CHAPTER– V
ANALYSIS OF THE FINANCIAL PERFORMANCE OF THE GUJARAT STATE ELECTRICITY CORPORATION

I have divided this chapter into seven sections in order to have better analysis and interpretation of financial data. These sections are as follows:

V.1	Overview of Financial Management
V.2	Analysis of Capital Expenditure (CAPEX) on Power Projects
V.3	Analysis of Operating Expenditure (OPEX) of Power Plants
V.4	Working Capital Management
V.5	Profitability of pre and post reform period
V.6	Balance sheet of pre and post reform period
V.7	Analysis & Interpretation of Financial Parameters

CHAPTER– V

ANALYSIS OF THE FINANCIAL PERFORMANCE OF THE GUJARAT STATE ELECTRICITY CORPORATION

V.I Overview of Financial Management.

I.1 .2 Financial Management of Power sector.

All Most all state Electricity Board was under the control of State Government. Revision of Tariff decided by State Government as per the Political position. Considering free or very nominal/concessional rate to Agriculture Farmers by Government. Due to this revenue from sale of Power not equal to Cost to supply. Subvention Subsidy was available to SEB but payment of all types subsidy was not paid within time limit by State Government. Consequential net effect was to borrow more &more money froms Banks/FI for working Capital. Interest on working increased day by day to manage working Capital by SEB. SEB were entitled to get a rate of return of 3% on their net assets. The financial position of the SEB had started was Bad to worst. Free/ flat rate of power to Agriculture Farmers there for Rate for other Categories ware increase very high due to cross subsidy. In spite of adequate provision of Tariff and minimum rate on Assets has no impact financial performance of SEB. Due to theft and higher A T & C loss was adjusted towards Agriculture consumption of non-metter consumers.

(Sources:Annual Report on The Working of State Power Utilities & Electrcity Department. Delhi: Government of India. Retrieved August 1, 2017, from www.planningcommission.nic.in) (Commission, 2011-12)

Table No.5 1 Surplus, capital Base, subsidy &cash Profit/loss Financial position of GEB 's (Amount in RsCrors)

Fin.year	Surplus(+)/ Deficit (-) with Subsidy	Capital Base at the begin. of the year	Sur.(+)/ Defi.(-) without Subsidy	Cash Profit(+) / Deficit(-)	Subsidy	Rev. from sale of power	subsidy as a% of Revenue
1995-96	108.00	3600.00	-1003.39	-511.47	1111.39	3378.86	**32.89**
1996-97	109.90	3662.00	-1069.68	-554.23	1179.58	4319.65	**27.31**
1997-98	119.48	3976.04	-1363.62	-634.36	1483.10	5063.13	**29.29**
1998-99	-383.47	4208.33	-2056.64	-174.58	1673.17	5697.86	**29.36**
1999-00	-2208.58	4073.03	-3538.45	1604.47	1329.87	5778.04	**23.02**
2000-01	-2542.98	4233.51	-4564.24	1828.47	2021.26	6280.48	**32.18**
2001-02	-622.03	3975.74	-3200.68	-72.37	2578.65	7274.30	**35.45**
2002-03	-475.81	3801.48	-2280.95	-249.86	1805.14	7874.23	**22.92**
2003-04	-1931.80	3558.02	-3032.89	1152.93	1101.09	8545.13	**12.89**
2004-05	-927.06	3203.68	-2027.56	138.95	1100.50	9137.31	**12.04**

(Source : Annual Accounts of GEB of relevant periods). (Board, 1995 to 2005)

The above table no 5.1 indicate that Subsidy of the year is always more than 32 % in the F.Y 1995-96 ,2000-01 , 2001-02 .during this period working capital of the GEB was high and interest burden increase . Subsidy as % of revenue in five years viz. 1996-97,1997-98 ,1998-99;1999-2000 and 2002-03 was 27.31%,29.29%,29.36%,23.02 and 2002-03 respectively. During this period interest on working capital is lower than earlier but it is higher than F.Y 2003-04 &200-05. This gap of funding was arrange by bridge loan. Subsequently cost to serve was more to that extend and subsidy .

V.2 Analysis of Capital Expenditure Power Projects.

Capital Expenditure on Power Projects during pre and post reform periods

V.2.1 Capital expenditures, (**capex)**, is money used to purchase, upgrade, improve, or extend the life of long term assets. Long-term assets are typically property, infrastructure, or equipment with a useful life of more than one year. *Capital expenditures* generally takes whereby the company purchases assets that extend the useful life of existing assets, and expansion expenditures, whereby the company purchases new assets in an effort to grow the business.

The capital expenditure decision is the process of making decisions regarding investments in fixed assets which are not meant for sale such as land, building, plant & machinery, etc. Thus it refers to long-term planning for proposed capital expenditures and includes raising of long-term funds and their utilization. The key function of the finance manager is selection of the most profitable project for investment. This task is very crucial because any action taken by the manager in this area affects the working and profitability of the company for many years to come.

The capital expenditure decisions have the following features:

i. They involve large amounts of funds.
ii. They involve greater amount of risk.
iii. Capital expenditure decisions are irreversible.
iv. Cash outflows and inflows occur at different points of time.

V.2.2 Capital expenditure appraisal

Capital Expenditure appraisal is the evaluation of investment opportunities. The Company adopted only three methods , viz. (1) **Payback method** (2) **The Average Rate of Return (ARR)** (3) **The Net Present Value (NPV) .**

V.2.3 Pre and Post reform periods.

Pre reform periods means period before reforms of power sector starts. Reform starts from 1990 onwards so period before 1990 i.e 1948 to 1990 is pre reforms period. Post Reforms period after 1990 onwards. 1990 to continue uptodate .

Table No.5.2 Addition of Power Plants in Gujarat Electricity Board (GEB) Pre reform Period

Name of power plant	Installed Capacity in MW	Project Cost (Rs. in Lakhs)	Cost per MW (Rs.in Lakhs)
Ukai Hydro	305	11609.95	38.07
Kadana Hydro	242	28778.06	118.92
Dhuvaran	640	24535.18	38.40
Ukai	650	64928.15	99.89
Gandhinagar unit No 1-4	660	90900.63	137.73
Wankbori unit No 1-6	1260	100789.10	79.99
Sikka Unit No.1 &2	240	47549.21	198.12
KLTPS_Panndharo unit no 1-3	215	83855.58	390.17
Utran	135	6176.00	45.76
Total	4767	459151.86	96.32

(Source Annual Accounts and Annual plan of GEB. Of relevant periods) (Board, 1995 to 2005)

Pre reform period, erstwhile Gujarat Electricity Board had added power generating capacity of 4767 MW and spent Rs. 4591.52 crores. It means per year 159 MW generating capacity is added and Rs. 153 crores is spent for Project Cost. Annually increase by 159 MW during Pre reform period

Table No.5. 3 Addition of Power Plants in GSECL Post reform Period

Name of power plant	Installed Capacity in MW	Project Cost (Rs. in Lakhs)	Cost per MW (Rs.in Lakhs)
Gandhinagar unit No .5	210	65784.02	313.26
Wankbori unit No.7	210	63552.00	302.63
Dhuvaran CCPP-I	107	40236.15	376.04
Dhuvaran CCPP-II	112	41717.32	372.47
KLTP.unit No. 4	75	68670.01	915.60
Utran Unit No. 2	375	135432.19	361.15
Ukai unit No.6	500	301587.00	603.17
Sikka unit No. 3& 4 2*250	500	327456.00	654.91
Dhuvaran CCPP-III	376	155622.73	413.89
Total of Conventional Power	2465		
Renewable Power			
Wind	10	5250.23	525.02
Solar- Canal top and Ash dyke	2	3250.09	1625.04
Solar Charnka	10	7100.50	710.05
Sikka&KLTPs	2	1259.00	629.50
Total of Renewable	24	16859.82	****
Projects Under Execution (WIP)			
Wankbori Unit No.8	800	446500.00	558.13
Solar –Dhuvaran	75	32300.00	430.67
Total of projects under Execution	875	478800.00	***

***** Not Reasonable for Consideration.**

(Source Annual Accounts & plan of GSECL.for relevant periods.) (GSECL, 1998 to 2017)

Pre reform period, erstwhile Gujarat Electricity Board had added power generating capacity of 4767 MW and spent Rs. 4591.52 crores. It means per year 159 MW generating capacity is added and Rs. 153 crores is spent for Project Cost. While after post reform period, there was a total addition by GSECL (Govt. Own Company) 2489 MW, which means 226 MW addition per year with a project cost of Rs.834 crores per year .It shows that during the reform period as also due to liberalization, power generating capacity is increased substantially. Annually increase by 159 MW during Pre reform period while post reform period annually increase 226 MW. i.e 42% higher p.a Further, the addition of 800 MW at

wankbori Thermal and 150 MW of Solar capacity is under construction stage. The detail Calculation sheet of Generation cost, Fixed cost ,projected Balance sheet and projected cash flow are attached sheet as "

Table No 5.4 Estimated Revenue From Power. (Amount in Rs.in Crs)*

Fin. Year	Generation in (Mus)	Variable cost	O & M	ROI	Interest&Fin.charges	Depriceation	Income Tax	Total Revenue
1	5659.53	1203.99	132.86	125.02	399.16	235.75	26.2	2122.98
2	5644.07	1260.31	141.23	125.02	368.17	235.75	26.2	2156.68
3	5644.07	1322.88	150.13	125.02	337.43	235.75	26.2	2197.41
4	5644.07	1388.58	159.58	125.02	306.56	235.75	26.2	2241.69
5	5659.53	1461.55	169.64	125.02	275.95	235.75	26.2	2294.11
6	5644.07	1529.97	180.32	125.02	245.48	235.75	26.2	2342.74
7	5644.07	1605.99	191.68	125.02	215.29	235.75	26.2	2399.93
8	5644.07	1685.81	203.76	125.02	184.96	235.75	26.2	2461.5
9	5659.53	1774.46	216.6	125.02	154.92	235.75	26.2	2532.95
10	5644.07	1857.59	230.24	125.02	124.97	235.75	26.2	2599.77
11	5644.07	1949.95	244.75	125.02	95.55	235.75	26.2	2677.22
12	5644.07	2046.93	260.17	125.02	78.34	235.75	26.2	2772.41
13	5659.53	2154.63	276.56	125.02	82.31	235.75	26.2	2900.47
14	5644.07	2255.63	293.98	125.02	86.48	235.75	26.2	3023.06
15	5644.07	2367.86	312.5	125.02	91.08	235.75	26.2	3158.41
16	5644.07	2485.69	332.19	125.02	95.46	235.75	26.2	3300.31
17	5659.53	2616.54	353.12	125.02	100.29	235.75	26.2	3456.92
18	5644.07	2739.28	375.36	125.02	105.37	235.75	26.2	3606.98
19	5644.07	2875.64	399.01	125.02	110.97	235.75	26.2	3772.59
20	5644.07	3018.81	424.15	125.02	116.3	235.75	26.2	3946.23
21	5659.53	3177.81	450.87	125.02	122.19	235.75	26.2	4137.84
22	5644.07	3326.94	479.28	125.02	127.88	235.75	26.2	4321.07
23	5644.07	3492.64	509.47	125.02	134.67	235.75	26.2	4523.75
24	5644.07	3666.61	541.57	125.02	141.14	235.75	26.2	4736.29
25	5659.53	3859.81	575.69	125.02	148.27	235.75	26.2	4970.74

(Sources :Researcher Own Calculation.)

Table No 5.5 Estimated Expenditure (Amount in Rs in Crs)*

F.y	Fuel Cost	O & M Cost	Interest & Finicial Charges	Interest On Working Capital	Depreciation	Total Expenditure
2019-20	1126.14	79.71	353.65	10.23	235.75	1805.48
2020-21	1182.01	84.73	320.36	10.75	235.75	1833.60
2021-22	1244.08	90.07	287.08	11.33	235.75	1868.31
2022-23	1302.27	95.75	253.79	11.87	235.75	1899.43
2023-24	1366.92	101.78	220.51	12.47	235.75	1937.43
2024-25	1434.81	108.19	187.23	13.10	235.75	1979.08
2025-26	1510.20	115.01	153.94	13.80	235.75	2028.70
2026-27	1580.89	122.25	120.66	14.46	235.75	2074.01
2027-28	1659.45	129.95	87.37	15.19	235.75	2127.71
2028-29	1741.92	138.14	54.00	15.96	235.75	2185.77
2029-30	1835.51	146.84	20.80	16.81	235.75	2255.71
2030-31	1919.40	156.10	0.00	17.62	235.75	2328.87
2031-32	2014.84	165.93	0.00	18.52	235.75	2435.04
2032-33	2115.03	176.38	0.00	19.45	235.75	2546.61
2033-34	2226.31	187.50	0.00	20.49	235.75	2670.05
2034-35	2330.68	199.31	0.00	21.48	235.75	2787.22
2035-36	2446.63	211.87	0.00	22.57	235.75	2916.82
2036-37	2568.38	225.21	0.00	23.71	235.75	3053.05
2037-38	2703.58	239.40	0.00	24.97	235.75	3203.70
2038-39	2830.39	254.49	0.00	26.17	235.75	3346.80
2039-40	2971.29	270.52	0.00	27.49	235.75	3505.05
2040-41	3119.21	287.56	0.00	28.77	235.75	3671.29
2041-42	3283.50	305.68	0.00	30.30	235.75	3855.23
2042-43	3437.59	324.94	0.00	31.76	235.75	4030.04
2043-44	3608.79	345.41	0.00	33.36	235.75	4223.31

(Sources :Researcher Own Calculation.)

Table No 5.6 Estimated Profit & Loss of Project (Amount in Rs in Crs)*

F.Y	Profit before Tax	MAT	Profit After Tax	Depreciation	Profit After Tax before Depreciation
2019-20	317.50	66.55	250.95	235.75	486.70
2020-21	232.07	67.72	164.35	235.75	400.10
2021-22	329.11	68.98	260.13	235.75	495.88
2022-23	342.27	71.74	270.53	235.75	506.28
2023-24	356.68	74.76	281.92	235.75	517.67
2024-25	363.67	76.23	287.44	235.75	523.19
2025-26	371.24	77.81	293.43	235.75	529.18
2026-27	387.49	81.22	306.27	235.75	542.02
2027-28	405.24	84.94	320.30	235.75	556.05
2028-29	414.01	86.78	327.23	235.75	562.98
2029-30	423.52	88.77	334.75	235.75	570.50
2030-31	443.54	92.97	350.57	235.75	586.32
2031-32	465.43	97.56	367.87	235.75	603.62
2032-33	476.45	99.87	376.58	235.75	612.33
2033-34	488.36	102.36	386.00	235.75	621.75
2034-35	513.10	107.55	405.55	235.75	641.30
2035-36	540.11	113.21	426.90	235.75	662.65
2036-37	553.94	116.11	437.83	235.75	673.58
2037-38	568.90	119.24	449.66	235.75	685.41
2038-39	599.44	125.64	473.80	235.75	709.55
2039-40	632.79	132.64	500.15	235.75	735.90
2040-41	649.77	136.20	513.57	235.75	749.32
2041-42	668.53	140.13	528.40	235.75	764.15
2042-43	706.25	148.03	558.22	235.75	793.97
2043-44	747.43	156.66	590.77	235.75	826.52

(Sources :Researcher Own Calculation.)

Table No 5.7 Estimated Per Unit Profit of Project (Amount in Rs in Rs.Nps)*

Financial Year	Recovered Variable cost	Recovered Fixed cost	Recovered Total cost	Variable cost Actual	Fixed Cost Actual	Total Cost Actual	Profit Per Unit
2019-20	2.127	1.624	***3.751***	1.990	1.200	3.190	0.561
2020-21	2.233	1.588	***3.821***	2.094	1.154	3.248	0.573
2021-22	2.344	1.549	***3.893***	2.204	1.106	3.310	0.583
2022-23	2.460	1.512	***3.972***	2.307	1.058	3.365	0.607
2023-24	2.582	1.471	***4.053***	2.415	1.008	3.423	0.630
2024-25	2.711	1.440	***4.151***	2.542	0.964	3.506	0.645
2025-26	2.845	1.407	***4.252***	2.676	0.919	3.595	0.657
2026-27	2.987	1.374	***4.361***	2.801	0.874	3.675	0.686
2027-28	3.135	1.340	***4.475***	2.932	0.827	3.759	0.716
2028-29	3.291	1.315	***4.606***	3.086	0.787	3.873	0.733
2029-30	3.455	1.289	***4.744***	3.249	0.745	3.994	0.750
2030-31	3.627	1.285	***4.912***	3.401	0.725	4.126	0.786
2031-32	3.807	1.318	***5.125***	3.560	0.742	4.302	0.823
2032-33	3.996	1.360	***5.356***	3.747	0.765	4.512	0.844
2033-34	4.195	1.401	***5.596***	3.945	0.786	4.731	0.865
2034-35	4.404	1.443	***5.847***	4.129	0.809	4.938	0.909
2035-36	4.623	1.485	***6.108***	4.323	0.831	5.154	0.954
2036-37	4.853	1.537	***6.390***	4.551	0.859	5.410	0.980
2037-38	5.095	1.589	***6.684***	4.790	0.886	5.676	1.008
2038-39	5.349	1.643	***6.992***	5.015	0.915	5.930	1.062
2039-40	5.615	1.696	***7.311***	5.250	0.943	6.193	1.118
2040-41	5.895	1.761	***7.656***	5.527	0.978	6.505	1.151
2041-42	6.188	1.827	***8.015***	5.818	1.013	6.831	1.184
2042-43	6.496	1.895	***8.391***	6.091	1.050	7.141	1.250
2043-44	6.820	1.963	***8.783***	6.376	1.086	7.462	1.321

- **(Sources :Researcher Own Calculation.)**

Up to pre reform period, there was no initiative of renewable energy. However, after reform period, Govt. has initiated to generate renewable energy, and during this period 6597 MW (1258MW of Solar +5339MW of Wind) of renewable energy is installed in Gujarat, out of which, GSECL has installed 24 MW of renewable energy and addition of 150 MW of Solar is under process. So after reform period, addition of renewable energy is increasing day by day.

