

## **CHAPTER – V**

### **FINANCIAL MANAGEMENT OF SELECTED STATE OWNED ENTERPRISES AND ANALYSIS**

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## **CHAPTER – V**

### **5.0 INTRODUCTION**

The concept of financial management for private corporate sector and the State owned enterprises does not differ. The principles, the techniques and the postulation adopted by private corporate sector are also adopted by State Owned Enterprises. But there are some distinctive features for managing State Owned Enterprises and the private corporate sector because the constitution of State Owned Enterprises differs from the private corporate sector. Firstly, the State Owned Enterprises are very large in size and secondly the objectives of State Owned Enterprises are not only the maximization of profit but also they are established for the social gains, development of backward areas, provision of employment which may conflict with the primary objective of private enterprise i.e. wealth maximization of their own.

The financial management plays a significant role in State Owned Enterprises relatively greater than private corporate sector as the normal size of State Owned Enterprises is very large. Financial Executives of Hindustan Limited has to control the assets of around Rs.13000 crore in comparison to Tata Steel, which has nearly Rs.300 crore of assets. The Finance Manager in State Owned Enterprises has to be more cautious about changes in the Government policies and priorities. The sources of finance for State Owned Enterprises are mainly from 1) Government 2) The Financial Institutions and 3) Their own resources, as and when the need for capital arises the Government provides it.

- ❖ The financial management in State Owned Enterprises has a prominent function; to co-ordinate between different organizations of the Government and the different departments of the Undertakings because there are conflicting goals of economic growth and profitability as it is more important for State Owned Enterprises to generate resources than to make profit.
- ❖ It is expected from the State Owned Enterprises to generate their own resources, stakeholders as the Government and the State Owned Enterprises' employees expect that the State Owned Enterprises do not become liabilities to the

Government. Therefore, the Finance Manager has to lay heavy emphasis on optimum utilization of the vast resources of the Government as it is observed that the State Owned Enterprises are underutilizing their resources like Plant and Machinery, and Manpower even lower than the requisite standards.

- ❖ It is required to ensure the improvement in utilization of resources of State Owned Enterprises through proper budget and control procedures. The studies can be organized to assess the existing state of utilization and measures to improve their utilization through systematic and scientific allocation.

## **5.1 FINANCIAL MANAGEMENT OF STATE OWNED ENTERPRISES:**

State Owned Enterprises management is different from the management of Private Corporate Sector the private sector companies are managed solely by Board of Directors while State Owned Enterprises have representatives from different ministries, consumers, public institutions and prominent individual representatives in their Board. Government exercises a lot of control over State Owned Enterprises through Government Administration like Finance Ministry as State Owned Enterprises have to approach the Government for their capital requirements. Thus the Finance Manager in State Owned Enterprises has to play a dual role of providing sound internal management as well as satisfying the Government.

### **5.1.1 Financial Resources of State Owned Enterprises**

The Government in India at Center and State level has invested huge funds in the State Owned Enterprises. Audited Reports of Comptroller and Auditor General of India published in 2004 have indicated that the investment in State Owned Enterprises of reported 24 States in India was Rs.34000 crore during the year 1999-00. As such the financial management has to play a very important role in managing such a huge investment in State Owned Enterprises.

Following table reflects huge investments in State Owned Enterprises during the respective years:

**Table: 5.1: Investment in State Owned Enterprises of all over India during the respective years.**

Rs. in crore

State	Year	Investment
Andhra Pradesh	1999-00	3832.34
Gujarat	1999-00	3771.71
West Bengal	1999-00	3654.30
Karnataka	1999-00	3532.18
Tamil Nadu	1999-00	2724.44
Haryana	1999-00	2568.20
Rajasthan	1999-00	2560.08
Uttar Pradesh	1998-99	2357.72
Punjab	1998-99	2341.53
Kerala	1999-00	1774.80
Orissa	1998-00	1346.56
Himachal Pradesh	1998-99	972.75
Delhi	2000-01	775.42
Assam	2000-01	475.98
Jammu & Kashmir	1999-00	355.05
Tripura	1999-00	177.98
Goa	1998-99	131.05
Meghalaya	1999-00	98.36
Manipur	1998-99	80.66
Sikkim	1999-00	44.54
Nagaland	1998-00	41.51
Bihar	1998-99	14.03
Arunachal Pradesh	1999-00	12.34
Mizoram	1999-00	10.98

(Source: Audit Reports from the Comptroller and Auditor General of India published by Stanford University Press, 2004)

Apart from the above, mentioned States, the figures of investments are not available in the report. The above table reflects that the investment of Government of Gujarat in State Owned Enterprises is the second highest in India that is Rs.3,772 crore. Andhra Pradesh State Owned Enterprises has the highest investment of the State Government i.e. Rs.3832 crore. Government of Gujarat has invested nearly 11 percent compared to all India investment in State Owned Enterprises; the lowest is of Mizoram that is Rs.10.98 crore.

1/3<sup>rd</sup> of investment in State Owned Enterprises of the Government of Gujarat, which is Rs.1010 Crore, is a loss making State Owned Enterprises as per the report of the Comptroller and Auditor General of India as on 31<sup>st</sup> March 2003 and their accumulated losses amounts to Rs.9200 crore.

## 5.2 ANALYSIS OF SELECTED FIVE STATE OWNED ENTERPRISES:

Five State Owned Enterprises viz. 1) Gujarat Narmada Valley Fertilizer Corporation Limited, 2) Gujarat State Fertilizers Corporation Limited, 3) Gujarat State Financial Corporation Limited, 4) Gujarat Alkalies and Chemicals Limited and 4) Gujarat Minerals Development Corporation Limited are randomly selected from the total 84 State Owned Enterprises of Government of Gujarat

### 5.2.1 Financial sources of selected state owned enterprises

The total share capital of the selected State Owned Enterprises as on 31.03.2004 amounts to Rs.420.56 crore which is nearly 11 percent of total investment of the Government in State Owned Enterprises, if the figure of their own funds that is Share Capital, Reserves and Surpluses are totaled then the amount that emerges to Rs.2816 crore.

#### 5.2.1.1 Paid up share capital

Paid up share capital is the initial source of funds to the company. Under Companies Act, no corporate company can start the business without minimum subscription share capital is part of own funds of the company.

Table 5.2: Paid up Share Capital of Selected SOEs in Gujarat

Rs. in crore

Years	GNFC	GSFC (Fertilizer)	GSFC (Finance)	GACL	GMDC
1981-82	88.92	16.00	10.00	5.95	3.18
1982-83	88.92	16.00	10.00	5.95	3.18
1983-84	88.97	21.00	10.00	5.95	3.18
1984-85	88.98	21.00	10.00	8.93	3.18
1985-86	88.99	21.00	10.00	8.93	3.18
1886-87	88.99	27.00	17.30	8.93	3.18
1887-88	88.99	NA	29.80	10.72	3.18
1888-89	88.99	27.00 15 months	40.80	17.91	3.18
1989-90	89.00	45.00	46.80	17.91	3.18
1990-91	89.00	60.00	51.80	17.91	3.18
1991-92	89.00	60.00	57.30	17.91	6.36
1992-93	89.00	60.00	65.90	17.91	6.36
1993-94	122.00	66.00	71.60	28.71	12.72
1994-95	146.00	66.00	71.60	28.83	12.72
1995-96	146.00	66.00	71.60	37.50	12.72
1996-97	146.00	78.00	74.82	37.50	31.80

Years	GNFC	GSFC (Fertilizer)	GSFC (Finance)	GACL	GMDC
1997-98	146.00	80.00	93.53	37.50	31.80
1998-99	146.00	113.00	93.92	37.50	31.80
1999-00	146.00	113.00	93.93	45.91	31.80
2000-01	146.00	113.00	94.01	45.91	31.80
2001-02	146.00	80.00	94.01	45.91	31.80
2002-03	146.00	80.00	89.11	45.91	31.80
2003-04	146.00	80.00	89.11	73.44	31.80
Average	115.21	59.50	56.39	26.50	14.66
SD	28.43	31.84	32.78	17.86	13.17
% increase	64.19	400.00	791.10	1134.29	900.00

(Source: Annual Reports)

Above table compares the paid up share capital of selected state owned enterprises. Gujarat Narmada Valley Fertilizer Co. Ltd. owns the highest share capital followed by Gujarat State Fertilizer and Chemicals Limited. The lowest share capital is owned by GMDC. The GNFC had issued shares three times in 23 years. While GSFC managed to issue their shares six times from 1981-82 to 2003-04. There is only one case of GSFC (Fertilizer) having reduced the capital from Rs.130 crore to Rs.80 crore between 2001-02. GSFC (Fin.) has increase it's share capital 11 times during this period. GACL has issued the shares seven times and GMDC three times during 23 years. The percentage increase in the share capital observed, GNFC 64 percent, GSFC (Fertilizer) 400 percent, GSFC (Finance) 791 percent, GACL 1134 percent and GMDC 900 percent.

#### 5.2.1.2 Reserves and Surplus

It is part of own funds of the company. Reserves can be of two types (1) Capital Reserves and (2) Revenue reserves. There are restrictions on use of capital reserves. They are normally created out of capital profits like share premium profit on sale of fixed assets etc.

Revenue reserves are also called as free reserves. They are created out of revenue profits. In other words they are accumulated profits or retained earning. They can be used for distributing dividend. Both the reserve increase share holders net worth and make the company financially sound.

**Table 5.3: Reserves and Surpluses of selected state owned enterprises in Gujarat**

Rs. in crore

Years	GNFC	GSFC (Fertilizer)	GSFC (Finance)	GACL	GMDC
1981-82	7.35	94.00	8.95	9.95	5.82
1982-83	8.06	113.00	7.85	1.25	6.43
1983-84	25.36	118.00	9.13	12.50	9.97
1984-85	45.06	132.00	10.75	11.46	12.89
1985-86	93.05	149.00	8.51	12.95	15.90
1886-87	95.71	170.00	9.01	24.78	22.00
1887-88	103.46	NA	10.61	22.59	22.14
1888-89	101.19	209.00 15 months	12.18	30.96	23.22
1989-90	100.00	336.00	12.54	33.85	26.18
1990-91	117.00	381.00	12.97	44.08	51.52
1991-92	144.00	433.00	12.97	55.35	73.43
1992-93	151.00	474.00	14.24	76.36	101.53
1993-94	209.00	613.00	16.55	189.96	126.85
1994-95	443.00	706.00	29.22	213.70	196.83
1995-96	506.00	885.00	40.62	353.89	231.86
1996-97	535.00	1141.00	63.80	390.32	273.39
1997-98	569.00	1286.00	100.27	391.44	343.35
1998-99	611.00	1378.00	98.12	373.89	412.10
1999-00	637.00	1394.00	100.89	366.89	432.25
2000-01	698.00	1177.00	91.05	321.94	475.38
2001-02	540.00	828.00	91.05	281.54	517.30
2002-03	584.00	437.00	85.89	272.88	586.07
2003-04	598.00	671.00	85.89	336.71	602.13
Average	300.92	596.59	40.57	166.49	182.51
SD	251.23	444.81	37.92	155.92	207.19
% increase	8036.05	613.83	859.66	3284.02	10245.88

(Source. Annual Reports)

Reserves and surpluses are the part of own funds of the business enterprises. The profit is earned after subtracting all expenses that profit is known as divisible profit, which is partly distributed amongst shareholders in the form of dividend, and residual is retained by the enterprise for unforeseen expenses or development expansion plans in future. These are also called as retained earnings, which are getting accumulated every year as, and when the need occurs, the company can utilize these. The reserves and surpluses reflects financial health of the business enterprises, Gujarat Alkalies and Chemicals Limited holds Rs.336.71 crore as reserves in the year 2003-04, from 1981-82 till 2003-04 the reserves have increased by 3284 percent, In the year 2003-04 GNFC has Rs.600 crore, GSFC

671 crore, GSFC (Fin.) Rs.85 crore and GMDC nearly Rs.600 crore. It is latest position of reserves and surpluses of selected state owned enterprises.

### 5.2.1.3 Net worth

Constituents of net worth or own funds are share capital and reserves and surpluses. Reserves are retained earning or accumulated profit of the company. Net worth increases in case of profit making company. Own funds are the part of the capital employed of the company.

**Table 5.4: Net worth or own funds of selected SOEs in Gujarat**

Rs. in crore					
Years	GNFC	GSFC (Ferti.)	GSFC (Fin.)	GACL	GMDC
1981-82	96.27	110.00	18.95	15.90	9.00
1982-83	96.98	129.00	17.85	7.20	9.61
1983-84	114.33	139.00	19.13	18.45	13.15
1984-85	134.04	153.00	20.75	20.39	16.07
1985-86	182.04	170.00	18.51	21.88	19.08
1886-87	184.70	197.00	26.31	33.71	25.18
1887-88	192.45	NA	40.41	33.31	25.32
1888-89	190.18	236.00 (15 months)	52.98	48.87	26.40
1989-90	189.00	381.00	59.34	51.76	29.36
1990-91	206.00	441.00	64.77	61.99	54.70
1991-92	233.00	493.00	70.27	73.26	79.79
1992-93	240.00	534.00	80.14	94.27	107.89
1993-94	331.00	679.00	88.15	218.67	139.57
1994-95	589.00	772.00	100.82	242.53	209.55
1995-96	652.00	951.00	112.22	391.39	244.58
1996-97	681.00	1219.00	138.62	427.82	305.19
1997-98	715.00	1366.00	193.80	428.94	375.15
1998-99	757.00	1491.00	192.04	411.39	443.09
1999-00	783.00	1507.00	194.82	412.80	464.05
2000-01	844.00	1290.00	185.06	367.85	507.18
2001-02	686.00	908.00	185.06	327.45	549.10
2002-03	730.00	517.00	175.00	318.79	617.87
2003-04	744.00	751.00	175.00	410.15	633.93
Average	416.13	627.57	96.96	192.99	197.16
SD	278.76	482.97	67.99	171.78	218.56
% increase	672.83	582.73	823.48	2479.56	6943.67

The average net worth of GNFC for 23 years is Rs.416.13 crore, it has increased from Rs.96 crore in the year 1982-82 to Rs.744 crore in the year 2003-04, the increase is at 763 percent during 23 years. GSFC (Fertilizer) net worth is



fluctuating till 2000-01. There have been a decline in the last three years; the average net worth appears Rs.627 crore with standard deviation of 483. The Gujarat State Financial Corporation Limited has fluctuations in the net worth during all 23 years. GACL net worth rose up to Rs, 413 crore in 1999-00 then reduced to Rs.318 crore in the year 2002-03. GMDC is the only company which shows continuous rise in net worth from 1982 Rs.9 crore to Rs. 634 crore for the year 2003-04. Other than GMDC the net worth of four SOEs, project fluctuating net worth during the 23 years.

#### 5.2.1.4 Borrowed Funds

Source of any business enterprises of the fund comprises of own funds that is share capital, reserves and surpluses. Another source of fund is borrowed funds, it includes secured loans and unsecured loans and other liabilities. There are no financial charges on own fund but on borrowed fund, company has to make payment of interest. Liability side of the balance sheet has two major component, 1) own fund and 2) borrowed fund.

**Table 5.5: Borrowed Funds of selected State Owned Enterprises**

Rs. in crore					
Years	GNFC	GSFC (Fertilizer)	GSFC(Finance)	GACL	GMDC
1981-82	282.52	33.00	248.52	28.35	1.87
1982-83	322.43	34.00	337.55	27.52	3.09
1983-84	246.99	45.00	355.81	29.09	4.02
1984-85	245.32	35.00	393.60	28.56	7.48
1985-86	234.12	117.00	435.72	38.32	12.44
1986-87	275.85	167.00	483.90	43.11	11.56
1987-88	349.72	NA	515.38	40.43	17.88
1988-89	411.11	309.00 15 months	620.72	48.49	16.52
1989-90	554.00	248.00	737.20	83.607	22.77
1990-91	619.00	474.00	894.22	93.69	68.84
1991-92	664.00	787.00	1091.82	98.85	60.20
1992-93	654.00	1008.00	1274.82	126.51	50.66
1993-94	587.00	1068.00	1449.30	176.41	11.80
1994-95	601.00	1058.00	1564.24	246.60	50.11
1995-96	573.00	1241.00	1714.78	363.78	18.09
1996-97	658.00	1371.00	1837.32	637.95	29.94
1997-98	636.00	1276.00	1957.87	912.67	0.00
1998-99	675.00	1383.00	1918.17	999.38	0.00
1999-00	869.00	1507.00	2009.08	953.70	0.00
2000-01	845.00	1519.00	2076.84	994.86	15.00
2001-02	754.00	1473.00	2149.26	1027.94	18.38
2002-03	714.00	1470.00	2150.70	887.82	529.84
2003-04	837.00	1391.00	2155.16	770.78	789.18
Average	548.18	818.82	1233.56	376.46	75.64
SD	207.77	592.75	716.98	404.17	189.35
% increase	196.26	4115.15	767.20	2618.80	42102.14

(Source: Annual Reports)

GSFC has highest borrowing amongst the selected SOEs whereas GMDC has the lowest borrowed funds. GACL have to made payment of interest more than remaining four SOEs, GNFC and GSFC (Fertilizer) has reasonable level of borrowed fund. Borrowed funds of GNFC have increased by 196 percent from 1981-82 to 2003-04. The average borrowed fund appears Rs.548 crore. Borrowed funds of GSFC has increased by more than 4000 percent during this 23 years, GACL's borrowed fund shows rise by 2618 percent. In the year 2001-02, GACL has the highest borrowed fund amounting to Rs. 102794 crore.

#### 5.2.1.5 Capital employed

It is a total of sources of funds to the business enterprises. The ingredients of the capital employed are the share capital, reserves and surpluses and the borrowed funds. The total of these three components represents the capital employed.

**Table 5.6: Capital employed by selected state owned enterprises in Gujarat.**

Rs. in crore					
Years	GNFC	GSFC(Fertilizer)	GSFC(Finance)	GACL	GMDC
1981-82	378.79	143.00	267.47	44.25	10.87
1982-83	419.41	163.00	355.40	34.72	12.70
1983-84	361.32	184.00	374.94	47.54	17.17
1984-85	379.36	188.00	414.35	48.95	23.54
1985-86	416.16	287.00	454.23	60.20	31.53
1886-87	460.55	364.00	510.21	76.82	36.74
1887-88	542.17	NA	555.79	73.74	43.20
1888-89	601.29	545.00 (15 months)	673.70	97.36	42.92
1989-90	743.00	629.00	796.54	135.43	52.13
1990-91	825.00	915.00	958.99	155.68	84.18
1991-92	897.00	1280.00	1162.09	172.11	106.23
1992-93	894.00	1542.00	1354.96	220.78	140.34
1993-94	918.00	1747.00	1537.45	395.08	171.49
1994-95	1190.00	1830.00	1665.06	489.13	248.76
1995-96	1225.00	2192.00	1827.00	755.17	294.21
1996-97	1339.00	2590.00	1975.94	1065.77	338.48
1997-98	1351.00	2642.00	2151.67	1341.61	414.93
1998-99	1432.00	2874.00	2110.21	1410.77	108.33
1999-00	1652.00	3014.00	2203.90	1366.50	513.62
2000-01	1689.00	2809.00	2261.90	1362.71	546.63
2001-02	1440.00	2381.00	2334.32	1355.39	670.95
2002-03	1444.00	1987.00	2325.70	1206.61	836.94
2003-04	1581.00	2142.00	2330.16	1180.93	842.11
Average	964.31	1410.78	1330.52	569.45	257.51
SD	464.76	1053.87	782.93	564.02	270.19
% Increase	317.38	1397.90	771.19	2568.77	7647.10

(Source: Annual reports)

The average capital employed by selected five SOEs are Rs.964 crore of GNFC, Rs.1410 crore of GSFC (Fertilizer) , Rs.1330 crore of GSFC (Finance), Rs.569

crore of GACL and Rs.258 crore by GMDC. All the selected state owned enterprises capital employed is showing the rise.

## 5.2.2 Application of funds

Earlier the sources of funds have been analysed under the headings share capital, reserves and surpluses, borrowed funds and capital employed. The funds acquired from said sources are used for generating the income. To produce the income by manufacturing company, major application of funds will be for fixed assets and the current assets.

### 5.2.2.1 Fixed Assets

The right hand side of the balance sheet begins with the fixed assets, in other words the right hand side of the balance sheet represents use of fund and left hand side shows source of funds. The financial institution cannot generate the income from the fixed assets like building, plant and machinery, furniture. Financial Institution generates the income from lending of funds; they do not hold much fixed assets.

**Table 5.7: Gross fixed assets of selected State owned Enterprises**  
Rs. in crore

Years	GNFC	GSFC(Fertilizer)	GSFC(Finance)	GACL	GMDC
1981-82	348.19	163.00	NA	50.38	10.39
1982-83	404.15	165.00	NA	51.26	11.72
1983-84	410.33	188.00	NA	52.62	12.17
1984-85	427.99	201.00	NA	61.46	14.95
1985-86	455.22	260.00	NA	76.78	17.36
1886-87	508.20	315.00	NA	84.70	24.20
1887-88	572.24	NA	NA	92.81	59.87
1888-89	675.94	393.00 (15 months)	NA	123.82	95.95
1989-90	845.00	501.00	NA	147.63	104.11
1990-91	956.00	870.00	NA	170.84	107.52
1991-92	1016.00	1221.00	2.67	214.75	117.00
1992-93	1069.00	1391.00	3.46	263.18	122.99
1993-94	1120.00	1561.00	3.55	424.86	151.01
1994-95	1242.00	1711.00	3.40	527.34	254.95
1995-96	1349.00	2016.00	3.91	764.84	27.00
1996-97	1374.00	2406.00	8.30	1136.97	331.68
1997-98	1466.00	2643.00	12.17	1366.35	333.33
1998-99	1561.00	2845.00	13.86	1489.47	337.09
1999-00	1726.00	2902.00	14.55	1489.69	352.24
2000-01	1865.00	3023.00	13.16	1489.09	350.08
2001-02	1970.00	3029.00	11.95	1592.47	363.35
2002-03	2102.00	3060.00	11.13	1612.19	369.37
2003-04	2153.00	3031.00	96.80	1619.51	378.42
Average	1113.75	1540.68	15.30	647.96	171.60
SD	589.35	1159.75	24.91	645.78	146.14
% increase	518.34	1759.51	831.95	3114.59	3542.16

(Source: Annual Reports)

It is observed from the data the fixed assets of GSFC (Fin.) are negligible for the years from 1991-92 to 2003-04, hence they are less compared to the other selected SOEs. GSFC finance has an average fixed assets Rs.15 30 crore with standard deviation of 24.91. The gross fixed assets of GNFC have increased by 518 percent from 1981-82 to 2003-04, the average fixed assets were Rs.1114 crore. The highest gross fixed assets are hold by Gujarat State Fertilizer Co. Ltd. that is above Rs.3000 crore after 2000-01. The gross fixed assets of GNFC are comparatively low in the year 2003-04, GMDC had the gross fixed assets of Rs.378 crore, the average gross fixed assets for 23 years of GACL are Rs.648 crore. The gross fixed assets of all selected state owned enterprises are observed growing during this period.

#### 5.2.2.2 Current Assets

The current assets comprises of stock, bills receivables, debtors, bank and cash balances etc.. These are the assets which fluctuate after the year. The excess money blocked in current assets may not earn the profit, conversely if reasonable funds are not employed in acquiring current assets then it may create difficulty in manufacturing activity. Therefore appropriate decision in working capital management is very important. Net current assets are the excess of current assets over current liabilities.

**Table 5.8: Net Current Assets of Selected State Owned Enterprises of Gujarat.**

Rs. in crore					
Years	GNFC	GSFC (Fertilizer)	GSFC (Finance)	GACL	GMDC
1981-82	35.75	51.00	NA	9.25	3.60
1982-83	58.83	77.00	NA	8.28	2.00
1983-84	37.60	85.00	NA	10.07	4.35
1984-85	81.11	86.00	NA	7.81	7.18
1985-86	133.00	134.00	NA	8.23	9.57
1986-87	170.70	173.00	NA	9.26	13.51
1987-88	227.29	NA	NA	19.86	24.49
1988-89	203.39	296.00 15 months	NA	5.23	32.29
1989-90	226.00	295.00	NA	24.38	44.11
1990-91	236.00	253.00	NA	32.83	62.65
1991-92	317.00	291.00	NA	20.04	83.76
1992-93	326.00	433.00	NA	41.31	131.73
1993-94	341.00	485.00	NA	35.13	138.42

<b>1994-95</b>	363.00	442.00	NA	54.92	139.01
<b>1995-96</b>	299.00	525.00	NA	79.28	189.82
<b>1996-97</b>	405.00	569.00	NA	36.20	266.06
<b>1997-98</b>	373.00	456.00	NA	56.54	394.57
<b>1998-99</b>	420.00	571.00	NA	70.73	548.64
<b>1999-00</b>	536.00	756.00	NA	96.11	585.33
<b>2000-01</b>	504.00	549.00	NA	173.33	570.12
<b>2001-02</b>	412.00	505.00	NA	181.93	222.96
<b>2002-03</b>	399.00	226.00	NA	154.10	212.58
<b>2003-04</b>	329.00	428.00	NA	13.25	446.50
<b>Average</b>	279.72	349.36	-	49.92	179.71
<b>SD</b>	144.91	197.94	-	53.81	196.95
<b>% increase</b>	820.28	739.22	-	43.24	12302.78

(Source: Annual Reports)

Above table reflects the working capital management of state owned enterprises. Excess of current assets over current liabilities are net current assets or working capital. The current assets comprises of stock, bills receivables, cash and bank balance, debtors etc. whereas current liabilities comprises of creditors, bills payable, bank overdrafts etc. Net current assets of GNFC has increased by 820 percent between 1981-82 and 2003-04, GSFC's working capital increased by 740 percent, GACL 43 percent whereas GMDC's working capital increased by 12302 percent during this period. The average working capital of GNFC for 23 years appears Rs.279 crore, GSFC Rs.349 crore, GACL 49.92 percent and GMDC 179 percent.

