Chapter-VI

Impact of Stock Market on Selected 10 Industries in India
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Impact of Stock Market on Selected 10 Industries in India

6.1 Introduction

Ten industries were selected to study the impact of stock market. Namely, 1) Bharat Heavy Electrical Limited 2) Hero Motor Corp 3) Infosys Private Limited. 4) Oil and Natural Gas Corporation Limited 5) Jindal Steel and Power Limited 6) Reliance Industries Limited 7) Tata Power Limited 8) Coal India Limited 9) National Thermal Power Corporation 10) Gas Authority of India Limited. Out of them five are public sector enterprise whereas the other five are private enterprises. The SWOT analysis has been done for all the 10 enterprises and the high and low of the company stocks and reasons for it is also identified.

In order to identify the stock market’s impact on each of the selected enterprise, linear regression model is run on the SPSS with revenue of the company as a function of Sensex i.e.

\[ R = f (SEN) \]

6.2 Bharat Heavy Electrical Limited

<table>
<thead>
<tr>
<th>Establishment</th>
<th>1964</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>State owned enterprise,</td>
</tr>
<tr>
<td>IPO</td>
<td>24 December 1991</td>
</tr>
<tr>
<td>Category</td>
<td>Electrical equipment</td>
</tr>
<tr>
<td>Sector</td>
<td>Energy Power and Industrial Equipment</td>
</tr>
<tr>
<td>Motto</td>
<td>Clean Energy</td>
</tr>
<tr>
<td>Key person</td>
<td>Shri B. Prasada Rao (Chairmen &amp; MD)</td>
</tr>
<tr>
<td>Mission</td>
<td>Providing sustainable business solutions in the fields of energy, industry and infrastructure</td>
</tr>
<tr>
<td>Vision</td>
<td>A global engineering enterprise providing solutions for a better tomorrow</td>
</tr>
<tr>
<td>Products</td>
<td>Gas and steam turbines, boilers, generators, heat exchangers, pumps, programmable logic controllers, sensors, variable frequency drives, uninterruptible power supplies, circuit breakers, switch gear, switchboards, motor controllers</td>
</tr>
<tr>
<td>Revenue(Rs crore)</td>
<td>47228 (2011-12)</td>
</tr>
<tr>
<td>Net profit (Rs crore)</td>
<td>7040 (2011-12)</td>
</tr>
<tr>
<td>Total assets(Rs crore)</td>
<td>66776 (2011-12)</td>
</tr>
</tbody>
</table>
BHEL, the central public sector enterprise was founded in 1964. BHEL became public limited company on 21 December 1991. It has made the major mark as leading engineering and manufacturing company of the country. The US business Magazine Forbes has ranked the BHEL as 9th most innovative enterprise in the world in 2011. In Forbes Asia’s fabulous 50 lists of 2010, BHEL is placed at 4th place. BHEL is the only Indian public sector enterprise figured which in global innovation of booz and company, a list of 1000 publicly traded companies which concentrates on research and development in the world.

The company is continuously earning profits since 1971-72. The net profit of BHEL in 2011-12 was 7040 crores. BHEL is engaged in the design, engineering manufacture, construction, testing, commissioning and servicing of a wide range of products and services. The important among them are power transmission, industry, transportation (railway), renewable energy, oil & gas and defense.

BHEL today is 7th largest power manufacturer of the world. In India, it has the share of 59% in the total installed power generating capacity. This amounts to 69% of the total power generated from utility sets (non conventional) by 31 march 2012.

Realizing the importance of R & D in technology development, BHEL invest largest amount to research and development among the corporate sector India. It invested Rs. 11620 million on research and development in 2011-12. Due to all these efforts, company’s intellectual capital enhanced significantly. In 2011-12, BHEL filed 321 patent and copy rights taking it to the total of 1786 patents and copyrights filed by BHEL.

**BHEL gets Maharatna Status**

Maharatna firms are given the financial autonomy to invest up to Rs. 5000 crores without taking the permission from the government. The limit for Navaratna firms is Rs. 1000 crores. A company qualifying for Maharatna status should have an annual turnover of more than Rs. 25000 crores, 15000 crores net worth and 5000 crores of net profit for successive three years. BHEL net
profit stood at Rs. 7039 crores, turnover at Rs. 49244 crores and the entity net worth stood at Rs. 25373 crores during 2011-12. Hence the government awarded Maharatna status to BHEL on 31 January 2013.

The government is expecting to get better price for equity of BHEL when it is proposing to go for disinvestment of BHEL in 2014-15.

**SWOT:**

An attempt is made to know the Strengths, weakness, opportunities and threats of the BHEL Company in this section.

**Strengths:**
The strengths of BHEL Company are:

1. 49390 highly skilled committed and motivated workforce.
2. Sound engineering base and ability to assimilate.
3. Relatively stable industrial relationship
4. Access to contemporary technologies with the support from renowned collaborators
5. Ability to set up power plants on turnkey basis, complete know how for manufacture of entire equipment is available with the company
6. Ability to manufacture or process to supply spares
7. Fully equipped to take capital maintains and servicing of the power plants.
8. Largest source of domestic business leading to major presence and inference in the market
9. Ability to successfully overhead and remote power stations equipment of different international companies.

**Weakness:**
The important weaknesses of the BHEL Company are

1. Inability to provide suppliers soft loans and assistance in financing of the power project
2. The poor financial position of state electricity boards, the major customers of BHEL pulls the liquidity position of BHEL below the satisfaction marks.

3. Central government is offering more incentives and concessions to private investments, more so FDI in power sector. The government reluctance to help its own, NTPC or SEBs make way for power projects to open in private sectors.

**Opportunities:**

The important opportunities of BHEL Company are

1. Demand for power is increasing every day and hence demand for power plant equipment is will also grow
2. Private sector power plants to offer expanded market as utilities suffers resource crunch
3. Life expansion program for power stations
4. Export opportunities
5. Easy processing of joint ventures collaboration/import / acquisition of new technology

**Threats:**

The important threats BHEL faces are:

1. Increased competition in the era of globalization
2. Multilateral agencies reluctant to lend to power sector because of poor financial management of state electricity boards.

**Areas focused:**

The major areas focused by BHEL are:

Thermal power, gas based power, hydro power, industrial turbo sets, boilers and boiler auxiliaries, heat exchanges and pressure vessels, pumps, oil filed equipments, wind mills, industrial electrical machines, transportation equipment and power devices.
Table No 6.1 Financial Performance of BHEL
BHEL attained Maharatna status by its shear performance. The company grew year after year consistently. The total earnings of the enterprise were 7431 crores in 2002-03 which increased to 49245 crores by 2011-12. The total earning of enterprise during the period was increased by whooping 562 percent. The total earnings consist of revenue from operation, other operational income and other income.

The revenue from operation grew from Rs.6930 crores in 2002-03 to Rs. 47228 crores in 2011-12 which increased by 581 percent growth during the period. The other operation income which includes, payments received in respect of patents, license, concession, representation, agreements directors fees, operating subsides received increased in absolute terms from Rs. 334 crores in 2002-03 to Rs. 751 crores in 2011-12. The share of other operation income in the total earning declined from 4.4 percent in 2002-03 to 1.5 percent in 201-12.

The other income which refers to earnings from other normal business operations, such as investment interest, foreign exchange gains, rent, income and profit from the sale of non inventory assets increased from Rs. 167 crores in 2002-03 to 1266 crores in 2011-12. The share of other income in the total earnings increased marginally from 2.2 percent to 2.5 percent during the said period.

The gross turnover of the enterprise increased from Rs. 7482 in 2002-03 to Rs. 49510 crores in 2011-12. The gross profit of the company also increased successively. It increased from Rs. 857 crores in 2002-03 to Rs. 10353 crores in 2011-12. The finance cost reduced considerably with every passing year. It was Rs. 55 crores in 2002-03 which reduced to Rs.31 crores in 2008-09, which further increased to 51 crores in 2011-12. The finance cost when seen from the point of increasing inflation, changing interest rate, increasing fees is still very low.

The enterprise also has paid substantial taxes to the government in 2002-03 it paid 358 crores which increased 3262 crores in 2001-12. The notable thing is due to reduction in corporate tax, BHEL paid 45 percent of its profit before tax to the government in 2002-03 and it decreased to 32 percent in 2011-12. Hence the profit after tax increased from Rs. 444 crores in 2002-03 to Rs. 7040 crores in 2011-12. The dividends of the company also rose from 98 crores in 2002-03
to 1567 crores in 2011-12. During the same period, the enterprise also paid the corporate
dividend tax of 13 crores in 2002-13 which increased to 254 crores in 2011-12.

The funds raised by issuing shares in return for cash other consideration are called as
share capital. It was 245 crores in 2002-03 which increased to 490 crores in 2011-12. The
earnings per share increase from Rs. 1.81 in 2002-03 to Rs. 28.76 in 2011-12. Net worth per
share refers to a measurement of the net worth of the company for each share of stock that has
been issued. Since stock dividends are paid to shareholders in cash, this value cannot be included
in a company’s net worth. The net worth per share also increases during the period from Rs.
19.24 to Rs. 103.67

The stock price of BHEL share rose from Rs. 172.6 in 2002-03 to Rs. 2584.25 in 2007-08
which fell to Rs. 1362.40 in 2008-09, but it gained momentum and reached Rs. 2406.1 in 2009-
10, which marginally fell to Rs. 2324.75 in 2010-11. But there was a steep fall as it fell to Rs.
239 in 2011-12 and by 31 March 2013 it had reached 179.45. This was almost on par with 2002
prices from where the BHEL shares started moving forward.