V.3 Analysis of Operating Expenditure of Power Plant.

V.3.1 Introduction

The cost analysis of the plant was carried out on the basis of total capital investment, operating cost and revenue. The total indirect plant cost includes the cost of engineering and set-up. The results predicted that plant life, interest rate and the escalation rate were observed to be very sensitive on plant economics in comparison to other factors. Capital cost must be placed on an annual basis (i.e. due to interest accumulated on the investment, depreciation, maintenance, insurance and taxes). There is always deterioration of equipment life and thus its depreciation cost loses value.

The distinct ways of generating electricity incur significantly different costs. Calculations of these costs at the point of connection to a load or to the electricity grid can be made. The cost is typically given per kilowatt-hour or megawatt-hour. It includes the initial capital, discount rate, as well as the costs of continuous operation, fuel, and maintenance. This type of calculation assists policy makers, researchers and others to guide discussions and decision making.

The L**evelised cost of electricity** (**LCOE**) is a measure of a power source which attempts to compare different methods of electricity generation on a consistent basis. It is an economic assessment of the average total cost to build and operate a power-generating asset over its lifetime divided by the total energy output of the asset over that lifetime. The LCOE can also be regarded as the average minimum cost at which electricity must be sold in order to break-even over the lifetime of the project. “

Cost factors

While calculating costs, several internal cost factors have to be considered.

- Capital costs tend to be low for fossil fuelpower stations; high for wind turbines, solar PV; very high for waste to energy, wave and tidal, solar thermal, and nuclear.

- Fuel costs – high for fossil fuel and biomass sources, low for nuclear, and zero for many renewables. Fuel costs can vary somewhat unpredictably over the life of the generating equipment, due to political and other factors.

- Factors such as the costs of auxiliary consumptions and different insurance costs are not included in the following: Works power, own use or parasitic load – that is, the portion of generated power actually used to run the station's pumps and fans has to be allowed for.

V.3.2 Cost analysis of a Power Plant

COST SHEET

There is mainly three types of cost viz.

(A) Variable cost (B) Semi Variable cost & (C) Fixed cost.

(A) Variable cost

There is mainly two types of Variable cost (fuel cost) as described below :-

1. **Fuel Cost :**

   We are receiving different type of coal i.e. indigenous coal, washed coal, imported coal etc. Every rack-wise purchase is entered and opening + purchases during the period + railway freight, loading and unloading charges are derived as landed cost or primary fuel cost. Whatever coal consumption i.e. coal feed to the bunker is measured from flow meter as well as we are also cross checking with the physical stock. The difference is to be considered as a storage loss. On the basis of this, the actual coal consumption is derived and shown in cost sheet as primary fuel cost. Over and above oil (LSD/HSD) used are required to add as a secondary fuel. The use of primary fuel and secondary fuel are considered as total consumption of the fuel for the particular period. The cost is divided by units sent out (gross generation (-) auxiliary consumption), which is the cost of generation per unit i.e. the Variable Cost of power generation.

(B) Semi variable cost

The semi Variable cost or semi fixed cost of Power Generating Unit comprises of

1. Cost of water.
2. Lubricants & Consumables store.
3. Station suppliers.
4. Repair and Maintenance .

(C) Fixed Cost :

The fixed cost of Power Generating Unit comprises of

1 Employee cost,

2 administrative and General Expenses, etc.

3 interest on working capital, interest on long term loan

4 depreciation .

Table No.5.8. COST SHEET of GANDHINAGAR POWER STATION.

A. Technical information

Particulars	Measurement of unit.	F.Y.2016-17	F.Y.2015-16
Installed Capacity	In MW	630	630
Gross Generation	Mus	2172.286	2731.900
Auxiliary Consumptions	Mus	234.037	290.689
Auxiliary Consumption	%	10.77	10.64
Net Generation (Sold Out.)	MUs.	1938.249	2441.211
Plant Load Factor	%	33.94	35.94
Coal Factor	Point	0.641	0.641

B VARIABLE COST

Sr.No	Elements of Cost	Quantity (in LAKH MT.)	Amount (Rs,in Lakh)	Rate (inRs.)	Cost Per Unit (Rs. /KWH.)
1	Primary Fuel				
	Indigenous coal	1.270769	5596.232658	4403.81	0.289
	Imported Coal	0.7440102	3942.54340	5299.04	0.203
	Washed coal	11.74600	56651.5940	4823.05	2.923
2	Secondary Fuel				
	Residual Fuel Oil	0.0231950	496.62029	21410.66	0.026
	Light Diesel Oil	0.00124.99	58.125469	46504.10	0.003
3	Fuel Related cost		3522.89320		0.182
4	Fuel Related Expenses		147.70117		0.007
	Total of Variable Cost.		**70415.71**		**3.633**

C Semi Variable Cost

Sr.No	Elements of Cost	Amount (Rs,in Lakh)	Cost Per Unit (Rs. /KWH.)
1	Cost of water	2917.06407	0.150
2	Lubricants & Consumable stores	89.38327	0.005
3	Station Supplies	54.28585	0.003
4	Repairs &Maintence	2008.77995	0.104
	Total of Semi Variables	**5069.51315**	**0.262**

D Fixed Cost

Sr.No	Elements of Cost	Amount (Rs,in Lakh)	Cost Per Unit (Rs. /KWH.)
1	Employees cost	8880.88321	0.458
2	Administration & General Expenses	903.26718	0.047
3	Depreciation	5447.52345	0.281
4	Interest and Financial charges	0.003	0.00
5	Miscellaneous	50.78478	0.003
	Total of Fixed Cost.	**15282.46461**	**0.788**
	Grand Total of Cost (A+B+C)	**90767.68497**	**4.683**

(Source Cost sheet of Gandhinagar power station of GSECL of specified period.).

Again this cost is considered as Variable cost and Fixed cost for the purpose of Regulatory for approval of sale of Power Tariff. .Variable cost also known Generation cost.(Marginal cost) is Rs.3.63. Fixed cost means **Semi variable #** and Fixed cost. Fixed cost known as Capacity Charges also. So Fixed cost (0.262+0.788)=1.050 so total cost of one unit Rs./KWH is (3.63+1.05)=Rs.3.68.

As per the norms of determination of tariff issued by CERC .Semi variable cost is a part of fixed cost. Hence semi variable cost is considered as a fixed cost.

V-4 Working Capital Management

Working capital Management is to safeguard monetarily well-organized day today operation of the company. It is a duty to display and use the current assets and current liabilities, to ensure most optimum utilisation of fund. Working capital Management is fundamentally a financial policy with emphasis on the upkeep of a sufficient balance between company's current assets and liabilities. Working Capital is measure of both a company's efficiently and its short-term financial health.

"Working Capital = current Assets – current Liabilities. "

Current Assets includes Cash, inventory, accounts Receivable,

Current liabilities includes accounts payable, short term debts and debts due within one year

"Working Capital Ratio = Current Assets / Current Liabilities.

If it is below one than it is negative working Capital .

If it above more than one it is positive working Capital and company meeting working finance .

Working Capital Series is the amount of time it takes to turn the net current assets and of investment current liabilities into cash. Longer the cycle is, the longer cycle is, the longer a business is tying up capital in its working capital without earning a return on it.

To maintain sufficient and equal levels of working capital, current, and current liabilities. The company to meet its expenses obligations while also maintaining sufficient cash flow is primarily related to short financial decisions. "

Working Capital can be improved by

1. Earning Profits,
2. issuing common stock or preferred stock for cash
3. replacing short –term debt with long term debt
4. selling long –term assets for cash.

5. Settling short-term debts for less than the sted amounts, and
6. collecting more of the accounts receivables than was.

There are three main key components of working Capital Management:

(1) Accounts Receivable,
(2) Accounts Payable
(3) Inventory Management.

The efficient Management of key components is essential for the profitability and overall financial Health of any company.

Requirement of working Capital is depends on number of factors. Viz

(1) Nature of Business:
(2) Scale of Operations:
(3) Business Cycle:
(4) Seasonal Factors:
(5) Production Cycle:
(6) Credit Allowed:
(7) Credit Availed:
(8) Operating Efficiency:

V.5 Profitability of Pre &Post Reform Period.

V.5.1 TABLE NO 5.9PROFIT AND LOSS ACCOUNT OF GUJARAT ELECTRICITY BOARD FOR THE PERIOD 1995-2005 i.e. Pre reform Periods.

(Board, 1995 to 2005)

Particulars		1995-96	1996-97	1997-98	1998-99
REVENUE					
(1).	Revenue from Sale of Power	337887	431965	506313	569786
(2).	Revenue Subsidies & Grants	111139	117958	148310	167317
(3).	Other Income	10177	16253	20159	25457
(4).	**TOTAL INCOME (1 to 3) EXPENSES**	**459202**	**566177**	**674781**	**762560**
(5).	Purchase of Power	105887	149204	192567	303885
(6).	Generation of Power	201492	231321	272011	270507
(7).	Repairs &Maintenenace	14516	15162	19317	17203
(8).	Employee cost	39311	44260	48584	70454
(9).	Administration & General Expenses	6244	6870	7817	8454
(10).	Depreciation & Related Debits (Net)	40347	44433	51488	55805
(11).	Interest & Finance Charges	56462	62564	71377	72858
(12).	Sub-Total (5 to	464259	553813	663161	799166
(13.)	Less : Expenses capitalised	17104	15163	14009	14062
(14).	Other Debits	4211	4302	8013	4534
(15).	Extra-Ordinary Items	5	421	315	1191
TOTAL EXPENSES		451371	543373	657480	790829
SURPLUS + /DEFICIT -		7831	22804	17301	-28269

(Sources Annual Accounts of the GEB respective periods)

TABLE NO 5.10 PROFIT AND LOSS ACCOUNT OF GUJARAT ELECTRICITY BOARD FOR THE PERIOD 1999—2002

Particulars		1999- 2000	2000- 01	2001-02
(1).	Revenue from Sale of Power	577804	628048	727430
(2).	Revenue Subsidies & Grants	132987	202126	257865
(3).	Other Income	26178	21553	27623
(4).	**TOTAL INCOME (1 to 3) EXPENSES**	**736969**	**851727**	**1012918**
(5).	Purchase of Power	444677	504667	499793
(6).	Generation of Power	270069	286918	308202
(7).	Repairs &Maintenenace	17575	15664	14627
(8).	Employee cost	69046	72296	73549
(9).	Administration & General Expenses	9998	10123	10832
(10).	Depreciation & Related Debits (Net)	60411	71451	69440
(11).	Interest & Finance Charges	86270	122753	101734
(12).	**Sub-Total (5 to 11)**	**958046**	**1083872**	**1078177**
(13.)	Less : Expenses capitalised	15299	12550	13759
(14).	Other Debits	7486	3870	5493
(15).	Extra-Ordinary Items	4798	1163	886
TOTAL EXPENSES		955031	1076355	1070797
SURPLUS + /DEFICIT -		-218062	-224628	-57879

(Sources Annual Accounts of the GEB respective periods)

Particulars		2002-03	2003-04	2004-05
(1).	Revenue from Sale of Power	787423	854513	913731
(2).	Revenue Subsidies & Grants	180514	110109	110050
(3).	Other Income	53242	45799	43976
(4).	**TOTAL INCOME (1 to 3) EXPENSES**	**1021179**	**1010421**	**1067757**
(5).	Purchase of Power	530614	557814	532355
(6).	Generation of Power	313462	290461	330909
(7).	Repairs &Maintenenace	19253	20494	23945
(8).	Employee cost	74599	77737	86904
(9).	Administration & General Expenses	11006	13399	15947
(10).	Depreciation & Related Debits (Net)	72567	77887	78811
(11).	Interest & Finance Charges	77228	134458	121100
(12).	**Sub-Total (5 to 11)**	**1098729**	**1172250**	**1189971**
(13.)	Less : Expenses capitalised	14786	19360	28162
(14).	Other Debits	5588	3501	4738

(15).	Extra-Ordinary Items	294	526	1858
TOTAL EXPENSES		1089825	1156917	1168405
SURPLUS + /DEFICIT -		-68646	-146496	-100648

(Sources Annual Accounts of the GEB respective periods)

V.5.2 Table No 5. 11 A Profit and Loss Account of Gujarat state Electricity Corporation Ltd. (Rupees in Lakh) for the period from 2005-06 to 2010-15

Particulars	2005-06	2006-07	2007-08	2008-09	2009-10
INCOME					
(a) Sale of Electrical Energy	496402.48	531146.86	620473.87	710122.63	729948.34
(b) Other Income	2479.24	6260.59	12913.64	22229.02	13788.65
	498881.72	**537407.45**	**633387.51**	**732351.65**	**743736.99**
EXPENDITURE					
(a) Fuel Cost	418839.33	434029.58			
(b) Generation & Other cost	798.80	14579.44	524025.68	613054.40	594923.74
(c) Employees Cost	17915.54	26080.73	36789.60	28342.51	38250.55
(d) Administrative & Other Expenses	2426.37	2958.82	7422.05	21582.15	6390.87
	439980.06	**477648.57**	**568237.33**	**662979.06**	**639565.16**
PROFIT BEFORE INTEREST, DEPRECIATION & TAX	**58901.66**	**59758.88**	**65150.18**	**69372.59**	**104171.83**
(a) Interest	30707.07	26795.12	28043.62	27859.07	36017.42
(b) Depreciation	22934.58	23953.17	27764.00	33371.68	51440.56
PROFIT BEFORE EXTRAORDINARY ITEMS & PRIOR PERIOD ADJUSTMENTS & TAX	**5260.02**	**9010.59**	**9342.55**	**8141.84**	**16713.85**
(a) Extra Ordinary Items	(861.09)	(38.08)			
(b) Prior Period Adjustments	100.44	399.88	2507.88	(59.53)	1787.37
	(760.65)	**361.80**	**2507.88**	**(59.53)**	**1787.37**
PROFITAFTER EXTRAORDINARY ITEMS & PRIOR PERIOD ADJUSTMENTS	**6020.67**	**8648.79**	**6834.67**	**8201.37**	**14926.48**
Provisions/write offs relating to transferred plants	8890.87				
Less : Adjusted out of	(8890.87)				

Particulars Opening balance of P&L A/c.	**2005-06**	**2006-07**	**2007-08**	**2008-09**	**2009-10**
PROFIT BEFORE TAX	**6020.67**	**8648.79**	**6834.67**	**8201.37**	**14926.48**
(a) Provision for Taxation – Current	0.00	979.91	785.00	1013.78	2520.00
- Deferred	(1127.15)				
- Wealth Tax		0.15	0.06		
- Fringe Benefit Tax	100.00	132.00	125.49	134.23	
PROFIT AFTER TAX	**7047.82**	**7536.73**	**5924.12**	**7053.36**	**12406.48**

(Sources Annual Accounts of the Gsecl respective periods)

GSECL

PROFIT AND LOSS ACCOUNT

(` in Lakh)

	Particulars	2010-11	2011-12	2012-13	2013-14	2014-15
I	**Revenue from Operations**	856015.23	818078.73	615049.31	839710.50	798587.24
II	**Other Income**	8153.07	3878.96	5794.29	7848.68	13389.14
III	**Total Revenue (I+II)**	**864168.30**	**821957.69**	**620843.60**	**847559.18**	**811976.38**
IV	**Expenses**					
	Cost of Fuel consumed	649833.70	582378.91	373987.93	573640.87	535917.73
	Employees benefit expense	42763.69	47423.91	47597.34	53212.89	57024.03
	Finance Cost	47108.63	44559.33	63349.35	74530.17	77489.84
	Depreciation & Amortization Expenses	61689.63	66867.63	79906.26	85826.96	91607.69
	Other Expenses	45227.13	59356.33	45065.88	38961.35	32794.19
	Total Expenses	**846622.78**	**800586.11**	**609906.76**	**826172.24**	**794833.48**
V	**Profit before Exceptional, Extra ordinary items,**					
	Prior period Items & Tax	**17545.52**	**21371.58**	**10936.84**	**21386.94**	**17142.90**
	Exceptional Item					5043.88
VI	**Exceptional Income**	4785.20	2358.09	5173.87		
VII	**Prior Period Adjustment**	773.87	1591.36	3361.59	(149.63)	(4795.14)
VIII	**Profit before tax**	**21556.85**	**22138.31**	**19472.30**	**21237.31**	**17391.64**
IX	**Tax Expenses**					
	(1) Current Tax	4313.04	4435.00	4090.00	5450.00	3624.55
X	***Profit for the period***	***17243.81***	***17703.31***	***15382.30***	***15787.31***	***13767.09***

(Sources Annual Accounts of the GSECL respective periods)

(GSECL, 1998 to 2017)

CHAPTER V ANALYSIS OF THE FINANCIAL PERFORMANCE OF THE GUJARAT STATE ELECTRICITY CORPORATION

V.6 Balance Sheet of Pre & Post Reform Period

V.5.4 Table No 5.12 BALANCE SHEET of GUJARAT ELECRTRICITY BOARD. For F.Y. 1995-96 to 2004-05 i.e Pre Reform periods. (Amount Rupees in Lakhs)

Balance Sheet of Gujarat Electricity Board.