### 5.3 PROFIT AND LOSS ACCOUNTS:

Profit and Loss Account is an income statement of commercial enterprises. Ultimate result of economic activities performed by the company is summarized in the profit and loss account. Profit earned every year is either partly divided or distributed to its owners or the earnings are partly retained which ultimately are added to the net worth of the company, addition to the net worth makes company financially sound. Profit or Loss figures of each year for the period shows the trend of profit earning capacity of the company. The base of the profit or loss is depending upon the volume of the sales. The sale and profit have positive relation.

The increase in expenditure in the form of purchase, wages, and salaries, reduces the profit. The volume of expenditure compared with volume of the sale, indicates the

expenditure to be reduced. Any reduction in the cost will increase the profit keeping the sales unchanged, cost is inversely related with the profit.

Certain items debited to profit and loss account like the depreciation, taxes – direct or indirect are charged against the profit, they reduce the profit apparently without bringing any output for it. So keeping these items aside, the cost of production can be reduced by controlling waste. The dividend, reserves, or specific reserves are appropriation of profit even if they are debited to the profit and loss appropriation account. These items do not reduce the profit, rather they are distributed amongst shareholders or retained and added to the net worth.

### 5.3.1 Inter Company comparison

#### 5.3.1.1 Turnover

Any business enterprise earns revenue from the selling of its products or services. Sales minus cost of sales is the result of business enterprises and that is the profit. Therefore, every increase in the sales brings rise in profit, so financial management of any business organization will try to improve the selling figures year by year and to maximize the profit

#### 5.3.1.2 Turnover and Capital employed of All India State Owned Enterprises

The volume of sales of the state owned enterprises has been growing over the period. The sales of Rs.1,854 crore during 1967-68 have increased to Rs.5,324 crore during 1972-73 and Rs 17,556 crore during 1997-98. The figures showing the absolute and relative position of turnover for the year 1991-92 and onwards or shown in the following table.

**Table 5.9: Turnover and Capital employed of state owned enterprises in India.**

**Rs. in crore**

Year	Turnover / operating income	Capital Employed	Turnover to Capital Employed (%)	Growth of Turnover (%)
1991-92	133906	117991	113.49	12.83
1992-93	147266	140110	105.11	9.98
1993-94	158049	159836	98.88	7.32
1994-95	187355	162450	115.33	18.54
1995-96	226919	173948	130.45	21.12
1996-97	260735	231178	112.79	14.90
1997-98	276002	249855	110.46	5.86
1998-99	310179	265093	117.01	12.38
1999-00	389310	303411	128.31	25.51

(Source: Administration of Public Enterprises in India by Jagdish Prakash – Rao – Shukla  
7<sup>th</sup> Edition 2002, pp 62)

It may be seen from the above table that the state owned enterprises have shown consistent growth in the turnover / operating income. It has increased from Rs.1,33,906 crore in 1991-92 to Rs.3,89,310 crore during 1999-00. The increase in turnover during this period works out to 191 percent and 25.5 percent in the year 1999-00 over the previous year. It is to be noted that turnover was Rs.28,635 crore during 1981-82 which has crossed 1,00,0-00 crore mark during 1989-90.

### 5.3.1.3 Turnover of selected State Owned Enterprises

One of the State owned enterprises, Gujarat State Financial Corporation does not manufacture sellable goods but provides financial services, therefore its loan activity has been considered as sales.

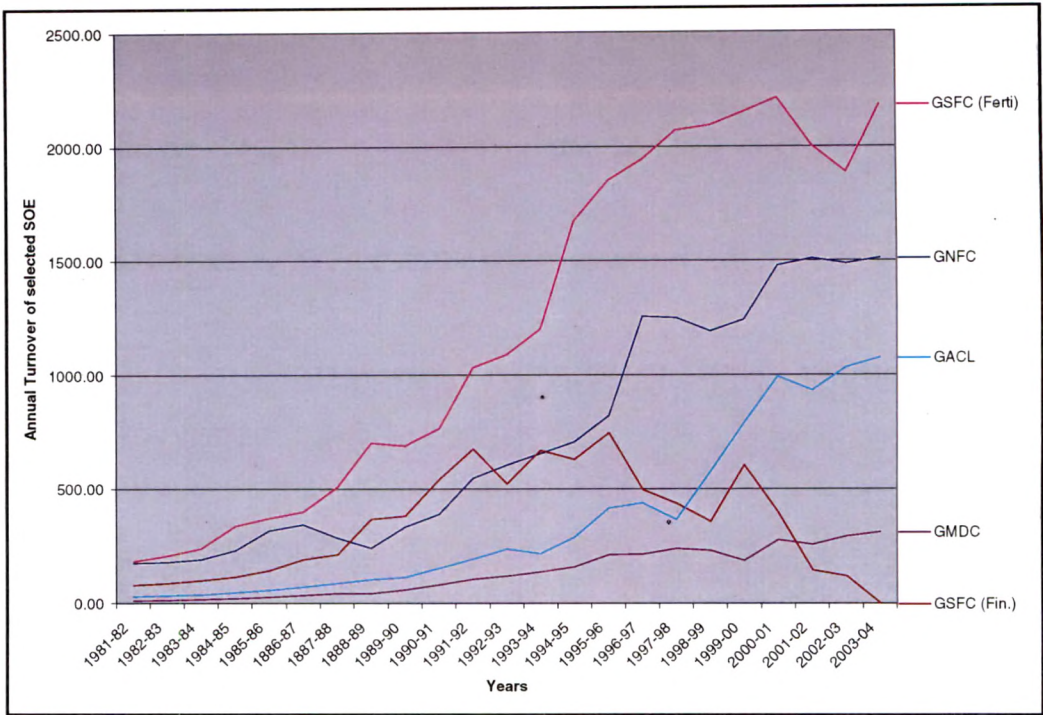
**Table 5.10: Annual turn over of selected state owned enterprises in Gujarat.**

Rs. in crore

Years	GNFC	GSFC (Fertilizer)	GSFC (Finance)	GACL	GMDC
1981-82	176.23	183.00	79.35	29.87	11.27
1982-83	181.73	208.00	86.80	32.57	12.50
1983-84	191.94	240.00	99.82	36.95	16.93
1984-85	231.87	339.00	115.98	46.12	22.40
1985-86	317.07	373.00	142.34	55.82	27.60
1886-87	345.90	401.00	192.26	69.38	34.82
1887-88	285.53	NA	213.24	84.97	41.77
1888-89	241.94	702.00 15 months	368.57	102.79	43.69
1989-90	334.00	691.00	381.39	113.54	58.95
1990-91	390.00	768.00	544.53	153.80	82.06
1991-92	546.00	1032.00	676.04	193.27	105.86
1992-93	606.00	1088.00	523.72	235.76	117.25
1993-94	657.00	1202.00	671.04	218.73	136.33
1994-95	706.00	1672.00	629.53	288.78	157.75
1995-96	821.00	1851.00	745.96	416.90	212.02
1996-97	1256.00	1942.00	498.86	440.19	215.36
1997-98	1249.00	2068.00	435.31	366.23	239.14
1998-99	1192.00	2091.00	359.08	576.42	231.40
1999-00	1242.00	2151.00	606.02	790.39	188.92
2000-01	1479.00	2213.00	397.45	991.96	277.90
2001-02	1508.00	2002.00	144.32	932.52	258.57
2002-03	1487.00	1887.00	119.18	1032.20	292.75
2003-04	1510.00	2182.00	0.00	1074.57	312.64
Average	737.18	1240.27	349.16	360.16	134.69
SD	504.65	770.19	231.16	359.34	102.99
% increase	756.83	1092.35	-100.00	3497.49	2675.11

(Source: Annual Reports)

**Graph 5.1: Graph of Growth in turnover of selected SOEs in Gujarat**  
Rs. in crore



Both fertilizer companies’ turnover is observed rising sharply after 1992-93 till 2000-01, then the GSFC turnover has reduced during 2002-03 and then gone up in the year 2003-04, whereas the turnover of GNFC has remained constant from 2001 onwards. In both fertilizer companies a lot of fluctuations are observed during the period of 23 years initially from 1981-82, the growth rate is low till 1990-91, and then it rises fast. There is 757 percent increase in the turnover of GNFC, whereas GSFC’s turnover has increased nearly by 1100 percent. The highest percentage of increase during 23 years is observed in the turnover of GACL which is nearly 3500 percent. The GMDC turnover is growing but at a very slow rate till the year 1989-90, it looks stagnant then there is slight increase in the growth rate. In the year2003-04 the turnover has touched the peak Rs.312.64 crore, the average turnover of all five SOEs are Rs.737 of GNFC, Rs.1240 of GSFC, Rs.349 of GSFC (Fin.), Rs.360 of GACL and Rs.134 of GMDC.



**Table 5.11 Annual Growth Rate of Turnover of selected SOEs compared with all India SOEs.**

**Figures in %**

Years	GNFC	GSFC	GSFC	GACL	GMDC	SOEs all India
1991-92	40.00	34.38	24.15	25.66	29.00	12.83
1992-93	10.99	5.43	-22.53	21.98	10.76	9.98
1993-94	8.42	10.48	28.13	-7.22	16.27	7.32
1994-95	7.46	39.10	-6.19	32.03	15.71	18.54
1995-96	16.29	10.71	18.49	44.37	34.40	21.12
1996-97	52.98	4.92	-33.13	5.59	1.58	14.90
1997-98	-0.56	6.49	-12.74	-16.80	11.04	5.86
1998-99	-4.56	1.11	-17.51	57.39	-3.24	12.38
1999-00	4.19	2.87	68.77	37.12	-18.36	25.48
2000-01	19.08	2.88	-34.42	25.50	47.10	17.74
2001-02	1.96	-9.53	-63.69	-5.99	-6.96	-2.34
2002-03	-1.39	-5.74	-17.42	10.69	13.22	19.58
2003-04	1.55	15.63	-100.00	4.10	6.79	9.53

(Source: Annual Reports of selected SOEs and Public Enterprises Survey 2003-04)

#### 5.3.1.4 Cost of Sales

The credit side of the profit and loss account includes the major components of sales or turnover or income. The debit side of the profit and loss account presents the expenses incurred for earning the turnover. The components of debit side are the expenses on raw material purchased, salaries, wages, octroi, financial charges, depreciation, selling and distribution expenses etc. The gross profit is earned after deducting such expenses from the turnover. The total of said expenses represents the cost of sale.

**Table 5.12: Cost of sales of selected state owned enterprises in Gujarat**

**Rs. in crore**

Years	GNFC	GSFC (Ferti.)	GSFC (Fin.)	GACL	GMDC
1981-82	176.23	158.00	79.35	29.87	11.27
1982-83	75.60	177.00	86.80	32.57	10.26
1983-84	88.25	204.00	99.34	29.19	11.96
1984-85	129.21	282.00	115.43	34.60	14.48
1985-86	181.38	334.00	141.66	43.47	18.80
1986-87	249.18	341.00	191.05	55.34	22.09
1987-88	65.11	NA	210.98	67.19	40.74
1988-89	196.82	618.00 15 months	365.28	81.92	41.47
1989-90	237.00	605.00	380.84	85.31	53.62

Years	GNFC	GSFC (Ferti.)	GSFC (Fin.)	GACL	GMDC
1990-91	281.00	655.00	543.80	113.50	63.14
1991-92	342.00	895.00	674.07	144.96	51.79
1992-93	410.00	969.00	521.45	168.00	52.53
1993-94	483.00	1108.00	666.98	168.23	67.08
1994-95	518.00	1500.00	611.86	214.42	79.27
1995-96	618.00	1580.00	724.76	282.28	126.94
1996-97	742.00	1660.00	456.87	322.33	89.97
1997-98	1029.00	1807.00	409.34	299.56	99.19
1998-99	958.00	1859.00	342.88	445.76	90.01
1999-00	1022.00	2040.00	590.52	662.21	117.12
2000-01	1211.00	2075.00	498.25	809.34	169.10
2001-02	1242.00	1953.00	271.17	769.33	148.78
2002-03	1211.00	1973.00	320.78	805.18	162.22
2003-04	1510.00	1995.00	158.47	828.71	312.64
Average	605.90	1164.43	395.04	306.23	87.28
SD	451.89	721.01	198.05	290.27	70.12
% increase	1272.24	867.16	222.91	2658.41	1255.91

(Source: Annual reports)

All selected state owned enterprises show fluctuations during 23 years. There is an overall increase in cost of sale of GNFC by more than 1270 percent from 1981-82 to 2003-04. The average cost of sale stood at Rs.606 crore for 23 years. The cost of sale of GSFC (Fertilizer) is continuously increasing upto the year 2000-01 reaching to Rs.2075 crore from Rs.158 crore in the year 1981-82, and then there is a decline in the cost of sale. There is an extra ordinary figure of Rs.170 crore as cost of sale for the year 1995-96 of GMDC which is increase in the cost of sales from Rs.79 crore in the year 1994-95 to the year 1995-96, during this period of one year the turnover has grown by 35 percent whereas cost of sale has increased by 61 percent, so this uneven increase in cost of sale which does not match with the turnover.

### 5.3.1.5 Purchases

Common equation of profit is sales minus purchases; increase in sales and reduction in purchases increases the profit. So profit and purchase has got inverse relation, but it doesn't mean that reducing the quantity of purchase will bring rise in profit, whereas every rise in sales will bring ultimate rise in purchase. Financial management will prefer to purchase the goods at right time and reasonable quantity at reasonable prices. The following table reflects the purchases of

selected State owned enterprises during the period of study. One of the State owned enterprises is Gujarat State Financial Corporation which provides financial services does not require any purchase of raw material but accepting deposits are considered as purchases of the said SOEs.

**Table: 5.13 Purchases of selected State Owned Enterprises in Gujarat from 1991-92 to 2003-04.**

Rs. in crore

Years	GNFC	GSFC (Fertilizer)	GSFC (Finance)	GACL	GMDC
1991-92	137.52	461.65	539.68	21.54	43.05
1992-93	176.26	519.46	642.86	23.97	50.35
1993-94	174.11	553.97	721.7	23.54	58.43
1994-95	189.1	706.99	794.67	45.3	74.31
1995-96	251.78	896.84	880.46	56.35	73.15
1996-97	540.12	908.53	1108.34	72.43	89.21
1997-98	478.51	909.98	1122.08	68.94	91.74
1998-99	393.92	947.09	1099.46	139.04	90.03
1999-00	496.04	1249.68	1152.88	263.32	131.28
2000-01	615.24	1088.03	1207.29	301.87	132.1
2001-02	608.46	1063.44	1239.29	260.83	150.6
2002-03	551.47	993.17	1227.37	306.83	161.86
2003-04	579.94	1202.88	1225.7	270.99	151.1
Average	399.42	884.75	997.06	142.69	99.79

(Source: Annual Reports)

Selected state owned enterprises' purchases shows the increase, the highest increase in purchase of GACL is observed at 1158 percent during 13 years i.e. from 1991-92 to 2003-04. The average purchase of GACL stood at Rs.142.69 crore. Gujarat State Financial Corporation either deposits or government grants have increase during the 13 years by 127 percent which is the lowest rise amongst five selected state owned enterprises. The rise in purchase of GNFC, GSFC and GMDC are 320 percent, 160 percent and 251 percent respectively.

#### 5.3.1.6 Depreciation

Depreciation is the charge against the profit, it is provided against the fixed assets either under straight-line method or written down value method. Normally expenses are incurred which are either paid or payable but the depreciation is neither paid nor payable at all. It is just a book entry. The fixed asset once purchased generates the income and lasts for more than a year. Depreciation is

provided based on its estimated life. For example a fixed asset purchased for Rs.10 lakh having estimated life of ten years the depreciation under straight-line method will be provided at Rs.1 lakh per annum. Rs. 10 lakh are already spent which are appearing in the balance sheet on the asset side as a long-term asset. Rs. 1 lakh will be debited every year to Profit and Loss account and same will be written off from the fixed assets therefore it is called as an book entry..

**Table 5.14 Depreciation provided by selected state owned enterprises in Gujarat.**

Rs. in crore

Years	GNFC	GSFC (Ferti.)	GACL	GMDC
1981-82	NA	7.00	NA	NA
1982-83	42.95	7.00	NA	0.73
1983-84	43.07	9.00	2.65	0.92
1984-85	43.18	10.00	5.40	1.03
1985-86	44.71	10.00	4.53	1.02
1886-87	46.30	18.00	3.77	1.42
1887-88	49.68	NA	7.53	12.72
1888-89	12.04	26.00	8.88	7.63
1989-90	53.00	24.00	11.30	16.53
1990-91	41.00	44.00	15.22	14.08
1991-92	71.00	51.00	18.20	11.33
1992-93	82.00	58.00	22.80	10.09
1993-94	40.00	54.00	14.43	9.74
1994-95	31.00	58.00	21.25	16.50
1995-96	42.00	65.00	26.05	24.14
1996-97	50.00	65.00	19.75	33.21
1997-98	52.00	73.00	34.72	63.84
1998-99	56.00	85.00	61.09	32.41
1999-00	63.00	88.00	74.24	28.60
2000-01	69.00	132.00	73.36	27.76
2001-02	75.00	137.00	78.65	21.17
2002-03	83.00	142.00	79.10	12.63
2003-04	NA	145.00	77.82	NA
Average	51.90	59.45	31.46	16.55
SD	17.20	46.03	28.88	15.08
% increase	93.25	1971.43	2836.60	1641.46

(Source: Annual Reports)

Every state owned enterprises selected above, have experienced the increase in the gross fixed assets during the 23 years starting from 1981-82 to 2003-04. Depreciation provided on fixed assets is observed increasing. The average depreciated provided during 23 years are GNFC Rs.52 crore, GSFC (Fertilizer) Rs.89 crore, GACL Rs.31 crore and GMDC Rs.17 crore. Gujarat State Financial

Corporation is a financial institution, it owns less fixed assets, so obviously depreciation is insignificant, hence ignored from the table.

**Table 5.15 Calculated rate of depreciation provided on Gross Fixed Assets.**

**Rs. in crore**

Year	GNFC	GSFC(Ferti.)	GACL	GMDC
1981-82	NA	4.29	0.00	0.00
1982-83	10.63	4.24	0.00	6.18
1983-84	10.50	4.79	5.04	7.59
1984-85	10.09	4.98	8.79	6.88
1985-86	9.82	3.85	5.90	5.89
1986-87	9.11	5.71	4.45	5.89
1987-88	8.68	NA	8.11	21.24
1988-89	1.78	6.62 15 Months	7.17	7.96
1989-90	6.27	4.79	7.65	15.88
1990-91	4.29	5.06	8.91	13.10
1991-92	6.99	4.18	8.47	9.69
1992-93	7.67	4.17	8.66	8.21
1993-94	3.57	3.46	3.40	6.45
1994-95	2.50	3.39	4.03	6.47
1995-96	3.11	3.22	3.41	8.94
1996-97	3.64	2.70	1.74	10.01
1997-98	3.55	2.76	2.54	19.15
1998-99	3.59	2.99	4.10	9.61
1999-00	3.65	3.03	4.98	8.12
2000-01	3.70	4.37	4.93	7.93
2001-02	3.81	4.52	4.94	5.83
2002-03	3.95	4.64	4.91	3.42
2003-04	0.00	4.78	4.81	0.00
Average	5.8	4.2	5.6	9.3
SD	2.97	0.98	2.17	4.52
% increase	-62.84	11.40	-4.59	-44.73

Depreciation is a book entry neither paid nor payable but debited as expenditure to the profit and loss account of every year. The actual expenses in the respective year is not actually incurred rather it is a part of the purchase price of gross fixed assets. There is a scope for over or under provision of depreciation in profit and loss account. Efforts are made to calculate the rate of interest based on the closing balance of gross fixed asset account of the previous year, assuming straight-line method. The absolute depreciation provided is divided by gross fixed assets multiplied by 100 to get the rate of depreciation.

The above mentioned table of rate of depreciation discloses fluctuation in the rate of depreciation. The figures like 21.2 percent, 19.2 percent, 15.9 percent of

depreciation in case of GMDC are ignored the inconsistency in maintaining the rate of depreciation, the SOEs have failed. The GNFC rate of depreciation calculated ranges between 1.8 percent to 10.6 percent whereas in case of GSFC the average rate is 4.2 percent with 0.98 standard deviation. Therefore in case of GSFC it can be said that it has maintained the rate of depreciation. In case of GACL the range of rate of depreciation is 1.7 percent to 8.9 percent.

Under the provision of depreciation inflate the profit in selected state owned enterprises the rate of depreciation is very low so it can be interpreted that profits are managed to be high.

#### 5.3.1.7 Financial charges

Borrowed fund is one of the sources of funds, these borrowed funds attract the interest, this interest paid is debited to the profit and loss account, in other words it is a charge against the profit or it reduces the profit.

**Table 5.16 Financial charges of borrowed funds of selected SOEs in Gujarat**

Rs. in crore

Years	GNFC	GSFC(Fertilizer)	GSFC (Finance)	GACL	GMDC
1981-82	NA	NA	NA	NA	NA
1982-83	55.32	NA	NA	NA	0.44
1983-84	32.53	NA	11.73	1.44	0.28
1984-85	27.44	NA	13.92	3.34	0.22
1985-86	26.97	NA	16.16	3.65	0.50
1986-87	28.25	NA	18.04	6.35	1.09
1987-88	42.47	NA	22.30	7.22	2.80
1988-89	25.05	NA	25.96	5.18	7.12
1989-90	42.00	NA	30.65	7.92	9.89
1990-91	42.00	33.95	36.63	9.97	8.21
1991-92	93.00	54.94	46.22	12.26	8.72
1992-93	94.00	87.25	60.74	14.60	7.62
1993-94	79.00	129.53	77.13	11.96	4.79
1994-95	65.00	133.85	90.43	19.32	2.54
1995-96	66.00	131.70	101.43	23.77	3.20
1996-97	77.00	136.89	120.86	29.45	6.73
1997-98	73.00	115.93	140.59	30.70	0.63
1998-99	73.00	117.22	177.92	85.18	0.22
1999-00	81.00	127.32	143.00	126.13	0.81
2000-01	86.00	180.74	145.65	142.36	0.92
2001-02	73.00	176.60	149.65	124.18	1.64
2002-03	57.00	170.76	146.66	93.15	1.14
2003-04	NA	138.66	120.82	79.13	NA
Average	59.00	123.95	80.79	39.87	3.31
SD	23.11	42.15	56.46	46.89	3.32
% increase	3.04	308.42	930.01	5395.14	157.53

(Source: Annual Reports)

GSFC (Fertilizer) has paid more interest on the borrowed funds. In the year 2000-01, the highest interest paid by GSFC amounted to Rs.181 crore. Being a financial institution GSFC (Finance) which has less than GSFC (Fertilizer) in the financial charges. GSFC (Finance) interest paid, highest is Rs.178 crore for the year 1988-89, the GNFC has comparatively the reasonable interest paid averaging for 23 years Rs.59 crore with only 3 percent increase from 1982-83 till 2002-03. GSFC (Fertilizer) has average interest paid for the said period Rs 124 crore with the increase of 308 percent from 1990-91 Rs.34 crore to Rs.139 crore for the year 2003-04. GACL has comparatively less interest paid till 1997-98 then it has increased to Rs.242 crore in the year 2001-02. The average interest paid by GACL amounts to Rs.40 crore. GMDC less amount of borrowed fund; therefore the average interest paid for the said period is just Rs.3.31 crore.

#### 5.3.1.8 Gross profit

Gross profit is also known as operating profit. The gross profit is transferred to the profit and loss appropriation account and the profit before tax is being charged by depreciation, interest and tax. The gross profit is profit before interest, depreciation and tax (PBDIT) earned by the company on its trading and manufacturing activities.