The important reasons for fall in the price of stock from Rs. 2324.75 in 2010-11 to Rs. 39
in 2011-12 and further to Rs. 179.45 in 2013 are:

1) The number of shares in 2010 was 1, 69, 91,328 which increased to 4,38,50,081
shares. Hence the number of trades also increased from 7, 56,868 in 2010-11 to
14,44,93 shares in 2011-12.

2) BHEL board in May 2011 approved the proposal to disinvest a 5 percent stake in the
company. This was the past of centre’s ambitious programme of big ticket
disinvestment of 40000 crores in Public sector enterprise in 2011-12. As cabinet
approved the BHEL proposal, the stock market reacted negatively, to BHEL stock
started falling from the peak.
3) In 28th September 2011, BHEL came with notification of public offer 24476000 equity shares and once the equity shares were traded in public, it touched the lowest nadir of 225 and to consolidate to Rs. 239 by the end of 2011-12.

4) Thought the government announced the Maharatna status to BHEL, the stock market investors were net impressed.

5) The shortages of coal and gas supplies, delay in environmental approvals for power and mining projects, gradual reduction of demand for power equipment added for the fall of stock prices of BHEL.

**Linear Regression Model**

In order to test the impact of stock market on industries the following model has been framed. In this model Revenue is dependent and Sensex are independent variable. This Model presumes that Revenue depends upon Sensex.

The model is written as

\[ R = f(\text{SEN}) \]

In order to make the operation easier to handle the log of all the variables are taken, then

\[ \log R = \alpha_0 + \alpha_1 \log \text{SEN} \]

Where

\[ \log R = \text{Log Revenue} \]

\[ \log \text{SEN} = \text{Sensex} \]

**Correlation**

In order to know the direction and magnitude of relation between Revenue and Sensex the Pearson Correlation was done with the help of SPSS 16 which yielded following result.

<table>
<thead>
<tr>
<th></th>
<th>Revenue</th>
<th>Sensex</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Correlation</td>
<td>Revenue</td>
<td>1.000</td>
</tr>
<tr>
<td>Sig. (1-tailed)</td>
<td>Revenue</td>
<td>.</td>
</tr>
<tr>
<td>N</td>
<td>Revenue</td>
<td>10</td>
</tr>
</tbody>
</table>

The BHEL Revenue is highly correlated with BSE Sensex as its coefficient value of 0.931 which is nearer to one.
### Results of Regression Estimation

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std.Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>.194</td>
<td>0.566</td>
<td>.740</td>
<td>.740</td>
</tr>
<tr>
<td>LSEN</td>
<td>1.018</td>
<td>0.141</td>
<td>7.198</td>
<td>.000</td>
</tr>
<tr>
<td>$R^2$</td>
<td>0.866</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$R^{-2}$</td>
<td>0.850</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Dependent Variable: LR</th>
<th>ANOVA(c)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>Sum of Squares</td>
</tr>
<tr>
<td>Regression</td>
<td>.686</td>
</tr>
<tr>
<td>Residual</td>
<td>.106</td>
</tr>
<tr>
<td>Total</td>
<td>.792</td>
</tr>
</tbody>
</table>

The calculated F value is 51.805 with a corresponding value of .000 which states that it is significant at 5% level. Hence the overall fitness of the model is justified.

The value of R square is .866 which is nearing to one indicating that regression model is a good fit. The data implied that 0.86.6% of variance of the Revenue has been explained by the regressor of Sensex. The adjusted R square is 0.850 which means that about 0.85% of the variation in the observed behavior in dependent variable Revenue. In order to test the presence of auto correlation Durbin Watson statistics was done which came to 1.392 which indicated that the problem of autocorrelation is fairly solved.

Revenue = a (.194) + (1.018) SEN

(343) (7.198)

The model reveals that 1 percent increase in Sensex will lead to an increase in Industrial Revenue by 100 percent.

The findings of the study reveal that stock market positively influences the Revenue of BHEL Industry.
6.3 Hero Motor Corp

<table>
<thead>
<tr>
<th>Establishment</th>
<th>19th January 1984</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>Public Company</td>
</tr>
<tr>
<td>IPO</td>
<td>1984</td>
</tr>
<tr>
<td>Category</td>
<td>Motorcycles, Scooters</td>
</tr>
<tr>
<td>Sector</td>
<td>Two-Wheelers</td>
</tr>
<tr>
<td>Key person</td>
<td>Brijmohan Lall Munjal</td>
</tr>
<tr>
<td>Mission</td>
<td>Hero Moto Corp’s mission is to become a global enterprise fulfilling its customers’ needs and aspirations for mobility, solidity, sturdiness and setting benchmarks in technology, style and quality to convert its customers into brand advocates.</td>
</tr>
<tr>
<td>Vision</td>
<td>A simple vision –that of a mobile and empowered India, powered by its bikes.</td>
</tr>
<tr>
<td>Products</td>
<td>Motorcycles, Scooters, Two-Wheelers</td>
</tr>
<tr>
<td>Services</td>
<td>India, Sri Lanka</td>
</tr>
<tr>
<td>Revenue (Rs. Crore)</td>
<td>23944 Crore 2011-12</td>
</tr>
<tr>
<td>Net profit (Rs. Crore)</td>
<td>2378 Crore 2011-12</td>
</tr>
<tr>
<td>Total assets(Rs. Crore)</td>
<td>6058 Crore 2011-12</td>
</tr>
</tbody>
</table>

Hero Moto Corp limited formerly known as Hero Honda is an house hold name in India, when it comes to two wheeler. Since 2001, it is the world number one two wheeler company specialized in motorcycle and scooter. The Delhi based enterprise was established in 1984 as a joint venture between hero cycles of India and Honda of Japan.

Munjal brothers used Hero as the brand name for their flagship company, Hero cycles limited. Hence when joint venture was materialized with Honda in 1984, the Munjal family and Honda Company named it as Hero Honda Motors limited at Dharuhera India. Both the stake holders owned 26 percent stake in the company. In 2010 Honda sold’s its 26 percent stake to Munjal family raising their stake to 52 percent. The Munjal family headed by Brijmohan Lall Munjal named the company as Hero Motor Corp limited. It has manufacturing units at Dharuhera, Gurgaon in Haryana and at Haridwar in Uttarakhand.
Area of Focus and number of Shares

Fuel efficient, motor cycles and scooters, catering to economy and luxury cost. The company was included in Bombay stock Exchange index in 2002. Initially in 1984, the company had 1199985 equity shares, of which 71999985 equity shares were allotted to the stake holders namely

1) 31,19,998 shares to Hero cycles, Hero Investments and bahadur chand investment
2) 31,20,000 shares to Honda Motors
3) 9,59,987 shares to friends and association of promoters

The remaining 48,000 shares were allotted to the
a) 2,40,000 reserved for employees of company
b) 96,000 for business associates
c) 44,64,000 shares for general public

SWOT:
An attempt is made to analyze the Strengths, weakness, opportunities and threats of the Hero motor Corp in this section.

Strengths:
The major strengths of the Hero motor Corp are:

1) Diversified products in two wheelers
2) Consistently launching new models and modifying the existing models
3) Concentrates and invests in research and development to bring innovation and freshness in the two wheelers
4) Excellent distribution, over 3000 dealerships and service centers
5) Good advertising and excellent rebranding from Hero Honda to Hero Moto Corp
6) Launched three new models, including variants of existing models successfully
7) In its first year of operations after it became Hero Corp, the two wheeler sales grew 15 percent from 5.4 million in 2010-11 to 6.23 million in 2011-12.
8) Recorded over 0.65 million unit retail sales of two wheelers in October 2011, the highest ever in a month. Surpassed the previous record of over 0.60 million sales in October 2008.

9) It has 17 different products across 100cc, 125cc, 150cc, 225cc and scooter category

10) It holds 45 percent market share in the domestic two wheeler market

11) 56 percent market share in the domestic motorcycle market

12) 6106 motivated employees in team Hero

13) Hero Moto Corp tied up with US based Erik Buell Racing to outsource technology to be used for its high end bikes.

Weakness:
The major weaknesses of the Hero motor Corp are:

1) Import of 30 percent spare parts from abroad

2) Failed to catch the momentum and slept in many quarters riding on the past

3) Absence in the premium bike segment

Opportunity:
The opportunities of the Hero motor Corp are:

1) 21 percent of households in India owned two wheelers as per 2011 census. This segment is growing and growing

2) Growing middle class population

3) Average age of India at present is 24

4) Export of bikes is limited i.e. untapped international markets

Threats:
The threats of the Hero motor Corp are:

1) Strong competition from Indian as well as international brands likes Yamaha, Bajaj Auto, TVS, Suzuki, Harley Davidson, Royal Enfield and Ducati.