(Amount Rs.in Lakh)

	31-03-1996	**31-03-1997**	**31-03-1998**
Net Fixed Assets			
Gross Block	609361.2	696805.95	783359.03
Less : Accumulated Depreciation	193424.35	238956.28	290981.04
Net Fixed Assets (3- 4)	415936.85	457849.67	492377.99
Capital Expenditure in Progress	147631.9	116391.73	101069.88
Assets not in use.	48.33	58.2	51.83
Deferred costs	2157.91	1934.71	2851.45
Intengible Assets	0	0	0
Investments	1626.55	56559.21	73847.4
Total Current Assets	196597.56	235806.82	273946.37
Stock			59138.68
Receivable again supply of power			110966.22
Cash & Bank Balances			29757.13
Loans & Advances			31979.69
Sundry Receivables			42104.65
Current Liabilities :			
Security Deposits from Consumers	31450.23	39038.78	44050.28
Other Current Liabilities	165967.69	215260.14	278560.55
Total Current Liabilities (13+ 14)	**197417.91**	**254298.92**	**322610.83**
Net Current Assets (11 - 15)	-820.36	-18492.1	-48664.46
Subsidy Receivable from Govt.	160671.06	184390.3	210944.58
Net Assets (5 to 10 + 16 + 17)	**727252.25**	**798691.74**	**832478.68**
FINANCED BY			
Borrowings for Working Capital	25236.73	31906.72	27695.09
Payments due on Capital Liabilities	16944.42	36046.08	34077.16
Capital Liabilities	270975.93	277021.28	268902.26
Funds from State Government	295161.64	312653.82	337034.95
Contributions, Grants & Subsidies	49696.32	60246.09	71545.31
Reserves & Reserve Funds	11611.01	12201.05	12658.7
Surplus / (Deficit)	57626	68616	80564

	31-03-1996	31-03-1997	31-03-1998
Total Funds (20 to 26)	**727252.04**	**798691.03**	**832477.48**

(Sources Annual Accounts of the GEB and Gsecl respective periods)

Balance Sheet of Gujarat Electricity Board.

Balance Sheet of Gujarat Electricity Board.	31-03-1999	31-03-2000	31-03-2001
Net Fixed Assets			
Gross Block	843828.6	938903	1009377
Less : Accumulated Depreciation	345779.1	407081	480110
Net Fixed Assets (3- 4)	498049.49	531822	529267
Capital Expenditure in Progress	113622.82	99444	88217
Assets not in use.	217.5	145	104
Deferred costs	2695.38	2971	2808
Intengible Assets	0	0	0
Investments	65997.47	68315	77936
Total Current Assets	289815.7	308803	374647
Stock	45995.62	43219	45899
Receivable again supply of power	144860.63	161992	190100
Cash & Bank Balances	19807.87	22180	75486
Loans & Advances	41090.94	36905	37661
Sundry Receivables	38060.63	44507	25501
Current Liabilities :			
Security Deposits from Consumers	48733.2	57756	65544
Other Current Liabilities	286281.1	359021	450639
Total Current Liabilities (13+ 14)	**335014.29**	**416777**	**516183**
Net Current Assets (11 - 15)		-107974	-141536
Subsidy Receivable from Govt.	229849.08	239479	74699
Net Assets (5 to 10 + 16 + 17)	**865233.16**	**834202.00**	**631495.00**
FINANCED BY			
Borrowings for Working Capital	46007.59	137133	174168
Payments due on Capital Liabilities	26977.28	29440	38782
Capital Liabilities	272134.17	319641	458203
Funds from State Government	374225.41	404740	247300
Contributions, Grants & Subsidies	90745.97	108471	131693
Reserves & Reserve Funds	12924.36	13417	14287
Surplus / (Deficit)	42218	-178640	-432938
Total Funds (20 to 26)	**865232.79**	**1668404.00**	**1262990.00**

(Board, 1995 to 2005) (Sources Annual Accounts of the GEB respective periods)

Balance Sheet of Gujarat Electricity Board.	**31-03-2002**	**31-03-2003**
Net Fixed Assets		
Gross Block	1076867	1150746
Less : Accumulated Depreciation	543647	605792
Net Fixed Assets (3- 4)	533220	544954
Capital Expenditure in Progress	81957	65685
Assets not in use.	142	153
Deferred costs	2244	1859
Intengible Assets	0	0
Investments	75334	92796
Total Current Assets	376459	443885
Stock	47133	49909
Receivable again supply of power	194068	195259
Cash & Bank Balances	77446	84656
Loans & Advances	35065	37352
Sundry Receivables	22747	76709
Current Liabilities :		
Security Deposits from Consumers	71888	79023
Other Current Liabilities	498230	469772
Total Current Liabilities (13+ 14)	**570118**	**548795**
Net Current Assets (11 - 15)	-193659	-104910
Subsidy Receivable from Govt.	14496	80995
Net Assets (5 to 10 + 16 + 17)	**513734.00**	**681532**
FINANCED BY		
Borrowings for Working Capital	211363	179774
Payments due on Capital Liabilities	67662	41603
Capital Liabilities	514247	706910
Funds from State Government	49287	74276
Contributions, Grants & Subsidies	153072	189152
Reserves & Reserve Funds	13244	32539
Surplus / (Deficit)	-495141	-542722
Total Funds (20 to 26)	**1027468.00**	**681532**

(Sources Annual Accounts of the GEB respective periods)

Balance Sheet of Gujarat Electricity Board.	**31-03-2004**	**31-03-2005**
Net Fixed Assets		
Gross Block	1239089	170530
Less : Accumulated Depreciation	681837	759636
Net Fixed Assets (3- 4)	557252	610903
Capital Expenditure in Progress	72283	87077
Assets not in use.	298	222
Deferred costs	1629	1249
Intengible Assets	0	0
Investments	106230	83746
Total Current Assets	460126	484031
Stock	69720	83794
Receivable again supply of power	219501	241664
Cash & Bank Balances	53027	50653
Loans & Advances	37802	37132
Sundry Receivables	80076	70788
Current Liabilities :		
Security Deposits from Consumers	89692	102991
Other Current Liabilities	499157	412757
Total Current Liabilities (13+ 14)	**588849**	**515748**
Net Current Assets (11 - 15)	-128723	-31717
Subsidy Receivable from Govt.	36103	1467
Net Assets (5 to 10 + 16 + 17)	**645072**	**752947**
FINANCED BY		
Borrowings for Working Capital	220614	281247
Payments due on Capital Liabilities	6065	2764
Capital Liabilities	610557	649880
Funds from State Government	275434	309140
Contributions, Grants & Subsidies	236884	309889
Reserves & Reserve Funds	31420	28635
Surplus / (Deficit)	-735902	-828608
Total Funds (20 to 26)	**645072**	**752947**

(Sources Annual Accounts of the GEB respective periods)

V.5.5 Table No 5.13 A Balance Sheet of Gujarat state Electricity Corporation Ltd. (Rupees in Lakh) F.Y. 2005-2016

	31-03-06	31-03-07	31-03-08
SOURCES OF FUNDS			
Shareholders' Funds			
a. Share Capital	57330.01	57330.01	57330.01
b. Equity Share Capital Suspense A/c.	132268.94	132268.94	
c. Equity Pending Allotment			143168.94
d. Share Application Money	900.00	900.00	
e. Reserves and Surplus	27517.32	38191.83	47933.57
	218016.28	**228690.78**	**248432.52**
Loan Funds			
a. Secured Loans	19934.25	41979.76	134488.75
b. Unsecured Loans	275732.68	279782.59	223105.20
	295666.93	**321762.35**	**357593.95**
Deffered Tax Liability (Net)	0.00	0.00	0.00
TOTAL	***513683.21***	***550453.13***	***606026.47***
APPLICATION OF FUNDS			
Fixed Assets			
a. Gross Block	665313.43	682470.95	743612.42
b. Less : Accumlated Depreciation	185754.10	207869.03	231468.37
c. Net Block	479559.33	474601.92	512144.05
d. Capital Work in Progress	58697.41	105104.71	145210.86
	538256.74	**579706.63**	**657354.91**
Investments	**2050.00**	**2052.00**	**2052.00**
Current Assets, Loans and Advances			
a. Inventories	32450.63	40653.29	34154.90
b. Sundry Debtors	0.00	26972.40	62930.48
c. Cash and Bank Balances	642.00	4585.69	569.23
d. Loans and Advances	75158.77	84930.94	73018.63
	108251.40	157142.32	170673.24
Less : Current Liabilities and Provisions			
a. Current Liabilities	124933.12	167042.48	191498.80
b. Provisions	9941.81	21405.34	32554.88
	134874.93	188447.82	224053.68
Net Current Assets	**(26623.53)**	**(31305.50)**	**(53380.44)**
TOTAL	***513683.21***	***550453.13***	***606026.47***

Balance Sheet of Gujarat state Electricity Corporation Ltd.

	31-03-09	31-03-10	31-03-11
SOURCES OF FUNDS			
Shareholders' Funds			
a. Share Capital	91297.24	91297.24	145802.24
b. Equity Share Capital Suspense A/c.			
c. Equity Pending Allotment	36956.60	51783.75	22300.00
d. Share Application Money			
e. Reserves and Surplus	153661.18	191067.66	205421.62
	281915.02	**334148.65**	**373523.86**
Loan Funds			
a. Secured Loans	235432.44	381995.01	420842.71
b. Unsecured Loans	254661.49	137311.09	213164.51
	490093.93	**519306.10**	**634007.22**
Deffered Tax Liability (Net)	0.00	0.00	0.00
TOTAL	***772008.95***	***853454.75***	***1007531.08***
APPLICATION OF FUNDS			
Fixed Assets			
a. Gross Block	789545.95	1034567.93	1091408.07
b. Less : Accumlated Depreciation	267426.23	320267.49	379984.39
c. Net Block	522119.72	714300.44	711423.68
d. Capital Work in Progress	313746.81	235877.20	304065.49
	835866.53	**950177.64**	**1015489.17**
Investments	**2052.00**	**2052.00**	**2052.05**
Current Assets, Loans and Advances			
a. Inventories	39940.05	40571.32	34805.46
b. Sundry Debtors	117381.99	145463.13	135387.22
c. Cash and Bank Balances	120.83	68.98	4044.18
d. Loans and Advances	42321.32	42754.43	51092.13
	199764.19	228857.86	225328.99
Less : Current Liabilities and Provisions			
a. Current Liabilities	253381.83	311881.60	215394.85
b. Provisions	12291.94	15751.15	19944.28
	265673.77	327632.75	235339.13
Net Current Assets	**(65909.58)**	**(98774.89)**	**(10010.14)**
TOTAL	***772008.95***	***853454.75***	***1007531.08***

(Sources Annual Accounts of t GSECL respective periods)

Balance Sheet of Gujarat state Electricity Corporation Ltd.

	31-03-12	31-03-13	31-03-14
EQUITY AND LIABILITIES			
Shareholders' Funds			
a. Share Capital	145802.24	151377.24	164828.49
b. Reserves and Surplus	222665.43	257093.74	312829.79
Share Application money pending allotment	22300.00	37805.00	0.00
Non Current Liabilities			
a. Long Term Borrowings	566494.47	629231.58	571827.56
b. Other long term liabilities	60132.01	79729.75	109887.87
c. Long term provisions	13482.93	15755.63	16216.13
Current Liabilities			
a. Short Term Borrowings	93516.67	98792.65	127178.38
b. Trade Payables	45551.14	26886.54	26069.98
c. Other Current Liabilities	194858.26	118286.63	144174.13
d. Short Term Provisions	24325.15	12631.20	13810.47
TOTAL	***1389128.30***	***1427589.96***	***1486822.80***
ASSETS			
Non Current Assets			
a. Fixed Asset			
(i) Tangible Asset	671234.81	623826.08	867608.03
(ii) Capital Work in Progress	411192.06	624829.34	437331.56
b. Non-Current Investments	2052.05	2052.05	2052.05
c. Long Term Loans & Advances	29464.98	15329.67	12289.31
d. Other Non Current Assets	18329.40	10869.92	9648.93
Current Assets			
a. Inventories	54163.33	71054.50	67509.50
b. Trade Receivables	172747.54	57952.59	69097.33
c. Cash and Cash Equivalents	17.64	12.97	8.32
d. Short Term Loans and Advances	23299.04	15105.71	15231.74
e. Other Current Assets	6627.45	6557.13	6046.03
TOTAL	***1389128.30***	***1427589.96***	***1486822.80***

(Sources Annual Accounts of t GSECL respective periods)

Balance Sheet of Gujarat state Electricity Corporation Ltd.

	31-03-15	31-03-16
EQUITY AND LIABILITIES		
Shareholders' Funds		
a. Share Capital	169228.49	178628.49
b. Reserves and Surplus	341817.08	383784.19
Share Application money pending allotment	0.00	0.00
Non Current Liabilities		
a. Long Term Borrowings	698593.21	667198.38
b. Other long term liabilities	66091.40	62036.85
c. Long term provisions	14769.58	16234.25
Current Liabilities		
a. Short Term Borrowings	42221.47	28854.44
b. Trade Payables	24635.76	32371.75
c. Other Current Liabilities	179220.01	255080.84
d. Short Term Provisions	41905.06	44062.60
TOTAL	***1578482.06***	***1668251.79***
ASSETS		
Non Current Assets		
a. Fixed Asset		
(i) Tangible Asset	959802.01	1219673.06
(ii) Capital Work in Progress	335652.17	96997.62
b. Non-Current Investments	2052.05	2052.05
c. Long Term Loans & Advances	9560.40	28286.57
d. Other Non Current Assets	6260.06	6150.17
Current Assets		
a. Inventories	69325.60	68355.26
b. Trade Receivables	158526.29	221811.72
c. Cash and Cash Equivalents	322.67	48.82
d. Short Term Loans and Advances	32770.50	8001.88
e. Other Current Assets	4210.31	16874.64
TOTAL	***1578482.06***	***1668251.79***

(Sources Annual Accounts of t GSECL respective periods) (GSECL, 1998 to 2017)

V.7 Analysis & Interpretation of Financial Parameters

Analysis of Financial Parameters

V.7.1. Introduction.

An Analysis of Financial Parameters can be made by following methods. viz.

(1) Ratio analysis
(2) Standards of Comparison
(3) Time Series Analysis
(4) Cross-Sectional Analysis
(5) Industry Analysis

(1) Ratio analysis

Ratio analysis is a powerful tool of financial analysis. A ratio is defined as "the indicated quotient of two mathematical expressions" and as "the relationship between two or more things. In financial analysis, a ratio is used as a benchmark for evaluating the financial position and performance of a company. The absolute accounting figures reported in the financial statements do not provide a meaningful understanding of the performance and financial position of a company. An accounting figure conveys meaning when it is related to some other relevant information. The relationship between two accounting figures, expressed mathematically, is known as a financial ratio or simply as a ratio. Ratios help to summarize large quantities of financial data and to make qualitative judgment about the company's financial performance.

Standards of Comparison

The ratio analysis involves comparison for a useful interpretation of the financial statements. A single ratio in itself does not indicate favorable or unfavorable condition. It should be compared with some standard. Standards of comparison may consist of:

- Past Ratio =Ratio calculated from the past financial statements of the same company.
- Competitors' Ratios =Ratio of some selected company's, especially the most progressive and successful competitor, at the same point in time.
- Industry Ratios =Ratios of the industry to which the company belongs
- Projected Ratios=Ratios developed using the projected, or pro forma, financial statements of the same company.

Time Series Analysis

The easiest way to evaluate the performance of a company is to compare its present ratios with the past ratios. When financial ratios over a period of time are compared, it is known as the Time Series Analysis. It gives an indication of the direction of change and reflects whether the company's financial performance has improved, deteriorated or remained constant over time.

Cross-Sectional Analysis

To compare ratios of one company with some selected company's in the same industry at the same point in time is known as the Cross-Sectional Analysis or Inter-Company Analysis. This kind of a comparison indicates the relative financial position and performance of the company.

Industry Analysis

To determine the financial condition and performance of a company, its ratios may be compared with average ratios of the industry of which the company is a member. This sort of analysis, known as the Industry Analysis, helps to ascertain the financial standing and capability of the company vis-à-vis other company's in the industry. Industry ratios are important standards in view of the fact that each industry has its characteristics, which influence the operating relationships.

Types of Ratios

In view of the requirements of the various users of ratios, we may classify them into the following four important categories.

- **Profitability Ratios=**Profitability ratios measure overall performance and effectiveness of the company.
- **Liquidity Ratios=**Liquidity ratios measure the company's ability to meet current obligations.
- **Leverage Ratios=**Leverage ratios show the proportions of debt and equity in financing the company's assets.

- **Activity Ratios / Turnover Ratios=**Activity ratios reflect the company's efficiency in utilizing its assets .

PROFITABILITY RATIOS

A company should earn profits to survive and grow over a long period of time. Profits are essential, but it would be wrong to assume that every action initiated by the management of a company should be aimed at maximizing profits, irrespective of concerns for customers, employees, suppliers or social consequences. It is unfortunate that the word 'profit' is looked upon as a term of abuse since some companys always want to maximize profits at the cost of employees, customers and society. Except such infrequent cases, it is a fact that sufficient profits must be earned to sustain the operations of the business to be able to obtain funds from investors for expansion and growth and to contribute towards the social overheads for the welfare of the society. "

Gross Profit Ratio

The first profitability ratio in relation to sales is the Gross Profit Ratio. It is calculated by dividing the gross profit by sales. Gross profit ratio is a financial metric used to assess a company's financial health by revealing the proportion of money left over from revenues after accounting for the cost of goods sold. Gross profit margin serves as the source for paying additional expenses and future savings. "

$$\textbf{Gross Profit Ratio} = \frac{\textbf{Gross Profit}}{\textbf{Sales}}$$

"The gross profit ratio reflects the efficiency with which management produces each unit of product. This ratio indicates the average spread between the cost of goods sold and the sales revenue.