**Table 5.17: Gross profit of selected state owned enterprises in Gujarat**

Rs. in crore

Years	GNFC	GSFC (Fertilizer)	GSFC (Finance)	GACL	GMDC
1981-82	NA	25.00	NA	0.00	NA
1982-83	106.13	31.00	NA	0.00	2.23
1983-84	103.69	36.00	0.48	7.76	4.97
1984-85	102.66	57.00	0.55	11.52	7.92
1985-86	135.69	39.00	0.68	12.35	8.80
1886-87	96.72	60.00	1.21	14.04	12.73
1887-88	220.42	NA	2.26	17.78	1.04
1888-89	45.12	84.00 (15 months)	3.29	20.87	2.22
1989-90	97.00	86.00	0.55	28.23	5.33
1990-91	109.00	113.00	0.73	40.30	18.92
1991-92	204.00	137.00	1.97	48.31	54.06
1992-93	196.00	119.00	2.27	67.76	64.72
1993-94	174.00	94.00	4.06	50.50	69.25
1994-95	188.00	172.00	17.67	74.36	78.48
1995-96	203.00	271.00	21.20	134.62	85.08
1996-97	514.00	282.00	41.99	117.86	125.38

Years	GNFC	GSFC (Fertilizer)	GSFC (Finance)	GACL	GMDC
1997-98	220.00	261.00	25.97	66.67	139.95
1998-99	234.00	232.00	16.20	130.66	141.39
1999-00	220.00	111.00	15.50	128.18	71.80
2000-01	268.00	138.00	-100.80	182.62	108.80
2001-02	266.00	49.00	-126.85	163.19	109.79
2002-03	276.00	-86.00	-201.60	227.02	130.53
2003-04	NA	187.00	-158.47	245.86	NA
Average	189.50	113.55	-28.98	85.26	16.55
SD	99.88	91.87	65.92	73.48	15.08
% increase	160.06	648.00	-33114.58	3068.30	5744.42

(Source: Annual Reports)

The divisible profit depends upon the gross profit, high gross profit will allow the more distributable profit among shareholders. In the year 1996-97, GNFC had earned the gross profit which was highest Rs.515 crore, a 160 percent increase is registered in gross profit of GNFC from 1982-83 Rs.106 crore to Rs.276 crore in the year 2002-03. GSFC (Fertilizer) has earned the highest gross profit in the year 1996-97 amounting to Rs.282 crore. The average gross profit earned in the said period is Rs.113 crore, 648 percent increase in gross profit of GSFC (Fertilizer) is observed from 1982-83 to 2003-04. GSFC (Finance) was a gross profit earning company up to 1999-00, onwards it was incurring heavy losses for more than Rs. 100 crore. GACL earned highest gross profit in the year 2003-04 amounting to Rs.246 crore with an average for 20 years as Rs.85 crore. GMDC's gross profit rise is 5700 percent during 21 years.

### 5.3.2 Intra Company Constituents Comparison of 10 years Profit and Loss Account.

Profit and loss account are compared as inter – company for 23 years. In the following analysis, the absolute figures of profit and loss accounts for ten years beginning from 1994-95 till 2003-04 of individual companies are compared.



### 5.3.2.1 Gujarat Narmada Valley Fertilizer Company Limited

**Table 5.18: Summarised Profit and Loss Account of Gujarat Narmada Valley Fertilizers Co. Ltd.**

**Rs. in crore**

Sr. No.	Particulars	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04
1	<b>Income</b>										
	Sales	701 40	810 45	1231 70	1232 17	1168 85	1225 44	1435 54	1491 26	1476 62	1562 50
	Other income	13 04	43 79	61 60	22 17	29 36	56 54	77 85	8 97	13 81	50 67
	<b>Total</b>	<b>714 44</b>	<b>854 24</b>	<b>1293 30</b>	<b>1254 34</b>	<b>1198 21</b>	<b>1281 98</b>	<b>1513 39</b>	<b>1500 23</b>	<b>1490 43</b>	<b>1613 17</b>
2	<b>Expenditure</b>										
	Manufacturing expenses	403.66	508 61	854 33	837 84	790 76	888 02	1065.58	1063 17	1010 82	1089 28
	Selling & distributing expenses	49 93	60 97	133 84	88 13	71 19	72 89	80 76	89 84	72 93	49 26
	Other expenses	47 53	58 37	69 91	82 59	81 90	84 78	69 93	70 43	104 56	112 50
	<b>Total</b>	<b>501 12</b>	<b>627 95</b>	<b>1058 08</b>	<b>1008.56</b>	<b>943 85</b>	<b>1045 69</b>	<b>1216 27</b>	<b>1223 44</b>	<b>1188 31</b>	<b>1251 04</b>
3	<b>Profit / Losses</b>										
	PBDIT	208 83	226 24	233 07	241 42	254 36	236 19	296 37	275 90	285 96	325 56
	Financial charges	85 68	89 39	97 61	92.63	93 58	97 53	101 57	83 55	65 70	47 29
	PBDT	123 15	136 85	135 46	148 79	160 78	138 66	194 80	192 35	220 26	278 27
	Depreciation	31 22	41 51	48 59	50 86	56 14	62 98	66 53	74 15	83.86	87 72
	PBT	91 93	95 34	86 87	97 93	104 64	75 68	128 27	118 20	136 40	190 55
	Tax provision	0 01	0 02	22 04	28 97	25 87	9 57	22 72	46 52	51 68	73 64
	PAT	91 92	95 32	64 83	68 96	78 77	66 11	105 55	71 68	84 72	116 91
4	<b>Appropriation of profits</b>										
	Dividends	26 73	32 23	35 45	35 44	35 76	41 45	43 58	36.62	41 31	49 57
	Retaining earnings	65 19	63 09	29 38	33 52	43 01	24 66	61 97	35 06	43 41	67 34

(Source: CMIE Reports)

The total that is sales plus other income has almost doubled during the ten years from 1994-95 to 2003-04 that is Rs.714 crore to Rs.1613 crore. Almost 125 percent increase is recorded in the total income of GNFC during the ten years of study but the manufacturing expenses have rapidly gone up by 170 percent. The only reduction is observed in selling and distribution expenses; the total expenses have increased 150 percent. The profit before depreciation, interest and taxes increased. The rise is only 56 percent between the years 1994-95 to 2003-04. The provision for taxes in the year 1994-95 is indicated Rs.1 lakh which is double that is Rs.2 lakh for the year 1995-96. For the year 1996-97, the provision for taxes is Rs.22 crore, in one year it shows rise of 550 percent except in the year 1999-00

the tax provision was Rs.9.57 crore, for the remaining years it consistently rose up to the year 2003-04 that is Rs.73.64 crore.

Profit after tax has gone up by 27 percent from 1994-95 to 2003-04 which does not match with the competitive world like the manufacturing sector. In other companies the rise is of more than 25 percent in a quarter of a year whereas GNFC is showing 27 percent rise in ten years.

Turnover volume increase doesn't match with increase in profit after tax.

### 5.3.2.2 Gujarat State Fertilizer & Chemicals Limited

**Table 5.19: Summarised Profit and Loss Account of Gujarat State Fertilizer & Chemicals Ltd.**

**Rs. in crore**

Sr. No.	Particulars	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04
1	<b>Income</b>										
	Sales	1575 92	1820 81	1894 51	2005 44	2032 03	2114 27	2147 64	2035 79	1936 44	2220 01
	Other income	2 43	141 63	118 74	-19 21	-26 81	123 10	72 94	65 33	-76 62	136 37
	Total	1578 35	1962 44	2013 25	1986 23	2005 22	2237 37	2220 58	2101 12	1859.82	2356 38
2	<b>Expenditure</b>										
	Manufacturing expenses	1115 07	1389 32	1411 32	1426 98	1476 92	1812 28	1686 66	1596 59	1530 20	1709 90
	Selling & distributing expenses	65 47	74 13	82 62	77 78	58 69	79 90	107 55	125 55	118 35	88 93
	Other expenses	60 70	66 32	66 82	75 47	87 39	77 54	81 70	94 52	88 27	83 50
	Total	1241 24	1529 77	1560 76	1580 23	1623 00	1969 72	1875 91	1816.66	1736 82	1882 33
3	<b>Profit / Losses</b>										
	PBDIT	322 59	427 97	445 33	403 69	375 31	262 41	120 18	290 74	-65 25	464 97
	Financial charges	149 92	153 37	163 27	142 34	143 01	151 81	205 74	202.25	183 20	143 07
	PBDT	172 67	270 60	282 26	261 35	232 30	110 60	-85 56	88 49	-248.45	321 90
	Depreciation	58 22	64 70	65 29	72 63	84 80	87 58	132 40	136 51	142 37	145 33
	PBT	114 45	205 90	216 97	188 72	147 50	23 02	-217 96	-48 02	-390 82	176 57
	Tax provision	0 02	0 02	30 82	18 77	15 27	2 66	0 02	0 02	0 02	2 29
	PAT	114 43	205 88	186 15	169 95	132 23	20 36	-217 98	-48 04	-390 84	174 28
4	<b>Appropriation of profits</b>										
	Dividends	21 95	26 60	34 53	39 50	40 41	3.94	0 00	0 00	0 00	0 00
	Retaining earnings	92 48	179 28	151 62	130.45	91 82	16 42	-217 98	-48 04	-390 84	174 28

(Source: CMIE Reports)

GSFC (Fertilizer) has large sales like Rs.2220 crore for the year 2003-04, 40 percent rise compare to the sale of Rs.1576 crore in the year 1994-95. Other income has contributed Rs.136 crore for the year 2003-04. GSFC's total income for 10 years rose because of other income but that 50 percent increase was very less. Comparatively, manufacturing expenses are also in the same tune of sales. They are showing increase of 53 percent. If GSFC (Fertilizer) is compared with GNFC for selling and distribution expenses it is observed that GNFC has spent on advertisement and distribution expenses nearly 6 percent of the sales whereas GSFC (Fertilizer) has spent only 3 percent. Currently increase in sales is as a result of brilliant marketing strategy, 'the more the advertisements, the more the sales'. Hence GNFC shows 125 percent rise during ten years in the sales figures whereas GSFC (Fertilizer) shows only 40 percent rise in the sales. The profit before depreciation, interest and tax during ten years shows fluctuations, the range of profit is from Rs.65 crore losses to Rs.460 crore profits. In the year 2002-03, the profit before depreciation, interest and tax is Rs.65 crore and in the year 2003-04 there is profit of Rs.465 crore. So the range is Rs.529 crore in 12 months which is unprecedented. Financial Analysts can imagine the window dressing in profit and loss account for such a fluctuation of Rs.529 crore in 12 months. For other 8 years also the profit before depreciation, interest and taxes has shown volatility between Rs.120 crore to Rs.445 crore, thus profit before depreciation, interest and taxes figures are uncommon.

The lease rent is very high as compared to the profit before depreciation, interest and tax. In the year 2000-01 and 2002-03 the financial charges are higher than the profit before depreciation, interest and taxes. Financial charges are higher by Rs.205 crore compared to Rs.120 crore of profit and Rs.183 crore financial charges compared to negative profit before depreciation, interest and taxes of Rs.65 crore for the year 2000-01 and 2002-03 respectively. For remaining years nearly 40 to 60 percent of the profit is eaten up by financial charges that are lease rent and interest. GSFC is paying very high debt service charges.

Profit and Loss account of GSFC reflects realistic figures of tax provision. For the year 1995-96, tax provision is just Rs.1 lakh, suddenly for the year 1996-97 it rises to Rs.31 crore. During 12 months the tax provision increases by 1540

percent then after it is declining and for three consecutive years 2001, 2002 and 2003 March it is Rs.2 lakh only.

The company has not declared any dividend since 2000-01 and its retained earnings are negative from the 2000-01. Profit after tax for the year 2002-03 is negative amounting to Rs.391 crore (Loss) and suddenly it grows to positive Rs.174 crore (Profit) in the year 2003-04. During 12 months from 2002-03 company has earned the profit after tax amounting to Rs.565 crore, once again uncommon.

### 5.3.2.3 Gujarat State Financial Corporation Limited

The only financial company in the present study that is Gujarat State Financial Corporation and its summary of profit and loss account has been analysed.

**Table 5.20: Summarized Profit and Loss Account of Gujarat State Financial Corporation**

Rs. in crore											
Sr. No.	Particulars	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04
1	<b>Income</b>										
	Interest Income	247 47	287 67	357 62	358 63	425 79	370 86	96 88	192 48	76 20	90 09
	Other income	8 73	10 45	18 16	31 75	48 85	41 16	11 57	8 96	3 51	8 02
	Total	256 20	298 12	375 78	390 38	474 64	412 02	108 45	201 44	79 71	98 11
2	<b>Expenditure</b>										
	Interest paid and administrative expenses	101 92	115 81	199 03	151 43	219 35	168 15	145 65	218.29	224 52	187 36
	Others	10 18	12 59	8 19	15 23	13 29	12 73	24 71	6 71	15 16	9 46
	Total	112 10	128 40	207 22	166 66	232 64	180 88	170 36	225 00	239 68	196 82
3	<b>Profit / Losses</b>										
	PBDT	18 12	22 22	-21 01	28 06	11 36	16 41	-74 19	-134 31	-204 51	-210 79
	Depreciation	0 37	0 53	1 16	1 91	2 48	2 88	2 82	1 86	1 24	0 80
	PBT	17 75	21 69	-22 17	26 15	8 88	13 53	-77 01	-136 17	-205 75	-211 59
	Tax provision	4 51	5 63	8 95	3.15	3 00	3 15	0 00	0 00	0 00	0 00
	PAT	13 24	16 06	-31 12	23 00	5 88	10 38	-77 01	-136 17	-205 75	-211 59
4	<b>Appropriation of profits</b>										
	Dividends	10 12	4 65	4 65	5 22	8 43	7 61	0 00	0 00	0 00	0 00
	Retaining earnings	3 12	11.41	-35 77	17 78	-2 55	2 77	-77 01	-136 17	-205 75	-211 59

(Source: CMIE Reports)

The Gujarat State Financial Corporation had Rs.426 crore of interest earned in the books for the year 1998-99 which declined to Rs.371 crore for the year 1999-00.

From 1994-95 to 1999-00 the interest income book figures are nearly Rs.250 crore to Rs.400 crore. It is mentioned as the book figures only, because there is a sudden decline from Rs.371 crore for the year 1999-00 to Rs.97 crore for the year 2000-01. Interest income has fallen in such an extraordinary rapid speed of financial institutions and then onwards it is continuously falling for 2002-03 only Rs.76 crore and Rs.90 crore in 2003-04 interest paid is higher than that of interest earned.

During 1994-95 to 1999-00 nearly 60 percent of gross profit is earned from differential interest. The profit before depreciation and tax in the annual report amounts to Rs.18.12 crore in the year 1994-95 which reduced to Rs.11.36 crore for the year 1998-99. Rs.16.41 crore for the year 1999-00 then subsequent years it shows loss, highest loss is Rs.211 crore for the year 2003-04.

Profit after tax was below Rs.20 crore till the year 1999-00. Subsequently there is a continuous loss for remaining four years. Rs.77 crore of loss in the year 2000-01 and loss increased to Rs.212 crore for the year 2003-04. The company has distributed dividends up to the year 1999-00. Till 1999-00 whatever figures of profits are shown clearly indicates the window dressing because there is lots of mismatches like sudden fall of profit after tax for the year 1999-00 amounting to Rs.10 crore which falls by Rs.87 crore, only in one year. From end of 1999-00 to 2001-02 the figures indicate Rs.146 crore of loss within 24 months

### 5.3.2.3.1 Comparison of Profit and Loss Account of Inter State Financial Corporations in India

**Table 5.21: Inter State Financial Corporations' Profit and Loss Account compared**

Rs. in crore

Sr. No.	Particulars	Gujarat State Financial Corporation		Andhra Pradesh Financial Corporation		Kerala Financial Corporation		West Bengal Financial Corporation		Haryana Financial Corporation	
		Avg	Percent	Avg	Percent	Avg	Percent	Avg	Percent	Avg	Percent
1	<b>Income</b>										
	Interest Income	250 37	92 91	99 55	96 08	98 31	99.95	36 71	97.68	70 53	93.84
	Other income	19 12	7 09	4 07	3.92	0 05	0 05	0 87	2 32	4 63	6 16
	Total	269 49	100 00	103 62	100 00	98 36	100 00	37 59	100 00	75 16	100 00
2	<b>Expenditure</b>										
	Interest paid and administrative expenses	173 15	64 25	127 57	123 12	90 42	91 92	38 38	102 10	82 35	109 58
	Others	12 83	4 76	11 66	11 25	6 24	6 35	4 18	11 11	4 02	5 35
	Total	185 98	69.01	139 23	134 37	96 66	98 27	42 55	113 21	86 37	114 92
3	<b>Profit / Losses</b>										
	PBDT	-54 86	-20 36	-29 28	-28 26	1 70	1 73	-4 85	-12 90	-12 57	-16 72
	Depreciation	1 61	0 60	0 61	0.59	1 30	1 32	0 08	-0 55	1 74	2 32
	PBT	-56 47	-20 95	-29 89	-28 85	0 41	0 41	-4 92	-13 10	-14 20	-18 90
	Tax provision	2 84	1 05	1 22	1 18	2 69	2 73	0 61	1 62	0 16	0 21
	PAT	-59.31	-22 01	-31 11	-30 03	-2 28	-2 32	-5 53	-14 72	-14 47	-19 25
4	<b>Appropriation of profits</b>										
	Dividends	4 07	1 51	0 01	0 01	0 89	0 90	1 59	4.22	0 55	0 73
	Retaining earnings	-63 38	-23 52	-31 12	-30 03	-3 17	-3.22	-7 05	-18 76	-15 02	-19 98

(Source: CMIE Reports)

Among Andhra Pradesh, Kerala, West Bengal and Haryana State Financial Corporations, Gujarat State Financial Corporation was highest average income earner and highest in average interest income amounting to Rs.269 Crore and Rs.205 Crore respectively. The lowest one is West Bengal Financial Corporation earning Rs.38 crore as total income. Gujarat State Financial Corporation spent 64 percent of its income on interest and other expenses whereas Andhra Pradesh Financial Corporation spent 103 percent that is more than income earned whereas Kerala Financial Corporation spent 92 percent, West Bengal 102 percent and Haryana 109 percent. So Gujarat State Financial Corporation spent less than the other four financial corporations. Expenses are more than income for Andhra, West Bengal and Haryana. There is uniformity in all these five State Financial Corporations about profit before depreciation and tax that is negative, except

Kerala Financial Corporation which has 1.73 percent of total income as profit before depreciation and tax. If profit after tax is compared all have incurred losses. The higher losses are incurred by Gujarat State Financial Corporation that is 22 percent of the total income. Andhra Pradesh Financial Corporation has incurred average 30 percent of loss, 2 percent by Kerala Financial Corporation, 15 percent West Bengal Financial Corporation and 19 percent by Hariyana Financial Corporation. So none of the State Financial Corporations are viable and it looks that no revival is possible for them as they are incurring heavy losses continuously in the past few years

#### 5.3.2.4 Gujarat Alkalies and Chemicals Limited

Following is the analysis of profit and loss account of Gujarat Alkalies & Chemicals Limited from the year 1994-95 to 2003-04:

**Table 5.22: Analysis of Profit and Loss Account of Gujarat Alkalies and Chemicals Limited**

**Rs. in crore**

Sr. No.	Particulars	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04
1	<b>Income</b>										
	Sales	282 52	398 94	433 89	356 73	540 99	777 33	983 79	909 40	1024 31	1073.25
	Other income	6.26	17 96	6 34	9 64	35 79	13 28	8 32	23 45	7 90	2 11
	Total	288 78	416 90	440 23	366 37	576 78	790 61	992 11	932 85	1032 21	1075 36
2	<b>Expenditure</b>										
	Manufacturing expenses	187 78	242 49	296 49	273 59	419 06	627 62	771 30	730 27	753 00	768 07
	Selling & distributing expenses	3 81	3 83	5 96	6 42	8 62	8 03	7 07	7 30	7 85	7 62
	Other expenses	21 06	34 37	17 85	18 30	16 40	24 12	28 44	30 25	14 11	48 35
	Total	212 65	280.69	320 30	298 31	444 08	659 77	806 81	767 82	774 96	824 04
3	<b>Profit / Losses</b>										
	PBDIT	75 34	136 20	119.84	67.91	132.29	130 55	185 09	163 51	227 25	251 32
	Financial charges	20 30	25 35	31 43	31 93	86 82	128 50	144 83	125 71	94 87	85 14
	PBDT	55 04	110 85	88 41	35 98	45 47	2 05	40 26	37 87	132 38	116 18
	Depreciation	21 24	26 05	29 75	34 72	61 09	74 24	73 36	78 65	79 10	77 82
	PBT	33 80	84.80	58 66	1 26	-15.62	-72 19	-33 10	-40 78	53 28	88 36
	Tax provision	2 50	3 75	7 70	0 00	0 00	0 00	0 00	0 00	25 24	25 21
	PAT	31 30	81 05	50 96	1 26	-15 62	-72 19	-33.10	-40 78	28 04	63 15
4	<b>Appropriation of profits</b>										
	Dividends	8 65	12 57	14 43	0 00	0 00	0 00	0 00	0 00	0 00	6 22
	Retaining earnings	22 65	68 48	36 53	1 26	-15 62	-72 19	-33 10	-40 78	28 04	56 93

(Source: CMIE Reports)

The turnover of GACL is fast moving during these ten years, it was Rs.282 crore in the year 1994-95 and went up by 280 percent to Rs.1073 crore for the year 2003-04. On adding other income to the sale, the total income of the company showed a growth of 273 percent but manufacturing expenses growing faster than that of sale by 311 percent. Either the selling price has decreased or cost of production has gone up. On observation for 1994-95 and 1995-96, the gross profit has remained 35 percent and 31 percent respectively which has reduced in the subsequent years like for the year 2002-03 gross profit remained at 27 percent which marginally increased for the year 2003-04 to 29 percent. Profit before depreciation, interest and tax has also showed a growth rate of 233 percent during these ten years, which matches the growth rate of sales. The company has paid nearly Rs.30 crore of financial charges till the year 1997-98, from 1998-99 the financial charges paid by the company went up to Rs.87 crore which is 190 percent increase, that again increased to Rs.128 crore in the year 1999-00 that is 48 percent rise within 12 months. The highest financial charges are paid in the year 2000-01 amounting to Rs.145 crore than gradually it has declining in subsequent years and reached to Rs.85 crore for the year 2003-04. The figures of financial charges from 1998-99 to 2001-02 have eaten up the major portion of profit before depreciation and interest, for example in the year 1999-00, the profit before depreciation and tax (PBDT) stood at Rs.131 crore and financial charges paid Rs.129 crore, leaving only Rs.2 crore for depreciation and taxation and the dividend. Ultimately the company incurred a loss of Rs.72 crore for the year 1999-00. Profit after tax till 1996-97, show reasonable profit and company distributed the dividend also, then onwards company has incurred losses till 2001-02. Company could not pay the dividend between 1997-98 and 2002-03.



**5.3.2.4.1 Comparison of Profit and Loss Account between Punjab and Gujarat State Alkalies and Chemicals Companies**

**Table 5.23: Punjab and Gujarat State Alkalies and Chemicals Companies comparison in profit and loss account**

Rs. in crore

Sr. No.	Particulars	Punjab Alkalies & Chemicals Ltd.		Gujarat Alkalies & Chemicals Ltd.	
		Average	Percent	Average	Percent.
<b>1</b>	<b>Income</b>				
	Sales	154.47	99.76	678.12	98.10
	Other income	0.37	0.24	13.11	1.90
	Total	154.84	100.00	691.22	100.00
<b>2</b>	<b>Expenditure</b>				
	Manufacturing expenses	127.40	82.28	506.97	73.34
	Selling & distributing expenses	7.57	4.89	6.65	0.96
	Other expenses	20.06	12.95	25.33	3.66
	Total	155.03	100.12	538.94	77.97
<b>3</b>	<b>Profit / Losses</b>				
	PBDIT	14.90	9.62	148.93	21.55
	Financial charges	16.56	10.69	77.49	11.21
	PBDT	-1.66	-1.07	66.45	9.61
	Depreciation	9.74	6.29	55.60	8.04
	PBT	-11.40	-7.36	15.85	2.29
	Tax provision	0.28	0.18	6.44	0.93
	PAT	-11.68	-7.54	9.41	1.36
<b>4</b>	<b>Appropriation of profits</b>				
	Dividends	0.84	0.54	4.19	0.61
	Retaining earnings	-12.52	-8.09	5.22	0.755186

(Source: CMIE Reports)

The database was available for Punjab Alkalies and Chemicals Ltd. which is compared with Gujarat Alkalies and Chemicals Ltd. The sale of Gujarat Alkalies is four times of Punjab Alkalies. Expenses of Punjab Alkalies consume the entire revenue whereas the expenses of Gujarat Alkalies are only 78 percent of total revenue. Both Punjab and Gujarat Alkalies are spending 11 percent of their sales on financial charges. PBDT, PBT and PAT of Punjab Alkalies are increasingly negative, average profit after tax of Punjab Alkalies is negative that is 7.5 percent whereas profit after tax for Gujarat Alkalies is average at 1.36 percent. Average loss 8 percent to sales for Punjab Alkalies and average profit is 1 percent to sales for Gujarat Alkalies, obviously both of them are not earning expected returns on investment nor on their asset.