2) Rising fuel prices

3) Better public transport will affect two wheeler sales.
Table No: 6.2 Financial performance of Hero Motor Corp

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Revenue (INR)</th>
<th>Net Profit (INR)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>100,000</td>
<td>5,000</td>
</tr>
<tr>
<td>2011</td>
<td>110,000</td>
<td>6,000</td>
</tr>
<tr>
<td>2012</td>
<td>120,000</td>
<td>7,000</td>
</tr>
<tr>
<td>2013</td>
<td>130,000</td>
<td>8,000</td>
</tr>
<tr>
<td>2014</td>
<td>140,000</td>
<td>9,000</td>
</tr>
<tr>
<td>2015</td>
<td>150,000</td>
<td>10,000</td>
</tr>
<tr>
<td>2016</td>
<td>160,000</td>
<td>11,000</td>
</tr>
<tr>
<td>2017</td>
<td>170,000</td>
<td>12,000</td>
</tr>
<tr>
<td>2018</td>
<td>180,000</td>
<td>13,000</td>
</tr>
<tr>
<td>2019</td>
<td>190,000</td>
<td>14,000</td>
</tr>
<tr>
<td>2020</td>
<td>200,000</td>
<td>15,000</td>
</tr>
</tbody>
</table>

*Note: All figures in INR lakhs.*
Hero Motors Corporation has made its mark in two wheeler segment. Hence it has a consistent and successful financial performance over the years. The total income of the enterprise was Rs. 5195 crores in 2002-03 which grew to 23944 crores in 2011-12 which is 361 percent growth. The total income the net sales value grew from 5102 crores in 2002-03 to 23368 crores in 2011-12.

The profit of the company before tax was 885 crores in 2002-03 which rose to 2865 crores in 2011-12. The enterprise also paid substantial taxes to the government in 2002-03 it paid Rs. 304 crores which increased to Rs. 487 crores in 2011-12. The notable thing is due to reduction of corporate tax the enterprise paid 34.35 percent of its profit before tax which decreased to 17 percent in 2011-12. Hence the profit after tax of the enterprise increased from Rs. 581 crores in 2002-03 to Rs. 2378 crores in 2011-12.

Operating margin a measurement of what proportion of a company's revenue is left over after paying for variable costs of production such as wages, raw materials, etc. A healthy operating margin is required for a company to be able to pay for its fixed costs, such as interest on debt. The operating margin of the company due to increase in variable cost is left with 15.5 percent in 2002-03 which reduced to 10.7 percent in 2011-12. The operating Profit before Depreciation, Interest and tax (OPBDIT) Margin is 16.7 percent in 2002-03 which declined to 12.2 percent in 2006-07, which consolidated to 15.3 percent in 2011-12.

The earnings per share are a rough measurement of the amount of a company's profit that can be allocated to one share of its stock. Basic earnings per share (EPS) do not factor in the dilutive effects on convertible securities. The earnings per share of the company increased from Rs. 29.1 in 2002-03 to Rs. 119.1 in 2011-12. The dividend per share was around 17 to 20 rupees per share between 2002-03 to 2008-09, it increased to Rs. 110 per share in 2009-10 which marginally declined to Rs. 105 in 2010-11. In 2011-12 it declined to 45 per share.

The enterprise declared dividend of 900 percent in 2002-03 i.e. Rs 18 per equity share of the face value of Rs. 2 per share which increased to 5500 percent in 2009-10, i.e. Rs. 110 per equity share of the face value of Rs. 2 per share. In 2011-12 the enterprise declared dividend of
2250 percent, which is Rs. 45 per equity share of the face value of Rs. 2 per share. The stock price of Hero Motor Corp (earlier Hero Honda Corp) in BSE was 271.40 in 2002-03 which increased to Rs.1986.1 in 2010-11. It marginally fell to Rs. 1905.25 in 2011-12.

The important reasons for the increase in the share price are

1) The continued successful performance of the company
2) World number one two wheeler company since eleven years
3) Excellent rebranding from Hero Honda to Hero Motor Corporation

Linear Regression Model

In order to test the impact of stock market on industries the following model has been framed. In this model Revenue is dependent and Sensex are independent variable. This Model presumes that Revenue depends upon Sensex.

The model is written as

\[ R = f(SEN) \]

In order to make the operation easier to handle the log of all the variables are taken, then

\[ \log(R) = \alpha_0 + \alpha_1 \log(SEN) \]

Where

\[ \log(R) = \text{Log Revenue} \]
\[ \log(SEN) = \text{Sensex} \]

Correlation

In order to know the direction and magnitude of relation between Revenue and Sensex the Pearson Correlation was done with the help of SPSS 16 which yielded following result.

<table>
<thead>
<tr>
<th>Pearson Correlation</th>
<th>Revenue</th>
<th>Sensex</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1.000</td>
<td>.906</td>
</tr>
<tr>
<td>Sig. (1-tailed)</td>
<td></td>
<td>.000</td>
</tr>
<tr>
<td>N</td>
<td>10</td>
<td>10</td>
</tr>
</tbody>
</table>

The Hero Motor Corp. Revenue is highly correlated with BSE Sensex as its coefficient value of 0.906 which is nearer to one.
Results of Regression Estimation

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std.Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>1.147</td>
<td>0.477</td>
<td>2.406</td>
<td>.43</td>
</tr>
<tr>
<td>LSEN</td>
<td>.722</td>
<td>0.119</td>
<td>6.064</td>
<td>.000</td>
</tr>
<tr>
<td>$R^2$</td>
<td>0.821</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$R^{-2}$</td>
<td>0.799</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Durbin-Watson</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The calculated F value is 36.772 with a corresponding value of .000 which states that it is significant at 5% level. Hence the overall fitness of the model is justified.

The value of R square is .821 which is nearing to one indicating that regression model is a good fit. The data implied that 82.1% of variance of the Revenue has been explained by the repressor of Sensex. The adjusted R square is 0.799 which means that about 79% of the variation in the observed behavior in dependent variable Revenue. In order to test the presence of auto correlation Durbin Watson statistics was done which came to 1.756 which indicated that the problem of autocorrelation is fairly solved.

Revenue=a (1.147) + (.722) SEN

\[
\begin{align*}
(2.406) & \quad (6.064)
\end{align*}
\]

The model reveals that 1 percent increase in Sensex will lead to an increase in Industrial Revenue by 72 percent.

The findings of the study reveal that stock market positively influences the Revenue of Hero Motor Corp Industry.
6.4 Infosys Private Limited.

<table>
<thead>
<tr>
<th>Establishment</th>
<th>1981</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>Public Company</td>
</tr>
<tr>
<td>IPO</td>
<td>February 1993</td>
</tr>
<tr>
<td>Sector</td>
<td>IT Services, IT consulting</td>
</tr>
<tr>
<td>Founder</td>
<td>N.R. Narayana murthy and his friends</td>
</tr>
<tr>
<td>Key person</td>
<td>K. V Kamat (Chairman)</td>
</tr>
<tr>
<td>Head quarters</td>
<td>Electronic City, Bangalore, Karnataka, India</td>
</tr>
<tr>
<td>Mission</td>
<td>To achieve our objective in an environment of fairness, honesty, and courtesy towards our clients, investors, employees, vendors and society.</td>
</tr>
<tr>
<td>Vision</td>
<td>&quot;To be a globally respected corporation that provides best-of-breed business solutions, leveraging technology, delivered by best-in-class people.&quot;</td>
</tr>
<tr>
<td>Services</td>
<td>IT, Business Consulting and Outsourcing Services</td>
</tr>
<tr>
<td>Area Served</td>
<td>World wide</td>
</tr>
<tr>
<td>Revenue (Rs. Crore)</td>
<td>31254 Crore in 2012</td>
</tr>
<tr>
<td>Operating Profit(Rs. Crore)</td>
<td>10061 Crore in 2012</td>
</tr>
<tr>
<td>Net profit (Rs. Crore)</td>
<td>7986 Crore in 2012</td>
</tr>
<tr>
<td>Total assets</td>
<td>7.53USD in 2012</td>
</tr>
</tbody>
</table>

Infosys Private Ltd. was established in 1981 by group of seven individual led by Mr. N R Narayananamurthy in Bangalore. They started with the initial capital of USD 250. The introduction of new economic reforms in 1991 was seen as great opportunity by Infosys. As a first step to reap the benefit of returns thus became public limited company in February 1993. It was listed on stock exchanges in India in June 1993. Trading opened at Rs. 145 per share compared to the IPO price of Rs. 95 per share. In 1994 October, Infosys made a private placement of 5, 50,000 shares at Rs. 450 each to Foreign Institutional Investors (FIIs), Financial Institutions (FIs) and corporate. By 1999 march, Infosys issued 20, 70,000 ADSs (equivalent to 10, 35,000 equity shares of par value of Rs. 10 each) at 34 dollar per ADS under the American depositary shares program. Infosys become the first Indian company to be listed on the NASADQ National Market in 1999. Infosys was listed on the NYSE market in 2012 December.
Infosys is a leader in consulting, technology and outsourcing. It earned the revenue of USD7231 billion in 2012-13. Infosys also provides business service application, technology engineering, System integration custom software development, maintenance and re-engineering service in the IT space. The company also produces software products for banking industries in India and overseas.

Infosys has 67 offices and 69 development centers in USA, China, Australia, Japan, Middle East, UK, Germany, France, Switzerland, Nederland, Poland, Canada & many other countries.

Infosys and its subsidiaries have 155629 employees by 2012. Infosys takes pride in building strategic long-term client relationships. It gets 97.50% revenue from existing customers. Infosys gives back to the society through the Infosys foundation that funds learning and education.