A high gross profit ratio is a sign of good management. A gross profit ratio may increase due to any of the following factors

(i) Higher sales prices, cost of goods sold remaining constant,

(ii) Lower cost of goods sold, sales prices remaining constant,

(iii) A combination of variations in sales prices and costs, the margin widening and

(iv) An increase in the proportionate volume of higher margin items.

The analysis of these factors will reveal to the management how a depressed gross profit ratio can be improved.

A low gross profit ratio may reflect higher cost of goods sold due to the company's inability to purchase raw materials at favorable terms, inefficient utilization of plant and machinery, or over-investment in plant and machinery, resulting in higher cost of production. The ratio will also be low due to a fall in prices in the market, or marked reduction in selling price by the company in an attempt to obtain large sales volume, the cost of goods sold remaining unchanged. The financial manager must be able to detect the causes of a falling gross margin and initiate action to improve the situation.

Table No.5. 14 Gross Profit to Sales ratio.

Pre Reform Period	Gross Profit (Rs.in Lakh)	Sales (Rs.in Lakh)	Gross Profit Ratio	Post Reform Period	Gross Profit (Rs.in Lakh)	Sales (Rs.in Lakh)	Gross Profit Ratio
1995-96	91752.18	337886.50	0.27	2005-06	58901.66	496402.48	0.12
1996-97	119360.42	431965.16	0.28	2006-07	59758.88	531146.86	0.11
1997-98	134485.14	506312.70	0.27	2007-08	65150.18	620473.87	0.11
1998-99	92057.13	569785.85	0.16	2008-09	69373.00	710122.63	0.10
1999-00	-74396.00	577804.00	-0.13	2009-10	104171.83	729948.34	0.14
2000-01	-37941.00	628048.00	-0.06	2010-11	120661.56	757771.17	0.16
2001-02	105945.00	727430.00	0.15	2011-12	126344.00	833848.25	0.15
2002-03	72245.00	787423.00	0.09	2012-13	132797.00	801878.82	0.17
2003-04	50516.00	854513.00	0.06	2013-14	154192.00	609019.19	0.25
2004-05	77697.00	913731.00	0.09	2014-15	181714.00	836748.11	0.22
				2015-16	191284.31	793135.39	0.24

Source Annual Reports of the pre & Post reform period.

(Board, 1995 to 2005)(GSECL G. S., 2005 to 2016)

Net Profit Ratio

Net profit is obtained when operating expenses, interest and taxes are subtracted from the gross profit. The net profit ratio is measured by dividing Net Profit by sales.

$$\textbf{Net Profit Ratio} = \frac{\textbf{Net Profit}}{\textbf{Sales}}$$

" Net Profit Ratio establishes a relationship between net profit and sales and indicates management's efficiency in manufacturing, administering and selling the products. This ratio is the overall measure of the company's ability to turn each rupee sales into net profit. If the net margin is inadequate, the company will fail to achieve satisfactory return on shareholders' funds.

This ratio also indicates the company's capacity to withstand adverse economic conditions. A company with a high net margin ratio would be in an advantageous position to survive in the face of falling selling prices, rising costs of production or declining demand for the product. An analyst will be able to interpret the company's profitability more meaningfully if he/she evaluates both the ratios – gross profit ratio and net profit ratio – jointly.."

Table No 5. 15 Net Profit

Pre Reform Period	Net Profit (Rs.in Lakh)	Sales (Rs.in Lakh)	Net Profit Ratio	Post Reform Period	Net Profit (Rs.in Lakh)	Sales (Rs.in Lakh)	Net Profit Ratio
1995-96	10800.34	337886.50	0.03	2005-06	7047.82	496402.48	0.01
1996-97	10990.49	431965.16	0.03	2006-07	7536.73	531146.86	0.01
1997-98	11948.10	506312.70	0.02	2007-08	5924.12	620473.87	0.01
1998-99	-38346.83	569785.85	-0.07	2008-09	7053.36	710122.63	0.01
1999-00	-220858.00	577804.00	-0.38	2009-10	12406.48	729948.34	0.02
2000-01	-254298.00	628048.00	-0.40	2010-11	14353.96	757771.17	0.02
2001-02	-62203.00	727430.00	-0.09	2011-12	17243.81	833848.25	0.02
2002-03	-47581.00	787423.00	-0.06	2012-13	17703.31	801878.82	0.02
2003-04	-193180.00	854513.00	-0.23	2013-14	15382.30	609019.19	0.03
2004-05	-92706.00	913731.00	-0.10	2014-15	15787.31	836748.11	0.02
				2015-16	13767.09	793135.39	0.02

Source Annual Reports of the pre & Post reform period.

(Board, 1995 to 2005)(GSECL G. S., 2005 to 2016)

Operating Expense Ratio

The operating ratio is a financial term defined as a company's operating expenses as a percentage of revenue. This ratio is computed by dividing operating expenses by sales.

$$\textbf{Operating Exp. Ratio} = \frac{\textbf{COGS + Other Operating Expenses}}{\textbf{Sales}}$$

Table No 5. 16 Operating Exp. Ratio

Pre Reform Period	COGS+Ope. Exp. (Rs.in Lakh)	Sales (Rs.in Lakh)	Operating Ratio	Post Reform Period	COGS+Ope. Exp. (Rs.in Lakh)	Sales (Rs.in Lakh)	Operating Ratio
1995-96	301909.18	337886.50	0.89	2005-06	462914.63	496402.48	0.93
1996-97	342045.17	431965.16	0.79	2006-07	501601.74	531146.86	0.94
1997-98	399217.89	506312.70	0.79	2007-08	596001.33	620473.87	0.96
1998-99	422423.02	569785.85	0.74	2008-09	696350.74	710122.63	0.98
1999-00	427099.00	577804.00	0.74	2009-10	691005.72	729948.34	0.95
2000-01	456452.00	628048.00	0.73	2010-11	721400.14	757771.17	0.95
2001-02	476650.00	727430.00	0.66	2011-12	799514.15	833848.25	0.96
2002-03	490887.00	787423.00	0.62	2012-13	756026.78	801878.82	0.94
2003-04	479978.00	854513.00	0.56	2013-14	546557.41	609019.19	0.90
2004-05	536516.00	913731.00	0.59	2014-15	751642.07	836748.11	0.90
				2015-16	717343.64	793135.39	0.90

Source Annual Reports of the pre & Post reform period.

The operating expense ratio is a yardstick of operating efficiency, but it should be used cautiously. It is affected by a number of factors, such as external uncontrollable factors, internal factors, employees and managerial efficiency (or inefficiency), all of which are difficult to analyze. Further, the ratio cannot be used as a test of financial condition in the case of those company's where non-operating revenue and expenses form a substantial part of the total income.

Operating Profit Ratio

The operating profit ratio is a profitability ratio that measures what percentage of total revenues is made up by operating income.

$$\textbf{Operating Profit Ratio} = \frac{\textbf{Operating Profit}}{\textbf{Sales}}$$

Table No 5. 17 Operating Profit Ratio

Pre Reform Period	Operating Profit (Rs.in Lakh)	Sales (Rs.in Lakh)	Operating Profit Ratio	Post Reform Period	Operating Profit (Rs.in Lakh)	Sales (Rs.in Lakh)	Operating Profit Ratio
1995-96	35977.32	337886.50	0.11	2005-06	33487.85	496402.48	0.07
1996-97	89919.99	431965.16	0.21	2006-07	29545.12	531146.86	0.06
1997-98	107094.81	506312.70	0.21	2007-08	24472.54	620473.87	0.04
1998-99	147362.83	569785.85	0.26	2008-09	13771.89	710122.63	0.02
1999-00	150705.00	577804.00	0.26	2009-10	38942.62	729948.34	0.05
2000-01	171596.00	628048.00	0.27	2010-11	36371.03	757771.17	0.05
2001-02	250780.00	727430.00	0.34	2011-12	34334.10	833848.25	0.04
2002-03	296536.00	787423.00	0.38	2012-13	45852.04	801878.82	0.06
2003-04	374535.00	854513.00	0.44	2013-14	62461.78	609019.19	0.10
2004-05	377215.00	913731.00	0.41	2014-15	85106.04	836748.11	0.10
				2015-16	75791.75	793135.39	0.10

Source Annual Reports of the pre & Post reform period.

Return on Investment (ROI) Ratio / Capital Employed (ROCE)

The term investment may refer to total assets or net assets. The funds employed in net assets are known as capital employed. Net assets equal net fixed assets plus current assets minus current liabilities excluding bank loans. Alternatively, capital employed is equal to net worth

plus total debt. The conventional approach of calculating Return on Investment (ROI) is to divide Profit after Tax by Investment. Investment represents pool of funds supplied by shareholders and lenders, while PAT represent residue income of shareholders; therefore, it is conceptually unsound to use PAT in the calculation of ROI.

$$\textbf{Return on Investment (ROI)} = \frac{\textbf{EBIT}}{\textbf{Average Capital Employed}}$$

Since taxes are not controllable by management, and since company's opportunities for availing tax incentives differ, it may be more prudent to use before-tax measure of Return on Investment (ROI).

Return on investment (Rupees in Lakh)							
Pre Reform	**EBIT (Rs.in Lakh)**	**Avg. Capital Empl. (Rs.in Lakh)**	**Return on Invest.**	**Post reform**	**EBIT (Rs.in Lakh)**	**Avg. Capital Empl. (Rs.in Lakh)**	**Return on Invest.**
1995-96	35977.3	682844	0.05	2005-06	33487.9	326728	0.10
1996-97	89920	762972	0.12	2006-07	29545	532068	0.06
1997-98	107095	815584	0.13	2007-08	24473	573939	0.04
1998-99	147363	848855	0.17	2008-09	13772	689018	0.02
1999-00	150705	849718	0.18	2009-10	38943	812732	0.05
2000-01	171596	732849	0.23	2010-11	36371	930493	0.04
2001-02	250780	572615	0.44	2011-12	34334	902100	0.04
2002-03	296536	597633	0.50	2012-13	45852	1016385	0.05
2003-04	374535	663302	0.56	2013-14	62462	1062497	0.06
2004-05	377215	699010	0.54	2014-15	85106	1129562	0.08

Source Annual Reports of the pre & Post reform period.

Return on Equity (ROE)

"The shareholders' equity or net worth will include paid-up share capital, share premium and reserves and surplus less accumulated losses. Net worth can also be found by subtracting total liabilities from total assets."

The return on equity is net profit after taxes divided by shareholders' equity.

Return on Equity (ROE)= **Net profit after taxes / (divided by) shareholders' equity**

Return on Shareholders Fund

"The Return on Shareholders' Funds (ROSF) ratio is a measure of the profit for the period which is available to the ordinary shareholders with the ordinary shareholders' stake in a business. Return on Shareholders Fund (ROSF) is widely used to measure the overall profitability of the company from preference and common stockholders' view point. The ratio also indicates the efficiency of the management in using the resources of the business. "

LIQUIDITY RATIOS

" Liquidity ratio is extremely essential for a company to be able to meet its obligations as they become due. Liquidity ratios measure the ability of the company to meet its current obligations (liabilities). In fact, analysis of liquidity needs the preparation of cash budgets and cash and fund flow statements, but liquidity ratios, by establishing a relationship between cash and other current assets to current obligations, provide a quick measure of liquidity. A company should ensure that it does not suffer from lack of liquidity, and also that it does not have excess liquidity. The most common ratios, which indicate the extent of liquidity or lack of it, are Current Ratio, Quick Ratio, Cash Ratio, Cash to Total Assets Ratio and Interval Measure Ratio. "

Current Ratio

Current ratio is calculated by dividing current assets by current liabilities.

Current Ratio = Current Assets divided by current liabilities.

" Current assets include cash and those assets that can be converted into cash within a year, such as marketable securities, debtors and inventories. Prepaid expenses are also included in the current assets as they represent the payments that will not be made by the company in the future. All obligations maturing within a year are included in the current liabilities. Current liabilities include creditors, bills payable, accrued expenses, short-term bank loan, income-tax liability and long-term debt maturing in the current year. "

" As a conventional rule, a current ratio of 2 to 1 or more is considered satisfactory. The current ratio represents a margin of safety for creditors. The higher the current ratio, the greater the margin of safety; the larger the amount of current assets in relation to current liabilities, the more the company's ability to meet its current obligations. However, an arbitrary standard of 2 to 1 should not be blindly followed. Companys with less than 2 to 1 current ratio may be doing well, while companys with 2 to 1 or even higher current ratios may be struggling to meet their obligations. However, the current ratio is a crude-and-quick measure of the company's liquidity.

Table No 5. 18 Current Ratio

Current Ratio (Rupees in Lakh)

Pre Reform Period.	Current Assets	Current Liabilities	Current Ratio	Post Reform Period.	Current Assets	Current Liabilities	Current Ratio
1995-96	196598	197418	1.00	2005-06	108251	124933	0.87
1996-97	235807	254299	0.93	2006-07	157142	167042	0.94
1997-98	273946	322611	0.85	2007-08	170673	191499	0.89
1998-99	289816	335014	0.87	2008-09	199764	253382	0.79
1999-00	308802	416777	0.74	2009-10	228858	311882	0.73
2000-01	374647	516183	0.73	2010-11	225329	215395	1.05
2001-02	376459	570118	0.66	2011-12	256855	358251	0.72
2002-03	443885	548795	0.81	2012-13	150683	256597	0.59
2003-04	460126	588849	0.78	2013-14	157893	311233	0.51
2004-05	484031	515748	0.94	2014-15	265155	287982	0.92
				2015-16	315092	360370	0.87

Source Annual Reports of the pre & Post reform period.

(GSECL G. S., 2005 to 2016)(Board, 1995 to 2005)

Current ratio of the Company is less than one . or equal to one under both the period of Pre and Post reform period .

Pre reform period current ratio is equal to one in 1995-96. Subsequently reduce gradually upto 0.66 in the F.Y.2001-02.Though improved up to the 0.94. During the post reform period Current ratio is less than 1.00 (i.e 0.94 to 0.51). this indicate that the company's **current ratio** is low . it means that the company is efficiently using its **current** assets or

its short-term financing facilities. Both Reform pre & Post reform period ,**current** liabilities exceed **current** assets the **current ratio** will be less than 1.

This means that a company has a limited amount of time in order to raise the funds to pay for these liabilities Company at a higher risk of distress or default. A low current ratio (say less than 1.05.) might suggest that the Company is not well placed to pay its debts as a low current Ratio is less than 1.05 . It might be required to raise extra finance or extend the time it takes to pay creditors.

There is no such thing as an ideal current ratio. Power industries businesses and industries work with different levels of cover. However, a ratio of less than one is often a cause for concern, particularly if it continues for longer period of time. This is mainly due to the provisions of Penalty on non lifted coal quantities as per the Fuel supply agreement with SECL & WCL. Over and above Bonus on coal lifted beyond specified % of Allotted Coal quantities.

Further as per the Company Accounts next F.Y repayment of Long Term loan to be sown in Current Liabilities as a effect current liabilities increase to that extend. Company 's**current ratio** is lower than the industry average may indicate a higher risk of distress or default

Quick Ratio

" Quick ratio, establishes a relationship between quick, or liquid, assets and current liabilities. An asset is liquid if it can be converted into cash immediately or reasonably soon without a loss of value. The quick ratio is found out by dividing quick assets by current liabilities."

Quick Ratio = (current Assets-Inventories)divided by Current Liabilities.

" Generally, a quick ratio of 1 to 1 is considered to represent a satisfactory current financial condition. Although quick ratio is a more penetrating test of liquidity than the current ratio, yet it should be used cautiously. A quick ratio of 1 to 1 or more does not necessarily imply sound liquidity position. It should be remembered that all debtors may not be liquid, and cash may be immediately needed to pay operating expenses. It should also be noted that inventories are not absolutely non-liquid. To a measurable extent, inventories are available to meet current obligations. Thus, a company with a high value of quick ratio can suffer from a shortage of funds if it has slow paying, doubtful and long-duration outstanding debtors. On the other hand, a company with a low value of quick ratio may really be prospering and

paying its current obligation in time if it has been turning over its inventories efficiently. Nevertheless, the quick ratio remains an important index of the company's liquidity. "

Table No 5. 19 Quick Ratio

Pre Reform Period	Quick Assets	Current Liabilities	Quick Ratio	Post Reform Period	Quick Assets	Current Liabilities	Quick Ratio
1995-96	162222.18	197417.91	0.82	2005-06	75800.77	124933.12	0.61
1996-97	193982.68	254298.92	0.76	2006-07	116489.03	167042.48	0.70
1997-98	214807.69	322610.83	0.67	2007-08	136518.34	191498.80	0.71
1998-99	243820.08	335014.29	0.73	2008-09	159824.14	253381.83	0.63
1999-00	265583.00	416777.00	0.64	2009-10	188286.54	311881.60	0.60
2000-01	328748.00	516183.00	0.64	2010-11	190523.53	215394.85	0.88
2001-02	329326.00	570118.00	0.58	2011-12	202691.67	358251.22	0.57
2002-03	393976.00	548795.00	0.72	2012-13	79628.40	256597.02	0.31
2003-04	390406.00	588849.00	0.66	2013-14	90383.42	311232.96	0.29
2004-05	400237.00	515748.00	0.78	2014-15	195829.77	287982.30	0.68
				2015-16	246737.06	360369.63	0.68

(Board, 1995 to 2005)(GSECL G. S., 2005 to 2016)

Source Annual Reports of the pre & Post reform period.