### 5.3.2.5 Gujarat Mineral Development Corporation Limited

Gujarat Minerals Development Corporation Limited has to excavate the minerals from its mines and to sale them, following is the analysis of profit and loss account for last 10 years starting from 1994-95 to 2003-04.

**Table 5.24: Summarised Profit and Loss Account of Gujarat Mineral Development Corporation for ten years.**

Rs. in crore

Sr. No.	Particulars	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04
<b>1</b>	<b>Income</b>										
	Sales	174 67	232 84	237 56	263 63	255 89	213 68	245 11	271 24	299 03	279 24
	Other income	8 16	4 38	16 97	7 34	12 07	21 63	28 42	15 57	15 23	9 07
	Total	182 83	237 22	254 53	270 97	267 96	235 31	273 53	286 81	314 26	288 31
<b>2</b>	<b>Expenditure</b>										
	Manufacturing expenses	40 55	43 58	44 42	47 04	40 56	74 43	68 48	71 97	71 64	66 67
	Selling & distributing expenses	8 91	1 58	2 15	1 34	1 41	1 19	1 16	1 31	1 89	1 78
	Other expenses	33 84	79 26	42 54	44 92	49 57	53 33	64 60	77 66	86 03	84 80
	Total	83 30	124 42	89 11	93 30	91 54	128 95	134 24	150 94	159 56	153 25
<b>3</b>	<b>Profit / Losses</b>										
	PBDIT	93 99	112 43	165 28	177 42	174 02	103 72	138 77	133 88	152 43	134 71
	Financial charges	2 57	3 20	6 74	0 63	0 22	3 50	1 08	2 51	2 37	0 90
	PBDT	91 42	109 23	158 54	176 79	173 80	100 22	137 69	131 37	150 06	133 81
	Depreciation	16 50	24 14	33 21	36 84	32 41	28 60	27 76	21 17	12 63	11 33
	PBT	74 92	85 09	125 33	139 95	141 39	71 62	109 93	110 20	137 43	122 48
	Tax provision	2 40	46 03	54 23	54 25	57 05	34 05	50 05	44 02	52 52	41 52
	PAT	72 52	39 06	71 10	85 70	84 34	37 57	59 88	66 18	84 91	80 96
<b>4</b>	<b>Appropriation of profits</b>										
	Dividends	2 54	3 82	10 49	15 74	17 49	15 52	15 77	12 72	16 14	16 14
	Retaining earnings	69 98	35 24	60 61	69 96	66 85	22 05	44 11	53 46	68 77	64 82

The minerals excavated, sold by GMDC shows 60 percent growth during the ten years of study that is Rs.175 crore sales for the year 1994-95 has increased to Rs.279 crore for the year 2003-04. The excavation expenses have more growth rate than that of sales growth. The excavation expenses have increased by 65 percent during these ten years. The gross profit during 1994-95 to 2003-04 has remained nearly 77 percent, exceptionally it was 85 percent in 1998-99. Sudden increase in excavation expenses is observed in the year 1999-00 to the tune of 85 percent, it was Rs.41 crore in the year 1998-99 and Rs.74 core in the year 1999-00 which shows exceptional increase in excavation expenses. If the sales figures are compared with the excavation expenses, there is a decline in the sales from

Rs.256 crore for the year 1998-99 to Rs.214 crore in the year 1999-00. So how decline in the sales volume will give rise to the excavation expenses by almost 85 percent is a big question.

Very high amount of revenue has been spent under the head “other expenses” by GMDC, beginning for Rs.34 crore in the year 1994-95 to Rs.85 crore for the year 2003-04.

Profit before depreciation, interest and tax has grown by 43 percent only during these ten years. It is the only SOE having less amount of financial charges, and has reached the double digits of crores of rupees in any year during the ten years. Profit after tax of the company like GMDC has grown by 11 percent during these ten years, which is very insignificant and negligible growth. The company has distributed dividend regularly to its shareholders during all these years.

#### 5.3.2.5.1 Comparison of Inter State Minerals and Development Companies in Profit and Loss Account

**Table 5.25: Inter State Minerals and Development Companies comparison in profit and loss account**

Sr. No.	Particulars	Rs. in crore					
		Kerala Mineral & Development Corpn.		Tamil Nadu Mineral Development Corpn.		Gujarat Mineral Development Corpn.	
		Average	Percent	Average	Percent.	Average	Percent.
<b>1</b>	<b>Income</b>						
	Sales	164 55	98 39	54 86	87 29	247 29	94 68
	Other income	2 69	1 61	7 99	12 71	13 88	5 32
	Total	167 24	100.00	62 85	100 00	261.17	100.00
<b>2</b>	<b>Expenditure</b>						
	Manufacturing expenses	113.44	67 83	22 38	35 60	56 93	21.80
	Selling & distributing expenses	0 24	0 14	2 43	3 87	2 27	0.87
	Other expenses	4 43	2 65	23 09	36 74	61 66	23.61
	Total	118 11	70 62	47 90	76 21	120 86	46 28
<b>3</b>	<b>Profit / Losses</b>						
	PBDIT	49 13	29 38	14 95	23 79	138 67	53.09
	Financial charges	7 25	4 33	1 55	2 46	2 37	0.91
	PBDT	41 89	25 04	13 43	21 37	136 29	52 18
	Depreciation	3 62	2 16	4 76	7 57	24 46	9 37
	PBT	38 27	22 88	8 65	13 76	111 83	42 82
	Tax provision	13 39	8 01	1 65	2 63	43 61	16 70
	PAT	24 87	14 87	7 00	11 13	68 22	26 12
<b>4</b>	<b>Appropriation of profits</b>						
	Dividends	0 00	0 00	2 77	4 40	12 64	4 84
	Retaining earnings	24 87	14 87	4 23	6 730578	55 585	21 28283

(Source: CMIE Reports)

The data for Kerala and Tamil Nadu Mineral Development Corporations are available for comparison with Gujarat Mineral Development Corporation. Gujarat Mineral Development Corporation has Rs. 247 Crore of average sale. Tamil Nadu and Kerala have very lower sales that is Rs.55 Crore and Rs.165 Crore respectively. With respect of total expenses incurred for earning the revenue, Gujarat Mineral Development Corporation appears only 46 percent of total income spent on manufacturing, selling and distribution expenses. Kerala and Tamil Nadu Mineral Development Corporations have incurred more than 70 percent of total expenses. The average PBDIT is 29 percent, 24 percent and 53 percent to average total income of Kerala, Tamil Nadu and Gujarat Minerals Development Corporation Ltd. respectively. The average profit after tax is 15 percent, 11 percent and 26 percent of the total income for Kerala, Tamil Nadu and Gujarat Mineral Development Corporations. GMDC is better than both.

### 5.3.3 Average Profitability of selected State Owned Enterprises

Following is the summarized profit and loss account of five companies under study. The average of all components for last ten years is calculated and percentage of each component with total income is presented in the following table.

**Table 5.26: Inter Company Comparison of Average Profitability**

Rs. in crore											
Sr. No.	Particulars	GNFC		GSFC (Fertilizer)		GSFC (Finance)		GACL		GMDC	
		Avg.	% to total sales	Avg.	% to total sales	Avg.	% to total sales	Avg.	% to total sales	Avg.	% to total sales
1	<b>Income</b>										
	Sales	1233.59	97.03	1978.29	97.35	250.37	92.91	678.12	98.10	247.29	94.68
	Other income	37.78	2.97	53.79	2.65	19.12	7.09	13.11	1.90	13.88	5.32
	Total	1271.37	100.00	2032.08	100.00	269.49	100.00	691.22	100.00	261.17	100.00
2	<b>Expenditure</b>										
	Manufacturing expenses	851.21	66.95	1515.52	74.58	173.15	64.25	506.97	73.34	56.93	21.80
	Selling & distributing expenses	130.04	10.23	105.07	5.17	13.74	5.10	8.37	1.21	19.36	7.41
	Other expenses	31.74	2.50	106.19	5.23	10.83	4.02	23.95	3.47	46.16	17.67
	Total	1012.98	79.68	1726.78	84.98	197.72	73.37	539.29	78.02	122.45	46.88

Sr. No.	Particulars	GNFC		GSFC (Fertilizer)		GSFC (Finance)		GACL		GMDC	
		Avg.	% to total sales	Avg.	% to total sales	Avg.	% to total sales	Avg.	% to total sales	Avg.	% to total sales
3	<b>Profit / Losses</b>										
	PBDIT	258 39	20 32	304 79	15 00	71 77	26 63	148 93	21 55	138 67	53 09
	Financial charges	85 45	6.72	163 80	8 06	0 00	0 00	77 49	11.21	2.37	0 91
	PBDT	172 94	13 60	140 62	6 92	-54 86	-20 36	66 45	9 61	136 29	52 18
	Depreciation	60 36	4 75	98 98	4 87	1 61	0 60	55 60	8 04	24 46	9 37
	PBT	112 58	8 86	41 63	2 05	-56 47	-20 95	15 85	2 29	111 83	42 82
	Tax provision	28 10	2 21	6 99	0 34	2 84	1 05	6 44	0 93	43 61	16 70
	PAT	84 48	6 84	34 64	1 70	-59 31	-22 01	9 41	1 36	68 22	26 12
4	<b>Appropriation of profits</b>										
	Dividends	37 81	2 97	16 69	0 82	4 07	1 51	4 19	0 61	12 64	4 84
	Retaining earnings	46 66	3.67	17 95	0 88	-63 38	-23 52	5 22	0 76	55 59	21 28

(Source: CMIE Reports)

Average gross profit of Gujarat Narmada Valley Fertilizers & Chemicals Company Ltd. for ten years is 33 percent of sales. GNFC has incurred nearly 13 percent on selling, distribution and other expenses making total cost nearly 80 percent of the sales, keeping PBDIT at 20 percent. The Debt service charges are averaged at 6.72 percent and depreciation at 4.75 percent. The tax provisions are at 2.21 percent leaving average profit after tax for 6.84 percent to the sales.

The average total income of Gujarat State Fertilizers Corporation including its other income is Rs.2032 crore for ten years from the year 1994-95 to 2003-05 which is taken as a 100 to compare the other component of profit and loss account. GSFC has average 75 percent manufacturing cost to its sales which exhibits average 25 percent of gross profit. The selling and distribution expenses and other expenses amounts to nearly 10 percent which makes 85 percentage of sales as total expenditure so PBDIT is just 15 percent which can be considered as low profit for manufacturing company. GSFC is incurring 8 percent of its sales for Debt service charges and provides nearly 5 percent of sales for depreciation. Provision for tax is just 0.35 percent leaving the average profit after tax 1.7 percent of sales.

Gujarat State Financial Corporation has average of ten years interest earned Rs.270 crore whereas interest paid and administrative expenses averaged for ten years amounts to Rs.173 crore. Other expenses amount to 10 percent of total

interest earned and 64 percent interest paid and administrative expenses to the total interest earned. The average gross profit of GSFC (Financial) shows 35 percent but profit after tax and depreciation shows 22 percent of loss.

Gujarat Alkalies and Chemicals Ltd. has nearly 27 percent of average gross profit and 5 percent of selling, distribution and other expenses which makes average total cost of 78 percent of its sales keeping average 22 percent of profit before depreciation, interest and taxes. GACL has very high Debt service charges averaged 11.21 percent to the sales. Depreciation provided is also very high that is 8 percent to the sales and less than 1 percent of sales to the tax provision, keeping average profit after tax for ten years which is very low for the manufacturing company just 1.36 percent of sales.

Gujarat Minerals Development and Corporation has highest average gross profit rate of 78 percent to sales but its other expenses eat up 25 percent of sales making total average cost of 47 percent to sales. Earning 53 percent PBDIT of sales, financial charges are very low for GDMC that is less than 1 percent whereas depreciation is 9.37 percent. Tax provision is very high compare to other four companies that is 16.70 percent. Ultimately the average profit after tax is 26 percent to sales.

#### **5.4 CASH FLOW:**

Cash flow statement provides information about the cash receipts and payments of the company for the year. It provides information that compliment, the profit and loss account, and the balance sheet. Cash flow of the company is useful in providing information to the users of financial statement. Cash flow assesses the ability of enterprise to generate cash and cash equivalents, also the need of a company to utilize this cash. Cash flow should not be confused with profit; changes in the profit do not necessarily mean changes in cash flow. There are examples in practice, such as company experiences cash shortage inspite of increasing profit, cash flow is not the same thing as profit, atleast, for two reasons:

**First**, profit as measured by an Accountant based on accrual concept – Revenue (Sales) is recognized when it is earned but it may not be when cash is received. Similarly expense is recognized when it is incurred rather than when cash is paid. In other

words profit includes cash revenue plus receivables and excludes cash expenses as well as payables.

**Second**, for computing profit, expenditures are divided into revenue expenditure and capital expenditure. Revenue expenditures are entirely charged (debited) to profit and loss account while expenses on plant, building, and machinery are not debited to profit and loss account. Capital expenditures are capitalized as assets and are depreciated over their economic life. Only annual depreciation is charged to profit and loss account, where depreciation is only a book entry and it does not involve any cash outflow. Thus, the measurement of profit excludes some cash flows and includes some non cash flows.

1. Profit = Revenues – Expenses – Depreciation
2. Cash flow = Revenues (Cash) – Expenses (cash) – Capital expenditure (cash).

#### **5.4.1 Sources and uses of cash**

##### **5.4.1.1 Sources of Cash**

- a. Profitable operation of the SOE
- b. Decrease in assets (except cash)
- c. Increase in liabilities including debentures, bonds, issue of share etc.

##### **5.4.1.2 Uses of Cash**

- a. Loss from operation
- b. Increase in assets (except cash)
- c. Decrease in liabilities
- d. Redemption of Preference shares
- e. Cash dividend

#### **5.4.2 Classification of cash flow**

The cash flow statement relating to a particular period can be classified into three main categories of cash inflow and cash outflow:

- ❖ Cash flows from operating activities
- ❖ Cash flows from investing activities
- ❖ Cash flows from financing activities

Revenue of SOEs mainly operating activity, investment and financing are subsidiary activities. In case of GSFC (Finance) its major activity is financing which is operating activity only. Remaining four companies are manufacturing companies and therefore their major activity is production. Therefore the investing and financing activities are found very less in selected State Owned Enterprises. So in this study the analysis of cash flow is concentrated on cash flow from operating activities.

#### **5.4.2.1 Operating activities**

Operating activities are the principal revenue earning activity of State Owned Enterprises and other like investing and financing activities. Operating activities includes cash effects of those transactions and events that enter into the determination of net profit or loss. Following are few examples of cash flow from operating activities:

- ❖ Cash receipts from sale of goods,
- ❖ Cash receipts from fees, commission, royalties and other revenues,
- ❖ Cash payments to suppliers for goods and services,
- ❖ Cash payments to employees,
- ❖ Cash receipts and payments for insurance,
- ❖ Cash payments or refunds of income tax etc.

#### **5.4.2.2 Cash Flow Statement**

Cash flow statement helps in efficient cash management so that adequate cash is made available to meet the requirements. A projected cash flow statement enables to coordinate the financial operation of business efficiently.

Cash flow analysis helps in exploring the possibility of repayment of long-term debt.

The cash flow statement discloses increase or decrease in cash and reasons thereof. It helps the financial management know why there is a shortage of cash even after high profit or surplus cash when there is a lower profit. The comparison of actual and budgeted cash flow will enable the financial management to know



the failure or success in managing cash resources and what remedial measures can be taken for such difference in actual and budgeted cash flow.

Cash flow analysis supplements the information given by fund flow statement. Cash flow statement is certainly a better tool for analyzing than that of fund flow statement for the short term. The main difference between fund flow analysis and cash flow analysis is that, fund flow statement takes into account the sources and application of funds of long term nature and the net increase or decrease in long term funds will be reflected on the working capital position of State Owned Enterprises. The cash flow statement considers the increase or decrease of assets, liabilities, and cash generated from operations of the business in ascertainment of net increase or decrease in cash and cash equivalents.

### 5.4.3 Cash Flow Statement of selected State Owned Enterprises

#### 5.4.3.1 Gujarat Narmada Valley Fertilizer Company Limited

GNFC prepares a comprehensive cash flow statement, published in annual reports of the company. Following is the cash flow from operating activities.

**Table 5.27: Cash flow statement of GNFC for the year 1994-95 to 2003-04**  
Rs. in crore

Sr. No.	Particulars	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04
1	Net Profit before tax & extra ord items	91 92	95 35	86 83	94 97	104 63	75 66	112 95	118 19	136 38	184 78
2	Cash flow before working cap Changes	191 75	197 19	199 42	205 43	221 41	211 54	247 78	260.92	310 57	339.49
3	Cash flow from working cap Changes	-22 04	65 02	-134 75	28 07	-50 59	-104 63	32 82	73 22	27 52	119 47
4	Cash flow from operations	169.71	262.21	64 67	233 50	170 82	106 91	280 60	334 14	338 09	458 96
5	Interest, dividend, taxes paid	-77 22	-82 27	-116 82	-112 77	-114 75	-105.87	-112 47	-84 35	-120 17	-116.78
6	Cash flow from operating activities	92.49	179 94	-52 15	120 73	56 07	1 04	168.13	249 70	217 92	342 18

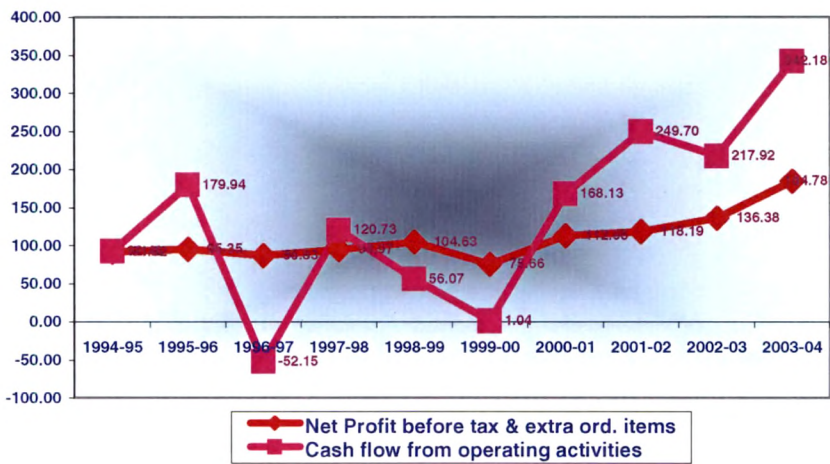
(Source: CMIE Reports)

Company generated Rs.179.94 crore cash flow from its operating activities that contributed about 78 percent of companies investment needs. GNFC generated

Rs.92.49 crore from its operating activities in the year 1994-95, in these both years the liquidity position of GFNC appears very sound but in the year 1996-97 the net profit before tax remained normal that is Rs.86.83 crore but the cash flow generated from operating activities is negative that is Rs.52.15 crore, it indicates an unsound liquidity position for the year 1996-97. Similar situation occurred in the year 1999-00, the profit before tax showed Rs.75.66 crore but the cash flow generated from operating activities is just Rs.1.04 crore. Once again the liquidity situation is alarming. From the year 2000-01 onwards till 2003-04 it has remained comfortable liquidity position.

Following is the comparison of net profit before tax and cash generated from operating activities:

**Graph 5.2      Comparison between Net Profit before tax and cash flow from operating activities of Gujarat Narmada Valley Fertilizer Company for the year 1994-95 to 2003-04**



The net profit curve of GNFC is almost parallel to the “x” axis from the year 1994-95 to 2001-02 with exception of year 1999-00 where it has come nearer to the “x” axis. From the year 2000-01 it is slowly rising but during 2002-03 and 2003-04, the growth rate is high but almost during all ten years it can be interpreted that net profit before tax has shown consistency.

There is a lot of fluctuation in the cash generated from operating activities, for the year 1996-97, company has to borrow Rs.52 crore whereas in the year 1999-00

the cash flow curve almost touches the “x” axis, but from the year 2000-01, it has shown rapid rise, growth rate of cash from operating activities is very high.

#### 5.4.3.2 Gujarat State Fertilizer Company Limited

During the ten years of study from 1994-95 till 2003-04, GSFC faced serious fluctuation in its profit before tax figures.

**Table 5.28: Cash flow statement for the years 1994-95 to 2003-04 of GSFC**

**Rs. in crore**

Sr. No.	Particulars	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04
1.	Net Profit before tax & extra ord. items	114.44	205.89	216.97	188.72	147.48	22.93	6.06	-68.63	-228.28	42.40
2.	Cash flow before working cap. Changes	239.76	399.30	420.33	379.55	351.82	227.57	304.30	232.73	96.30	328.72
3.	Cash flow from working cap. Changes	40.35	-137.55	-1.77	74.80	-153.40	-123.40	175.02	85.63	237.16	-193.97
4.	Cash flow from operations	280.11	261.75	418.56	454.35	198.42	104.17	479.32	318.36	333.46	134.75
5.	Interest, dividend, taxes paid	-119.63	-132.80	-164.61	-133.21	-135.85	-127.51	-181.45	-172.51	-181.02	-151.54
6.	Cash flow from operating activities	160.48	128.95	253.95	321.14	62.57	-23.91	297.87	145.85	152.44	-16.79

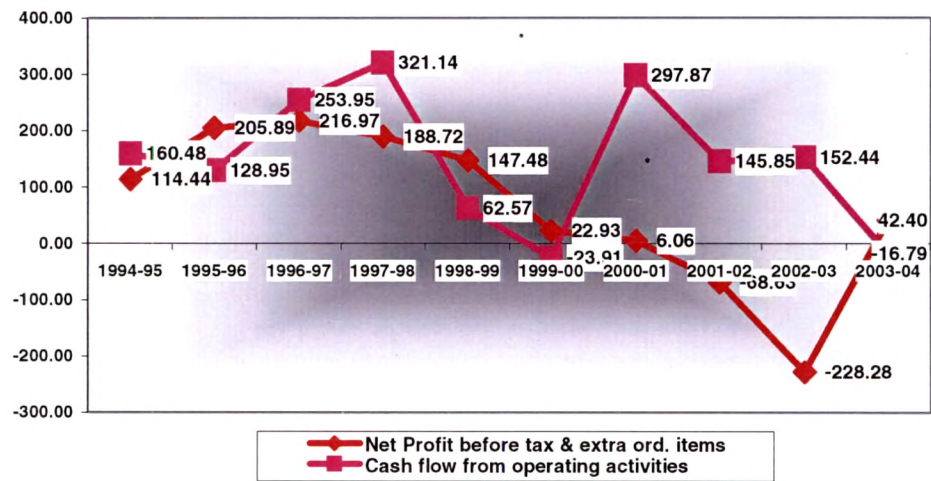
(Source: CMIE Reports)

It can be observed from the annual reports that a lot of questions are arising about preparing the financial statement of by GSFC, the range of profit before tax is Rs.205.89 crore (profit) in the year 1995-96 to Rs.228.28 crore loss in the year 2002-03. It indicates a risk in business by GSFC during these ten years. Comparatively cash flow from operating activities has not shown such huge fluctuation in the year 1999-00 it has (-) Rs.23.91 crore cash flow from operating activities whereas in the year 2003-04 the profit is Rs.42 crore but the cash flow from operating activities is (-) Rs.17 crore. The highest cash flow from operating activities is Rs.301.13 crore in the year 1997-98 but profit had remained at Rs.189 crore. From the cash flow statements of GSFC it is apparent that company has

paid high amount of interest, dividend and taxes throughout the period of 10 years, whereas cash flow from operations is fluctuating from Rs.1004 crore to Rs.479 crore.

Following is the comparison between net profit before tax and cash generated from operating activities of Gujarat State Fertilizer Corporation.

**Graph 5.3      Comparison between Net Profit before tax and cash flow from operating activities of Gujarat State Fertilizer Company for the year 1994-95 to 2003-04**



The net profit curve is fluctuating during 1994-95 and 1995-96, it is rising, then onwards it is going down till the year 2002-03 but from the year 2000-01 the down fall is very steep and reached to the loss of Rs.228 crore. Similarly there is steep rise from loss of Rs.228 crore to the profit of Rs.42 crore during 2001 to 2004. Heavy fluctuations are observed during these ten years.

### 5.4.3.3 Gujarat State Financial Corporation Limited

The Gujarat State Financial Corporation Limited has declining trend of profits and increasing losses during these ten years of study from 1994-95 to 2003-04. It has Rs.202 crore of loss in the year 2002-03 and Rs.42 crore profit that is the highest in the year 1996-97. It is a loss making company of the Government where there is an absolute control.