Infosys is having its presence felt in USA. In an attempt to diversify its market it is now looking to increase its presence in Europe and China.

Awards

The Infosys has won the Global Most Admired knowledge Enterprises (MAKE) award in 2011. It is the first and only Indian Company to win the award eight times. It is ranked fourth In 2011 Bliss leap awards instituted by Career Bliss.

Infosys has consistently attaining new heights year after year. It has been honored by various industrial bodies, media and others to name few.

Forbes has ranked Infosys 19 among the world’s most innovative companies. Infosys is also indentified as one of the top 25 performers in Caring for Climate Initiative by UN Global consulting and technology giant in the list. Infosys is rank No. 1 among the best managed companies in Asia pacific in the annul Euro money Best managed Companies in Asia survey conducted at 2013. Infosys is voted India’s most admired company in ‘The Wall Street Journal ‘Asia 200’, every year since 2000. Infosys Software Development Block 1 at Pocharam campus in Hyderabad, India was awarded the highest LEED rating. This is the fourth Infosys building
that has won a Platinum rating, taking the total Platinum-certified building area at Infosys to over 1 million sq. ft. At oracle open world 2012, Infosys won the oracle excellence award for specialized partner of the year North America in both financial management and human capital management categories.

Infosys also won the Oracle Excellence Award for Specialized Partner of the Year-North America in both Financial Management and Human Capital Management categories in Oracle Open World 2012

**Strategy:**
The strategies of the Infosys are:

1. The company is striving hard to become leading global consulting and Technology Company.

2. It is trying to become so by strengthening its strategic partnership with the client. It is trying to increase the relevance of it to its clients by being able to work in the entire spectrum of their business.

3. To achieve these goals, Infosys seek to increase business from existing and new clients; continue to enhance their engagement models and offerings; expand geographically and pursue alliances and strategic acquisitions; continue to develop deep industry knowledge; enhance brand visibility and continue to invest in infrastructure and employees.

**SWOT:**
An attempt is made to analyze the Strengths, weakness, opportunities and threats of the Infosys in this section.

**Strengths:**
The strengths of the Infosys are:

1. The competitive strengths that include leadership in providing innovative solutions that enables the Infosys clients to get improved business results in addition to optimizing the efficiency of their business. It also enables them to have long standing client relationship.
2. 155629 dedicated skilled workforce, these skill forces speaks good English and is also aware and sensitive to Western culture

3. Infosys year after year has not only strengthened its work areas but also its financial position.

4. Infosys has 67 offices and 69 development centers in USA, China, Australia, Japan, Middle East, UK, Germany, France, Switzerland, Netherland, Poland, Canada & many other countries

5. Infosys diversified market.

**Weakness:**

The weaknesses of the Infosys are:

1. Despite being a huge Indian IT company in relation to its Indian competitors, Infosys is much smaller than its global competitors such as computer Science Corporation, Hewlett-Packard, IBM, EDS.

2. Infosys on several occasions has struggled in the US markets, to get the business. It has problems in securing United States Federal Government contracts in North America. Since these contracts are highly profitable and tend to run for long periods of time, Infosys is missing out on lucrative business.

3. Difficulties in providing end-to-end business solutions for the clients, which could lead to clients discounting their work with Infosys, which in turn could harm the business.

4. Intense competition in the market for technology services could affect Infosys cost advantages, which could reduce the share of business from clients and decrease Infosys revenues.

5. Infosys revenues are highly dependent upon a small number of clients and the loss of any one of our major clients could significantly impact Infosys business.

6. Legislation in certain countries in which Infosys operate, such as U.S. and the U.K., may restrict companies in those countries from outsourcing work to Infosys or may limit the ability to send Infosys employees to certain client sites.

7. Restriction on immigration may affect Infosys ability to compete for and provide services to clients in the U.S., Europe and other jurisdiction, which could hamper its growth and reduction in its revenue.
Opportunities:
The Opportunities of the Infosys are:

1. Recession which reduced the pace of growth in developed economies also provided the opportunity to look to other markets.
2. Infosys is making its presence felt in the emerging economy China
3. The strategic alliance between Infosys and Schlumberger gives the IT company access to lucrative business in the gas and oil industries

Threats:
The Threats of the Infosys are:

1. Though revenue is, it is not at same pace. The company is not able to sustain the previous profit margin or level of profitability.
2. Clients may switch to other offshore service companies in other countries such as China or Korea were industrial expansion is higher than India with much advanced technology.
3. Many emerging nations form Asia is also now learning English along with their engineering and management skills making them equally competitive.
Table No: 6.3 Financial performance of Infosys
Infosys has made its mark in IT Services, IT consulting segment. Hence it has a consistent and successful financial performance over the years. Incomes of Infosys limited have grown terrifically regardless of the changes in the economic cycle in India and across the globe. The income of the enterprise was Rs. 3,623 crores in 2003 which grew to 31,254 crores in 2012 which is 762 percent growth.

The Operating profit of the company before depreciation, interest and tax, amortization (OPBDIT) was 1,272 crores in 2002-03 which rose to 10,061 crores in 2011-12. The enterprise also paid substantial taxes to the government in 2002-03, it paid Rs. 199.50 crores which increased to Rs. 3,110 crores in 2011-12. The enterprise paid 17.22 percent of its profit before tax which increased to 26 percent in 2011-12. Hence the profit after tax of the enterprise increased from Rs. 958 crores in 2002-03 to Rs. 7,986 crores in 2011-12.

Market Capitalization which is the aggregate value of a company or stock has robustly increased from Rs. 26,847 Crore in 2003 to 16,4592 Crore in 2012. Reserves created out of profits transferred from profit and loss account have increase from Rs. 2,828 Crore in 2003 to Rs. 29,470 Crore in 2012. Equity dividend which the annual cash flow that an equity investor receives. It was 178.81 Crore in 2003 which rose to 2,699 Crore in 2012.

The funds raised by issuing shares in return for cash and other consideration are called as share capital. It was 33.12 crores in 2003 which increased to 287 crores in 2012. During the same period the enterprise also paid the corporate dividend tax of 102 crores in 2003 which increased to 323 crores in 2012.

Book value per share indicates the book value (or accounting value) of each share of stock. Book value is a company's net asset value, which is calculated by total assets minus intangible assets and liabilities. A relatively high book value per share in relation to stock price often occurs when a stock is undervalued. It was in Rs. 108 in 2003 which increased to 518.21 in 2012.
The earnings per share are a rough measurement of the amount of a company's profit that can be allocated to one share of its stock. Basic earnings per share (EPS) do not factor in the dilutive effects on convertible securities.

The earnings per share of the company increased from Rs. 18.09 in 2003 to Rs. 139.07 in 2012. dividend per share The amount of dividend that a stockholder will receive for each share of stock held. It can be calculated by taking the total amount of dividends paid and dividing it by the total shares outstanding. The dividend per share was around robustly increased from Rs. 129 in 2004 drastically it was fell to 11.50 in 2005 then it increased 45 in 2006 again it fell to 11.5 in 2007.

The stock price of Infosys share price was 5563.7 in 2003 which fell to Rs. 2089 in 2004, but it gained momentum and reached Rs. 3445 in 2010, which fell to Rs. 2510.90 in 2012. The important reason for Infosys share price falls are:-

1. Pricing decline: Infosys said higher volumes growth (1.8 percent sequentially) in quarter 4 2012 results in higher profits because pricing declined by 0.7 percent in the march quarter.

2. Margins fall: operating margins, a key measure of profitability, fell more than estimated at 23.55 per cent. A 200 basis point dip in margin was the real red flag.

3. Sales flat: fourth quarter or 2012 sales were flat sequentially at Rs. 10,454 crore against Rs. 10,424 Crore in the third quarter ended December 2010.

4. Infosys revere grew by 5.8 percent against a forecast of 6.5 per cent growth it was on account of slower deal ramp-ups, pricing decline and adverse cross-currency impact

**Linear Regression Model**

In order to test the impact of stock market on industries the following model has been framed. In this model Revenue is dependent and Sensex are independent variable. This Model presumes that Revenue depends upon Sensex.
The model is written as

\[ R = f(\text{SEN}) \]

In order to make the operation easier to handle the log of all the variables are taken, then

\[ \text{LR} = \alpha_0 + \alpha_1 \text{LSEN} \]

Where

\[ \text{LR} = \log \text{Revenue} \]

\[ \text{LSEN} = \text{Sensex} \]

**Correlation**

In order to know the direction and magnitude of relation between Revenue and Sensex the Pearson Correlation was done with the help of SPSS 16 which yielded following result.

<table>
<thead>
<tr>
<th></th>
<th>Revenue</th>
<th>Sensex</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Correlation</td>
<td>Revenue</td>
<td>1.000</td>
</tr>
<tr>
<td>Sig. (1-tailed)</td>
<td>Revenue</td>
<td>.000</td>
</tr>
<tr>
<td>N</td>
<td>Revenue</td>
<td>10</td>
</tr>
</tbody>
</table>

The Infosys Revenue is highly correlated with BSE Sensex as its coefficient value of 0.967 which is nearer to one.