Cash Ratio

" Cash ratio is also called Absolute Liquid Ratio. Since cash is the most liquid asset, a financial analyst may examine cash ratio and its equivalent to current liabilities. Trade investment or marketable securities are equivalent of cash; therefore, they may be included in the computation of cash ratio."

$$\text{Cash Ratio} = \frac{\text{Cash + Marketable Securities}}{\text{Current Liabilities}}$$

LEVERAGE RATIOS

" The manner in which assets are financed has a number of implications. First, between debt and equity, debt is more risky from the company's point of view. The company has a legal obligation to pay interest to debt holders, irrespective of the profits made or losses incurred by the company. If the company fails to pay to debt holders in time, they can take legal action against it to get payments and in extreme cases, can force the company into liquidation. Second, use of debt is advantageous for shareholders in two ways (1). They can retain control of the company with a limited stake and (2) their earning will be magnified when the

company earns a rate of return on the total capital employed higher than the interest rate on the borrowed funds. The process of magnifying the shareholders' return through the use of debt is called **'financial leverage'** or **'financial gearing'** or **'trading on equity'**. "

" However, leverage can work in opposite direction as well. If the cost of debt is higher than the company's overall rate of return, the earnings of shareholders will be reduced. In addition, there is threat of insolvency. If the company is actually liquidated for non-payment of debt-holders' dues, the worst sufferers will be shareholder. Thus, use of debt magnifies the shareholders' earnings as well as increases their risk. Third, a highly debt-burdened company will find difficulty in raising funds from creditors and owners in future. Creditors treat the owners' equity as a margin of safety; if the equity base is thin, the creditors risk will be high."

"Leverage ratios are calculated to measure the financial risk and the company's ability of using debt to shareholders' advantage. Leverage ratios may be calculated from the balance sheet items to determine the proportion of debt in total financing. Many variations of these ratios exist; but all these ratios indicate the same thing – the extent to which the company has relied on debt I financing assets. Leverage ratios are also computed from the profit and loss items by determining the extent to which operating profits are sufficient to cover the fixed charges."

Proprietary Ratio

The proprietary ratio is the proportion of shareholders' equity to total assets, and as such provides a rough estimate of the amount of capitalization currently used to support a business.

$$\textbf{Proprietary Ratio} = \frac{\textbf{Proprietary (Shareholders) Fund}}{\textbf{Total Tangible Assets}}$$

The proprietary ratio is a test of long-term financial position and also a test of capitalization. The higher the ratio, the stronger is the long-term financial position. Again, a high ratio indicates that external equities are not being sufficiently used to finance the business. This ratio is also a test of credit strength. As the total assets equal total equities, it follows that the proprietary ratio is really that of proprietors' equity to total liabilities, so that if the amount of

the proprietor's equity decreases in relation to the amount of debt capital, a business becomes more dependent on creditors to supply its working capital.

Equity Ratio

"The equity ratio is the proportion of equity shareholders' fund to total tangible assets.

$$\textbf{Equity Ratio} = \frac{\textbf{Equity Shareholders Fund}}{\textbf{Total Capital Employed}}$$

This is ratio is not comparable because , there were no equity of GEB.

Debt Ratio

Several debt ratios may be used to analyze the long-term solvency of a company. The company may be interested in knowing the proportion of the interest-bearing debt (also called funded debt) in the capital structure. It may, therefore, compute debt ratio by dividing total debt by capital employed. Total debt will include short and long-term borrowings from financial institutions, debentures / bonds, deferred payment arrangements for buying capital equipments, bank borrowings, public deposits and any other interest-bearing loan. Capital employed will include total debt and net worth.

$$\textbf{Debt Ratio} = \frac{\textbf{Debt Fund}}{\textbf{Total Capital Employed}}$$

Table No 5. 20 Debt Ratio

GEB				GSECL			
Pre Reform Period	**Debt Fund**	**Total Capital Employed**	**Debt Ratio**	**Post Reform Period**	**Debt Fund**	**Total Capital Employed**	**Debt Ratio**
1995-96	287920.35	725625.50	0.40	2005-06	295666.93	511633.21	0.58
1996-97	313067.36	742131.83	0.42	2006-07	321762.35	548401.13	0.59
1997-98	302979.42	758630.08	0.40	2007-08	357593.95	603974.47	0.59
1998-99	299111.45	799235.31	0.37	2008-09	490093.93	769956.95	0.64
1999-00	349081.00	765887.00	0.46	2009-10	519306.10	851402.75	0.61
2000-01	496985.00	553559.00	0.90	2010-11	634007.22	1005479.03	0.63
2001-02	581909.00	438400.00	1.33	2011-12	566494.47	955210.09	0.59
2002-03	748513.00	588736.00	1.27	2012-13	629231.58	1073455.51	0.59
2003-04	616622.00	538842.00	1.14	2013-14	571827.56	1047433.79	0.55
2004-05	652644.00	669201.00	0.98	2014-15	698593.21	1207586.73	0.58
				2015-16	667198.38	1227559.01	0.54

(Board, 1995 to 2005)(GSECL G. S., 2005 to 2016)

Source Annual Reports of the pre & Post reform period.

Debt-Equity Ratio

" The relationship describing the lenders' contribution for each rupee of the owners' contribution is called debt-equity ratio. Debt-equity (DE) ratio is directly computed by dividing total debt by net worth."

$$\textbf{Debt-Equity Ratio} = \frac{\textbf{Debt}}{\textbf{Equity}}$$

Fixed Assets Ratio

" This ratio establishes the relationship between long term funds (equity plus long-term loans) and fixed assets. This ratio indicates the extent to which the fixed assets are being financed by equity interests."

$$\textbf{Fixed Assets Ratio} = \frac{\textbf{Fixed Assets + Trade Investment}}{\textbf{Capital Employed}}$$

" If the ratio exceeds 1 or 100%, it shows that a portion of the fixed assets is being financed by long-term debt capital. If the ratio is 100%, it means that all fixed assets are being supported by the proprietors' equity or net worth; on the other hand, if the ratio is less than 100%, it may mean the non-existence of any long-term fixed interest-bearing finance in the company."

Table No 5. 21 Fixed Assets to Capital Employed

Pre Reform Period	Fixed Assets	Capital Employed	Fixed Assets Ratio	Post Reform Period	Fixed Assets	Capital Employed	Fixed Assets Ratio
1995-96	415936.85	725625.50	0.57	2005-06	538256.74	511633.21	1.05
1996-97	457849.67	742131.83	0.62	2006-07	579706.63	548401.13	1.06
1997-98	492277.99	758630.08	0.65	2007-08	657354.91	603974.47	1.09
1998-99	498049.49	799235.31	0.62	2008-09	835866.53	769956.95	1.09
1999-00	531822.00	765887.00	0.69	2009-10	950177.64	851402.75	1.12
2000-01	529267.00	553559.00	0.96	2010-11	1015489.17	1005479.03	1.01
2001-02	533220.00	438400.00	1.22	2011-12	1082426.87	955210.09	1.13
2002-03	544954.00	588736.00	0.93	2012-13	1248655.42	1073455.51	1.16
2003-04	557252.00	538842.00	1.03	2013-14	1304939.59	1047433.79	1.25
2004-05	610903.00	669201.00	0.91	2014-15	1295454.18	1207586.73	1.07
				2015-16	1316670.68	1227559.01	1.07

(Board, 1995 to 2005)(GSECL G. S., 2005 to 2016)

Source Annual Reports of the pre & Post reform period.

Capital Gearing Ratio

" This is the relation between fixed income-bearing capital and variable income-bearing capital. Capital gearing is the degree to which a company acquires assets or to which it funds its ongoing operations with long- or short-term debt. Capital gearing ratio is a useful tool to analyze the capital structure of a company."

ACTIVITY / TURNOVER RATIOS

" Funds of creditors and owners are invested in various assets to generate sales and profits. The better the management of assets, the larger the amount of sales. Activity ratios are employed to evaluate the efficiency with which the company manages and utilizes its assets. These ratios are also called turnover ratios because they indicate the speed with which assets are being converted or turned over into sales. Activity ratios, thus, involve a relationship between sales and assets. A proper balance between sales and assets generally reflects that assets are managed well. Several activity ratios can be calculated to judge the effectiveness of asset utilization."

Fixed Expenses to Total Cost Ratio

" Fixed Expenses to Total Cost Ratio is computed to show the relationship between fixed expenses and total cost. It indicates the idle capacity in the organization. This ratio is computed by dividing Fixed Expenses by Total Cost."

$$\textbf{Fixed Exp. To Total Cost Ratio} = \frac{\textbf{Fixed Expense}}{\textbf{Total Cost}}$$

Material Consumption to Sales Ratio

The ratio that shows the consumption of raw material to sales is called Material Consumption to Sales ratio. It measures how efficiently a company converts Material into Sales. This ratio is computed by dividing Material Consumption by Sales.

$$\textbf{Material Consumption to Sales Ratio} = \frac{\textbf{Material Consumption}}{\textbf{Sales}}$$

Wages to Sales Ratio

A wages to sales ratio is a simple accounting calculation that allows a retail business to determine the value of its workforce as a function of its revenue. It indicates how well a retail business, and its individual sales staff members, is performing. This ratio is computed by dividing Wages by Sales.

$$\textbf{Wages to Sales Ratio} = \frac{\textbf{Wages}}{\textbf{Sales}}$$

Table No 5. 22 Wages to Sales Ratio =

Pre Reform Period	Wages	Sales	Wages to Sales Ratio	Post Reform Period	Wages	Sales	Wages to Sales Ratio
1995-96	39310.70	337886.50	0.12	2005-06	13865.04	496402.48	0.03
1996-97	44259.78	431965.16	0.10	2006-07	22482.45	531146.86	0.04
1997-98	48584.41	506312.70	0.10	2007-08	35598.13	620473.87	0.06
1998-99	70453.83	569785.85	0.12	2008-09	26766.02	710122.63	0.04
1999-00	69045.00	577804.00	0.12	2009-10	31304.39	729948.34	0.04
2000-01	72296.00	628048.00	0.12	2010-11	33678.14	757771.17	0.04
2001-02	73549.00	727430.00	0.10	2011-12	36550.29	833848.25	0.04
2002-03	74599.00	787423.00	0.09	2012-13	38175.50	801878.82	0.05
2003-04	77737.00	854313.00	0.09	2013-14	39850.54	609019.19	0.07
2004-05	86904.00	913731.00	0.10	2014-15	43722.46	836748.11	0.05
				2015-16	47908.67	793135.39	0.06

(Board, 1995 to 2005)(GSECL G. S., 2005 to 2016)

Source Annual Reports of the pre & Post reform period.

Creditors Payment Period

Creditor's payment period means the average period taken by the company in making payments to its creditors. It measure how quickly a business pays its debts to its suppliers and other short term creditors This ratio is computed by dividing days or months by Creditors Turnover Ratio.

$$\textbf{Creditors Payment Period} = \frac{\textbf{360 days or 12 months}}{\textbf{Creditors Turnover Ratio}}$$

Creditors Turnover Ratio

The Creditors (accounts payable) turnover ratio is a short-term liquidity measure used to quantify the rate at which a company pays off its suppliers. The measure shows investors how

many times per period the company pays its average payable amount. Creditors Turnover Ratio is computed by dividing Credit Purchases by Average Creditors.

$$\textbf{Creditors Turnover Ratio} = \frac{\textbf{Credit Purchases}}{\textbf{Average Creditors}}$$

A low ratio indicates that the creditors are paid promptly which enhances the goodwill of the company. A high ratio signifies the delay in liquidating the claims of the creditors. But an unusual delay may adversely affect the credit reputation of the company. This will put the company in a difficult position as the suppliers will be reluctant to grant credit to it in future in the event of persistent default in the past.

Debtors Collection Period

A comparison of the receivables to the sales activity of a business is called Debtors (accounts receivable) collection period. It is used to evaluate how long customers are taking to pay a company. Debtors Collection Period is computed by dividing days or months by Debtors Turnover Ratio.

$$\textbf{Debtors Collection Period} = \frac{\textbf{360 days or 12 months}}{\textbf{Debtors Turnover Ratio}}$$

Debtors Turnover Ratio

" A company sells good for cash and credit. Credit is used as a marketing tool by a number of companies. When the company extends credits to its customers, debtors (accounts receivables) are created in the company's accounts. Debtors are convertible into cash over a short period and, therefore, are included in current assets. The liquidity position of the company depends on the quality of debtors to great extent.

Debtors Turnover Ratio is found out by dividing credit sales by average debtors."

$$\textbf{Debtors Turnover Ratio} = \frac{\textbf{Credit Sales}}{\textbf{Average Debtors}}$$

"Debtors turnover indicates the number of times debtors turnover each year. Generally, the higher the value of debtors turnover, the more efficient is the management of credit."

Capital Employed Turnover Ratio

" The Capital Employed Turnover Ratio shows how efficiently the sales are generated from the capital employed by the company. This ratio helps the investors or the creditors to determine the ability of a company to generate revenues from the capital employed and act as a key decision factor for lending more money to the asking company."

$$\textbf{Capital Employed Turnover Ratio} = \frac{\textbf{Turnover (Net Sales)}}{\textbf{Average Capital Employed}}$$

As the overall profitability (i.e. return on capital employed) is influenced by: (i) product profitability, and (ii) turnover of capital, it explains, in part, the reason for the success or otherwise of the company. The capital employed remaining constant, an increase in the turnover ratio contributes towards more profitability of the company. A low ratio signifies that the company has not efficiently utilized the capital employed by it.

Table No 23. Turnover (Net Sales)

Pre Reform Period	Turnover (Net Sales)	Avg. Capital Empl.	Capital Employed Turnover Ratio	Post Reform Period	Turnover (Net Sales)	Avg. Capital Empl.	Capital Employed Turnover Ratio
1995-96	337886.50	682844.00	0.49	2005-06	496402.48	326728.275	1.519313
1996-97	431965.16	762971.50	0.57	2006-07	531146.86	532068.17	1.00
1997-98	506312.70	815584.00	0.62	2007-08	620473.87	573939.47	1.08
1998-99	569785.85	848855.00	0.67	2008-09	710122.63	689017.71	1.03
1999-00	577804.00	849717.00	0.68	2009-10	729948.34	812731.85	0.90
2000-01	628048.00	732849.00	0.86	2010-11	757771.17	930492.91	0.81
2001-02	727430.00	572615.00	1.27	2011-12	833848.25	902100.44	0.92
2002-03	787423.00	597633.00	1.32	2012-13	801878.82	1016384.85	0.79
2003-04	854513.00	663302.00	1.29	2013-14	609019.19	1062496.70	0.57
2004-05	913731.00	1398018.00	0.65	2014-15	836748.11	1129562.30	0.74
				2015-16	793135.39	1219624.92	0.65

(Board, 1995 to 2005)(GSECL G. S., 1998 to 2017)

Source Annual Reports of the pre & Post reform period.

Working Capital Turnover Ratio

A company may also like to relate net current assets to sales. It may thus compute net working capital turnover by dividing sales by working capital. This ratio provides information as to how effectively a company is using its working capital to generate sales.

$$\textbf{Working Capital Turnover Ratio} = \frac{\textbf{Turnover}}{\textbf{Working Capital}}$$

Fixed Assets Turnover Ratio

Assets are used to generate sales. Therefore, a company should manage its assets efficiently to maximize sales. The relationship between turnover and fixed assets is called Fixed Assets Turnover. This ratio is computed by dividing Turnover by Fixed Assets. It indicates how well the business is using its fixed assets to generate sales.

$$\textbf{Fixed Assets Turnover Ratio} = \frac{\textbf{Turnover}}{\textbf{Fixed Assets}}$$

Fixed Assets Turnover Ratio (Rupees in Lakh.)

Pre Reform Period. Year	Turnover	Fixed Assets	Fixed Assets Turnover Ratio	Post Reform Period. Year	Turnover	Fixed Assets	Fixed Assets Turnover Ratio
1995-96	337887	415937	0.81	2005-06	496402	479559	1.04
1996-97	431965	457850	0.94	2006-07	531147	474602	1.12
1997-98	506313	492378	1.03	2007-08	620474	512144	1.21
1998-99	569786	498049	1.14	2008-09	710123	522120	1.36
1999-00	577804	531822	1.09	2009-10	729948	714300	1.02
2000-01	628048	529267	1.19	2010-11	757771	711424	1.07
2001-02	727430	533220	1.36	2011-12	833848	671235	1.24
2002-03	787423	544954	1.44	2012-13	801879	623826	1.29
2003-04	854513	557252	1.53	2013-14	609019	867608	0.70
2004-05	913731	610903	1.50	2014-15	836748	959802	0.87

Source Annual Reports of the pre & Post reform period.

Total Assets Turnover Ratio

“ Asset turnover ratio is the ratio of the value of a company's sales or revenues generated relative to the value of its total assets. Some analysts like to compute the total assets turnover

in addition to or instead of the net assets turnover. This ratio is computed by dividing Turnover by Total Assets."

$$\textbf{Total Assets Turnover Ratio} = \frac{\textbf{Turnover}}{\textbf{Total Assets}}$$

Total Assets Turnover Ratio **(Rupees in Lakh.)**

Pre Reform Period. Year	Turnover	Total Assets	Total Assets Turnover Ratio	Post Reform Period. Year	Turnover	Total Assets	Total Assets Turnover Ratio
1995-96	337887	727252	0.46	2005-06	496402	513683	0.97
1996-97	431965	798691	0.54	2006-07	531147	550453	0.96
1997-98	506313	832477	0.61	2007-08	620474	606026	1.02
1998-99	569786	865233	0.66	2008-09	710123	772009	0.92
1999-00	577804	834202	0.69	2009-10	729948	853455	0.86
2000-01	628048	631495	0.99	2010-11	757771	1007531	0.75
2001-02	727430	513734	1.42	2011-12	833848	1389128	0.60
2002-03	787423	681532	1.16	2012-13	801879	1427590	0.56
2003-04	854513	645072	1.32	2013-14	609019	1486823	0.41
2004-05	913731	752947	1.21	2014-15	836748	1578482	0.53

Raw Material Turnover Ratio

The raw materials turnover ratio gauges how efficiently the company makes use of its raw materials relative to the overall value of materials used. It is used to see if a business has an excessive inventory investment in comparison to its sales level, which can indicate either unexpectedly low sales or poor inventory planning. Raw Material Turnover ratio is computed by dividing Raw Material Consumed by Average Stock of Raw Material. "

$$\textbf{Raw Material Turnover Ratio} = \frac{\textbf{Raw Material Consumed}}{\textbf{Average Stock of Raw Material}}$$

Raw Material Turnover Ratio (Rupees in Lakh.)