**Table 5.29: Cash flow statement for the year 1994-95 to 2003-04 of Gujarat State Financial Corporation**

**Rs. in crore**

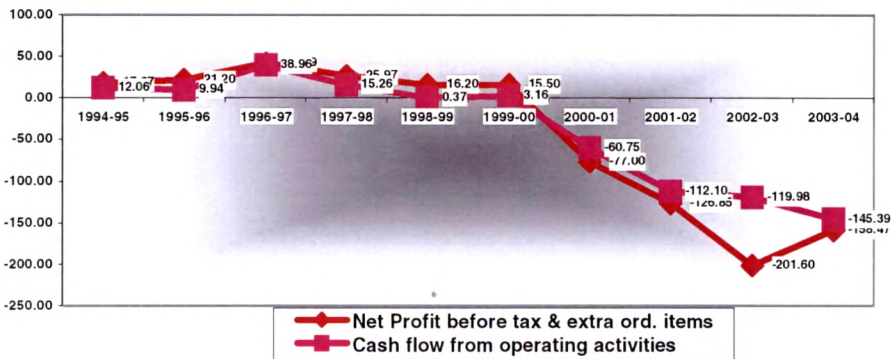
Sr. No.	Particulars	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04
1.	Net Profit before tax & extra ord. items	17.67	21.20	41.99	25.97	16.20	15.50	-77.00	-126.85	-201.60	-158.47
2.	Cash flow before working cap. Changes	20.04	21.99	49.83	27.90	25.88	25.61	-66.78	-124.96	-177.64	-157.36
3.	Cash flow from working cap. Changes	0.00	0.00	0.00	0.00	-17.81	-15.97	9.95	13.01	57.66	11.97
4.	Cash flow from operations	20.04	21.99	49.83	27.90	8.07	9.64	-15.83	-111.95	-119.98	-145.39
5.	Interest, dividend, taxes paid	-7.98	-12.05	-10.87	-12.64	-7.70	-6.48	-3.25	-0.15	0.00	0.00
6.	Cash flow from operating activities	12.06	9.94	38.96	15.26	0.37	3.16	-60.75	-112.10	-119.98	-145.39

(Source: CMIE Reports)

In no year, cash is generated more than Rs.50 crore from the operations whereas there are negative cash flows from operations from the year 2000-01 amounting to (-) Rs.16 crore reaching to (-) Rs.145 crore in the year 2003-04. There are no payments of dividends and taxes from the year 2001-02. All the non-performing assets of this company turning out to the losses looks difficult revival of this company in future as it can be identified from the cash flow statements of Gujarat State Financial Corporation.

Following is the comparison between net profit before tax and cash generated from operating activities:

**Graph 5.4 Comparison between Net Profit before tax and cash flow from operating activities of Gujarat State Financial Corporation for the year 1994-95 to 2003-04**



Till 1999-00, both the curves are above the “X” axis that is there was a projected profit in the financial statement and the positive cash generation from its financial activities, then onwards there is steep fall in both the curves till 2002-03, the loss has been projected for Rs.202 crore and negative cash generation of Rs.120 crore.

#### 5.4.3.4 Gujarat Alkalies and Chemicals Limited

Gujarat Alkalies and Chemicals Limited till 1995-96 showed increasing profits before tax then onwards it reduced till 2001-02 making loss of Rs.41 crore in between the year 1999-00, GACL incurred the loss of Rs.72 crore before tax. From 2002-03 onwards company has made a profit of Rs.88 crore in the year 2003-04. The figures during ten years for the profit before tax show a lot of ups and downs.

**Table 5.30: Cash flow statement for the year 1994-95 to 2003-04 of Gujarat Alkalies and Chemicals Ltd.**

**Rs. in crore**

Sr. No.	Particulars	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04
1	Net Profit before tax & extra ord items	33 79	84 80	58 67	1 26	-15 61	-72 19	-33 10	-40 78	53 28	88 36
2	Cash flow before working cap Changes	80 91	123 76	113 89	63 70	94 37	122 83	183 76	156 44	234 66	256 33
3.	Cash flow from working cap Changes	-12 87	-30 74	48 04	-9 59	-14 56	-26 00	-77.02	-18 51	35 36	-5 79
4	Cash flow from operations	68 04	93 02	161 93	54 11	79 81	96 83	106 74	137 93	270 02	250 54
5	Interest, dividend, taxes paid	-22 60	-26 42	-33 60	-29.56	-78 44	-124 81	-140 29	-124 11	-101 28	-88 99
6	Cash flow from operating activities	45 44	66 60	128 33	24 55	1 37	-27.98	-33 55	13 82	168 74	161 55

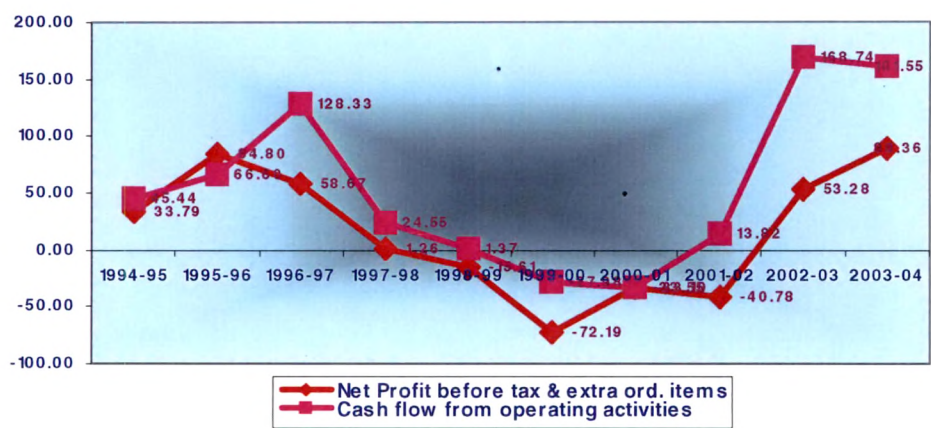
(Source: CMIE Reports)

GACL has maintained its liquidity position sound till the year 1996-97 that is amounting to Rs.128 crore then there is a down fall in generating cash from operating activities. It has negative cash, generated Rs.28 crore and Rs.34 crore in the year 1999-00 and 2000-01 respectively. This is due to comparatively higher payment of interests, dividends and taxes in the year 1999-00, 2000-01 and 2001-02 that is Rs.125 crore, Rs.140 crore and again Rs.124 crore Cash flow from

operations is rising from the year 1997-98 Rs.54 crore to Rs.250 crore in the year 2003-04.

Following is the comparison between net profit before tax and cash generated from operating activities:

**Graph 5.5      Comparison between Net Profit before tax and cash flow from operating activities of Gujarat Alkalies and Chemicals Limited for the year 1994-95 to 2003-04**



GACL has produced losses during the year 1997-98 till 2001-02 but the negative cash is generated from the year 1998-99 till 2001-02. Fluctuations are observed in generation of cash from the year 2001-02 to 2002-03. A steep upward rising curve is projected during these 12 months, profit curve also appears in the same pattern. The loss of Rs.41 crore in the year 2001-02 has been wiped off and the profit of Rs.53 crore is projected in the year 2002-03, therefore it shows a steep upward rise in the profit.

**5.4.3.5 Gujarat Mineral Development Company Limited**

Gujarat Minerals Development Corporation is extracting the minerals across the State from the mines, a lot of ups and downs are observed in net profit before tax, which ranges from Rs.74 crore to Rs.145 crore.

**Table: 5.31 Cash flow statement for the year 1994-95 to 2003-04 of Gujarat Minerals Development Corporation.**

**Rs. in crore**

Sr. No.	Particulars	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04
1	Net Profit before tax & extra ord items	78 48	85 08	119 23	141.75	145 31	74 32	110 91	112 94	132 80	122 37
2	Cash flow before working cap Changes	92 09	112 11	153 48	170 74	162 12	82 45	115 17	123 31	138 60	126 66
3	Cash flow from working cap Changes	13 40	-3 14	-90 24	-75 96	-105 97	-74 69	35 46	336 67	-1 35	-37 21
4	Cash flow from operations	105 49	108 97	63 24	94 78	56 15	7 76	150 63	459 98	137 25	89 45
5	Interest, dividend, taxes paid	-2 52	-3 18	-4 09	-4 28	-1 74	-2 67	-97 57	-345 73	-53 48	-44 24
6	Cash flow from operating activities	102 97	105 79	59 15	90 50	54 41	5 09	53 06	114 25	82 85	34 36

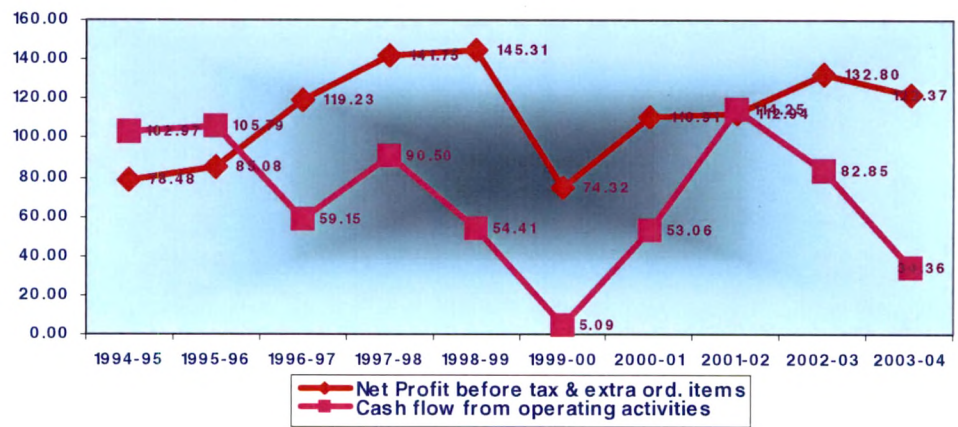
(Source: CMIE Reports)

The highest cash flow from operations is Rs.460 crore for the year 2001-02 and lowest Rs.8 crore in the year 1999-00. Extraordinary payment of interests, dividends and taxes found in the year 2001-02 amounting to Rs.346 crore and it is surprising to know the interest, dividend and tax payment were never more than Rs.4.5 crore till the year 1999-00. Suddenly there is an increase from the year 2000-01 amounting to Rs.98 crore. Extra ordinary figures are observed in the cash flow of GMDC for the year 2001-02. The profit before tax is Rs.112.94 crore but the cash inflow from trade receivables amounted to Rs.256.79 crore which was unique, it is an unusual figure that is collected from the Debtors of GMDC. The other item in cash flow from working capital changes amounting to Rs.82.39 crore, similarly GMDC has paid the direct taxes amounting to Rs.344 crore in the year 2001-02. Up to the year 1999-00 the payment of interest, dividend and taxes has never exceeded Rs.4.5 crore but sudden payments of direct taxes in the year 2001-02 is precedent. When sales for the year 2001-02 is Rs.252.6 crore, then how can direct taxes paid be Rs.344 crore, Similarly the trade receivables received in the year 2001-02 were uncommon for the entire ten years.



Following is the comparison between net profit before tax and cash generated from operating activities:

**Graph 5.6: Comparison between Net Profit before tax and cash flow from operating activities of Gujarat Mineral Development Corporation for the year 1994-95 to 2003-04**



Both the curves reflect mismatch for the years 1995-96, 1996-97, 2002-03 and 2003-04 because when profit is rising generation of cash from operating activities is declining or conversely profit shows increase and cash generated from operating activities shows deep reduction. For remaining years the fall in profit represents reduction in cash generated from operating activities.

### 5.4.3.6 Inter Company comparison of Average Cash Flow

Averaging of the each item of cash flow calculated to make comparison.

**Table 5.32: Comparison of average cash flow of selected State Owned Enterprises.**

Rs. in crore

Name of selected SOEs	Net Profit before tax & extra ord. items	Cash flow before working cap. Changes	Cash flow from working cap. Changes	Cash flow from operations	Interest, dividend, taxes paid	Cash flow from operating activities
GNFC	110.17	238.55	3.41	241.96	-104.35	137.61
GSFC (Fertilizer)	64.8	298.04	0.29	298.33	-150.01	148.26
GSFC (Finance)	-42.54	-35.55	5.88	-25.57	-6.11	-35.85
GACL	15.85	143.07	-11.17	131.9	-77.01	54.89
GMDC	112.32	127.67	-0.3	127.37	-55.95	70.24

(Source: CMIE Reports)

The table no. 5.32 reflects Gujarat Narmada Valley Fertilizers Company Limited, Gujarat State Fertilizer Corporation and Gujarat Alkalies and Chemicals Limited's average cash generated from their operating activities which are higher than the average net profit before tax. Surprisingly GMDC projects the average net profit for 10 years under study Rs.112 crore whereas less average cash generated from its operating activities that is Rs.70 crore. Gujarat State Financial Corporation in all 10 years, there is average loss of Rs.53 crore and negative cash is generated from operating activities amounting to Rs.36 crore.

## **5.5 FINANCIAL RATIO:**

Ratios are best known and widely used tools for financial analysis. Ratio is defined as "The indicated proportion of two mathematical expressions", and operational definition of a financial ratio is the relationship between two financial values, here relationship implies the financial ratio, it is a quantified relationship between two financial terms. It can also be called as an index as it tells us how many times the value of one term incorporated into another term. It is worth noting to mention that the ratio must express a relationship that has significance like the sales price has direct relation with the cost. The ratio of cost of goods sold to sales is significant but there is not understandable relationship between freight and marketable securities held by the company.

### **5.5.1 Interpretation of Ratios**

Broadly speaking, ratios may be interpreted in four different ways as follows:

- ❖ An individual ratio may have significance of its own. For example a ratio of 25% of net profit on capital employed shows a satisfactory return.
- ❖ Ratios may be interpreted by making comparison over time. For example, ratio of net profit on capital employed is 25 percent. This ratio may be compared with similar ratios of a number of past years. Such a comparison will indicate the trend of rise, decline or stability of the ratio.
- ❖ Ratios of any one firm may be compared with ratios of other firms in the same industry. This is known as inter-firm comparison. Such a comparison shows the efficiency of a firm as compared to other firms.
- ❖ Ratios may be interpreted by considering a group of several related ratios. For example, the utility of current ratio is enhanced if it is used along with other

related ratios like quick ratio or acid test ratio, stock turnover ratio, etc. Similarly various profitability ratios may be considered in relation to each other.

Basically there are –

**a. Balance sheet ratios**

These ratios deal with the relationship between two items appearing in the balance sheet, for example, current ratio, liquid ratio, debt equity ratio, etc.

**b. Income statement ratio**

This type of ratios show the relationship between two items which are in the profit and loss account itself, for example gross profit ratio, net profit ratio, operating ratio etc.

**c. Composite or Combined Ratios**

These ratios show the relationship between items one of which is taken from profit and loss account and the other from the Balance Sheet, for example, Rate of return on capital employed, debtors turnover ratio, stock turnover ratio, capital turnover ratio, etc.

Ratio may be expressed in either of the following three forms that is

1. Pure Ratio, for example 2:1
2. Rate, for example Inventory turn over ratio and
3. Percentage, for example ROI 10%

Ratios as a tool of financial analysis are significant because absolute figure does not convey anything unless it is related TO other relevant figure. Ratios are significant both in vertical and horizontal analysis, like in vertical analysis ratios help the Analysts to form a judgment whether performance of the company at a point of time is good, questionable, or poor, likewise use of ratio in horizontal analysis indicates whether the financial condition of a company is improving or deteriorating and whether the cost, profitability or efficiency is showing an upward or downward trend.

Financial ratios for past performance compared with present performance can be used to judge for expected future ratios when financial ratio for several preceding

years are computed, one can determine the composition of change, thirdly the ratios of one company can be compared with other company within the industry.

## **5.5.2 Types of Ratios**

### **5.5.2.1 Liquidity Ratios**

Liquidity means ability of a firm to meet its current obligations. The liquidity ratios, therefore, try to establish a relationship between current liabilities, which are the obligations soon becoming due and current liquidity ratios answer the question: “Will the company probably be able to meet its obligations when they become due?” The failure of a company to meet its obligations due to lack of adequate liquidity will result in bad credit ratings, loss of creditor’s confidence or even in law suits against the company.

#### **5.5.2.1.1 Current Ratio**

It is essential for a company to be able to meet the obligations as and when they are due. Liquidity ratio measures the ability of a company to meet current obligation. By establishing a relationship between cash and current asset to current obligation, provide quick measure of liquidity because A company should not suffer from lack of liquidity. The most common liquidity ratio is current ratio, it is calculated by dividing current asset by current liabilities:

$$\text{Current ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

Current Assets include cash and those assets which can be converted into cash in a financial year such as Debtors, Inventories, Pre-paid expenses etc. Similarly current liabilities are the obligations maturing within a year that is creditors, bills payable, accrued expenses short-term loan, tax payable etc. Current ratio is a measure of company’s short-term solvency, it indicates availability of current assets in rupee for every one rupee of a current liability, and if this ratio is greater than one, it means that the company has more current assets than current liability against it. As a conventional requirement of current ratio is 2:1 or 200 percent may be considered satisfactory, so less than 200 percent can be interpreted as insufficient liquidity. The current ratio represents margin of safety for creditors

but it is not required to be blindly followed, because in the higher current ratio the money is blocked.

❖ Current ratio of all India state owned enterprises.

Working capital of public sector enterprises as on March 31, 2000, was Rs.1,13,567 crore with current ratio (current assets to current liabilities) of 1.81 as compared to Rs.92,243 core with current ratio of 1.77 as on March 31, 1999

**Table 5.33: Current Ratio of selected State Owned Enterprises**

Years	GNFC	GSFC (Fertilizer)	GACL	GMDC
1994-95	143 8	133 24	104 37	147 42
1995-96	246 28	115 19	141 32	134 98
1996-97	112 83	129.04	92 54	139 7
1997-98	63 26	140 85	93 23	148 12
1998-99	57.65	126 97	59 46	155 72
1999-00	57.55	140 73	66 87	149 47
2000-01	60.95	101.05	89 33	553 33
2001-02	63 93	95 03	91 81	228 1
2002-03	113.9	72 72	83 37	94 73
2003-04	119 27	85	124 48	173.34
Average	103 94	113 98	94 68	192 49

(Source: Annual Reports)

The current ratio of GNFC is comparatively satisfactory only in the year 1995-96 that is for current liability of every Rs.100, current assets available amounts to Rs.256. For the years 1994-95, 1996-97, 2002-03, 2003-04, GNFC has current assets slightly higher than its current liabilities while the rest of the years, that is five years, the liquidity of GNFC is very weak, it has no funds in these four years to pay the current liabilities rather it has 50 percent current assets to pay the liabilities. For GACL except 1994-95, 1995-96 and 2003-04 the current ratio is less than one that is no enough funds to pay the liabilities in a year, the average current ratio for ten years is 95 that is less than one whereas traditional ideal current ratio is 200. None of the State owned Enterprises satisfy the requirement as the average current ratio of GNFC, GSFC, GACL, and GMDC is less than ideal current ratio. GMDC's current ratio for the year 2000-01 is extra ordinarily high with 553 percent, it indicates that the fund management of GMDC is weak, lot of funds are blocked up in the current assets which are not remunerative whereas the current ratio of GMDC for the year 2002-03 is less than 100.

**5.5.2.2 Capital Structure Ratios**

Capital structure ratios are also known as gearing ratios or solvency ratios or leverage ratios. These are used to analyse the long-term solvency of any particular business concern. There are two aspects of long-term solvency of a firm – (i) ability to repay the principal amount when due, and (ii) regular payment of interest. In other words long term creditors like debenture holders, financial institution etc. are interested in the security of their loan amount as well as the ability of the company to meet interest costs. They, therefore, also consider the earning capacity of the company to know whether it will be able to pay off interest on loan amount. Liquidity ratios discussed earlier indicate short term financial strength whereas solvency ratios judge the ability of a firm to pay off its long term liabilities.

**5.5.2.2.1 Debt Equity Ratio**

This ratio attempts to measure the relationship between long-term debts and shareholders’ funds. In other words, this ratio measures the relative claims of long terms creditors on the one hand and owners on the other hand, on the assets of the company. This ratio is calculated by

<b>Debt Equity Ratio</b>	<b>=</b>	<b><math>\frac{\text{Long term debts}}{\text{shareholders' fund}}</math></b>
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Long-term debts include debentures, long-term loans, say from financial institutions etc. Shareholders’ funds, on the other hand, include share capital (both equity and preference) and accumulated profits in the form of general reserve, capital reserve and any other fund that belongs to the shareholders. Past accumulated losses and deferred expenditure like preliminary expenses should be deducted while computing shareholders’ funds.

**❖ Significance and Objectives of debt equity ratio**

This ratio shows the relative amount of funds supplied to the company by outsiders and by owners. A low debt equity ratio implies a greater claim of owners on the assets of the company than the creditors. On the other hand, a high debt equity ratio indicates that the claims of the creditors are greater than those of the owners.

The debt equity ratio of 1:1 is generally acceptable. From the point of view of the company, the lower the ratio, the less the company has to worry in meeting its fixed obligations. This ratio also indicates the extent to which a company has to depend upon outsiders for its financial requirements. In the long-term financial condition of a business, the debt equity ratio enjoys the same importance as the current ratio in the analysis of short-term financial position.

**Table 5.34: Debt Equity Ratio of selected state owned enterprises**

Year	GNFC	GSFC (Ferti.)	GACL	GMDC
1981-82	NA	0.30	NA	NA
1982-83	3.29	0.26	NA	2.35
1983-84	2.06	0.32	1.58	2.02
1984-85	1.68	0.23	1.40	2.30
1985-86	1.05	0.68	1.75	3.35
1986-87	1.00	0.84	1.28	2.23
1987-88	1.19	0.00	1.21	3.21
1988-89	1.25	1.31	0.99	3.34
1989-90	1.99	0.65	1.62	3.84
1990-91	2.21	1.08	1.51	1.91
1991-92	2.09	1.60	1.35	0.97
1992-93	2.32	1.89	1.34	0.54
1993-94	1.47	1.57	1.34	0.10
1994-95	0.66	1.37	0.81	0.26
1995-96	0.79	1.31	1.02	0.08
1996-97	0.60	1.10	0.93	0.10
1997-98	0.61	0.90	1.46	0.00
1998-99	0.52	0.91	2.13	0.00
1999-00	0.51	1.00	2.43	0.00
2000-01	0.60	1.11	2.31	0.03
2001-02	1.36	1.92	2.70	0.33
2002-03	0.79	3.37	3.14	0.84
2003-04	NA	2.04	2.78	NA
Average	1.22	0.66	1.53	1.26

The ideal debt equity ratio is 1. Trading on equity carries the debt equity ratio more than 1 to save the tax the technique of trading on equity is used. GMDC has debt equity ratio for more than 3 before 1989-90, from 1991-92 onwards upto 2003-04 the debt equity ratio of GMDC has remained below 1, GMDC has average debt equity ratio for 22 years is 1.26. Debt equity ratio of GACL was comfortable upto 1996-97 then onwards it is rising, for the year 2002-03 it was 3.14, average debt equity ratio is 1.53. GSFC (Fertilizer) had debt equity ratio less than one upto 1987-88 and in the year 197-88, 1998-99. For the year 2002-03, GSFC (Fertilizer) has debt equity ratio for more than 3, its average debt equity

ratio is 0.66. GNFC's debt equity ratio lots of ups and down are observed but average stood at 1.22, overall claim of outsiders on the assets of the company is greater than that of owners, in other words the fixed obligations of the company are more and they have to depend on the outsiders for the financial requirement.

### 5.5.2.3 Turnover Ratios

Turnover ratios are used to indicate the efficiency with which assets and resources of the firm are being utilized. These ratios are known as turnover ratios because they indicate the speed with which assets are being converted or turned over into sales. These ratios, thus, express the relationship between sales and various assets. A higher turnover ratio generally indicates better use of capital resources which in turn has a favourable effect on the profitability of the firm.

#### 5.5.2.3.1 Operating Expenses Ratio

The operating expenses ratio establishes relationship between operating expenses and sales. This ratio is computed dividing operating expenses by sales.

$$\text{Operating Expenses Ratio} = \frac{\text{Operating Expenses}}{\text{Sales}} \times 100$$

The higher operating expenses ratio is unfavourable because it indicates less amount of operating income. It is affected by changes in selling price, demand for product, administrative and selling expenses etc. This ratio tells about operating efficiency of an enterprise.