**Results of Regression Estimation**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std.Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>.444</td>
<td>0.424</td>
<td>1.047</td>
<td>.326</td>
</tr>
<tr>
<td>LSEN</td>
<td>1.134</td>
<td>0.106</td>
<td>10.717</td>
<td>.000</td>
</tr>
<tr>
<td>( R^2 )</td>
<td>0.935</td>
<td>Durbin-Watson</td>
<td>.1.746</td>
<td></td>
</tr>
<tr>
<td>( R^2 )</td>
<td>0.927</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**ANOVA(c)**

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>d.f</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td>.852</td>
<td>1</td>
<td>114.849</td>
<td>.000(a)</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>.059</td>
<td>8</td>
<td>.007</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>.911</td>
<td>9</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The calculated F value is 114.848 with a corresponding value of .000 which states that it is significant at 5% level. Hence the overall fitness of the model is justified.

The value of R square is .935 which is nearing to one indicating that regression model is a good fit. The data implied that 0.93.5% of variance of the Revenue has been explained by the repressor of Sensex. The adjusted R square is 0.927 which means that about 0.92% of the variation in the observed behavior in dependent variable Revenue. In order to test the presence of auto correlation Durbin Watson statistics was done which came to 1.746 which indicated that the problem of autocorrelation is fairly solved

\[
\text{Revenue} = a (0.444) + (0.326) \text{ SEN} \\
(1.134) \quad (10.717)
\]

The model reveals that 1 percent increase in Sensex will lead to an increase in Industrial Revenue by 32 percent.

The findings of the study reveal that stock market positively influences the Revenue of Infosys Industry.

### 6.5 Oil and Natural Gas Corporation Limited (ONGC)

<table>
<thead>
<tr>
<th>Establishment</th>
<th>14th August 1956</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>State owned enterprise,</td>
</tr>
<tr>
<td>IPO</td>
<td>1993</td>
</tr>
<tr>
<td>Category</td>
<td>Oil and Gas</td>
</tr>
<tr>
<td>Sector</td>
<td>Energy</td>
</tr>
<tr>
<td>Key person</td>
<td>Sudhir Vasudeva (Chairmen &amp; MD)</td>
</tr>
<tr>
<td>Location</td>
<td>Tel Bhavan, Dehradun, India</td>
</tr>
<tr>
<td>Vision &amp; Mission</td>
<td>To be global leader in integrated energy business through sustainable growth, knowledge excellence and exemplary governance practices.</td>
</tr>
<tr>
<td>Products</td>
<td>Petroleum, Natural Gas and other Petrochemicals</td>
</tr>
<tr>
<td>Revenue (Rs. Crore)</td>
<td>76887 crore (2011-12)</td>
</tr>
<tr>
<td>Net profit (Rs. Crore)</td>
<td>10529 crore (2011-12)</td>
</tr>
<tr>
<td>Total assets(Rs. Crore)</td>
<td>USD 43.01 billion (2012)</td>
</tr>
</tbody>
</table>

Oil and Natural Gas Corporation Limited (ONGC) is state owned public enterprise established on 14th August 1956, headquartered at Dehradun, India. It is engaged in exploration
of hydrocarbons and is one of the leading companies with significant contribution to industrial and economic growth. Government of India conferred the Maharatna status to ONGC, on 21st May 2010. With this empowerment, equity investment limit in subsidiaries, Joint ventures and Mergers & acquisitions in India or abroad has been enhanced from Rs 1,000 crores to Rs. 5,000 crores subject to ceiling of 15% of the net worth limited in one project.

ONGC Journey is a successful story full of conviction, courage and commitment. ONGC the largest exploration and production companies in the world in terms of reserves and production

ONGC as an integrated Oil & Gas Corporation that has developed in-house capability in all aspects of exploration and production business i.e., Acquisition, Processing & Interpretation (API) of seismic data, drilling, work-over and well stimulation operations, engineering & construction, production, processing, refining, transportation, marketing, applied R&D and training, etc.

Today, Oil and Natural Gas Corporation Ltd. (ONGC) is, the leader in Exploration & Production (E&P) activities in India having 72% contribution to India’s total production of crude oil and 48% of natural gas. ONGC has established more than 7 billion tonnes of in-place hydrocarbon reserves in the country. In fact, six out of seven producing basins in India have been discovered by ONGC. ONGC produces more than 1.27 million barrels of Oil Equivalent (BOE) per day. It also contributes over three million tonnes per annum of Value-Added-Products including LPG, C2 - C3, Naphtha, MS, HSD, Aviation Fuel, SKO etc.

In 1993, the government disinvested two percent of its share through competitive bidding subsequently ONGC expanded its equity by another two percent by offering shares to its employees. In the year 2002-03, after taking over MRPL from the A V Birla Group, ONGC diversified into the downstream sector. ONGC has also entered the global field through its subsidiary, ONGC Videsh Ltd. (OVL) and has made major investments in Vietnam, Sakhalin, Columbia, Venezuela, Sudan, etc. ONGC first hydrocarbon overseas revenue came from its investment in Vietnam.
Global Ranking

1. ONGC is the Only Indian energy corporation in Fortune's Most Admired List 2012 under 'Mining, Crude Oil Production' category.
2. It is ranked 171th in Forbes Global 2000 list of the World's biggest companies for 2012 based on Sales (US$ 26.3 billion), Profits (US$ 5 billion), Assets (US$ 51 billion) and Market Capitalization (US$ 46.6 billion).
3. ONGC has been ranked 39th among the world's 105 largest listed companies in 'transparency in corporate reporting' by Transparency International making. It the most transparent company in India.

ONGC is India's Most Valuable Public Sector Enterprise
Several awards and distinctions to its credit, the important among them are:

1. The ONGC won Petrofed Oil & Gas Industry Awards 2011 in three categories - "Environmental Sustainability: Company of the Year", "Human Resource Management: Company of the Year" and "Innovator of the Year: Team (Won by IOGPT)".
2. ONGC was bestowed with "Most Attractive Employer" Award in Randstad Awards 2011
3. It was Won "Golden Peacock Award for Sustainability" for the year 2011
4. ONGC was awarded with the gold trophy of SCOPE meritorious award for "Environmental excellence & sustainable development" for the Year 2010-11 by former President Smt. Pratibha Devisingh Patil
5. It was Anointed "outstanding PSU of the year" at AIMA managing India awards 2012
6. It was Awarded the best overall performance PCRA award in the upstream sector (Oil & Gas) for 3rd consecutive year
7. ONGC was awarded the "ICSI National award for Excellence in Corporate Governance for 2011"- Certificate of Recognition
8. ONGC was awarded NIPM National award for best HR practices – 2011
9. ONGC was adjudged amongst 20 Top companies for Leaders 2011 in Aon Hewitt awards
10. ONGC was "Best enterprise award" for the organization in the Maharatna and Navaratna Category at the 22nd National Meet of Women in Public Sector (WIPS)
11. It was bestowed with safety innovation award 2011 in the Oil & Gas sector for innovative safety measures.

**SWOT:**
An attempt is made to analyze the Strengths, weakness, opportunities and threats of the ONGC in this section.

**Strength:**
The strengths of the ONGC are:

1. ONGC has discovered 6 out of the 7 producing basins in India:
2. It has 7.59 billion tonnes of in-place hydrocarbon reserves. It has to its credit more than 320 discoveries of oil and gas with ultimate Reserves of 2.69 Billion Metric tonnes (BMT) of Oil plus Oil Equivalent Gas (O+OEG) from domestic acreages.
3. It has cumulatively produced 851 Million Metric Tonnes (MMT) of crude and 532 Billion Cubic Meters (BCM) of Natural Gas, from 111 fields.
4. ONGC has won 121 out of a total 235 Blocks (more than 50%) in the 8 rounds of bidding, under the New Exploration Licensing Policy (NELP) of the Indian Government.
5. ONGC's wholly-owned subsidiary ONGC Videsh Ltd. (OVL) is the biggest Indian multinational, with 30 Oil & Gas projects (9 of them producing) in 15 countries.
6. It produces over 1.24 million barrels of oil equivalent per day, contributing over 64% of India's domestic production. Of this, over 75% of crude oil produced is Light & Sweet.
7. The Company holds the largest share of hydrocarbon acreages in India (51% in PEL Areas & 67% in ML Areas).
8. ONGC possesses about one tenth of the total Indian refining capacity.
9. ONGC has a well-integrated hydrocarbon value chain structure with interests in LNG and product transportation business as well.
10. A unique organization in world to have all operative offshore and onshore installations (403) accredited with globally recognized certifications.
11. All crudes are sweet and most (76%) are light, with sulphur percentage ranging from 0.02-0.10, API gravity range 26°-46° and hence attract a premium in the market.
12. Strong intellectual property base, information, knowledge, skills and experience
13. Maximum number of exploration licenses, including competitive NELP rounds. ONGC has bagged 121 of the 235 Blocks (more than 50%) awarded in the 8 rounds of NELP.
14. ONGC owns and operates more than 26,600 kilometers of pipelines in India, including sub-sea pipelines. No other company in India operates even 50 per cent of this route length.

**Weakness:**
The Weakness of the ONGC are:
1. Human rights and rehabilitation issues
2. Bureaucratic redtapism
3. Legal issues involved

**Opportunity:**
The Opportunities of the ONGC are:
1. Increase demand for fuel/oil prices
2. Increasing natural gas market
3. More oil well discoveries
4. Expanding export market

**Threats:**
The threats of the ONGC are:
1. Government regulations
2. Environment laws
3. High competition
4. Gradual increase of hybric and electric vehicles in the market
Table No: 6.4 Financial performance ONGC
ONGC attained Maharatna status by its sheer performance. The company grew year after year consistently. The revenue from operations grew from Rs.35387.2 crores in 2002-03 to Rs.76887.1 crores in 2011-12 which is 117 percent growth during the period.