Pre Reform Period. Year	Raw Material Con.	Avg. Stock of R.M.	Raw Material Turnover Ratio	Post Reform Period. Year	Raw Material Con.	Avg. Stock of R.M.	Raw Material Turnover Ratio
1995-96	201492	31759	6.34	2005-06	410351	16020	25.61
1996-97	231321	38100	6.07	2006-07	434030	30916	14.04
1997-98	272011	50481	5.39	2007-08	510477	31311	16.30
1998-99	270507	52567	5.15	2008-09	594199	32291	18.40
1999-00	270069	44608	6.05	2009-10	574847	31865	18.04
2000-01	286918	44559	6.44	2010-11	589196	29432	20.02
2001-02	308202	46516	6.63	2011-12	649834	44622	14.56
2002-03	313462	48521	6.46	2012-13	582379	62758	9.28
2003-04	290461	59815	4.86	2013-14	373988	69400	5.39
2004-05	330909	76757	4.31	2014-15	573641	67910	8.45

Source Annual Reports of the pre & Post reform period.

OTHER RATIOS

"The equity shareholders' coverage ratio is a ratio that measures a company's ability to pay off its required equity dividend payments. This ratio is computed by dividing EAESH by Equity Dividend.

$$\textbf{Equity Shareholders' Coverage Ratio} = \frac{\textbf{EAESH}}{\textbf{Equity Dividend}}$$

This is ratio is not comparable because ,there were no equity of GEB. Dividend is not declared by GSECL."

Interest Coverage Ratio (ICR)

" The interest coverage ratio or the times-interest-earned is used to test the company's debt-servicing capacity. It measures the ability of the company to meet its interest payments as they become due. The interest coverage ratio is computed by dividing earnings before interest and taxes (EBIT) by interest charges."

$$\textbf{Interest Cover age Ratio} = \frac{\textbf{EBIT}}{}$$

Interest

" The interest coverage ratio shows the number of times the interest charges are covered by funds that are ordinarily available for their payment. Since taxes are computed after interest, interest coverage is calculated in relation to before-tax earnings. The limitation of the interest coverage ratio is that it does not consider repayment of loan. A common rule of thumb is that the ratio should be at least five. From the creditors' point of view, a higher ratio is more desirable to cover up the interest expense of the company even under the worst situation."

Table No 5. 24 EBIT

Pre Reform Period	EBIT	Interest	Interest Coverage Ratio	Post Reform Period	EBIT	Interest	Interest Coverage Ratio
1995-96	35977.32	56462.30	0.64	2005-06	33487.85	30707.07	1.09
1996-97	89919.99	62563.93	1.44	2006-07	29545.12	26795.12	1.10
1997-98	107094.81	71376.81	1.50	2007-08	24472.54	28043.62	0.87
1998-99	147362.83	72858.20	2.02	2008-09	13771.89	27859.07	0.49
1999-00	150705.00	86270.00	1.75	2009-10	38942.62	36017.42	1.08
2000-01	171596.00	122753.00	1.40	2010-11	36371.03	42907.19	0.85
2001-02	250780.00	101734.00	2.47	2011-12	34334.10	47108.63	0.73
2002-03	296536.00	77228.00	3.84	2012-13	45852.04	44559.33	1.03
2003-04	374535.00	134458.00	2.79	2013-14	62461.78	63349.35	0.99
2004-05	377215.00	121100.00	3.11	2014-15	85106.04	74530.17	1.14
				2015-16	75791.75	77489.84	0.98

(Board, 1995 to 2005)(GSECL G. S., 2005 to 2016)

Source Annual Reports of the pre & Post reform period.

Total Coverage Ratio

The total coverage ratio is a measure of a company's ability to meet its fixed charges obligations. This ratio is computed by dividing PAT + Interest by Total Fixed Charges.

$$\textbf{Total Coverage Ratio} = \frac{\textbf{PAT + Interest}}{\textbf{Total Fixed Charges}}$$

Table No 5. 25 Total Coverage Ratio .

Pre Reform Period	PAT + Interest	Total Fixed Chg.	Total Coverage Ratio	Post Reform Period	PAT + Interest	Total Fixed Chg.	Total Coverage Ratio
1995-96	64293.64	56462.30	1.14	2005-06	37754.89	30707.07	1.23
1996-97	85367.84	62563.93	1.36	2006-07	34331.85	26795.12	1.28
1997-98	88678.19	71376.81	1.24	2007-08	33967.75	28043.62	1.21
1998-99	44589.17	72858.20	0.61	2008-09	34912.43	27859.07	1.25
1999-00	-122196.00	86270.00	-1.42	2009-10	48423.90	36017.42	1.34
2000-01	-101875.00	122753.00	-0.83	2010-11	57261.15	42907.19	1.33
2001-02	43885.00	101734.00	0.43	2011-12	64352.44	47108.63	1.37
2002-03	8582.00	77228.00	0.11	2012-13	62262.64	44559.33	1.40
2003-04	-12038.00	134458.00	-0.09	2013-14	78731.65	63349.35	1.24
2004-05	24168.00	121100.00	0.20	2014-15	90317.49	74530.17	1.21
				2015-16	91256.93	77489.84	1.18

Source Annual Reports of the pre & Post reform period.

Interpretation of Financial Parameters

TESTING OF HYPOTHESIS

HYPOTHESIS NO. H.O.1

Null: There is no significant improvement in means score of Profitability indicators on the financial performance of power generating company in Gujarat during period of pre and post reform

ALTERNATE: There is significant improvement in means score of Profitability indicators on the financial performance of power generating company in Gujarat during period of pre and post reform

Gross profit

GEB Rs.in Lakh.				GSECL (Rs.in Lakh.)			
Year	**Gross Profit**	**Sales**	**Gross Profit Ratio**	**Year**	**Gross Profit**	**Sales**	**Gross Profit Ratio**
1995-96	**91752.18**	**337886.50**	**0.27**	**2005-06**	**58901.66**	**496402.48**	**0.12**
1996-97	**119360.42**	**431965.16**	**0.28**	**2006-07**	**59758.88**	**531146.86**	**0.11**
1997-98	**134485.14**	**506312.70**	**0.27**	**2007-08**	**65150.18**	**620473.87**	**0.11**
1998-99	**92057.13**	**569785.85**	**0.16**	**2008-09**	**69373.00**	**710122.63**	**0.10**
1999-00	**-74396.00**	**577804.00**	**-0.13**	**2009-10**	**104171.83**	**729948.34**	**0.14**
2000-01	**-37941.00**	**628048.00**	**-0.06**	**2010-11**	**120661.56**	**757771.17**	**0.16**
2001-02	**105945.00**	**727430.00**	**0.15**	**2011-12**	**126344.00**	**833848.25**	**0.15**
2002-03	**72245.00**	**787423.00**	**0.09**	**2012-13**	**132797.00**	**801878.82**	**0.17**
2003-04	**50516.00**	**854513.00**	**0.06**	**2013-14**	**154192.00**	**609019.19**	**0.25**
2004-05	**77697.00**	**913731.00**	**0.09**	**2014-15**	**181714.00**	**836748.11**	**0.22**
				2015-16	**191284.31**	**793135.39**	**0.24**

Source Annual Reports of the pre & Post reform period.

Model of Regression Analysis of Gross profit			
R	R Square	Adjusted R Square	Standard Error
0.45234235	0.2046136	-1.25	0.04744077

Model of ANOVA of Gross profit					
Model	Sum of Squares	Df	Mean Square	F	Significance of F

Regression	0.004632	10	0.000463	2.058005	0
Residual	0.018005	8	0.002251		
Total	0.022637	10			

Calculation of P value ,Correlation, Coefficient and T stat Table No of Gross Profit			
P value	Pearson Correlation	Coefficient	t stat
0.18932	-0.4523235	-0.1645601	-1.43457

Interpretation

(1) From the model summary R indicates the prediction of the dependent Variable has value of 0.4523. The R square, coefficient of determination which is the proportion of variance in the dependent variable and independent variable is found = 0.2046 R is Positive it indicate both variable increase together .It shows that Loss/profit during pre reforms increase simultaneously profit increase in proportionate/comparable

(2) The ANOVA table shows that the independent variable statistically predict the dependent variable, F (10,8)=2.058005,P<0.05 that is regression model is a good fit of the data.

(3) A Null Hypothesis is Hypothesis that says there is no statistical significance between the two variables. In this test P-Value=0.1893 is less then or equal to the significance level (x Alpha=0.05), There for the Null Hypothesis is Rejected. We reject H01. So it is conclude that there is enough evidence to infer that the Alternative Hypothesis is true.

Hence for it is Concluded as under.

"There is significant improvement in context to score of Profitability indicators on the financial performance of power generating company in Gujarat during the period of pre and post reform"

Net Profit Ratio

GEB Rs.in Lakh.					GSECL (Rs.in Lakh.)			
Year	**Net Profit**	**Sales**	**Net Profit Ratio**		**Year**	**Net Profit**	**Sales**	**Net Profit Ratio**
1995-96	**10800.34**	**337886.50**	**0.03**		**2005-06**	**7047.82**	**496402.48**	**0.01**
1996-97	**10990.49**	**431965.16**	**0.03**		**2006-07**	**7536.73**	**531146.86**	**0.01**
1997-98	**11948.10**	**506312.70**	**0.02**		**2007-08**	**5924.12**	**620473.87**	**0.01**
1998-99	**-38346.83**	**569785.85**	**-0.07**		**2008-09**	**7053.36**	**710122.63**	**0.01**
1999-00	**-220858.00**	**577804.00**	**-0.38**		**2009-10**	**12406.48**	**729948.34**	**0.02**
2000-01	**-254298.00**	**628048.00**	**-0.40**		**2010-11**	**14353.96**	**757771.17**	**0.02**
2001-02	**-62203.00**	**727430.00**	**-0.09**		**2011-12**	**17243.81**	**833848.25**	**0.02**
2002-03	**-47581.00**	**787423.00**	**-0.06**		**2012-13**	**17703.31**	**801878.82**	**0.02**
2003-04	**-193180.00**	**854513.00**	**-0.23**		**2013-14**	**15382.30**	**609019.19**	**0.03**
2004-05	**-92706.00**	**913731.00**	**-0.10**		**2014-15**	**15787.31**	**836748.11**	**0.02**
					2015-16	**13767.09**	**793135.39**	**0.02**

Source Annual Reports of the pre & Post reform period.

Model of Regression Analysis of Net Profit Ratio			
R	R Square	Adjusted R Square	Standard Error
0.43608423	0.190169456	-1.25	0.004887266

Model of ANOVA of Net Profit Ratio					
Model	Sum of Squares	Df	Mean Square	F	Significance of F
Regression	4.48713	10	4.487	1.878609863	
Residual	0.000191083	8	2.389		
Total	0.000235954	18			

Calculation of P value ,Correlation, Coefficient and T stat of Net Profit Ratio			
P value	Pearson Correlation	Coefficient	T stat
0.207713	-0.43608423	-1.3706239	

Interpretation

(1) From the model summary R indicates the prediction of the dependent Variable has value of 0.4360. The R square, coefficient of determination which is the proportion of variance in the dependent variable and independent variable is found =0.1901.

(2) The R square, coefficient of determination which is the proportion of variance in the dependent variable and independent variable is found = 0.4360 R is Positive it indicate both variable increase together .It shows that Loss/profit during pre reforms increase simultaneously profit increase in proportionate/comparable

(3) The ANOVA table shows that the independent variable statistically predict the dependent variable, F (10,8)= 1.8786 ,P<0.05 that is regression model is a good fit of the data.

(4) A Null Hypothesis is Hypothesis that says there is no statistical significance between the two variables. In this test P-Value= 0.2077 is less then or equal to the significance level (x Alpha=0.05), There for the Null Hypothesis is Rejected. We reject H01. So it is conclude that there is enough evidence to infer that the Alternative Hypothesis is true.

(5) From the calculated Pearson Correlation statistics ,

P-value= 0.2077<0.05. Null Hypothesis (Ho) is rejected.

For that , it is Concluded as under.

There is significant improvement in context to score of Profitability indicators on the financial performance of power generating company in Gujarat during the period of pre and post reform.

Operating Ratio

(Rs.in Lakh.)

Year	COGS+ Ope. Exp.	Sales	Operating Ratio		Year	COGS+ Ope. Exp.	Sales	Operating Ratio
1995-96	301909.18	337886.50	0.89		2005-06	462914.63	496402.48	0.93
1996-97	342045.17	431965.16	0.79		2006-07	501601.74	531146.86	0.94
1997-98	399217.89	506312.70	0.79		2007-08	596001.33	620473.87	0.96
1998-99	422423.02	569785.85	0.74		2008-09	696350.74	710122.63	0.98
1999-00	427099.00	577804.00	0.74		2009-10	691005.72	729948.34	0.95
2000-01	456452.00	628048.00	0.73		2010-11	721400.14	757771.17	0.95
2001-02	476650.00	727430.00	0.66		2011-12	799514.15	833848.25	0.96
2002-03	490887.00	787423.00	0.62		2012-13	756026.78	801878.82	0.94
2003-04	479978.00	854513.00	0.56		2013-14	546557.41	609019.19	0.90
2004-05	536516.00	913731.00	0.59		2014-15	751642.07	836748.11	0.90
					2015-16	717343.64	793135.39	0.90

Source Annual Reports of the pre & Post reform period.

Model of Regression Analysis of Operating Ratio			
R	R Square	Adjusted R Square	Standard Error
0.507329813	0.25783539	-1.25	0.024044767

Model of ANOVA of Operating Ratio					
Model	Sum of Squares	Df	Mean Square	F	Significance of F
Regression	0.00163051	10	0.0001603	2.772721077	
Residual	0.004625206	8	0.0005782		
Total	0.006228257	18			

Calculation of P value ,Correlation, Coefficient and T stat of Operating Ratio			
P value	Pearson Correlation	Coefficient	t stat
0.1344479	0.507329	0.12907332	1.665149

Interpretation

(1) From the model summary R indicates the prediction of the dependent Variable has value of 0.5073. The R square, coefficient of determination which is the proportion of variance in the dependent variable and independent variable is found = 0.2578 R is positive . It indicate that both variables increase / decrease together.

(2) The ANOVA table shows that the independent variable statistically predict the dependent variable, F (10,8)=2.7727,P<0.05 that is regression model is a good fit of the data.

(3) A Null Hypothesis is Hypothesis that says there is no statistical significance between the two variables. In this test P-Value=0.1344 is less than or equal to the significance level (x Alpha=0.05), There for the Null Hypothesis can not be Rejected.. So it is conclude that there is enough evidence to infer that the Null Hypothesis is true.

(4) From the calculated Pearson Correlation statistics ,

P-value= 0.1344<0.05. Null Hypothesis (Ho) is Accepted.

As such for it is Concluded as under.

There is significant improvement in context to score of Profitability indicators on the financial performance of power generating company in Gujarat during the period of pre and post reform ,However There is no improvement in Operating profits, because operating expenses more or less in proportion, but financial and subsidy impact on profits

HYPOTHESIS NO.H.O. 2

Null: There is no significant improvement in means score of liquidity indicators on the financial performance of power generating company in Gujarat during period of pre and post reform

ALTERNATE: There is significant improvement in means score of liquidity indicators on the financial performance of power generating company in Gujarat during period of pre and post reform

Current Ratio

GEB Rs.in Lakh.					GSECL (Rs.in Lakh.)			
Year	Current Assets	Current Liabilities	Current Ratio		Year	Current Assets	Current Liabilities	Current Ratio
1995-96	196598	197418	1.00		2005-06	108251	124933	0.87
1996-97	235807	254299	0.93		2006-07	157142	167042	0.94
1997-98	273946	322611	0.85		2007-08	170673	191499	0.89
1998-99	289816	335014	0.87		2008-09	199764	253382	0.79
1999-00	308802	416777	0.74		2009-10	228858	311882	0.73
2000-01	374647	516183	0.73		2010-11	225329	215395	1.05
2001-02	376459	570118	0.66		2011-12	256855	358251	0.72
2002-03	443885	548795	0.81		2012-13	150683	256597	0.59
2003-04	460126	588849	0.78		2013-14	157893	311233	0.51
2004-05	484031	515748	0.94		2014-15	265155	287982	0.92
					2015-16	315092	360370	0.87

Source Annual Reports of the pre & Post reform period.

Model of Regression Analysis of Current Ratio			
R	R Square	Adjusted R Square	Standard Error
0.329064953	0.108283743	-1.25	0.166947752

Model of ANOVA of Current Ratio					
Model	Sum of Squares	Df	Mean Square	F	Significance of F
Regression	0.0270762	10	0.002708	0.971464	
Residual	0.222972416	8	0.027872		

Total	0.250048616	18			
Calculation of P value ,Correlation, Coefficient and T stat of Current Ratio					
P value	Pearson Correlation	Coefficient	t stat		
0.353183	0.32906453	0.518466477	0.985629		

Interpretation :

(1) From the model summary R indicates the prediction of the dependent Variable has value of 0.3291. The R square, coefficient of determination which is the proportion of variance in the dependent variable and independent variable is found = 0.1082 R is positive . It indicate that both variables increase / decrease together.