**Table 5.35: Operating expenses to sales of selected State owned enterprises for ten years**

Years	GNFC	GSFC (Fertilizer)	GACL	GMDC
1994-95	73.83	95.4	75.9	50.25
1995-96	76.78	86.85	70.77	59.87
1996-97	85.18	87.69	74.35	41.78
1997-98	84.11	90.38	84.62	41.48
1998-99	82.59	92.89	83.09	38.9
1999-00	84.25	99.34	85.69	61.99
2000-01	85.18	97.04	82.66	50.07
2001-02	84.03	95.96	84.81	56.53
2002-03	76.34	101.95	80.03	55.41
2003-04	76.09	89.89	77.33	55.87
Average	80.84	93.74	79.92	51.21



The operating expenses ratio for Gujarat State Fertilizer Corporation indicates that there is no room for profit. Conversely for the year 2002-03, the operating expenses are higher than its sells because the ratio is 102, except 1995-96, 1996-97 and 2003-04 the operating ratio is more than 90 percent. The average operating expenses ratio of Gujarat State Fertilizer Corporation is 94 percent, living the margin of profit of just 6 percent. Operating Expenses ratio of GNFC is slightly comfortable for the year 1994-95, 1995-96 and 2002 onwards, for the remaining years it is nearly 85 percent, averaging for ten years as 81 percent. GACL's operating ratio is 80 percent, it can be relatively comfortable and GMDC has got favourable operating expenses ratio throughout ten years. It is at the lowest in the year 1998-99 at 38.9 percent, the average operating expenses ratio for ten years of GMDC is just 51 percent, keeping a room for higher profits.

#### 5.5.2.3.2 Fixed Assets Turnover Ratio

The assets are used in generating the income. It is required to use the assets efficiently to maximize the sales. The relationship between sales and assets is called assets turnover. Several assets turnover ratios can be calculated, one of them is Fixed Assets Turnover Ratio. How efficiently the fixed assets are utilized can be represented by fixed assets turnover ratio.

$$\text{Fixed Assets Turnover Ratio} = \frac{\text{Sales}}{\text{Net Fixed Assets}} \times 100$$

**Table 5.36: Fixed Assets Turnover ratio of selected State owned enterprises**

Sr. No.	State Owned Enterprises	94-95	95-96	96-97	97-98	98-99	99-00	00-01	01-02	02-03	03-04	Average
1	Gujarat Narmada Valley Fertilizer Corporation	166 39	190 56	256 56	263 40	209 70	138 49	181 48	173 88	166 03	161 69	190.82
2	Gujarat State Fertilizer Corporation	108 82	110 83	127 08	132 20	142 16	103 28	141 37	90 08	97.95	77 67	113 14
3	Gujarat Alkalies & Chemicals Limited	135 54	131 83	154 79	238 07	273 60	191 73	151 84	120 29	102 70	89.26	158 96
4	Gujarat Mineral & Development Corporation	161 61	127 39	149 37	139 39	145 67	186 47	160 66	143 85	126 17	136.47	147 71

None of the selected State owned enterprises fixed assets turnover ratio is satisfactory. All ten years ratios indicate that the State Owned Enterprises have

not used their fixed assets efficiently Satisfactory fixed assets turnover ratio traditionally identified, as four times, here we observe that nowhere it is more than two times

### 5.5.2.3.3 Net Current Assets Turnover Ratio

A company may wish to know the efficiency of utilizing the fixed assets as well as the current assets separately. We have observed in the previous table how the fixed assets are not efficiently used by the State Owned Enterprises. The following table shows the Current Assets Turnover Ratio that is sales divided by the current assets:

$$\text{Current Assets Turnover Ratio} = \frac{\text{Sales}}{\text{Current Assets}} \times 100$$

**Table 5.37: Current Assets Turnover Ratio of Selected State Owned Enterprises**

Years	GNFC	GSFC (Fertilizer)	GACL	GMDC
1994-95	166 39	149 53	245 01	77 78
1995-96	190 56	143 01	282 58	78 28
1996-97	2565 6	147 39	265 03	63 24
1997-98	2633 98	162 27	181 34	52 4
1998-99	2097 01	146 15	197 14	41 01
1999-00	1384 94	129 62	248 74	30 93
2000-01	1814 78	146 89	296 26	73 25
2001-02	1738 8	138 91	272 95	72 32
2002-03	166 03	184 23	330 69	74 43
2003-04	161 69	181 24	321 85	78 02
Average	1291 98	152 92	264 16	64 16

There are a lot of fluctuations observed in GNFC with regards to current assets turnover ratio; it ranges from 1.61 times to 26.34 times during these ten years. Whereas Gujarat State Fertilizers Corporation shows consistent current asset turnover ratio ranging between 1.29 times to 1.84 times during the ten years. Similar is the situation of GACL, the highest current assets turnover ratio is 3.30 times, lowest is 1.81 times, whereas GMDC has very low current assets turnover ratio which is less than 0.8 times for all the ten years.

### 5.5.2.4 Profitability Ratios

Profit is essential to survive and grow over a long period of time, sufficient profit must be earned to sustain the operation of the business and to be able to obtain the

funds from investors for expansion and growth. Profit is a difference between revenue and expenses usually for a year; it is the ultimate output of the company. The Finance Manager should continuously evaluate the efficiency of the company in terms of profit.

Every business should earn sufficient profits to survive and grow over a long period of time. Infact efficiency of a business is measured in terms of profits. Profitability ratios are calculated to measure the operating efficiency of the company.

Profitability of a business may be measured in two ways:

- Profitability in relation to sales.
- Profitability in relation to investment.

Profitability in relation to sales indicates the amount of profit per rupee of sales. Similarly, profitability in relation to investment indicates the amount of profit per rupee invested in assets. If a company is not able to earn a satisfactory return on investment, it will not be able to pay a reasonable return to its investors and the survival of the company may be threatened.

**5.5.2.4.1 Earning per share ratio**

The profitability of the common shareholders' investment can be measured by calculating earning per share. The earning per share is calculated by dividing profit after taxes by total number of common share outstanding.

$$\text{Earning per Share} = \frac{\text{Profit after Tax}}{\text{No. of common share outstanding}}$$

**Table: 5.38 Earning per Share of selected State Owned Enterprises**

Years	GNFC	GSFC (Fertilizer)	GSFC (Finance)	GACL	GMDC
1994-95	6.27	17.2	18.38	10.86	57.1
1995-96	6.51	30.95	22.3	21.61	30.75
1996-97	4.42	23.86	-41.49	13.58	22.35
1997-98	4.71	21.32	30.66	0.33	26.94
1998-99	5.38	16.59	0.62	-4.16	26.52
1999-00	4.51	2.55	1.1	-15.72	11.81
2000-01	7.2	-27.35	-8.19	-7.21	18.83
2001-02	4.89	-6.02	-14.48	-8.88	20.81
2002-03	5.78	-49.03	-23.09	6.1	26.7
3003-04	7.98	21.86	-23.74	8.6	25.45
AVG	5.77	5.19	-3.79	2.51	26.73
SD	1.21	25.72	22.92	11.61	11.92

GNFC has positive EPS throughout ten years, ranging between Rs.4.42 to Rs.7.98 with the average of Rs.5.77 and standard deviation 1.1 which indicates consistency in EPS. EPS of GSFC is highly fluctuating having range of EPS between (-) Rs.49 to (+)Rs.30.95 which is reflected in standard deviation 25.72 with the average of Rs.5.90. During ten years there are negative EPS for three years. Gujarat State Financial Corporation also has negative EPS for five years. Ten years average EPS Rs. (-) 3.79 with standard deviation 22.92. GACL has negative EPS for four years out of ten with average of Rs.2.51 and standard deviation 11.61. GMDC for all ten years has positive EPS averaging to Rs.26.73 and standard deviation 11.92.

#### 5.5.2.4.2 Payout ratio

This ratio represents the portion of current earnings being paid out in the form of dividend to the shareholders. The long-term investors would like this ratio to be small but dividend seekers would like it to be large but from companies point of view it should be consistently maintained. Generally it is observed that new companies have low payout ratio.

Payout ratio is calculated by dividing dividend per share upon earning per share.

$$\text{Payout ratio} = \frac{\text{Dividend per share}}{\text{Earning per share}} \times 100$$

**Table 5.39: Payout ratio of selected State owned enterprises**

Sr. No.	State Owned Enterprises	94-95	95-96	96-97	97-98	98-99	99-00	00-01	01-02	02-03	03-04
1	Gujarat Narmada Valley Fertilizer Corporation	0.29	0.34	0.70	0.66	0.58	0.95	0.39	0.71	0.58	0.36
2	Gujarat State Fertilizer Corporation	0.19	0.13	0.17	0.21	0.27	0.17	0.00	0.00	0.00	0.00
3	Gujarat State Financial Corporation	0.01	0.00	0.00	0.00	0.11	0.06	-0.01	0.00	0.00	0.00
4	Gujarat Alkalies & Chemicals Limited	0.28	0.16	0.28	0.00	0.00	0.00	0.00	0.00	0.00	0.09
5	Gujarat Minerals & Development Corporation	0.35	0.97	0.15	0.18	0.21	0.41	0.26	0.19	0.17	0.18

Only two companies GNFC and GMDC have payout ratios for all ten years but there is no consistency in the payout ratio. The highest payout ratio is 97% of GMDC for the year 1995-96 and the lowest payout ratio is 1% of Gujarat State Financial Corporation in the year 1994-95.

#### 5.5.2.4.3 Gross Profit Ratio

Gross profit ratio is the difference between sales and manufacturing cost of goods or it is also known as earning before depreciation, interest and taxes (PBDIT). It is calculated by dividing gross profit by the sale.

$$\text{Gross Profit Ratio} = \frac{\text{Gross Profit}}{\text{Sales}} \times 100$$

This ratio indicates the average spread between cost of goods sold and sales revenue.

Before analysis of selected state owned enterprises gross profit, gross profit of SOEs all India are exhibited in the following table:

**Table 5.40: Gross profits of all India SOEs**

Year	Gross Profit (Rs. in crore)	Gross profit to Capital (%)	Gross profit to turnover (%)
1980-81	1417.83	7.79	4.95
1985-86	5287.28	12.21	8.48
1990-91	11101.55	10.87	9.35
1995-96	27587.00	15.9	12.32
1996-97	30915.00	13.4	11.84
1997-98	37206.00	14.9	13.48
1998-99	39727.00	15.0	12.80
1999-00	42422.00	14.0	10.90
2002-03	73373.87	17.59	13.71
2003-04	98875.29	21.89	16.87

(Source: Public Enterprise Survey Vol. I – 1999-00 and 2003-04)

There has been impressive improvement in the gross profit from 1980-81 to 1999-00. It was Rs.1417 Crore increased to Rs.42422 crore. The net increase of gross profit amounts to Rs.41005 crore that is about 30 times, the same trend is indicated in percentage of profit to capital. There is marginal one percent decline in 1999-00. Gross profit to turnover is showing upto 1995-96 rising trend but then from 1997-98 onwards it is declining

**Table 5.41: Gross profit ratios of selected State Owned Enterprises**

Years	GNFC	GSFC (Ferti.)	GSFC (Fin.)	GACL	GMDC
1981-82	0	13.66	0	0	0
1982-83	58.4	14.9	0	0	17.87
1983-84	54.02	15	0.48	21	29.34
1984-85	44.27	16.81	0.47	24.98	35.37
1985-86	42.79	10.46	0.48	22.12	31.88
1986-87	27.96	14.96	0.63	20.24	36.56
1987-88	77.2	0	1.06	20.93	2.48
1988-89	18.65	11.97	0.89	20.3	5.08
1989-90	29.04	12.45	0.14	24.86	9.04
1990-91	27.95	14.71	0.13	26.2	23.06
1991-92	37.36	13.28	0.29	25	51.07
1992-93	32.34	10.94	0.43	28.74	55.2
1993-94	26.48	7.82	0.61	23.09	50.8
1994-95	26.63	10.29	2.81	25.75	49.75
1995-96	24.73	14.64	2.84	32.29	40.13
1996-97	40.92	14.52	8.42	26.77	58.22
1997-98	17.61	12.62	5.97	18.2	58.52
1998-99	19.63	11.1	4.51	22.67	61.1
1999-00	17.71	5.16	2.56	16.22	38.01
2000-01	18.12	6.24	-25.36	18.41	39.15
2001-02	17.64	2.45	-87.89	17.5	42.46
2002-03	18.56	-4.56	-169.16	21.99	44.59
2003-04	21.03	8.57	NA	22.88	42.83
Average	30.39	10.35	-11.35	20.88	35.76
SD	16.73	5.39	40.42	7.57	18.45
% increase	-63.99	-42.48	-35341.67	8.95	139.68

Gross profit for Gujarat State Financial Corporation is calculated by subtracting interest expended from interest earned divided by turnover. Across 23 years of data in no year the gross profit was in double digit, contrary from 2000 onwards it has turned to negative. The average gross profit ratio is (-) 12.5 percent. GP ratio of GNFC appears satisfactory upto the year 1996-97, from 1997-98 it has declined and appears 17 to 19 percent of the turnover. For the year 2003-04 it is 21 percent, average gross profit ratio of GNFC is 16.73 percent. Gross profit ratio of GACL from year 1983-84 till 2003-04 appears more than 20 percent, the average gross profit ratio is 20.88 percent. GMDC being minerals extracting company has high gross profit margin which is 61 percent for the year 1998-99 and the lowest 2.48 percent in the year 1987-88-00. The average gross profit is 35.76 percent for 23 years. Gujarat State Fertilizer Corporation gross profit ratio

shows continuous decline from 1998-99 till 2002-03, for the year 2002-03 it is (-) 4.56 percent which ever lowest, for the year 2003-04 it has gone up to 8.57 percent, the average gross profit ratio is 5.39 percent.

The low gross profit of GSFC (Fertilizer) and GACL that is 5.39 percent and 7.57 percent respectively indicates the higher cost of goods sold due to higher cost of production, it may also be due to low selling price, these two companies should lower the cost of goods sold maintaining selling price constant or increase the sales of those goods have higher gross margin. The above explanation for Gujarat State Fertilizer Corporation and Gujarat State Financial Corporation indicates the high cost of sales or companies' inability to purchase raw material at lower cost, underutilization of plant and machinery.

#### 5.5.2.4.4 Net Profit Ratio

The net profit is obtained after interest, depreciation and taxes are accounted for. The net profit ratio is calculated by dividing profit after tax by sales

$$\text{Net Profit Ratio} = \frac{\text{Profit After Tax}}{\text{Sales}} \times 100$$

This ratio establishes the relationship between net profit that is profit after tax and sales. Net profit ratio indicates the management efficiency in manufacturing, administering and selling the product. It also presents the ability of the company to convert sales into the net profit.

Net profit assumes more importance for judging the performance of the management of state owned enterprises. The investors, however, are more concerned about profit after tax. Following table reflects profit before tax, profit after tax as a percentage to investment and equity share capital of all India state owned enterprises.

**Table 5.42: Net Profit before Tax to Investment and Net Profit after tax to the share capital of all India SOEs**

Year	Pre-tax profits Rs. in crore	Post tax profits Rs. in crore	% pre-tax profits of investment	% of post ax profits on Equity
1975-76	306	19	3.41	0.45
1980-81	1025	446	4.11	3.79
1985-86	3100	1771	5.04	6.25
1990-91	3500	2272	3.98	8.14
1995-96	13621	9574	9.37	13.70
1996-97	15378	10186	7.19	14.58
1997-98	19217	13582	8.31	18.87
1998-99	19702	13203	8.23	17.17
1999-00	22262	14555	8.81	17.65
2002-03	49831	32399	9.31	6.05
2003-04	75290	53169	12.85	9.07

(Source: Public Enterprise Survey Vol.I, 1999-2000 and 2003-04)

The pre-tax profits have recorded substantial improvement during 1975-2000. From a figure of Rs.306 crore in 1975-76 it has risen to Rs.22,265 crore in 1999-00 more than 72 times during last 24 years. The post tax profits have also increased substantially from Rs.19 crore in 1975-76 to Rs.14555 crore in 1999-00. In terms of percentage, the returns are insignificant during 1975-76 to 1990-91. But thereafter it increased to about 9 percent on investment in 1999-00. Similarly post tax profit on equity comes to 17.65 percent in 1999-00 in comparison to 13.70 percent in 1995-96.

**Table: 5.43 Net Profit to sales ratio for ten years of selected State Owned Enterprises**

Sr. No.	State Owned Enterprises	94-95	95-96	96-97	97-98	98-99	99-00	00-01	01-02	02-03	03-04	Average
1	Gujarat Narmada Valley Fertilizer Corporation	13.11	11.84	5.30	5.64	6.79	5.45	7.42	4.85	5.79	7.53	7.37
2	Gujarat State Fertilizer Corporation	7.25	11.32	9.83	8.50	6.60	0.97	-10.14	-3.29	-11.78	7.84	3.72
3	Gujarat State Financial Corporation	1.56	1.62	3.22	2.08	1.12	1.01	-6.53	-11.48	-21.68	-21.30	-5.04
4	Gujarat Alkalies & Chemicals Limited	11.08	20.32	11.75	0.35	-2.91	-9.34	-3.38	-4.50	0.28	5.89	2.95
5	Gujarat Mineral & Development Corporation	45.98	18.42	32.57	35.84	36.45	19.98	26.96	26.20	29.00	29.66	30.11

The net profit ratio of GNFC shows declining trend till the year 2001-02 then it is marginally increasing keeping average net profit for ten years at 7.37 percent. Similarly the Gujarat State Fertilizer Corporation's net profit ratio shows



continuous downfall during the first nine years reaching to negative net profit ratio at 11.78 percent and then a sudden increase up to 7.84 percent for the year 2003-04 is registered. The ten years average profit is stated at 3.72 percent. The Gujarat State Financial Corporation's net profit ratio indicates an abnormal decline, which is continuously taking the depth of (-) 21.3 percent; the average is also negative for ten years at 5 percent. Gujarat Alkalies and Chemicals Limited's net profit also is showing a trend of downward falling till 2001-02 and then marginally improving in the year 2003-04 at 5.89 percent, keeping low average for ten years at 2.95 percent. Gujarat Minerals & Development Corporation's net profit is continuously fluctuating during all these ten years Except GMDC none of the selected State Owned Enterprises are in a position to make net profit atleast in the last five years of the study, they are not the viable enterprises atleast in case of net profit.

The net profit ratio of Gujarat State Fertilizer Corporation, Gujarat State Financial Corporation and Gujarat Alkalies and Chemicals Limited are continuously not only fluctuating but also abnormally declining to the negative stage.

#### 5.5.2.4.5 Return on Equity

Equity shareholders are entitled for residual profit. Dividend paid on equity shares normally changes because the earnings may be distributed to shareholders or retained in the business. Return on shareholder's equity is calculated to estimate profitability of owners' investment. Here shareholders' equity is nothing but net worth which is calculated by adding reserves and surpluses with share capital.

$$\text{Return on Equity} = \frac{\text{Profit After Tax}}{\text{Net Worth}} \times 100$$

**Table 5.44: Return on equity for selected State owned enterprises**

Years	GNFC	GSFC (Fertilizer)	GSFC (Finance)	GACL	GMDC
1994-95	60.95	113.57	60.26	97.81	43.92
1995-96	61.19	95.66	105.22	87.51	61.06
1996-97	73.19	82.73	-68.46	84.41	44.92
1997-98	77.07	80.32	-18.57	66.46	41.87
1998-99	75.87	69.42	38.77	96.61	33.67
1999-00	69.37	58.83	28.73	123.41	12.72
2000-01	73.62	81.72	-24.6	184.11	18.42
2001-02	92.61	107.06	-118.73	197.37	19.05
2002-03	125	182.27	-160.29	224.63	21.18
2003-04	121.99	135.3	-275.21	195.21	17.85
AVG	83.09	100.69	-43.29	135.75	31.47

Gujarat Narmada Valley Fertilizer Co. is showing rising trend in Return on Equity during these ten years, for the year 1994-95 the ratio of net profit to net worth was 61 percent reaching to 122 percent for the year 2003-04, averaging to 83 percent for ten years. In case of GSFC, during ten years, fluctuations are observed in Return on Equity. The minimum Return on Equity was 59 percent in the year 1999-00. The highest Return on Equity is observed in the year 2002-03 at 182 percent, averaging it at 100 percent for ten years. Gujarat State Financial Corporation is the only State owned enterprise showing negative Return on Equity that is in the year 2003-04 it is (-) 275 percent. Gujarat Alkalies & Chemicals Limited's Return on Equity shows rising trend during ten years averaging to 135 percent. The lowest Return on Equity is observed in the case of Gujarat Minerals Development Corporation throughout ten years where the average for ten years is 31 percent.

#### 5.5.2.4.6 Profit after tax to capital employed ratio

The capital employed comprises of share capital, reserves and surpluses and the borrowing whereas the profit is net profit after tax, depreciation and interest. The ratio indicates the profit earned from deployment of capital.

**Table 5.45: Profit after tax and capital employed ratio of selected state owned enterprises.**

Years	GNFC	GSFC (Fer)	GSFC (Fin)	GACL	GMDC
1994-95	7.73	6.25	1.46	6.40	27.93
1995-96	7.78	9.39	1.59	10.79	14.87
1996-97	4.84	7.19	-2.48	4.78	21.22
1997-98	5.10	6.43	1.75	0.09	22.84
1998-99	5.50	4.60	0.46	-1.12	19.08
1999-00	4.01	0.69	0.77	-5.38	8.10
2000-01	6.25	-7.76	-5.53	-2.45	11.47
2001-02	4.98	-2.02	-9.56	-3.06	9.07
2002-03	5.87	-19.68	-14.41	2.33	7.46
2003-04	8.57	8.29	-14.94	5.37	5.52
Average	6.06	1.34	-4.09	1.77	14.76

(Source: Annual reports of selected state owned enterprises)

GNFC shows all positive results during 10 years from 1994-95 to 2003-04, the average ratio is 6.06 that is for every Rs.100 capital employed GNFC earns net profit of Rs.6. GSFC (Fertilizer) has positive ratio up to March 31, 2000, then it is negative ratio up to 2002-03 that is 19.68 percent, for every Rs.100 employed

during ten years GSFC (Fertilizer) has earned average net profit after tax of Rs.1.34 only. The GSFC (Finance) has a poor performance from 1994-95 till 2003-04 that is continuously it is deteriorating, the average profit after tax on capital employed is (-) 4 percent. GACL has negative profit after tax to capital employed for four years from 1998-99 to 2001-02, the average ratio is just 1.77. The only GMDC has satisfactory ratio ranging from 5 percent to 28 percent, the average ratio is 14.76 percent.

#### 5.5.2.4.7 Profitability based comparative performance

Dr. S.R. Mohnot on the basis of CMIE data has analyzed the performance of the state owned enterprises and the private sector enterprises. Taking the two leading parameters, namely, net profit to turnover (NP/Turnover) and net profit to net worth, the following picture emerges:

On the basis of net profit to turnover ratio, it may be noted that the state owned enterprises did not perform well during 1994-95 and 1995-96, but improved its position significantly during 1996-97 and 1997-98. If we exclude, the taken over private enterprises, then during 1997-98, the NP turnover ratio of the state owned enterprises was 4.7 while that of Indian business houses was merely 2.3 percent and the same percentage was observed for the total Indian private sector. Obviously, the record of the state owned enterprises on the basis of this criterion indicated better performance of this sector than that of the private.

**Table 5.46: Net profit to turnover ratio, SOE compared with private sector.**

Particulars	1994-95	1995-96	1996-97	1997-98
<b>The Private Sector</b>				
- Indian Business Houses	6.1	6.3	3.5	2.3
- Total Indian Private Sector	6.1	6.0	3.2	2.3
<b>The Central Public Sector</b>				
- Basic state owned enterprises	4.3	3.7	3.8	4.7
- Taken over sick private enterprises	-27.3	-26.0	-34.6	-45.4

(Source: Center for Industrial & Economic Research, Performance of state owned enterprises and Private Sector, p.21)

On the basis of the other equally powerful financial parameter of net profit to net worth (NP / NW) which measures the return on investment and real shareholder value, the position was as follows:

**Table 5.47: Net profit to net worth ratio - SOE compared with private sector**

Particulars	1994-95	1995-96	1996-97	1997-98
<b>The Private Sector</b>				
- Indian Business Houses	15.0	14.0	7.4	5.2
- Total Indian Private Sector	15.2	13.3	6.5	4.7
<b>The Central Public Sector</b>				
- Basic state owned enterprises	7.4	3.7	3.8	4.7
- Taken over sick private enterprises	Negative Net worth not amenable to computation			

(Source: Center for Industrial & Economic Research, Performance of state owned enterprises and Private Sector; p.21)

On the basis of this criterion as well, the state owned enterprises did not fare well during 1994-95 and 1995-96, but in 1997-98, it fared better than the Indian business houses as well as the total Indian Private Sector.

## **5.6 DIVIDEND PERFORMANCE OF STATE OWNED ENTERPRISES:**

Dividend is a part of profit distributed amongst the shareholders, in which there can be preference share dividend and equity dividend. Preference share dividend is obligatory to be paid by the company for all the years, if preference shares are cumulative preference share then in the year of no profit the unpaid dividend will be carried for the next year and it will get accumulated. The year, in which company earns profit, unpaid dividend on preference share will be distributed before the dividend is paid to the equity shareholders.