The operating expenses include such things as payroll, sales commissions, employee benefits and pension contribution, transportation and travel amortization and depreciation, rent, repairs and taxes. It increased from 7085 Crore in 2002-03 to 13981.2 Crore in 2011-12.

The profit before interest, depreciation and tax successively increased from 19049.2 Crore in 2002-03 to 41032.7 Crore in 2011-12 it is 115 percent growth in decade. The other operation income (before interest and tax) which includes, payments received in respect of patents, license, concession, representation, agreements directors fees, operating subsidies received increased in absolute terms from Rs. 14905.3 crores in 2002-03 to Rs. 33536.8 crores in 2011-12.

Profit before tax increased from 16123.8 Crore in 2002-03 to 25834.6 Crore in 2007-08, then it marginally fell to 23980.7 Crore in 2008-09 due to the global economic slowdown. Further it increased successively 36642.5 Crore in 2011-12. The enterprise also has paid substantial taxes to the government in 2002-03, it paid 5594.5 crores which increased to 11519 crores in 2011-12. ONGC paid 34 percent of its profit before tax to the government in 2002-03 and it decreased to 31 percent in 2011-12. Hence the profit after tax increased from Rs. 10529.3 crores in 2002-03 to Rs. 25122.9 crores in 2011-12. The dividends of the company also rose from 3422.2 crores in 2002-03 to 8341.6 crores in 2011-12. The net worth of the company increased from 40,000.2 crore in 2002-03 to 111784.1 crore in 2011-12. The capital employed also increased from 25217 crore in 2002-03 to 90884.8 crore in 2011-12.

The funds raised by issuing shares in return for cash and other consideration are called as share capital. It was 1425.93 crores in 2002-03 which increased to 4277.76 crores in 2011-12. The earnings per share increase from Rs.12.3 in 2002-03 to Rs. 29.36 in 2011-12. ONGC declared 195% in 2011-12. The book value per share which indicated the book value of each share of stock has increased from Rs.42 in 2002-03 to Rs. 131 in 2011-12.
The stock price of ONGC share rose from Rs. 349.8 in 2002-03 to Rs. 174.95 in 2005-06 which fell to Rs. 870.05 in 2008-09, but it gained momentum and reached Rs. 1236.5 in 2007-08, which marginally fell to Rs. 667.65 in 2008-09. But there was a sharp increase to Rs. 1293.4 in 2010-11 and it it steeply fell to 256.95 in 2011-12.

The important reasons for the fall of the ONGC shares are:-

1. Recessionary market condition

2. The delays in offer for sale: the department of disinvestment under the finance ministry for the first time in November 2010 proposed disinvestment of 5% of ONGC out of the government’s shareholding. The cabinet approved the proposal on December 1, 2010. The issue was stated for March 2011 but despite all preparations, the launch of issue got delayed as the condition over the requisite number of independent directors could not be fulfilled in time. the issue was also again scheduled for July 2011, but it was postponed again due to announcement of the subsidy sharing and extra burden on ONFX which led to the downward impact on the share price of ONGC

**Linear Regression Model**

In order to test the impact of stock market on industries the following model has been framed. In this model Revenue is dependent and Sensex are independent variable. This Model presumes that Revenue depends upon Sensex.

The model is written as

\[ R = f(S\text{EN}) \]

In order to make the operation easier to handle the log of all the variables are taken, then

\[ LR = \alpha_0 + \alpha_1 \text{LSEN} \]

Where

\[ LR = \text{Log Revenue} \]
\[ \text{LSEN} = \text{Sensex} \]
Correlation

In order to know the direction and magnitude of relation between Revenue and Sensex the Pearson Correlation was done with the help of SPSS 16 which yielded following result.

<table>
<thead>
<tr>
<th></th>
<th>Revenue</th>
<th>Sensex</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Correlation</td>
<td></td>
<td>.943</td>
</tr>
<tr>
<td>Sig. (1-tailed)</td>
<td></td>
<td>.000</td>
</tr>
<tr>
<td>N</td>
<td>10</td>
<td>10</td>
</tr>
</tbody>
</table>

ONGC Revenue is highly correlated with BSE Sensex as its coefficient value of 0.943 which is nearer to one.

Results of Regression Estimation

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std.Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>4.045</td>
<td>0.209</td>
<td>19.330</td>
<td>.020</td>
</tr>
<tr>
<td>LSEN</td>
<td>.420</td>
<td>0.052</td>
<td>8.035</td>
<td>.000</td>
</tr>
<tr>
<td>$R^2$</td>
<td>0.943</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$R^{-2}$</td>
<td>0.876</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

|                | Durbin-Watson | 2.833 |

ANOVA(c)

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>d.f</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td>.117</td>
<td>1</td>
<td>117</td>
<td>.000(a)</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>.014</td>
<td>8</td>
<td>.002</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>.131</td>
<td>9</td>
<td>64.567</td>
<td></td>
</tr>
</tbody>
</table>

The calculated F value is 64.567 with a corresponding value of .000 which states that it is significant at 5% level. Hence the overall fitness of the model is justified.

The value of R square is .943 which is nearing to one indicating that regression model is a good fit. The data implied that 0.943% of variance of the Revenue has been explained by the regressor of Sensex. The adjusted R square is 0.890 which means that about 0.89% of the variation in the observed behavior in dependent variable Revenue. In order to test the presence of auto correlation Durbin Watson statistics was done which came to 2.833 which indicated that the problem of autocorrelation is fairly solved.
Revenue = 0.405 \cdot 10^{-2} + 0.420 \cdot 10^{-1} \cdot \text{SEN}

\begin{align*}
(19.330) & \quad (8.035)
\end{align*}

The model reveals that 1 percent increase in Sensex will lead to an increase in Industrial Revenue by 42 percent.

The findings of the study reveal that stock market positively influences the ONGC Industry.

### 6.6 Jindal Steel and Power Limited

<table>
<thead>
<tr>
<th>Establishment</th>
<th>1952</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>Private</td>
</tr>
<tr>
<td>IPO</td>
<td>1998</td>
</tr>
<tr>
<td>Category</td>
<td>Iron and Steel</td>
</tr>
<tr>
<td>Sector</td>
<td>Industrial products</td>
</tr>
<tr>
<td>Key person</td>
<td>Naveen Jindal (Chairmen &amp; MD)</td>
</tr>
<tr>
<td>Location</td>
<td>New Delhi, India</td>
</tr>
<tr>
<td>Vision</td>
<td>“to be a globally admired organisation that enhances the quality of life of all stakeholders through sustainable Industrial and business development”.</td>
</tr>
<tr>
<td>Mission</td>
<td>Aspire to achieve business excellence through the spirit of Entrepreneurship and innovation, Optimum utilization of resources, Sustainable environment friendly procedures and practices</td>
</tr>
<tr>
<td>Products</td>
<td>Steel, iron, electricity generation and distribution, petroleum, cement</td>
</tr>
<tr>
<td>Revenue (Rs. Crore)</td>
<td>13242.96 Crore (2011-12)</td>
</tr>
<tr>
<td>Net profit (Rs. Crore)</td>
<td>2110.65 Crore (2011-12)</td>
</tr>
<tr>
<td>Total assets(Rs. Crore)</td>
<td>2832 crore (2011)</td>
</tr>
</tbody>
</table>

Jindal group was founded by O.P. Jindal in 1952. He was a great visionary; he started an indigenous single unit steel plant in Hisar, Harayana. The Orbit Strips Private Limited was incorporated in to Jindal Group on 28th September 1979. 20 years later i.e., on 27th May 1998, it was coveted in to a public limited Company and was renamed as “Jindal Steel and Power Limited”. The Raipur and Raigarh division of Jindal Strips Limited were transferred and vested into Jindal Steel and Power Limited on 2nd April 1998.
The Jindal Steel and Power Limited reached its pinnacle of growth under the leadership of Naveen Jindal. The Company has committed investment exceeding Rs. 135,000 Crore and has several other business initiations running simultaneously across countries. The Company has grown into multi organization with substantial investments in steel, power, petroleum and mining. The company now has interests in Asia, Africa, South America Magnolia, Georgia and Australia through its 100 % subsidiaries namely Jindal Steel & Power (Mauritius) Ltd., Mauritius (JSPLM), JSPL has acquired Shadeed Iron & Steel Co. LLC (Shadeed) in Oman. Jindal Shadeed has installed a 1.5 MTPA gas-based hot briquetted iron (HBI) plant with an investment of US$ 500 million and started commercial production from the Oman plant, four months ahead of schedule in December 2010. The company is adding a steel making facility of 2 MTPA in Oman. It will set up the first integrated steel plant in the Sultanate of Oman.

The Jindal Steel and Power Limited is now important force in the field of enterprises looking for energy for production, people of petrol diesel for vehicles and domestic uses.