(2) The ANOVA table shows that the independent variable statistically predict the dependent variable, F (10,8)=0.9714 ,P<0.05 that is regression model is a good fit of the data.

(3) A Null Hypothesis is Hypothesis that says there is no statistical significance between the two variables. In this test P-Value=0.3531 is more than the significance level (x Alpha=0.05), There for the Null Hypothesis can not be Rejected.. So it is conclude that there is enough evidence to infer that the Null Hypothesis is true.

(4) From the calculated Pearson Correlation statistics ,

P-value= 0.3531<0.05. Null Hypothesis (Ho) is Accepted.

Therefore it is Concluded as under.

"There is no significant improvement in context to score of liquidity indicators on the financial performance of power generating company in Gujarat during the period of pre and post reform ,However There is no improvement in liquidity , because operating expenses more or less in proportion, but financial and subsidy impact on liquidity.

Liquid/Quick/Acid Test Ratio Rs.in Lakh.

Year	Quick Assets	Current Liabilities	Quick Ratio	Year	Quick Assets	Current Liabilities	Quick Ratio
1995-96	162222	197418	0.82	2005-06	75801	124933	0.61
1996-97	193983	254299	0.76	2006-07	116489	167042	0.70
1997-98	214808	322611	0.67	2007-08	136518	191499	0.71
1998-99	243820	335014	0.73	2008-09	159824	253382	0.63
1999-00	265583	416777	0.64	2009-10	188287	311882	0.60
2000-01	328748	516183	0.64	2010-11	190524	215395	0.88
2001-02	329326	570118	0.58	2011-12	202692	358251	0.57
2002-03	393976	548795	0.72	2012-13	79628	256597	0.31
2003-04	390406	588849	0.66	2013-14	90383	311233	0.29
2004-05	400237	515748	0.78	2014-15	195830	287982	0.68
				2015-16	246737	360370	0.68

(Source Annual Reports of the pre & Post reform period.)

Model of Regression Analysis of Quick Acid			
R	R Square	Adjusted R Square	Standard Error
0.01853548	0.00034356	-1.25	0.19085022

Model of ANOVA of Quick Acid					
Model	Sum of Squares	Df	Mean Square	F	Significance of F
Regression	0.00010015	10	1.57606	0.015291	
Residual	0.291390	8	0.0364		
Total	0.291490	18			

Calculation of P value ,Correlation, Coefficient and T stat of Quick Acid			
P value	Pearson Correlation	Coefficient	t stat
0.959468	-0.04367765	0.04429232	0.052435

Interpretation :

(1) From the model summary R indicates the prediction of the dependent Variable has value of 0.0153 The R square, coefficient of determination which is the proportion of variance in the dependent variable and independent variable is found = 0.0003 R is positive . It indicate that both variables increase / decrease together.

(2) The ANOVA table shows that the independent variable statistically predict the dependent variable, F (10,8)=0.0152 ,P<0.05 that is regression model is a good fit of the data.

(3) A Null Hypothesis is Hypothesis that says there is no statistical significance between the two variables. In this test P-Value=0.9595 is more than the significance level (x Alpha=0.05), There for the Null Hypothesis can not be Rejected.. So it is conclude that there is enough evidence to infer that the Null Hypothesis is true.

(4) From the calculated Pearson Correlation statistics ,

P-value= 0.9595>0.05. Null Hypothesis (Ho) is Accepted.

As a Consequence , it is Concluded as under.

There is no significant improvement in context to score of liquidity indicators on the financial performance of power generating company in Gujarat during the period of pre and post reform ,However There is no improvement in liquidity , because operating expenses more or less in proportion, but financial and subsidy impact on liquidity

Absolute Liquid Ratio / Cash Ratio / Super Quick

GEB Rs.in Lakh.

Year	Cash Reservoir	Current Liabilities	Cash Ratio	Year	Cash Reservoir	Current Liabilities	Cash Ratio
1995-96	11844	197418	0.06	2005-06	642	124933	0.0051
1996-97	15912	254299	0.06	2006-07	4586	167042	0.0275
1997-98	29757	322611	0.09	2007-08	569	191499	0.0030
1998-99	19808	335014	0.06	2008-09	121	253382	0.0005
1999-00	22180	416777	0.05	2009-10	69	311882	0.0002
2000-01	75486	516183	0.15	2010-11	4044	215395	0.0188
2001-02	77446	570118	0.14	2011-12	18	358251	0.0000492
2002-03	84656	548795	0.15	2012-13	13	256597	0.0001
2003-04	53027	588849	0.09	2013-14	8	311233	0.00003
2004-05	50653	515748	0.10	2014-15	323	287982	0.0011
				2015-16	49	360370	0.0001

Source Annual Reports of the pre & Post reform period.

Model of Regression Analysis of Absolute Liquid Ratio			
R	R Square	Adjusted R Square	Standard Error
0.043678	0.001908	-1.25	0.010152

Model of ANOVA of Absolute Liquid Ratio					
Model	Sum of Squares	Df	Mean Square	F	Significance of F
Regression	1.5668	10	1.58	0.015291	
Residual	0.000825	8	0.000103		
Total		18			

Calculation of P value ,Correlation, Coefficient and T stat of Absolute Liquid Ratio			
P value	Pearson Correlation	Coefficient	t stat
0.904637	0.018535487	-0.01094	-0.12366

Interpretation :

(1) From the model summary R indicates the prediction of the dependent Variable has value of 0.0436 The R square, coefficient of determination which is the proportion of variance in the dependent variable and independent variable is found = 0.0019 R is positive . It indicate that both variables increase / decrease together.

(2) The ANOVA table shows that the independent variable statistically predict the dependent variable, F (10,8)=0.0152 ,P<0.05 that is regression model is a good fit of the data.

(3) A Null Hypothesis is Hypothesis that says there is no statistical significance between the two variables. In this test P-Value=0.9046 is more than the significance level (x Alpha=0.05), There for the Null Hypothesis can not be Rejected.. So it is conclude that there is enough evidence to infer that the Null Hypothesis is true.

(4) From the calculated Pearson Correlation statistics ,

P-value= 0.9046>0.05. Null Hypothesis (Ho) is Accepted.

As a Consequence , it is Concluded as under.

There is no significant improvement in context to score of liquidity indicators on the financial performance of power generating company in Gujarat during the period of pre and post reform, However, There is no improvement in liquidity , because operating expenses more or less in proportion, but financial and subsidy impact on liquidity

HYPOTHESIS NO. H.O. 3

Null: There is no significant improvement in means score of Leverage indicators on the financial performance of power generating company in Gujarat during period of pre and post reform

ALTERNATE: There is significant improvement in means score of Leverage indicators on the financial performance of power generating company in Gujarat during period of pre and post reform

Debt Equity Ratio

(Rs.in Lakh.)

Year	Debt Fund	Total Capital Employed	Debt Ratio	Equity	Year	Debt Fund	Total Capital Employed	Debt Ratio	equity
1995-96	287920	725626	0.40	0.60	2005-06	295667	511633	0.58	0.42
1996-97	313067	742132	0.42	0.58	2006-07	321762	548401	0.59	0.41
1997-98	302979	758630	0.40	0.60	2007-08	357594	603974	0.59	0.41
1998-99	299111	799235	0.37	0.63	2008-09	490094	769957	0.64	0.36
1999-00	349081	765887	0.46	0.54	2009-10	519306	851403	0.61	0.39
2000-01	496985	553559	0.90	0.10	2010-11	634007	1005479	0.63	0.37
2001-02	581909	438400	1.33	-0.33	2011-12	566494	955210	0.59	0.41
2002-03	748513	588736	1.27	-0.27	2012-13	629232	1073456	0.59	0.41
2003-04	616622	538842	1.14	-0.14	2013-14	571828	1047434	0.55	0.45
2004-05	652644	669201	0.98	0.02	2014-15	698593	1207587	0.58	0.42
					2015-16	667198	1227559	0.54	0.46

Source Annual Reports of the pre & Post reform period.

Model of Regression Analysis of Debt Equity Ratio			
R	R Square	Adjusted R Square	Standard Error
0.35463254	0.12576424	-1.25	0.02629384

Model of ANOVA of Debt Equity Ratio					
Model	Sum of Squares	Df	Mean Square	F	Significance of F
Regression	0.000796	10	7.95659	1.15085	
Residual	0.005531	8	0.000691		

Total		18			
Calculation of P value ,Correlation, Coefficient and T stat of Debt Equity Ratio					
P value	Pearson Correlation		Coefficient	t stat	
0.314663	-0.35463254		-0.02372375	-1.07277	

Interpretation :

From the model summary R indicates the prediction of the dependent Variable has value of 0.3546 The R square, coefficient of determination which is the proportion of variance in the dependent variable and independent variable is found = 0.1257 R is positive . It indicate that both variables increase / decrease together.

(1) The ANOVA table shows that the independent variable statistically predict the dependent variable, F (10,8)=1.15085 ,P<0.05 that is regression model is a good fit of the data.

(2) A Null Hypothesis is Hypothesis that says there is no statistical significance between the two variables. In this test P-Value=0.3146 is more than the significance level (x Alpha=0.05), There for the Null Hypothesis can not be Rejected.. So it is conclude that there is enough evidence to infer that the Null Hypothesis is true.

(3) From the calculated Pearson Correlation statistics ,

P-value= 0.3146>0.05. Null Hypothesis (Ho) is Accepted.

Hence , it is Concluded as under.

There is no significant improvement in context to score of Leverage indicators on the financial performance of power generating company in Gujarat during the period post reform, During company has debt equity ratio increase as compare to pre reform period. There was no equity capital ,every thing was managed by Debts finance. Equity was reduce regularly due to loss of GEB. However in post reform GSECL earn regular profit and infusion of equity in business of the company

Interest Coverage Ratio

(Rs.in Lakh.)

Year	EBIT	Interest	Interest Coverage Ratio	Year	EBIT	Interest	Interest Coverage Ratio
1995-96	35977	56462	0.64	2005-06	33488	30707	1.09
1996-97	89920	62564	1.44	2006-07	29545	26795	1.10
1997-98	107095	71377	1.50	2007-08	24473	28044	0.87
1998-99	147363	72858	2.02	2008-09	13772	27859	0.49
1999-00	150705	86270	1.75	2009-10	38943	36017	1.08
2000-01	171596	122753	1.40	2010-11	36371	42907	0.85
2001-02	250780	101734	2.47	2011-12	34334	47109	0.73
2002-03	296536	77228	3.84	2012-13	45852	44559	1.03
2003-04	374535	134458	2.79	2013-14	62462	63349	0.99
2004-05	377215	121100	3.11	2014-15	85106	74530	1.14
				2015-16	75792	77490	0.98

Source Annual Reports of the pre & Post reform period.

Model of Regression Analysis of Interest Coverage Ratio			
R	R Square	Adjusted R Square	Standard Error
0.043156	0.001862	-1.25	0.21611

Model of ANOVA of Interest Coverage Ratio					
Model	Sum of Squares	Df	Mean Square	F	Significance of F
Regression	0.0007	10	7.0038	0.014927	
Residual	0.375362	8	0.04692		
Total	0.376062	18			

Calculation of P value ,Correlation, Coefficient and T stat of Interest Coverage Ratio			
P value	Pearson Correlation	Coefficient	t stat
0.905773	0.0431556	0.00922958	0.122176

Interpretation :

From the model summary R indicates the prediction of the dependent Variable has value of 0.0431 The R square, coefficient of determination which is the proportion of variance in the dependent variable and independent variable is found = 0.001862 R is positive . It indicate that both variables increase / decrease together.

(1) The ANOVA table shows that the independent variable statistically predict the dependent variable, F (10,8)=0.0149 ,P<0.05 that is regression model is a good fit of the data.

(2) A Null Hypothesis is Hypothesis that says there is no statistical significance between the two variables. In this test P-Value=0.9057 is more than the significance level (x Alpha=0.05), There for the Null Hypothesis can not be Rejected.. So it is conclude that there is enough evidence to infer that the Null Hypothesis is true.

(3) From the calculated Pearson Correlation statistics ,

P-value= 0.9057>0.05. Null Hypothesis (Ho) is Accepted.

Hence it is Concluded as under

There is no significant improvement in context to score of Leverage indicators on the financial performance of power generating company in Gujarat during the period post reform, During company has interest coverage was higher as compare to post reform period. There was lower rate/subsidies Government loans were available during pre reform period of GEB. , every thing was managed by lower rate of interest / subsidies Debts finance from Government.

Total Coverage Ratio

Year	PAT + Interest	Total Fixed Chg.	Total Coverage Ratio	Year	PAT + Interest	Total Fixed Chg.	Total Coverage Ratio
1995-96	64294	56462	1.14	2005-06	37755	30707	1.23
1996-97	85368	62564	1.36	2006-07	34332	26795	1.28
1997-98	88678	71377	1.24	2007-08	33968	28044	1.21
1998-99	44589	72858	0.61	2008-09	34912	27859	1.25
1999-00	-122196	86270	-1.42	2009-10	48424	36017	1.34
2000-01	-101875	122753	-0.83	2010-11	57261	42907	1.33
2001-02	43885	101734	0.43	2011-12	64352	47109	1.37
2002-03	8582	77228	0.11	2012-13	62263	44559	1.40
2003-04	-12038	134458	-0.09	2013-14	78732	63349	1.24
2004-05	24168	121100	0.20	2014-15	90317	74530	1.21
				2015-16	91257	77490	1.18

Model of Regression Analysis of Total Coverage Ratio			
R	R Square	Adjusted R Square	Standard Error
0.498006	0.24801	-1.25	0.06268

Model of ANOVA of Total Coverage Ratio					
Model	Sum of Squares	Df	Mean Square	F	Significance of F
Regression	0.010366	10	0.001037	2.638436	
Residual	0.031431	8	0.003929		
Total	0.041797	18			

Calculation of P value ,Correlation, Coefficient and T stat of Total Coverage Ratio			
P value	Pearson Correlation	Coefficient	t stat
0.142960	-0.4980058	-0.037802037	-1.624133

Interpretation :

From the model summary R indicates the prediction of the dependent Variable has value of 0.498 The R square, coefficient of determination which is the proportion of variance in the dependent variable and independent variable is found = 0.248 R is positive . It indicate that both variables increase / decrease together.

(1) The ANOVA table shows that the independent variable statistically predict the dependent variable, F (10,8)=2.638 ,P<0.05 that is regression model is a good fit of the data.

(2) A Null Hypothesis is Hypothesis that says there is no statistical significance between the two variables. In this test P-Value=0.143 is more than the significance level (x Alpha=0.05), There for the Null Hypothesis can not be Rejected.. So it is conclude that there is enough evidence to infer that the Null Hypothesis is true.

(3) From the calculated Pearson Correlation statistics ,

P-value= 0.143>0.05. Null Hypothesis (Ho) is Accepted.

As a result it is Concluded as under.

There is no significant improvement in context to score of Leverage indicators on the financial performance of power generating company in Gujarat during the period

post reform, During company has total coverage was higher as compare to post reform period. There was lower rate/subsidies Government loans were available during pre reform period of GEB. There for total coverage ratio is lower i.e (minimum-1.42 to maximum1.36) it indicate there is heavy variation in minimum and maximum .however there is stable and reliable total coverage ratio is always more than one(i.e minimum 1.28 to maximum 1.40.) It indicate post reform period expenditure on account of interest and income within favourable control. Every thing was managed by lower rate of interest .

HYPOTHESIS NO. H.O 4

Null: There is no significant improvement in means score of Operational Key parameters indicators on the performance of power generating company in Gujarat during period of pre and post reform.

ALTERNATE: There is significant improvement in means score of Operational Key parameters indicators on the performance of power generating company in Gujarat during period of pre and post reform.

Table No. 5.26 :Total Generation of Gujarat.

YEAR	GEB/GSECL	PRIVATE	CENTRAL	TOTAL GENERATION
1994-95	21984	3987	6938	32909
1995-96	23042	4041	9647	36730
1996-97	22906	4576	10483	37964
1997-98	23811	6832	10851	41494
1998-99	23151	12161	9791	45103
1999-00	23179	14829	11370	49378
2000-01	23327	13643	13537	50507
2001-02	22920	12085	15065	50069
2002-03	22882	17105	15140	55127
2003-04	21363	17864	15500	54727
2004-05	27989	16331	13891	58211
2005-06	27130	18260	13335	58724
2006-07	27534	17403	16602	61539
2007-08	29241	19325	17979	66545
2008-09	28406	20179	20378	68963
2009-10	28507	29606	11770	69883
2010-11	27762	35784	7709	71255
2011-12	28637	41290	8723	78650
2012-13	23631	49338	14754	87723
2013-14	15850	52931	17440	86221
2014-15	21415	55946	19276	96637
2015-16	19225	61381	22480	103086
2016-17	16254	60530	27500	104284

Source Annual Reports of the pre & Post reform period.

Model of Regression Analysis of TOTAL GENERATION of Gujarat.			
R	R Square	Adjusted R Square	Standard Error
0.921176	0.848566	-1.225	5942.84

Model of ANOVA ofTOTAL GENERATION of Gujarat.					
Model	Sum of Squares	Df	Mean Square	F	Significance of F
Regression	1781112179	11	161919289	50.43165018	
Regression	1781112179	11	161919289	50.43165018	
Residual	317856139	9	35317348.78		
Total	2098968318	20			

Calculation of P value ,Correlation, Coefficient and T stat of TOTAL GENERATION of Gujarat.			
P value	Pearson Correlation	Coefficient	t stat
5.65748	0.921176171	1.599316	7.101524497

Interpretation :

From the model summary R indicates the prediction of the dependent Variable has value of 0.498 The R square, coefficient of determination which is the proportion of variance in the dependent variable and independent variable is found = 0.9211 R is positive . It indicate that both variables increase / decrease together.

