23.58
Arvind	22.08	5.71	25.86	6.24	3.81	61.06
KSL	10.82	5.94	54.90	8.70	8.79	101.03
Nahar	19.12	3.28	17.15	6.81	2.94	43.17
Skumars	16.06	6.98	43.46	7.10	5.86	82.54
TT	6.86	2.50	36.44	11.00	2.65	24.09
Overall	**16.66**	**4.61**	**30.80**	**9.26**	**4.67**	**54.92**

Source: Compiled from Annual Reports of the Companies

Table 2.3 : Profitability Ratios

(In Percentage)

Company	Return on Networth Ratio (X5)			Operating Ratio (X6)		
	Mean	SD	CV	Mean	SD	CV
Abishek	10.44	4.31	41.28	2.20	1.11	50.45
Alok	20.58	3.65	17.74	2.22	0.37	16.67
Arvind	5.66	4.73	83.57	1.24	0.68	54.84
KSL	8.87	8.95	100.90	28.45	40.07	140.84
Nahar	5.28	3.07	58.14	3.09	0.92	29.77
Skumars	11.52	9.87	85.68	2.48	2.03	81.85
TT	8.28	4.32	52.17	1.46	0.21	14.38
Overall	10.09	5.56	62.78	5.88	6.48	55.55

Source: Compile from Annual Reports of the Companies

Table 2.4 : Profitability Ratios

(In Percentage)

Company	Net Profit to Net Worth Ratio (X7)			EPS (X8)		
	Mean	SD	CV	Mean	SD	CV
Abishek	6.64	9.15	137.80	12.05	2.89	23.98
Alok	18.27	3.27	17.90	16.45	3.21	19.51
Arvind	16.17	47.84	295.86	10.80	6.98	64.63
KSL	8.12	8.10	99.75	8.45	5.06	59.88
Nahar	5.24	3.23	61.64	10.45	3.75	35.89
Skumars	14.01	57.75	412.21	9.71	8.47	87.23
TT	7.97	3.92	49.18	5.26	2.06	39.16
Overall	10.92	19.04	153.48	10.45	4.63	47.18

Source: Compile from Annual Reports of the Companies

Table 2.5 : Anova – Abishek Industries Ltd.

Sample companies	SOURCE	DF	SS	MS	F	Sig F
1. AbishekIndustries Ltd	Regression	7	264.61	37.802	38.572	0.0254
	Residual	2	1.9601	0.98		
	Total	9	266.57			

Table 2.6 : Anova - Alok Industries Ltd

Sample companies	SOURCE	DF	SS	MS	F	Sig F
2. Alok Industries Ltd	Regression	7	195.47	27.925	2090.7	0.0005
	Residual	2	0.0267	0.0134		
	Total	9	195.5			

Table 2.7 : Anova - Arvind Industries Ltd

Sample Companies	SOURCE	DF	SS	MS	F	Sig F
3. Arvind Industries Ltd	Regression	7	144.035	20.576	178.21	0.0056
	Residual	2	0.23092	0.1155		
	Total	9	144.266			

Table 2.8 : Anova – KSL industries Ltd

Sample Companies	SOURCE	DF	SS	MS	F	Sig F
4. KSL Industries Ltd	Regression	7	298.19	42.599	104.7	0.0095
	Residual	2	0.8137	0.4069		
	Total	9	299.01			

Table 2.9 : Anova – NAHAR SPINNING MILLS LTD.

Sample Companies	SOURCE	DF	SS	MS	F	Sig F
5. Nahar Spinning Mills Ltd	Regression	7	70.2298	10.0328	143.96	0.0069
	Residual	2	0.13938	0.06969		
	Total	9	70.3692			

Table 2.10 : Anova- Skumars Nation Wide Ltd

Sample Companies	SOURCE	DF	SS	MS	F	Sig F
6. Skumars Nation Wide Ltd	**Regression**	7	104.1141	14.8734	26.5238	0.0368
	Residual	2	1.121518	0.56076		
	Total	**9**	**105.2356**			

Table 2.11 : Anova- TT Ltd

Sample Companies	SOURCE	DF	SS	MS	F	Sig F
7. TT Ltd.	**Regression**	7	10.765	1.5378	921.83	0.0011
	Residual	2	0.0033	0.0017		
	Total	**9**	**10.768**			

Table 2.12 : Regression Co Efficient - Abishek Industries Ltd

VARIABLES	βeta Coefficient	Standard Error	t Stat	P-value
Gross profit Ratio (Intercept)	-11.323	7.6219	-1.4856	0.2757
Net Profit Ratio(X_1)	0.04285	1.3182	0.0325	0.97702
Operating Profit Ratio(X_2)	2.06756	0.7606	2.7183	0.11288
Return on Capital Employed(X_3)	0.4276	0.4493	0.9517	0.44169
Return on Net worth(X_4)	0.22581	0.7369	0.3064	0.78823
Operating Ratio(X_5)	2.11671	1.955	1.0827	0.39211
Net Profit to Net worth Ratio(X_6)	-0.0298	0.4256	-0.07	0.95055
EPS(X_7)	-2.4286	1.2665	-1.9175	0.19521