Dividend on equity shares is not obligatory; in the event of less profit or no profit as the equity shareholders are the owners of the company. If company earns reasonable profit, Board of Directors can recommend the dividend to equity shareholders after complying with the provisions of Company's Act 1956. In the event of loss or no profit year, obviously Board of Directors will not recommend the dividend. After recommendation of Board of Directors the matter is placed in Annual General Meeting, ultimately AGM may approve the recommendations of Board of Directors.

Dividend performance of state owned enterprises of all India is interesting to note. Financial performance in terms of rate of returns on capital employed is quite depressive. Dividend ranges between 2 to 6 percent during 1985-2002 for all India state owned enterprises. The absolute dividend available to the equity shareholder and the government indicates increasing trend. But with regard to percentage of dividend it comes to some time even less than one percent. The following is the table expressing dividend performance of state owned enterprises of all India level.

**Table 5.48: Dividend Performance of all India state owned enterprises**

Rs. in crore

Years	Capital Employed	Post tax profit	Dividend	Percentage of PAT to capital employed
1984-85	36382	909	176	2.50
1985-86	42965	1172	191	2.73
1986-87	51835	1772	294	3.42
1987-88	55617	2030	320	3.65
1988-89	67629	2994	353	4.43
1989-90	84760	3789	323	4.47
1990-91	102084	2272	413	2.23
1991-92	117991	355	687	2.00
1992-93	140110	3271	792	2.33
1993-94	159307	4544	1028	2.85
1994-95	162451	7187	1436	4.42
1995-96	173948	9574	2205	5.50
1996-97	231178	10186	2836	4.40
1997-98	249855	13582	3609	5.43
1998-99	265093	13203	4932	4.98
1999-00	303411	14555	5456	4.79
2000-01	331401	15653	8260	4.72
2001-02	390162	25978	8068	6.66
2002-03	417160	32399	13767	7.77
2003-04	451676	53168	15282	11.77

(Source: Public Enterprise Survey Vol.I, 1999-2000, p.21 and 2003-04)

The above table clearly indicates that the state owned enterprises have no dividend policy; they are unable to reward their shareholders to their satisfaction. It is high time for state owned enterprises to formulate an effective dividend policy for the present and prospective shareholders. For the year 2002-03 and 2003-04, SOEs have enthusiastic dividend performance that is 7.77 percent and 11.77 percent.

Following is the details regarding dividend paid and rate of dividend for selected State owned enterprises in Gujarat.

**Table 5.49: Dividend paid by selected State Owned Enterprises for ten years per share.**

SOEs	GNFC	GSFC(Fertilizer)	GSFC(Finance)	GACL	GMDC
1994-95	1.82	3.23	0.14	3	19.96
1995-96	2.2	4	0.06	3 49	29.95
1996-97	3.1	4 02	0.06	3 84	3.29
1997-98	3.1	4 5	0.05	0	4.94
1998-99	3.1	4 5	0.07	0	5.5
1999-00	4.28	0.44	0.07	0	4.88
2000-01	2.82	0	0.07	0	4.95
2001-02	3.48	0	0	0	4
2002-04	3.33	0	0	0	4.5
2003-04	2.89	0	0	0 75	4 5

(Source: Annual Reports)

There are only two companies that are GNFC and GMDC who have paid the dividend throughout ten years, GACL has not paid any dividend for five years, Gujarat Financial Corporation has not paid dividend for three years and GSFC for four years.

**Table 5.50: Dividend paid and Rate of dividend of selected State owned enterprises in Gujarat**

**Rs. in Crore**

Particulars	Gujarat Narmada Valley Fertilizer Corporation		Gujarat State Fertilizer & Chemicals Ltd.		Gujarat State Financial Corporation		Gujarat Alkalies & Chemicals Limited		Gujarat Minerals & Development Corporation	
	Dividend rate (%)	Total Dividend paid	Dividend rate (%)	Total Dividend paid	Dividend rate (%)	Total Dividend paid	Dividend rate (%)	Total Dividend paid	Dividend rate (%)	Total Dividend paid
1994-95	20	26.73	33	21.95	14	10.12	30	8.65	20	2.54
1995-96	22	32.22	40	26.6	6.5	4.65	35	12.57	30	3.81
1996-97	22	35.45	45	34.53	7.5	4.65	35	14.43	30	10.49
1997-98	22	35.44	45	39.5	7.5	5.52	0	0	45	15.74
1998-99	22	35.76	45	40.41	7.5	8.43	0	0	50	17.49
1999-00	25	41.45	4.5	3.94	7.5	7.61	0	0	40	15.52
2000-01	27	43.58	0	0	7.5	6.85	0	0	45	15.77
2001-02	25	36.62	0	0	0	0	0	0	40	12.72
2002-03	25	41.31	0	0	0	0	0	0	45	16.14
2003-04	30	49.57	0	0	0	0	7.5	5.51	45	14.31
Avg.	24	37.81	21.25	16.69	5.8	4.78	10.75	4.12	39	12.45

Highest dividend payer State Owned Enterprise is GMDC among selected five State owned enterprises, GMDC has paid 50 percent benchmark dividend in the year 1998-99 and for four years the rate of dividend was 45 percent which is the highest dividend among the selected State owned enterprises. The amount so distributed is comparatively very less ranging from 2 crore to 18 crore only during the period of study. It is also observed that GMDC management in rate of dividend maintains the consistency. Gujarat Alkalies and Chemicals Limited has failed to pay the dividend for six years out of ten years to its equity shareholders, surprisingly the dividend for the year 1996-97 was 35 percent and suddenly in the year 1997-98 onwards no dividend has been paid but from the year 2003-04 it has started again making the payment of dividend. Similarly in the year 2001-02 to 2003-04, Gujarat State Financial Corporation has not paid any dividend to its equity shareholders.

Gujarat State Fertilizers Corporation has paid huge amount of dividend till 1998-99 that is 45 percent and the amount paid stood at Rs. 40 crore and suddenly it has dropped to 4.5 percent ending up to NIL in the remaining four years that is till 2003-04. GNFC has

maintained the consistency in paying the dividend rather the rising trend is observed in the rate of dividend as well as the amount of dividend, average rate of dividend paid by GNFC stands at 24 percent and the average amount paid per year stands at Rs.38 crore. Compared to GMDC it is less in rate of dividend as GMDC has paid at the average of 39 percent during ten years but the average amount per year paid by GMDC is just Rs.12.5 crore.

Center for Industrial and Economic Research (CIER) undertook an analysis of 2,436 companies relating to dividends declared by state owned enterprises and private sector companies during 1998-99. The analysis revealed that “some 1,452 companies or about 80 percent of the private sector companies did not declare any dividend during 1998-99. The comparative shares of non-dividend declaring companies in the two sectors were: SOEs 24 percent, private sector 60 percent. Nearly 62 percent of the state owned enterprises companies in the tally had declared dividends exceeding 10 percent;

## 5.7 RISK ANALYSIS:

Every business carries the risk. In high risk business the normal profit expected is high. Average human being is reluctant to take the risk or he is ready to take less amount of risk while investing.

Statistical tool can be applied to measure the risk in earning the profit. The inconsistent behaviour of the profit will be considered as high risk i.e. the deviation of profit for each year from the average profit will be measured by the statistical tool i.e. standard deviation. Higher standard deviation will mean inconsistency in earning profit. There can be trend in earning the profit either rising trend or downward falling trend or consistency. In consistency there can be fluctuation but very low. For risk analysis the mean is computed by applying the formula:

$$\bar{X} = \frac{\sum xi}{n}$$

$\bar{X}$  = Mean profit after tax for ten years;

$\sum xi$  = Summation of profit after tax for ten years;

$n$  = Number of years

$$SD = \sqrt{\frac{\sum (xi - \bar{X})^2}{n - 1}}$$

SD = Deviation of profit for the year from mean profit.

xi = Profit after tax for the year

$\bar{x}$  = Mean profit after tax

n = Number of years

Statistical tools used in calculating mean profit of SOEs and standard deviation of the mean for the period of ten years.

**Table 5.51: Profit after tax of selected state owned enterprises for ten years.**

Rs. in crore

Years	GNFC	GSFC (Fertilizer)	GSFC (Finance)	GACL	GMDC
1994-95	91.92	114.43	13.24	31.3	72.52
1995-96	95.32	205.88	16.06	81.05	39.06
1996-97	64.83	186.15	-31.12	50.96	71.1
1997-98	68.96	169.95	23	1.26	85.7
1998-99	78.77	132.23	5.88	-15.62	84.34
1999-00	66.11	20.36	10.38	-72.19	37.57
2000-01	105.55	-217.98	-77.01	-33.1	59.88
2001-02	71.68	-48.04	-136.17	-40.78	66.18
2002-03	84.72	-390.84	-205.75	28.04	84.91
2003-04	116.91	174.28	-211.59	63.15	80.96

(Source: Annual reports of selected state owned enterprises)

From the above table calculated mean and standard deviations are presented in the following table to make the statistical analysis for risk.

**Table 5.52: Mean and Standard Deviation of profit of selected state owned enterprises.**

Sr. No.	Selected SOEs	Mean profit after tax (Rs. in crore)	Standard deviation of PAT
1	GNFC	84.5	17.7
2.	GSFC (Fertilizer)	34.6	199.4
3.	GSFC (Finance)	(-) 59.3	93.4
4.	GACL	9.4	49.7
5.	GMDC	68.2	17.9

The mean profit of GNFC for ten years of study is observed to be Rs. 84.5 crore with standard deviation of 17.7. The mean profit of Gujarat State Fertilizer Corporation is observed as Rs.34.6 crore with highest standard deviation of 199.4. Gujarat State Financial Corporation is (-) Rs. 59.3 crore with very high standard deviation of 93.4. The GACL shows mean profit of Rs. 9.4 crore with standard deviation of 49.7. Similarly the



GMDC has profit after tax Rs.68.2 crore with standard deviation of 17.9. So none of the selected state owned enterprises has low standard deviation. Only GNFC and GMDC have got standard deviation less than 20. Any investment in these state owned enterprises by an individual will be very risky because there is a lot of fluctuation in earning the profit. No Portfolio Manager or Fund Manager would like to purchase the shares of these companies.

It is observed from the data of private mutual fund, the schemes and return on it gives standard deviation less than 1.5 and again if we observe the table of profit after tax which are the absolute figures that also gives ups and downs in the earning of profit. There is no rising trend in earning the profit. So any investment made by the Government will give uncertain result in earning the profit.

#### **5.7.1 Correlation Analysis**

Correlation between the profit after tax for ten years and the capital employed by state owned enterprises would be interesting to analyse, Any enterprise pumping the capital in the business with expectation of getting high returns. Normally increase in the investment is to purchase the lands, plant and machinery or other infrastructure facility so that the production will increase and ultimate result expected is rise in profit.

Range of correlation is between (-) 1 and (+) 1

- (-) 1 - this indicates perfect negative correlation between two variables i.e. they are inversely related assume 'x' and 'y' are two variables every rise in 'x' brings proportionate decline in 'y'. This is called perfect negative correlation
- (+) 1 - this is perfect positive correlation, every rise in the value of 'x' will bring proportionate rise in 'y', and it is called perfect positive correlation.
- 0 - this indicates there is no correlation between the two variables 'x' and 'y', they are not related to each other. So any change in 'x' will not bring change in 'y'.

In this correlation analysis I have tried to establish the obvious correlation between capital employed and the profit. As explained above increase or decrease in capital employed will increase or decrease the profit.

The capital employed is calculated by adding borrowings, reserves and surpluses with share capital. This total comprises the capital employed of the state owned enterprises and is compared with the profit after tax.

**Table 5.53: Profit after tax and capital employed of selected state owned enterprises**

Rs. in crore

Years	GNFC		GSFC (Fertilizer)		GSFC (Finance)		GACL		GMDC	
	PAT	Capital Employed	PAT	Capital Employed	PAT	Capital Employed	PAT	Capital Employed	PAT	Capital Employed
1994-95	91 92	1189 45	114 43	1830 34	13 24	909 73	31 3	489 11	72 52	259 65
1995-96	95 32	1224 79	205 88	2192 22	16 06	1006.93	81 05	751 05	39 06	262 67
1996-97	64 83	1339 28	186 15	2589 79	-31.12	1252 99	50 96	1065 75	71 1	335 13
1997-98	68 96	1351 04	169 95	2641 56	23	1315 87	1 26	1341 59	85 7	375 15
1998-99	78 77	1432 34	132 23	2873 71	5 88	1291 5	-15 62	1392 65	84 34	442
1999-00	66 11	1650 43	20 36	2959 99	10 38	1347 71	-72 19	1341 55	37 57	464 05
2000-01	105 55	1689 44	-217 98	2809 22	-77 01	1392 34	-33 1	1348 7	59 88	522 17
2001-02	71 68	1440 53	-48.04	2380 23	-136 17	1424 36	-40 78	1332 65	66 18	729 3
2002-03	84 72	1443 58	-390 84	1986 4	-205 75	1428 32	28 04	1203 18	84 91	1137 97
2003-04	116 91	1363 58	174 28	2103 49	-211.59	1415 93	63 15	1176 85	80 96	1466 38
Average	84 48	1412.45	34 64	2436 7	-59 31	1278 57	9 41	1144 31	68 22	599 45

The values in the above table are used for calculating the Karl Pearson's co-efficient of correlation in the formula mentioned below.

Karl Pearson's co-efficient of correlation

$$\text{Correlation} = R = \frac{\sum xy}{N s_x s_y}$$

X = (X -  $\bar{X}$ ) Deviation of profit after tax from mean profit

Y = (Y -  $\bar{Y}$ ) Deviation of capital employed from mean capital employed

s<sub>x</sub> = Standard deviation of profit after tax

s<sub>y</sub> = Standard deviation of capital employed

N = Number of years

Karl Pearson's co-efficient of correlation is calculated by using the SPSS software, following values are obtained:

**Table 5.54: Co-efficient of correlation of selected SOEs**

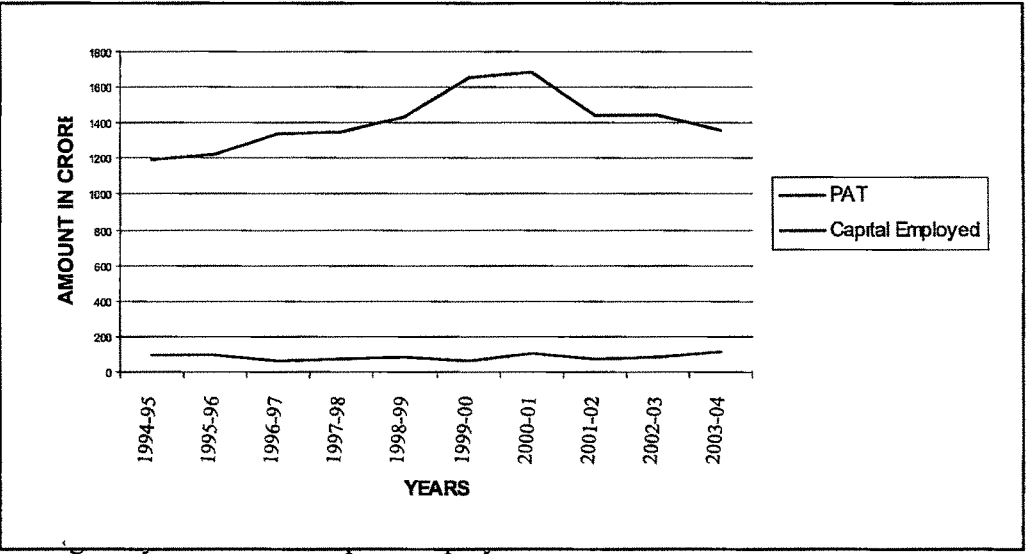
Name of selected SOEs	Values of Correlation
GNFC	- 0.0737
GSFC (Fertilizer)	+ 0.0724
GSFC (Finance)	- 0.06291
GACL	- 0.6326
GMDC	+ 0.3957

Increase in deployment of capital means expanding infrastructure facilities or increase in working capital etc. The expectation from increase in capital employed, expectations are increase in the profit. In two variables that is capital employed and profit after tax the correlation is expected to be positive. There is an association between these two variables. The calculated correlation of five state owned enterprises are presented in the above table. GNFC, GSFC (Finance) and GACL shows negative correlation, the meaning thereby increase in capital employed brings decline in the profit. There is a positive correlation of GSFC (Fertilizer) and GMDC that is 0.07 of GSFC (Fertilizer) that is insignificant but in GMDC it is 0.4, which is low degree positive correlation. It can be interpreted that the increase in capital employed will bring negligible increase in profit.

#### **5.7.1.1 Graphical presentation of correlation**

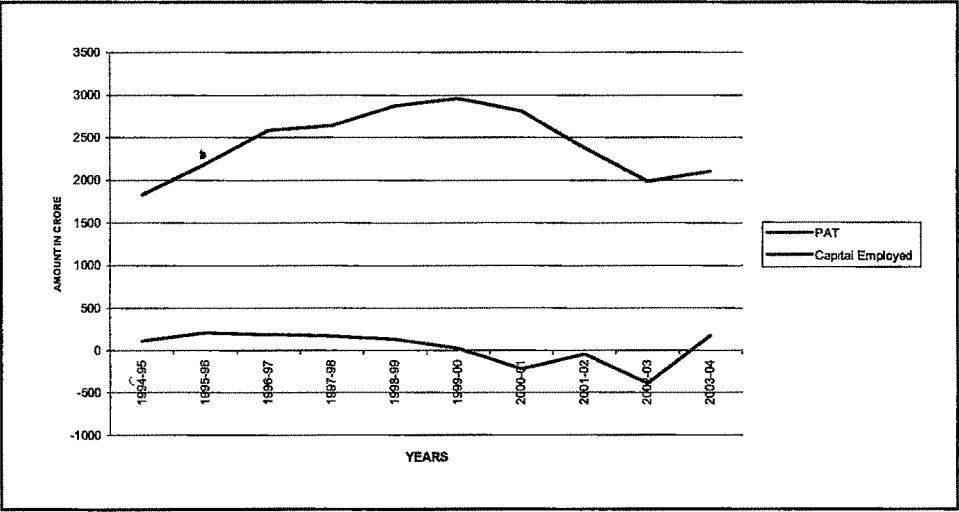
Correlation analysis deals with association between two or more variables, it attempts to determine the degree of relationship between the variables. In the above discussion the numerical correlation is presented, the graphical method will give the two curves that are one for 'x' variable (PAT) and another for 'y' variable (capital employed). The two curves are so drawn that we can infer whether or not the variables are related. If both the curves on the graph are moving in the same direction that is either upward or downward the correlation is said to be positive, on the other hand if curves are moving in the opposite direction the correlation is said to be negative.

**Graph 5.7      Correlation of profit after tax and capital employed of Gujarat Narmada Valley Fertilizer Co. Ltd.**



Rs.1650 crore but profit after tax is showing constant or reducing. From the year 2001 to 2003-04 capital employed is showing declining trend but the profit after tax shows negligible rise. It can be interpreted that capital employed negatively was related with the profit after tax.

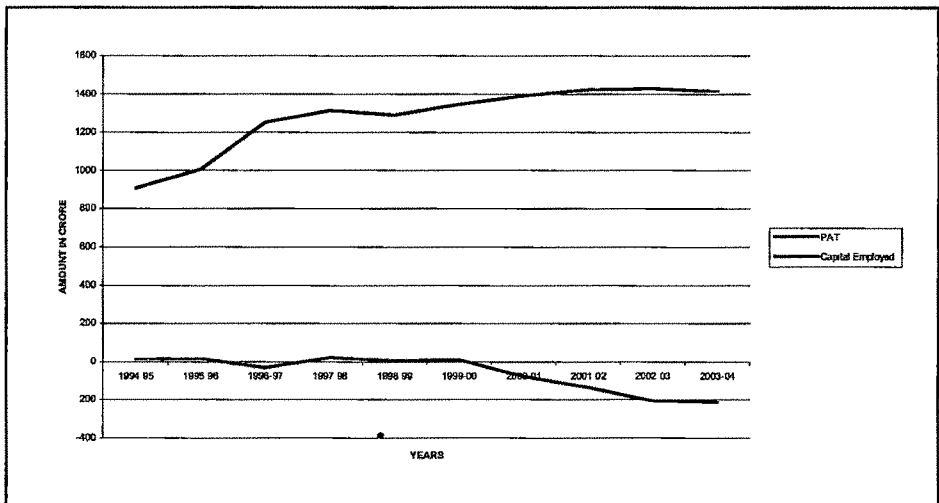
**Graph 5.8      Correlation of profit after tax and capital employed of Gujarat State Fertilizer and Chemicals Ltd.**



Rise in capital employed has not increased the profit after tax contrary to it for the year 1999-00 the capital employed at peak and profit after tax has become zero, then onwards decline in capital employed and decline in profit after tax up to

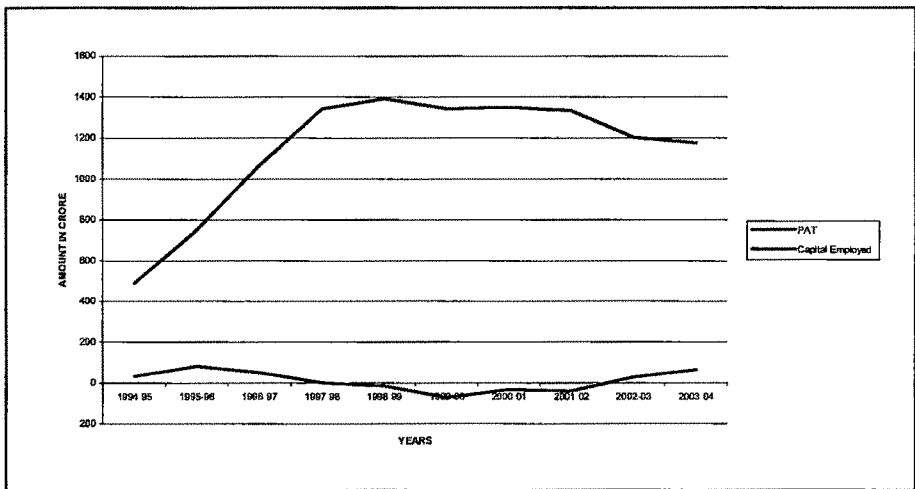
2002-03 is observed and then for the last year rise in capital employed is affecting the profit after tax to rise. So there is a positive correlation between capital employed and profit after tax from the year 2000 onwards.

**Graph 5.9      Correlation of profit after tax and capital employed of Gujarat State Finance Corporation**



Both the curves are moving in opposite direction, capital employed is rising or constant but the profit after tax is either declining or constant, the gap between two curve is increasing, so both the variables have negative correlation.

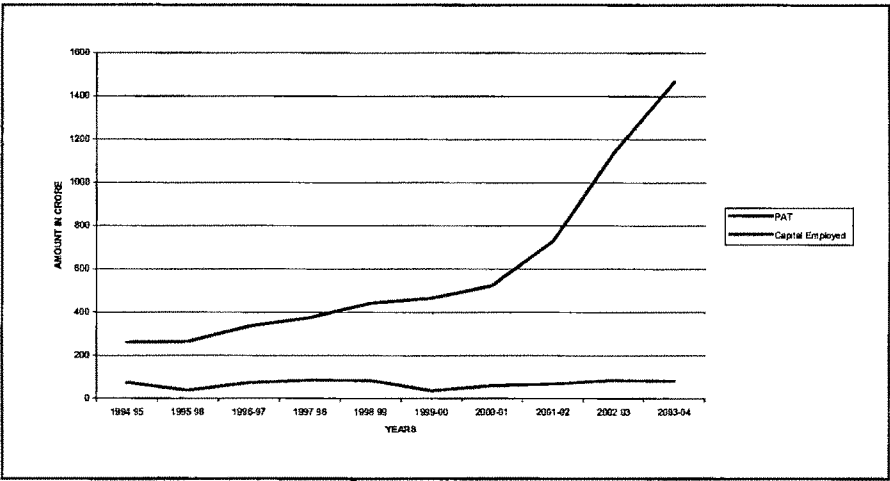
**Graph 5.10      Correlation of profit after tax and capital employed of Gujarat Alkalies and Chemicals Limited**



There is a sharp increase in capital employed of GACL till 1998-99 but the profit after tax is continuously declining from 1995-96. There is decline in capital

employed from 2001-02, whereas profit after tax is showing rising trend, it shows a negative correlation.

**Graph 5.11    Correlation of profit after tax and capital employed of Gujarat Minerals and Development Company Limited**



Capital employed of GMDC is rising from 1994-95 but from 2000-01 there is a steep growth observed but the profit after tax for all ten years is showing consistency, as if there is no correlation between two of them.