(1) The ANOVA table shows that the independent variable statistically predict the dependent variable, F (10,8)=50.4316 .

(2) A Null Hypothesis is Hypothesis that says there is no statistical significance between the two variables. In this test P-Value=5.6574 is more than the significance level (x Alpha=0.05), There for the Null Hypothesis can not be Rejected.. So it is conclude that there is enough evidence to infer that the Null Hypothesis is true.

(3) From the calculated Pearson Correlation statistics ,

P-value= 5.6578>0.05. Null Hypothesis (Ho) is Accepted.

Hence , it is Concluded as under.

"There is no significant improvement in context to score of operational key parameters. It indicators on the operational of power generating company in Gujarat during the period post reform increasing During as compare to post reform period. "

Share of GEB /GSECL private and Central Govt.in %

YEAR	% share of GSECL from total Generation	% share of Private from total Generation	% share of Cenetral from total Generation	YEAR	% share of GSECL from total Generation	% share of Private from total Generation	% share of Cenetral from total Generation
1994-95	66.80	12.12	21.08	2006-07	44.74	28.28	26.98
1995-96	62.74	11.00	26.26	2007-08	43.94	29.04	27.02
1996-97	60.33	12.05	27.61	2008-09	41.19	29.26	29.55
1997-98	57.38	16.47	26.15	2009-10	40.79	42.37	16.84
1998-99	51.33	26.96	21.71	2010-11	38.96	50.22	10.82
1999-00	46.94	30.03	23.03	2011-12	36.41	52.5	11.09
2000-01	46.19	27.01	26.8	2012-13	26.94	56.24	16.82
2001-02	45.78	24.14	30.09	2013-14	18.38	61.39	20.23
2002-03	41.51	31.03	27.46	2014-15	22.16	57.89	19.95
2003-04	39.04	32.64	28.32	2015-16	18.65	59.54	21.81
2004-05	48.08	28.06	23.86	2016-17	15.59	58.04	26.37

Source Annual Reports of the pre & Post reform period.

Model of Regression Analysis of Share of GEB /GSECL private and Central Govt.in %			
R	R Square	Adjusted R Square	Standard Error
0.817259	0.667912	-1.222	6.539843

Model of ANOVA of Share of GEB /GSECL private and Central Govt.in %					
Model	Sum of Squares	Df	Mean Square	F	Significance of F
Regression	774.1832	11	70.38029	18.10127	
Residual	384.9259	9	42.76954		
Total	1159.109	20			

Calculation of P value ,Correlation, Coefficient and T stat of Share of GEB /GSECL private and Central Govt.in %			
P value	Pearson Correlation	Coefficient	t stat
0.002128	0.817259	0.970941	4.254559

Interpretation :

From the model summary R indicates the prediction of the dependent Variable has value of 0.8173 The R square, coefficient of determination which is the proportion of variance

in the dependent variable and independent variable is found = 0.6679 R is positive . It indicate that both variables increase / decrease together.

(1) The ANOVA table shows that the independent variable statistically predict the dependent variable, F (10,8)=18.1012 .

(2) A Null Hypothesis is Hypothesis that says there is no statistical significance between the two variables. In this test P-Value=0.0021 is less than the significance level (x Alpha=0.05), There for the Null Hypothesis can not be Accepted... So it is conclude that there is enough evidence to infer that the Alternative Hypothesis is true.

(3) From the calculated Pearson Correlation statistics ,

P-value= 0.0021. >0.05. Null Hypothesis (Ho) is Rejected.

For that, it is Concluded as under.

***There is significant improvement in context to score of operational key parameters. It indicators on the operational of power generating company in Gujarat during the period post reform increasing During as compare to post reform period. However share of Government of Gujarat is decreasing against this share of Private is increasing re*installed capacity in MW of Gujarat**

SL.NO	YEAR	COAL /LIGNOTE	OIL	GAS	TOTAL	HYDRO	RES	TOTAL
1	1995-96	3150	534	189	3873	427	0	**4300**
2	1996-97	3225	534	189	3948	427	0	**4375**
3	1997-98	3435	534	189	4158	427	0	**4585**
4	1998-99	3645	534	189	4368	547	0	**4915**
5	1999-00	3645	534	189	4368	547	0	**4915**
6	2000-01	3645	534	189	4368	547	0	**4915**
7	2001-02	3645	534	162	4341	547	0	**4888**
8	2002-03	3645	534	162	4341	547	0	**4888**
9	2003-04	3645	534	269	4448	547	0	**4995**
10	2004-05	3645	534	269	4448	547	0	**4995**
11	2005-06	3645	534	242	4421	547	0	**4968**
12	2006-07	3645	534	242	4421	547	0	**4968**
13	2007-08	3645	220	354	4219	547	0	**4766**
14	2008-09	3645	220	354	4219	547	10	**4776**

SL.NO	YEAR	COAL /LIGNOTE	OIL	GAS	TOTAL	HYDRO	RES	TOTAL
15	2009-10	3720	220	729	4669	547	10	**5226**
16	2010-11	3720	0	729	4449	547	10	**5006**
17	2011-12	3720	0	729	4449	547	10	**5006**
18	2012-13	4220	0	729	4949	547	10	**5506**
19	2013-14	4220	0	729	4949	547	12	**5508**
20	2014-15	4220	0	729	4949	547	12	**5508**
21	2015-16	4720	0	729	5449	547	12	**6018**
22	2016-17	4480	0	970	5449	547	12	**6021**

Source Annual Reports of the pre & Post reform period.

Model of Regression Analysis of Installed capacity in MW of Gujarat			
R	R Square	Adjusted R Square	Standard Error
0.6785	0.4604	-1.222	347.362

Model of ANOVA of Installed capacity in MW of Gujarat					
Model	Sum of Squares	Df	Mean Square	F	Significance of F
Regression	926649.8	11	84240.89	7.679589	
Residual	10859.76	9	120664		
Total	2012626	20			

Calculation of P value ,Correlation, Coefficient and T stat of Installed capacity in MW of Gujarat			
P value	Pearson Correlation	Coefficient	t stat
0.021711	0.678541335	1.20711	2.771207

Interpretation :

From the model summary R indicates the prediction of the dependent Variable has value of 0.6785 The R square, coefficient of determination which is the proportion of variance in the dependent variable and independent variable is found = 0.4604 R is positive . It indicate that both variables increase / decrease together.

(1) The ANOVA table shows that the independent variable statistically predict the dependent variable, F (10,8)= 7.6795.

(2) A Null Hypothesis is Hypothesis that says there is no statistical significance between the two variables. In this test P-Value=0.0217 is less than the

significance level (x Alpha=0.05), There for the Null Hypothesis can not be Accepted. So it is conclude that there is enough evidence to infer that the Alternative Hypothesis is true.

(3) From the calculated Pearson Correlation statistics ,

(4)

P-value= 0.0021. >0.05. Null Hypothesis (Ho) is Rejected.

As a Consequence , it is Concluded as under.

There is significant improvement in context to score of installed Capacity in MW is a key parameters availability . It indicators on the installed capacity of power generating Gujarat in Gujarat during the period post reform increasing increase During post reform period as compare to pre reform period. It conclude that there is an adequate installed Capacity in Gujarat for supply of Power in Gujarat. Over and above there is additional capacity for surplus power in Gujarat after reform period

Interpretation of Financial Parameters (contd.)

An Analysis of Financial Parameters can be made by following methods .viz.

(1) Standards of Comparison (2) Time Series Analysis

(3) Cross-Sectional Analysis (4) Industry Analysis "

Hence , I had selected the additional four (4) states of Western Region for an Analysis of Financial Parameter.

Table No. 5.27. Profit/(loss) after tax (accrual basis) of Western Region of India.

State	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Chhattisgarh	464	702	-433	-958	-1895	-501	-1317	-1240	-473
Goa	139	158	80	-79	-271	-285	-4	-17	-36
Gujarat	102	126	266	533	623	539	583	634	607
Madhya Pradesh	-1827	-2824	-4078	-5149	-3004	-4472	-6941	-6065	-5392
Maharashtra	675	-680	-636	-866	-37	655	1534	1834	-2802

(PFC, 2013-14 to 2015-16)

It is observed that, after reform only State of Gujarat Power Utilities is only Profit Making State. Profit is increasing year on year regularly .However Other States incurring loss or profit. Madhya Pradesh incurring loss year on year basis, there is no advantages of Reform of Power Sector. State of Maharashtra state earned profit in beginning first year but subsequently incurred loss for four years and than profit but again loss. Government and Political interest /support is highly required for protection of theft , tariff , and A T & C loss.

Table No.5.28 Cash Profit (Subsidy Received Basis) of Western Region of India.

State	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Chhattisgarh	590	1041	-1	-725	-1612	-29	-521	-560	250
Goa	156	176	99	-59	-268	-276	1	-17	-36
Gujarat	920	1086	1601	2048	2331	2469	2838	3333	3669
Madhya Pradesh	-1172	-2101	-3138	-1497	-2002	-3495	-5651	-4212	-3563
Maharashtra	2082	66	1254	1837	1175	3357	4352	5769	4597

(PFC, 2013-14 to 2015-16)

It is observed that, after reform only State of Gujarat Power Utilities is only Profit Making State. Profit is increasing year on year regularly .However Other States incurring loss or profit. Madhya Pradesh incurring loss year on year basis, there is no advantages of Reform of Power Sector. State of Maharashtra state earned profit. Government support is highly required for regular release of Subsidy as a result working Capital improved. Due to this interest on working Capital /(CC)is lower than others.

Table No.5.29. Cash Profit (Revenue and Subsidy on realised basis of Western Region of India.

State	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Chhattisgarh	507	925	43	-611	-1749	-228	-440	-1108	-259
Goa	178	167	171	-63	-283	-294	-175	-43	11
Gujarat	519	884	1648	2004	1653	3126	2657	3762	3856
Madhya Pradesh	-1759	-4125	-3718	-2326	-2543	-3223	-5432	-4700	-4175
Maharashtra	476	-2685	128	-83	-888	4491	4971	2837	-3016

(PFC, 2013-14 to 2015-16)

There is big Gap between Subsidy Receivable and Receive/Realised in State of Madhya Pradesh and Maharashtra. Due to this cost to serve increasing and Profit is decreasing. In true spirit of reform of Power Sector is Subsidy is required to Pay regularly and it should not be more than 50 % of COST TO SERVR OF POWER.

Table No.5.30. CAPITAL EXPENDITURE of Western Region of India.

STATE	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Chhattisgarh	0	-227	879	2025	2756	2350	2220	1001	1402
Goa	33	21	29	12	40	0	0	0	0
Gujarat	1012	2145	1672	1250	1247	2301	1330	777	1300
Madhya Pradesh	838	371	790	1059	3959	2366	2696	765	903
Maharashtra	2220	4214	4395	4424	4389	8327	5509	3818	1474

(PFC, 2013-14 to 2015-16)

All the state expanding the Generating Capacity as well as Renovation & Modernisation except State of Goa. Capital Expenditure of Gujarat Maharashtra and M.P are regularly on year to year basis. However State of Chhattisgarh and Goa are not allocate/spending money on Capital Expenditure.

Table No.5.31 .DEBT EQUITY RATIO of Western Region of India.

STATE	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Chhattisgarh	0	1.66	2.82	5.95	4.77	4.13	7.75	6.43	6.54
Goa	0.08	0.05	0.12	0.12	0.11	0.29	0.263	0.15	0
Gujarat	1.48	1.78	1.72	1.85	2.03	1.99	1.86	1.84	1.66
Madhya Pradesh	0.97	1.15	1.56	1.86	2.35	2.53	3.3	4.88	4.79
Maharashtra	1.51	2.2	2.67	2.89	2.87	3.00	2.95	2.83	1.94

(PFC, 2013-14 to 2015-16)

Ideal Debt Equity ratio is 2.3 (70:30).Considering this Rs.70 is Loan and Rs.30 is Equity for Capital Expenditure of Rs. 100. In this ideal Ratio will help to Repay Loan and issue Dividend if Any as well as retained earnings for future expansion. In view of this Gujarat and Goa are able to maintain debt equity Ratio within ideal situations. How ever others viz. Madhya Pradesh able to control upto F.Y 2007-08 to 2010-11 but subsequent year uncontrollable. Maharashtra and Chhattisgarh are able to control Debt equity ratio for F.Y 2007 to 2010 only. In other financial Year it is not Ideal position. Due to this State may face the liquidity problem for Repayment of Loan and others. Interest Coverage ratio will affect the adversely.

Table No Table No.5.32 TOTAL INSTALLED CAPACITY (MW) of Western Region of India.

State	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
Chhattisgarh.	1924	1924	1924	1925	1925	1925	2425	2425	2925
Gujarat	4766	4766	5226	5006	5008	5008	5508	5894	6394
Madhya Pradesh	3065	3565	3725	3725	3725	3650	4637	5237	4997
Maharashtra	10121	10121	10121	9738	9742	10742	11242	11417	12077

(PFC, 2013-14 to 2015-16)

Total Installed Capacity (in MW)of Western Region of India is increasing on year on year basis. However all state has decommissioning the old Power Plants having a completed useful life or having low efficiencies.

I had also critically Examine the very Important Ratio with our neighbour State of Maharashtra for study purpose .

Table No. Table No.5.33 Comparison of some Financial Ratio with Maharashtra State Power Generating Company

Table No. Table No.5.33 A Comparison of Current &Quick Ratio with Maharashtra State Power Generating Company

	Current Ratio		Quick Ratio	
year	**GSECL**	**MSPGCL**	**GSECL**	**MSPGCL**
2006-07	0.94	1.16	0.7	1.01
2007-08	0.89	1.24	0.71	1.11
2008-09	0.79	1.19	0.63	1.08
2009-10	0.73	1.32	0.6	1.19
2010-11	1.05	1.43	0.88	1.15
2011-12	0.72	0.65	0.57	0.55
2012-13	0.59	0.93	0.31	0.81
2013-14	0.51	0.98	0.29	0.85
2014-15	0.92	1.04	0.68	0.94
2015-16	0.87	0.94	0.68	0.84

(Sources Annual Accounts of GSECL & MSPGL for Relevant periods)

(GSECL G. S., 2005 to 2016) (MSPGL, 2005 to 2016)

Current Ratio of Gujarat is less than Maharashtra almost all the year except 2011-12.Current ratio equal to one is ideal if it is more than one than it will be better but less than One is not Ideal situation. It means that Company is not in position to pay current Liabilities out of Current Assets.

Quick Ratio of Gujarat is less than Maharashtra almost all the year except 2011-12. Quick equal to one is ideal if it is more than one than it will be better but less than One is not Ideal

situation. It means that Company is not in position to pay current Liabilities out of Quick Assets.

Table No. Table No.5.33 B Comparison of some Financial Ratio with Maharashtra State Power Generating Company

	Equity Ratio		Proprietary Ratio		Debt equity ratio	
year	**GSECL**	**MSPGCL**	**GSECL**	**MSPGCL**	**GSECL**	**MSPGCL**
2006-07	0.42	1	0.48	1	0.59	0.9
2007-08	0.41	0.76	0.49	0.76	0.59	0.93
2008-09	0.37	0.65	0.54	0.65	0.64	0.75
2009-10	0.39	0.81	0.47	0.81	0.61	0.8
2010-11	0.37	0.4	0.53	0.4	0.63	0.76
2011-12	0.41	0.74	0.58	0.74	0.59	0.66
2012-13	0.42	0.45	0.72	0.45	0.59	0.72
2013-14	0.46	0.46	0.55	0.46	0.55	0.73
2014-15	0.42	0.56	0.53	0.56	0.58	0.71
2015-16	0.46	0.63	0.46	0.63	0.54	0.56

(Sources Annual Accounts of GSECL & MSPGL for Relevant periods)

(GSECL G. S., 2005 to 2016) (MSPGL, 2005 to 2016)

Equity Ratio of Gujarat is less than Maharashtra almost all the year except 2011-12. Gujarat is able to finance through debt finance .Gujarat has more capability to avail loan and minimum equity. Maharashtra has infuse the equity more and more rather than Loan. When Profit of the company is adequate and certain than Gujarat Equity Ratio is better .

Proprietary Ratio of Gujarat is less than Maharashtra almost all the year except 2011-12. Gujarat is able to finance through debt finance .Gujarat has more capability to avail loan and minimum equity. Maharashtra has infuse the equity more and more rather than Loan. When Profit of the company is adequate and certain than Gujarat Equity

Ratio is better because Regulatory is allow maximum 30% equity for Return (ROE) due to this EPS will be reduce.

Debt Ratio of Gujarat is less than Maharashtra almost all the year. Gujarat is able to finance through debt finance .Gujarat has more capability to avail loan and minimum equity.

Maharashtra has infuse the equity more and more rather than Loan. When Profit of the company is adequate and certain than Gujarat Debt Ratio is better because

Regulatory is allow maximum 30% equity for Return (ROE) due to this EPS will be reduce. Excess Equity will not entitlement of ROE. Interest on excess amount of Equity is considered as a loan. When Rate of Interest of Loan is less than ROE than in this case return will be less. and vice versa

CHAPTER V ANALYSIS OF THE FINANCIAL PERFORMANCE OF THE GUJARAT STATE ELECTRICITY CORPORATION