The Jindal Steel and Power Limited is growing significantly. It has got recognition worldwide. JSPL is rated as second highest value creator in the World by Boston Consulting Group. The Business World rates the JSPL as 11th fastest growing Company in India. It is also included in the Fab 50 Companies by Forbes Asia 2009 and 2010. It is one of the Best Blue Chip companies as well as the highest wealth creator by Dalal Street Journal. The Dun and Bradstreet ranks it in fourth place based on total income in the iron and steel sector. JSPL is strengthening industrial base by aiding the infrastructural development. The company deploy its resources to improve infrastructure, education, health, water, sanitation, environment, etc. in the areas it has its operation.

In 1998 the Company issued 14% i.e., 60, 00,000 cumulative redeemable preference shares of Rs. 100/- each aggregating to Rs. 60 crores on private placement basis. In 2000 the Company issued 14% i.e., 20, 00,000 cumulative redeemable non-convertible Preference Shares of Rs. 100/- each aggregating to Rs.20 Crores on private placement basis.
Awards and Recognitions

Jindal steel and power limited has got many awards and recognition, to name few:-

1) Good Green Governance (G-Cube)' Awards 2009-10.

2) National Energy Conservation Award for successive 8th year since 2002 to 2010

3) Mr. Naveen Jindal won the Ernst and Young Entrepreneur of the Year award for 2010 in the field of Energy and Infrastructure

4) Mr. Naveen Jindal received the CNBC's Most Promising Entrant into the Big League Award at IBLA 2009 for Jindal Steel & Power Limited

5) Mr. Naveen Jindal was listed among 25 Indians who were part of the annual list of 250 Global Young Leaders in 2007 prepared by the Geneva-based World Economic Forum (WEF)

6) IIM Quality Award for 2003 by the Indian Institute of Metals, instituted by the Bureau of India Standards

7) Golden Peacock National Quality Award - 2002


9) Asia Pacific HR Excellence Award - 2003

10) JSPL awarded with Strong Commitment to HR Excellence at CII national HR excellence award 2011

11) JSPL receives Asia Pacific HRM Congress 2011 Awards for "Organization with Innovative HR Practices"

SWOT:

An attempt is made to analyze the Strengths, weakness, opportunities and threats of the Jindal steel and power limited in this section.
**Strength:**
The strengths of the Jindal steel and power limited are:

1. Produces economical and efficient steel and power through backward and forward integration
2. an diversified a product portfolio that caters to varied needs in the steel market
3. Operates the largest coal - based sponge iron plant in the world
4. Has force of innovation, adaptation of new technologies and the collective skills of its 15,000 strong, committed workforce
5. Has an enterprising spirit and the ability to discern future trends
6. Has diversified operations in steel, iron, electricity generation and distribution

**Weakness:**
The weaknesses of the Jindal steel and power limited are:

1. Shortage of coking coal and is largely dependent upon its import
2. Increasing raw material, power and fuel cost is cutting down the profit and forcing the company not to perform satisfactorily.

**Opportunity:**
The opportunities of the Jindal steel and power limited are:

1. Adaptability and eagerness to venture into new business by leveraging its care capabilities
2. Increase production capacity to meet the global steel demand
3. Diversified investments portfolio to distribute risk in business

**Threats:**
The threats of the Jindal steel and power limited are:

1. The frequent hike in export duty on Iron Ore fine and lumps.
2. The frequent increase in raw material cost is threatening the project implementations.
3. Difficulties in starting new ventures due to unresolved issues of land acquisition, raw material linkages and environmental clearances
Table No: 6.5 Financial Performance Jindal steel and power limited
Jindal Steel and Power Limited have made its mark in steel and power segment. Hence it has a consistent and successful financial performance over the years. The Gross sales and other income of the enterprise was Rs. 1001.68 crores in 2002-03 which grew to 14926.29 crores in 2011-12 which is 1390 percent growth.

Net sale and other income (Total Income) also increased from Rs. 889.11 Crore in 2000-03 to Rs. 13518.43 Crore in 2011-12 which is 1420 percent growth in the decade. Other income which is earned income from activities other than normal business operations, such as investment interest, foreign exchange gains, rent income, and profit from the sale of non-inventory assets. Other income increased from Rs. 8.5 crore in 2002-03 to Rs.184.48 crore in 2011-12. The share of other income in the Gross sales increased marginally from 0.85 percent to 1.25 percent during the said period.

Operating Profit earnings before Interest and tax (EBIT) was Rs. 350.9 crore in 2002-03 which increased to Rs. 4246.97 in 2011-12. Hence the profit after tax of the enterprise increased from Rs. 145.08 crores in 2002-03 to Rs. 2110.65 crores in 2011-12. Cash profit is profit after tax plus depreciation was also about 15 times increased from Rs. 267.14 in 2002-03 to Rs. 3167.32 Crore in 2011-12.

Gross block of a company (The total value of all of the assets that a company owns) was Rs. 1504 Crore in 2002-03 which increased to Rs. 25684.12 Crore in 2011-12. As net block (Net block is the gross block less accumulated depreciation on assets) of company was Rs. 1324.69 Crore in 2002-03 which increased to Rs. 22028.87 Crore in 2011-12.

The funds raised by issuing shares in return for cash and other consideration are called as share capital. It was Rs. 14.63 crores in 2002-03 which increased to Rs. 93.48 crores in 2011-12. Net worth for a company, total assets minus total liabilities. Net worth is an important determinant of the value of a company, considering that it is composed primarily of all the money that has been invested since its inception, as well as the retained earnings for the duration of its operation it is also called owner's equity, shareholders' equity, or net assets.
Net worth of a company was Rs. 571.17 Crore in 2002-03 which increased to Rs. 10,831.31 Crore in 2011-12. Borrowings out of company sources are Rs. 885.26 Crore in 2002-03 and it increased to Rs. 15714.32 Crore in 2011-12.

The earnings per share increased from Rs. 1.73 in 2002-03 to Rs. 22.58 in 2011-12. Earnings per share increased 22 times in the considered period. The book value per share which indicated the book value of each share of stock has increased from Rs.39 in 2002-03 to Rs. 115.87 in 2011-12. (Normalized on account of issue of bonus shares in the ratio of 5:1 during 2009-10).

Dividend Rate ‘The total expected dividend payments from an investment, fund or portfolio expressed on an annualized basis plus any additional non-recurring dividends that may be received during that period. It was 25 percent in 2002-03 which increased to 160 percent in 2011-12. (Normalized on account of issue of bonus shares in the ratio of 5:1 during 2009-10)

The stock price of Jindal steel and power Limited in BSE was Rs.348.95 in 2002-03 which robustly increased to Rs. 15359.25 in 2007-08. Further it continuously going down from Rs. 911.9 in 2008-09 to Rs. 453.1 2011-12. The important reasons for the decrease in the share price are

1. global economic slowdown
2. Companies might have to pay higher price(upfront or recurring) for coal blocks to be awarded through competitive bidding in the future
3. Investors are wary of holding exposure to companies mentioned in the auditor’s report August 17 that questioned the government’s practice of awarding coal mining concessions to companies without competitive bidding.
4. There have been allegations that Mr. Jindal, who is a Congress MP, used his political clout to get more coal blocks in India
5. The company under scrutiny of the Inter-Ministerial Group over the Jitpur coal block in Jharkhand for delay in start of production
Linear Regression Model

In order to test the impact of stock market on industries the following model has been framed. In this model Revenue is dependent and Sensex are independent variable. This Model presumes that Income depends upon Sensex.

The model is written as
\[ R = f(\text{SEN}) \]
In order to make the operation easier to handle the log of all the variables are taken, then
\[ LR = \alpha_0 + \alpha_1 \text{LSEN} \]
Where
LR = Log Revenue
LSEN = Sensex

Correlation

In order to know the direction and magnitude of relation between Income and Sensex the Pearson Correlation was done with the help of SPSS 16 which yielded following result.

<table>
<thead>
<tr>
<th>Pearson Correlation</th>
<th>Revenue</th>
<th>Sensex</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue</td>
<td>1.000</td>
<td>.953</td>
</tr>
<tr>
<td>Sig. (1-tailed)</td>
<td>Revenue</td>
<td>.000</td>
</tr>
<tr>
<td>N</td>
<td>Revenue</td>
<td>10</td>
</tr>
</tbody>
</table>

Jindal Steel and Power Limited Revenue is highly correlated with BSE Sensex as its coefficient value of 0.953 which is nearer to one.

Results of Regression Estimation

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std.Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>1.770</td>
<td>0.612</td>
<td>2.893</td>
<td>.020</td>
</tr>
<tr>
<td>LSEN</td>
<td>1.355</td>
<td>0.153</td>
<td>8.862</td>
<td>.000</td>
</tr>
<tr>
<td>( R^2 )</td>
<td>0.908</td>
<td>Durbin-Watson</td>
<td>1.607</td>
<td></td>
</tr>
<tr>
<td>( R^{-2} )</td>
<td>0.896</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

267
The calculated F value is 78.528 with a corresponding value of .000 which states that it is significant at 5% level. Hence the overall fitness of the model is justified.

The value of R square is .908 which is nearing to one indicating that regression model is a good fit. The data implied that 0.90.1% of variance of the Revenue has been explained by the regressor of Sensex. The adjusted R square is 0.896 which means that about 0.89.6% of the variation in the observed behavior in dependent variable Revenue. In order to test the presence of auto correlation Durbin Watson statistics was done which came to 1.607 which indicated that the problem of autocorrelation is fairly solved.

$$\text{Revenue} = a (1.770) + (1.355) \text{SEN}$$

$$\quad (2.893) \quad (8.862)$$

The model reveals that 1 percent increase in Sensex will lead to an increase in Industrial Revenue by 100 percent.