**5.8    REGRESSION ANALYSIS**

The dictionary meaning of the term regression is the act of returning or going back. The term regression was first used by Sir Frances Galton in 1822 for studying the relationship between the height of father’s and Son’s. Ya-Lunchou has defined regression analysis as an attempt to establish the nature of relationship between variables that is to study the functional relationship between the variables and thereby provide a mechanism for prediction or forecasting

It provides estimates of value of dependent variable from the values of independent variables. It displaces the mean values of one variable for given values of another, the equation of this line known as Regression Equation.

There is established relationship between sales or turnover and gross profit or net profit. Increase in turnover increases the gross profit or net profit. There is proven positive

correlation between turnover and gross profit, turnover and net profit, therefore the efforts are made to prepare the model for estimating the gross profit and net profit for a given amount of turnover in future

Regression equation of 'y' on 'x' (gross profit or net profit on turnover)

$$Y = a + bx$$

To determine the values of 'a' and 'b', the following two equations are solved simultaneously.

$$\sum y = Na + b\sum x$$

$$\sum xy = a\sum x + b\sum x^2$$

a = constant

b = co-efficient of independent variable

x = independent variable that is turnover

y = gross profit / net profit

n = number of observations

#### 5.8.1 Regression of Gross Profit to Turnover of all selected state owned enterprises

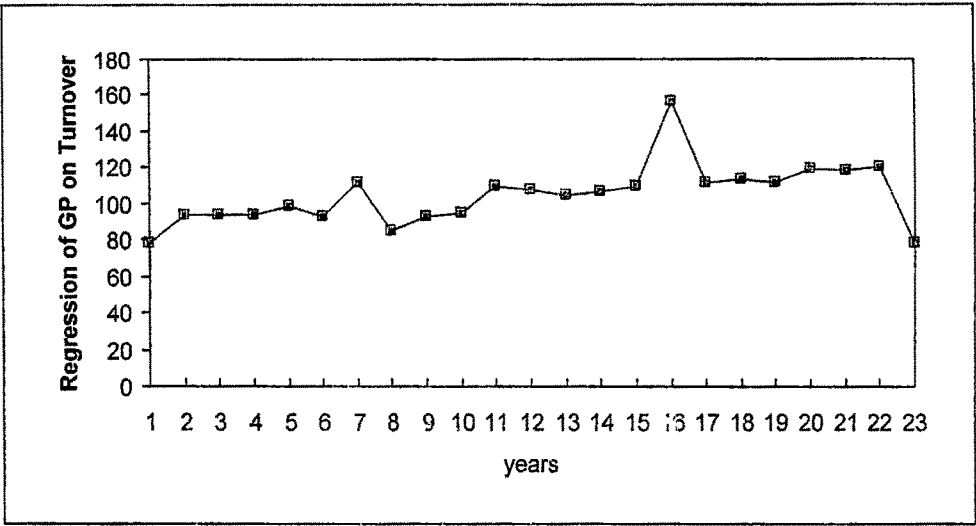
Following table reflects calculated values for selected state owned enterprises.

**Table 5.55 Regression of Gross Profit to Turnover of all selected state owned enterprises**

Name of Selected SOEs	R <sup>2</sup>	Adjusted R <sup>2</sup>	F Value	Co-efficient	Constant
Gujarat Narmada Valley Fertilizer Co. Ltd.	0.55	0.53	23.49 (0.0001)	0.15 (0.0001)	77.98 (0.01)
Gujarat State Fertilizer & Chemicals Limited	0.30	0.27	8.70 (0.007)	0.066 (0.007)	32.09 (0.33)
Gujarat State Financial Corporation	0.19	0.15	4.40 (0.05)	0.12 (0.05)	-61.91 (0.02)
Gujarat Alkalies & Chemicals Limited	0.94	0.93	283.13 (0.0000)	0.19 (0.0000)	8.07 (0.20)
Gujarat Mineral and Development Corporation	0.909	0.905	191.88 (0.0000)	0.51 (0.0000)	-8.49 (0.17)

5.8.1.1 Gujarat State Narmada Valley Fertilizer Company Limited

Graph 5.12 Regression Pattern Line of GNFC for Gross Profit on Turnover



Model: Gross profit =  $\beta_0 + \beta_1$  (Turnover) + e

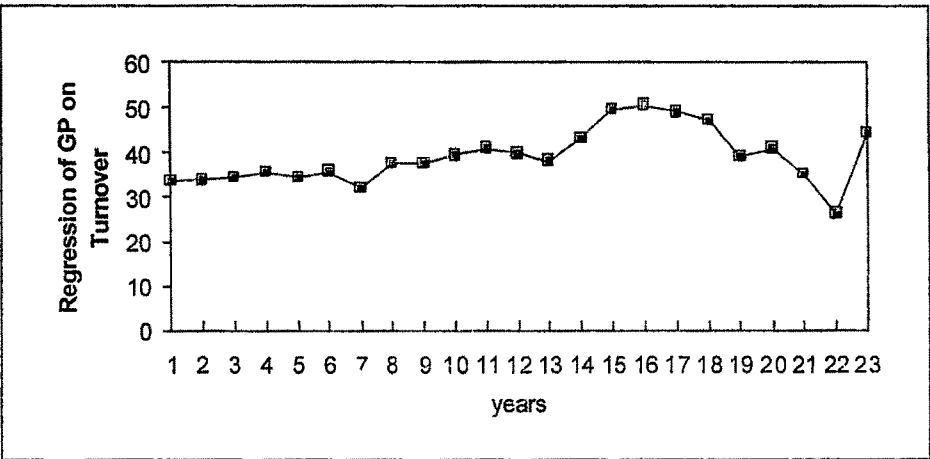
Hypothesis  $\beta_1 = 0$

The linear model explains 55.28 percent of the variation in the gross profit, The 'F' value (23.48) is significant at 1 and 19 degrees of freedom.

Conclusion: The hypothesis 'gross profit does not linearly depends on turnover is rejected.

5.8.1.2 Gujarat State Fertilizer and Chemicals Limited

Graph 5.13 Regression Pattern Line of GSFC (Fertilizer) for Gross Profit on Turnover





**Model:**  $\text{Gross profit} = \beta_0 + \beta_2 (\text{Turnover}) + e$

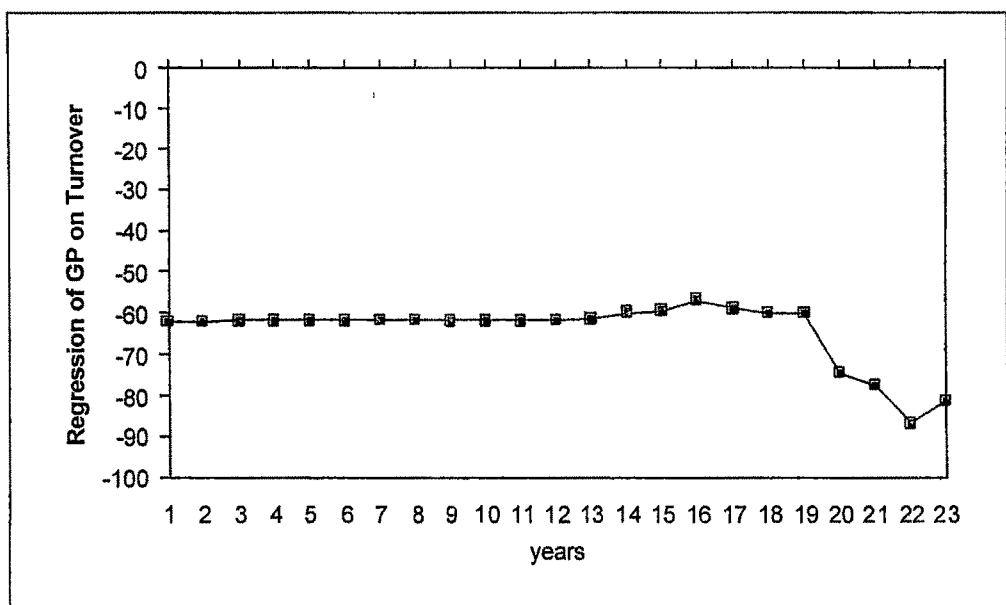
**Hypothesis**  $\beta_2 = 0$

The linear model explains only 30 percent of the variation in the gross profit, The 'F' value (8.70) is significant at 1 and 19 degrees of freedom

**Conclusion:** Accept the hypothesis linearly does not depends on turnover as explained by the model.

#### 5.8.1.3 Gujarat State Financial Corporation Limited

**Graph 5.14 Regression Pattern Line of GSFC (Finance) for Gross Profit on Turnover**



**Model:**  $\text{Gross profit} = \beta_0 + \beta_3 (\text{Turnover}) + e$

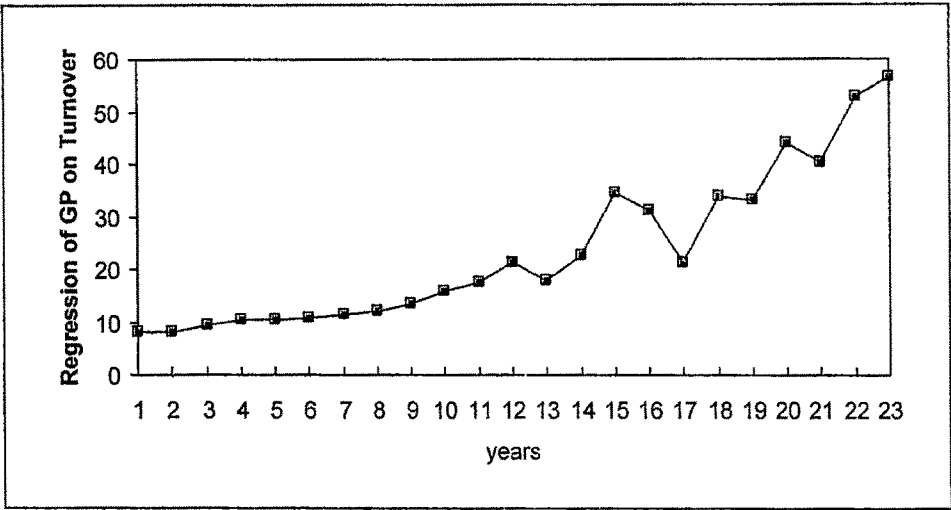
**Hypothesis**  $\beta_3 = 0$

The linear model explains 19 percent of the variation in the gross profit, The 'F' value (4.40) is significant at 1 and 19 degrees of freedom.

**Conclusion:** Accept the hypothesis linearly does not depends on turnover as explained by the model.

5.8.1.4 Gujarat Alkalies and Chemicals Limited

Graph 5.15 Regression Pattern Line of GACL for Gross Profit on Turnover



Model: Gross profit =  $\beta_0 + \beta_4$  (Turnover) + e

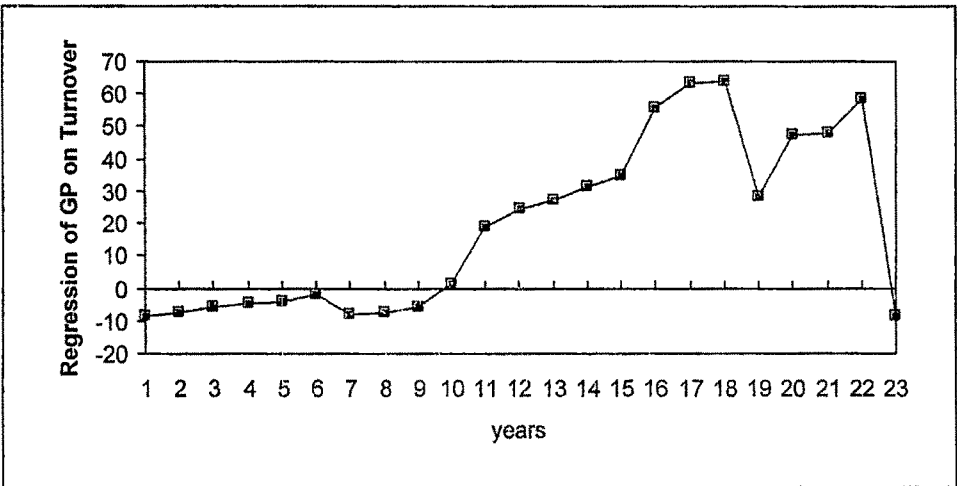
Hypothesis  $\beta_4 = 0$

The linear model explains 94 percent of the variation in the gross profit, The 'F' value (283 13) is significant at 1 and 19 degrees of freedom.

Conclusion: The hypothesis 'gross profit does not linearly depends on turnover is rejected.

5.8.1.5 Gujarat Minerals and Development Co. Limited

Graph 5.16 Regression Pattern Line of GMDC for Gross Profit on Turnover



**Model:**  $\text{Gross profit} = \beta_0 + \beta_5 (\text{Turnover}) + e$

**Hypothesis**  $\beta_5 = 0$

The linear model explains 90.9 percent of the variation in the gross profit, The ‘F’ value (191.88) is significant at 1 and 19 degrees of freedom.

**Conclusion:** The hypothesis ‘gross profit does not linearly depends on turnover is rejected.

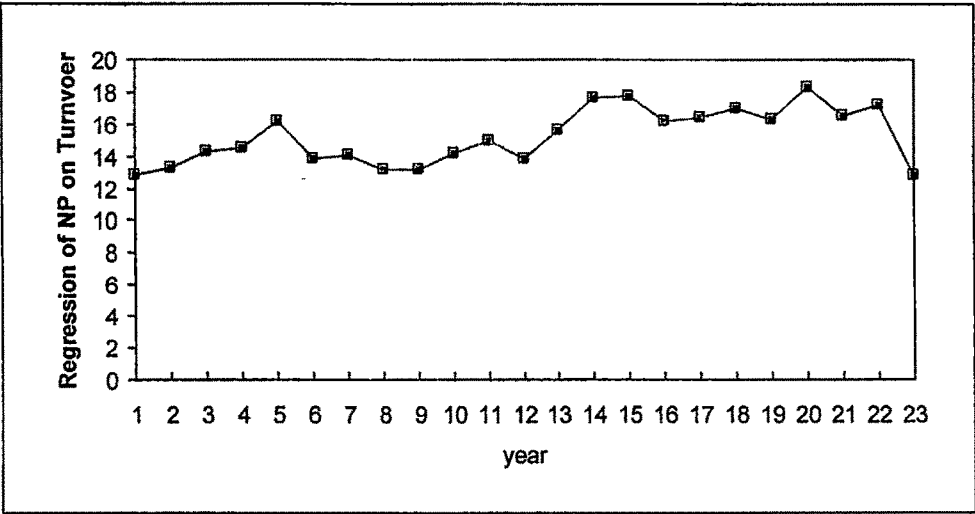
**5.8.2 Regression of Net Profit to Turnover of all selected state owned enterprises**

**Table 5.56 Regression of Net Profit to Turnover of all selected state owned enterprises**

Name of Selected SOEs	R <sup>2</sup>	Adjusted R <sup>2</sup>	F Value	Co-efficient	Constant
Gujarat Narmada Valley Fertilizer Co. Ltd.	0.61	0.59	30.67 (0.0000)	0.51 (0.0000)	12.85 (0.12)
Gujarat State Fertilizer & Chemicals Limited	0.10	0.06	2.36 (0.13)	0.04 (0.13)	12.77 (0.75)
Gujarat State Financial Corporation	0.18	0.14	4.09 (0.05)	0.11 (0.05)	-61.38 (0.02)
Gujarat Alkalies & Chemicals Limited	0.02	-0.02	0.42 (0.5)	-0.01 (0.5)	15.75 (0.17)
Gujarat Mineral and Development Corporation	0.85	0.84	109.72 (0.0000)	0.30 (0.0000)	-5.36 (0.27)

**5.8.2.1 Gujarat Narmada Valley Fertilizer Company Limited**

**Graph 5.17 Regression Pattern Line of GNFC for Net Profit on Turnover**



**Model:**  $\text{Gross profit} = \beta_0 + \beta_6 (\text{Turnover}) + e$

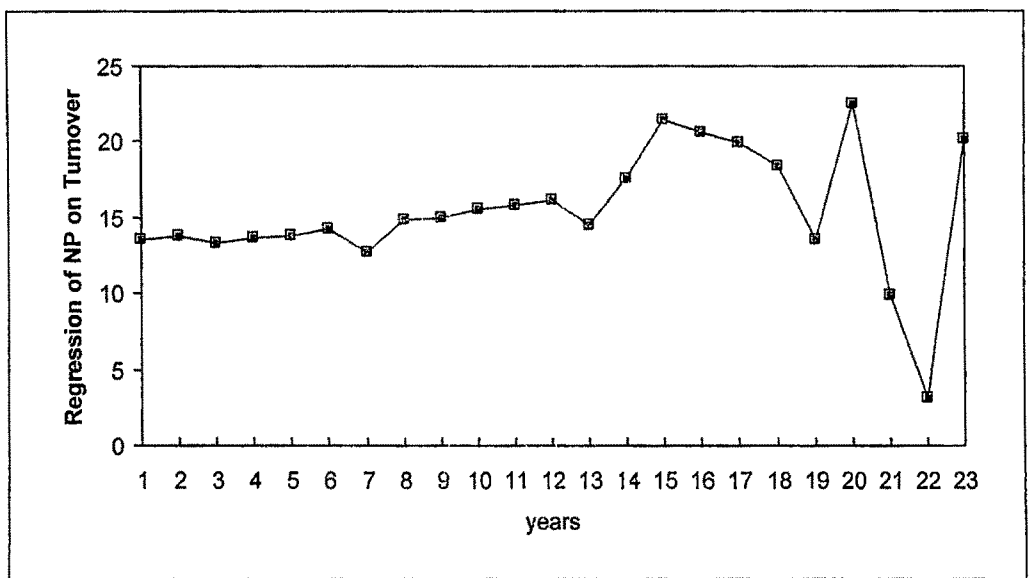
**Hypothesis  $\beta_6 = 0$**

The linear model explains 61 percent of the variation in the net profit, The ‘F’ value (30.67) is significant at 1 and 19 degrees of freedom.

**Conclusion:** The hypothesis ‘net profit does not linearly depends on turnover’ is rejected.

**5.8.2.2 Gujarat State Fertilizer and Chemicals Limited**

**Graph 5.18 Regression Pattern Line of GSFC (Fertilizer) for Net Profit on Turnover**



**Model:**  $\text{Gross profit} = \beta_0 + \beta_7 (\text{Turnover}) + e$

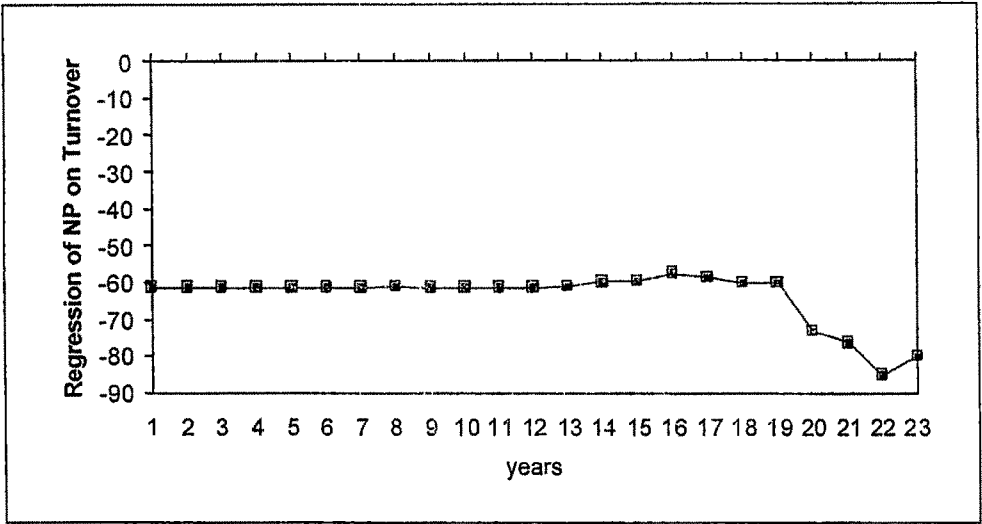
**Hypothesis  $\beta_7 = 0$**

The linear model explains 10 percent of the variation in the net profit, The ‘F’ value (2.36) is insignificant at 1 and 19 degrees of freedom.

**Conclusion:** The hypothesis ‘net profit does not linearly depends on turnover’ is accepted

5.8.2.3 Gujarat State Financial Corporation Limited

Graph 5.19 Regression Pattern Line of GSFC (Finance) for Net Profit on Turnover



Model: Gross profit =  $\beta_0 + \beta_8 (\text{Turnover}) + e$

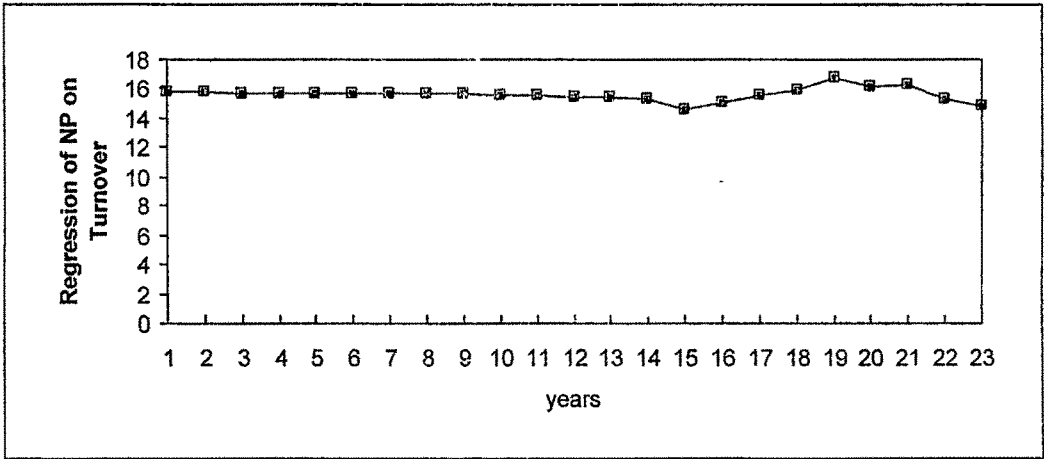
Hypothesis  $\beta_8 = 0$

The linear model explains 18 percent of the variation in the net profit, The 'F' value (4.09) is significant at 1 and 19 degrees of freedom.

Conclusion: The hypothesis 'net profit does not linearly depends on turnover' is accepted.

5.8.2.4 Gujarat Alkalies and Chemicals Limited

Graph 5.20 Regression Pattern Line of GACL for Net Profit on Turnover



**Model:**  $\text{Gross profit} = \beta_0 + \beta_9 (\text{Turnover}) + e$

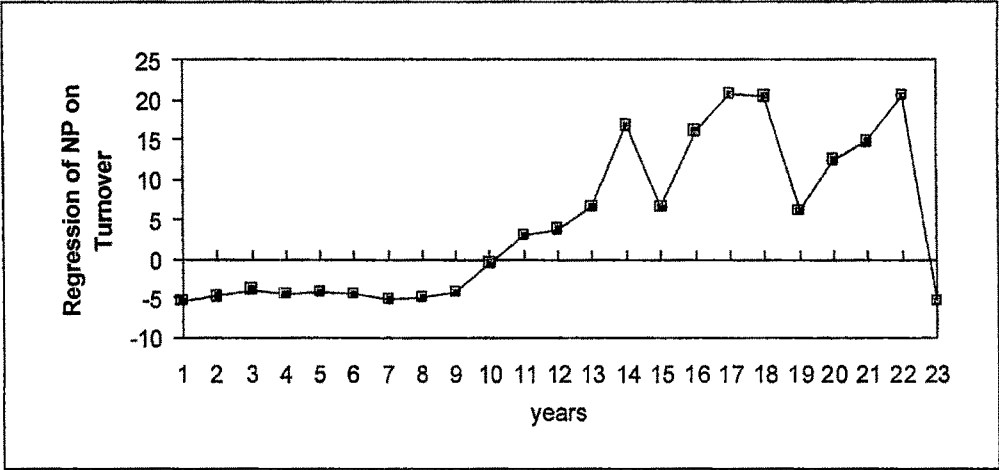
**Hypothesis**  $\beta_9 = 0$

The linear model explains only 2 percent of the variation in the net profit, The 'F' value (0.42) is insignificant at 1 and 19 degrees of freedom.

**Conclusion:** The hypothesis 'net profit does not linearly depends on turnover' is accepted

**5.8.2.5 Gujarat Mineral and Development Company Limited**

**Graph 5.21 Regression Pattern Line of GMDC for Net Profit on Turnover**



**Model:**  $\text{Gross profit} = \beta_0 + \beta_{10} (\text{Turnover}) + e$

**Hypothesis**  $\beta_{10} = 0$

The linear model explains 85 percent of the variation in the net profit, The 'F' value (109.72) is significant at 1 and 19 degrees of freedom.

**Conclusion:** The hypothesis 'net profit does not linearly depends on turnover' is rejected