Table 2.13 : Regression Co efficient - Alok Industries Ltd

VARIABLES	βeta Coefficient	Standard Error	t Stat	P-value
Gross profit Ratio (Intercept)	-32.58	5.4671	-5.9594	0.087
Net Profit Ratio(X_1)	-0.3476	0.11936	-2.9125	0.1004
Operating Profit Ratio(X_2)	0.1361	0.13197	1.0316	0.4107
Return on Capital Employed(X_3)	0.4214	0.13646	3.0877	0.0908
Return on Net worth(X_4)	0.3835	0.08636	4.4407	0.0472
Operating Ratio(X_5)	8.6585	1.23876	6.9897	0.0199
Net Profit to Net worth Ratio(X_6)	-0.3898	0.10898	-3.5766	0.0701
EPS(X_7)	1.1903	0.21463	5.546	0.031

Table 2.14 : Regression Co-efficient - Arvind industries Ltd

VARIABLES	βeta Coefficient	Standard Error	t Stat	P-value
Gross profit Ratio (Intercept)	-11.27	1.6431	-6.8588	0.092
Net Profit Ratio(X_1)	-0.0302	0.101	-0.2986	0.7934
Operating Profit Ratio(X_2)	0.9809	0.0668	14.693	0.0046
Return on Capital Employed(X_3)	0.4801	0.1561	3.0762	0.0914
Return on Net worth(X_4)	-0.1464	0.0808	-1.8113	0.2118
Operating Ratio(X_5)	6.1329	0.7633	8.0342	0.0151
Net Profit to Net worth Ratio(X_6)	-0.0893	0.0079	-11.274	0.0078
EPS(X_7)	-0.6647	0.169	-3.9324	0.059

Table 2.15 : Regression Co-efficient - KSL Industries Ltd

VARIABLES	βeta Coefficient	Standard Error	t Stat	P-value
Gross profit Ratio (Intercept)	-0.17865	0.5605	-0.31872	0.7801
Net Profit Ratio(X_1)	0.54651	0.5277	1.03573	0.4091
Operating Profit Ratio(X_2)	1.03325	0.2366	4.36634	0.0487
Return on Capital Employed(X_3)	-0.60991	0.6575	-0.9276	0.4515
Return on Net worth(X_4)	-0.2328	2.1322	-0.10918	0.923
Operating Ratio(X_5)	9.9947	0.0014	0.07323	0.9483
Net Profit to Net worth Ratio(X_6)	0.93501	2.7329	0.34213	0.7649
EPS(X_7)	-0.59178	0.516	-1.14689	0.3701

Table 2.16 : Regression Coefficient - Nahar Spinning Mills Ltd

VARIABLES	βeta Coefficient	Standard Error	t Stat	P-value
Gross profit Ratio (Intercept)	-3.25804	1.896102	-1.7183	0.2279
Net Profit Ratio(X_1)	0.0575	0.62835	0.09151	0.9354
Operating Profit Ratio(X_2)	0.98638	0.203932	4.83679	0.0402
Return on Capital Employed(X_3)	-0.25891	1.242106	-0.2084	0.8542
Return on Net worth(X_4)	0.18141	1.109996	0.16343	0.8852
Operating Ratio(X_5)	1.08782	0.24918	4.36561	0.0487
Net Profit to Net worth Ratio(X_6)	-0.12673	0.42025	-0.3015	0.7915
EPS(X_7)	-0.21232	0.960573	-0.221	0.8456

Table 2.17 : Regression Coefficient - Skumars Nation Wide Ltd

VARIABLES	βeta Coefficient	Standard Error	t Stat	P-value
Gross profit Ratio (Intercept)	3.24849	2.5397	1.2791	0.3292
Net Profit Ratio(X_1)	-0.2823	0.0552	-5.1114	0.0362
Operating Profit Ratio(X_2)	0.43015	0.2766	1.5551	0.2602
Return on Capital Employed(X_3)	0.54681	0.3564	1.5341	0.2648
Return on Net worth(X_4)	0.32086	0.1101	2.9148	0.1003
Operating Ratio(X_5)	0.35972	0.1413	2.5459	0.1258
Net Profit to Net worth Ratio(X_6)	0.02517	0.0137	1.8393	0.2072
EPS(X_7)	-0.6744	0.2438	-2.7661	0.1096

Table 2.18 : Regression Co-efficient - TT Ltd

VARIABLES	βeta Coefficient	Standard Error	t Stat	P-value
Gross profit Ratio (Intercept)	-1.9481	0.465	-4.1893	0.05253
Net Profit Ratio(X_1)	0.60425	0.1062	5.6886	0.02954
Operating Profit Ratio(X_2)	0.99574	0.0299	33.35	0.0009
Return on Capital Employed(X_3)	0.0584	0.0194	3.0035	0.09527
Return on Net worth(X_4)	-0.0172	0.0493	-0.3486	0.76064
Operating Ratio(X_5)	1.25268	0.3153	3.9724	0.05792
Net Profit to Net worth Ratio(X_6)	-0.0245	0.0423	-0.5791	0.62104
EPS(X_7)	-0.8938	0.0411	-21.759	0.00211