The findings of the study reveal that stock market positively influences the Jindal Steel and Power Industry
6.7 Reliance Industries Limited

<table>
<thead>
<tr>
<th>Establishment</th>
<th>1966</th>
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<tbody>
<tr>
<td>Type</td>
<td>Private</td>
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<tr>
<td>IPO</td>
<td>November 1997</td>
</tr>
<tr>
<td>Category</td>
<td>Oil and Gas</td>
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<tr>
<td>Sector</td>
<td>Energy</td>
</tr>
<tr>
<td>Key person</td>
<td>Mukesh Ambani (chairmen &amp; MD)</td>
</tr>
<tr>
<td>Location</td>
<td>Mumbai, Maharashtra, India</td>
</tr>
<tr>
<td>Vision</td>
<td>Through sustainable measures, create value for the nation, enhance quality of life across the entire socio-economic spectrum and help spearhead India as a global leader in the domains where we operate</td>
</tr>
</tbody>
</table>
| Mission       | Create value for all stakeholders  
|               | Grow through innovation  
|               | Lead in good governance practices  
|               | Use sustainability to drive product development and enhance operational efficiencies  
|               | Ensure energy security of the nation  
|               | Foster rural prosperity |
| Products      | Crude Oil, Natural Gas, Petrochemical, Petroleum, Polyster,Textiles, Retail, infotel |
| Revenue (Rs. Crore) | 51097 Crore (2011-12) |
| Net profit (Rs. Crore) | 20040 Crore (2011-12) |
| Total assets(Rs. Crore) | 2,95,140 Crore (2011) |

Reliance Group was funded by Dhirubhai H. Ambani in 1966, today it is India’s largest private sector enterprise, with business in the energy and material value chain. Reliance group head quarter is situated in Mumbai. Dhirubhai H Ambani initiated his reliable group with a textile company and led its evolution as a global leader in the materials and energy value chain business. The Reliance became public limited company in 1997. Dhirubhai H Ambani epitomized the spirit dare to dream and learn to excel. He introduced equity cult in the country. He gave a new model of business leadership from a base of broadest public shareholding. In 1982 Reliance launched phase-I of the polyester Filament Yarn (PFY) plant at Patalganga. Reliance pioneered the first ever Euro Convertible Bond issue by an Indian Company. In 1993 the India’s largest public offering came from Reliance Petroleum Limited public issue. By 2001 Reliance Industries Limited and Reliance Petroleum Limited became India’s two largest companies in terms of all major financial parameters Dhirubhai Ambani was conferred the Economic Times award for corporate Excellence for Lifetime Achievement.
Reliance perused a strategy of backward vertical integration starting from textiles i.e. in polyester, fiber intermediates, plastics, petrochemicals, petroleum refining and oil and gas exploration and production – to be fully integrated along the materials and energy value chain. The Group's activities span exploration and production of oil and gas, petroleum refining and marketing, petrochemicals (polyester, fiber intermediates, plastics and chemicals), textiles, retail, infield and special economic zones. Reliance enjoys global leadership in its businesses, being the largest polyester yarn and fiber producer in the world and among the top five to ten producers in the world in major petrochemical products.

The Major Companies grouped in the Reliance Industries Limited are:-

1) Exploration and production:

2) Refining

3) Petrochemicals – polymers:

4) Repol, Relene, Reon, Relpipe, Cisamer, Chemicals, Relab

5) Petrochemicals- Polyester and Fibre Intermediates namely Recron, Recron Stretch, Recron Cotluk, Recron Superblack, Recron Superdye Recron Kooltex Recron Fibrefill, Recron 3S, Recron Certified, Recron Certifies, Recron Low pill, Recron Feelfresh, Recron Micelle, Recron Recrobulk, Recron Green, Recron Spunlace, Recron Recosilk, Recron FR Recron Duratarp, Recron Safeband Relpet

6) Textiles namely: Vimal, Vimal Gifting V2

7) Retail namely: Reliance Retail, GAPCO

The important operation of Reliance Industries and its products are:-

1) petroleum refining:-

2) marketing business:-

**Reliance Industries Limited and Economic Growth.**

The Annual Report of Reliance Industries Limited of 2011-12 lists out the contribution of RIL to economic growth in India

1) RIL contributes 14% of country’s exports

2) RIL contributes 5.5% of the indirect tax revenues

3) RIL forms 4% of the market capitalization
4) RIL is given weightage of 9.3% in the Bombay Stock Exchange (BSE) Sensex
5) RIL is given the weightage of 7.8% in the National Stock Exchange
6) North America and Latin America countries are prime export destinations for RIL Gasoline. In domestic market RIL maintained its position with the share of 65% of commodity Polymer Production and 47% of domestic market share in Polyester and feed stock market.

Awards
Reliance industries limited have received many awards and recognition, the important being

1. Shri. Mukesh D. Ambani, Chairman and Managing Director, Reliance Industries Ltd. received the ‘Business Leader of the Year’ award at the Hello Hall of Fame Awards, 2011

2. RIL continues to be featured for the seventh consecutive year, in the Fortune Global 500 list of the World’s Largest Corporations and ranked 134th based on Revenues.

3. RIL is the only Indian company to feature in “2012 Global 100 Most Sustainable Companies of the world” by Corporate Knights.


5. Boston Consulting Group and Business Week rank RIL among the top 50 innovative companies of the world

6. Allahabad Manufacturing Division got Performance Excellence trophy from IMC Ramakrishna Bajaj National Quality Awards 2011 under the manufacturing category
7. Nagpur Manufacturing Division received the “International Star Award for Quality (ISAQ)” at Business Initiative Directions (BID) Convention, London

8. Allahabad Manufacturing Division received the Gold Award in Textile sector for outstanding achievement in safety management from Genentech Foundation.

9. Jamnagar DTA Refinery was honored with the Five Star Award for Health & Safety Management by the British Safety Council, UK

10. The Jamnagar SEZ Refinery received the Five Star Award for Environment Management System by the British Safety Council, UK

11. Jamnagar SEZ Refinery received Srishti’s ‘G-Cube Award-2010’ for ‘Good, Green, and Governance

12. Naroda Manufacturing Division received the British Safety Council Five Star Certification on Environment

13. Vadodara Manufacturing Division received the CII Environment Best Practices Award 2012 for “Most Innovative Environmental Project”

14. Jawaharlal Nehru Centenary Award for specific energy consumption from Centre for High Technology (CHT), Ministry of Petroleum and Natural Gas (MOPNG) was received by Jamnagar DTA Refinery

15. RIL inducted into Palladium Balanced Scorecard Hall of Fame for Executing Technology having achieved execution excellence through use of Balance Scorecard.

16. RIL Group Manufacturing Services (GMS) received the American Society for Training and Development (ASTD) Best Award, 2011 for work place learning and performance.

17. Reliance Trends received the Retail Marketing Campaign of the Year Award at the Asia Retail Congress 2011.
18. RIL won the prestigious National Golden Peacock Award 2011 for its outstanding contribution in the field of corporate sustainability.

19. Hazira Manufacturing Division won the prestigious CII-ITC Sustainability Award for the year 2011 for its strong commitment towards sustainable excellence.

**SWOT:**

An attempt is made to analyze the Strengths, weakness, opportunities and threats of the Hero motor Corp in this section.

**Strengths:**

The strengths of the Reliance Industries Limited are:

1. it is one of biggest players in India

2. it has got the strong brand name in India and abroad

3. it is in excellent financial position

4. it is one of the few Indian companies to be featured in Forbes

5. It is largest refining capacity at any single location

6. It is largest producer of polyester Fibre and Yarn

7. It is 5th largest producer of Paraxylene

8. It is 5th largest producer of Polypropylene

9. It is 8th largest producer of purified Terephthalic Acid (PTA) and Mono Ethelen Glycol (MEG).

**Weakness:**

The weaknesses of the Reliance Industries Limited are:

1. It has long term debt issues

2. Legal issues are yet to be resolved
3. KG D6 gas controversy: production from the KG-D6 block has been adversely impacted mainly due to unforeseen reservoir complexities and water ingress in the producing fields.

**Opportunity:**
The opportunities of the Reliance Industries Limited are:
1. Growing demand for petroleum products
2. Buyout of competition

**Threats:**
The threats of the Reliance Industries Limited are:
1. Government regulations
2. High competition
3. Environmental laws
4. Economic uncertainty in Europe
5. Geo political upheaval in Middle East economic slow down
Table No: 6.6  Financial performance of Reliance Industries Limited
Reliance Industries Limited has made its mark in Oil and Gas segment. Hence it has a consistent and successful financial performance over the years. The revenue from operation has grew from Rs.50,096 crore in 2002-03 to Rs.3,39,792 in 2011-12. The total income of the enterprise was Rs. 51,097 crores in 2002-03 which grew to Rs. 3, 45,984 crores in 2011-12 which is 577 percent growth.

The company earnings before depreciation, interest and Tax (EBDIT) has rose from Rs. 9366 Crore in 2002-03 to Rs. 41,178 Crore in 2010-11 marginally declined to Rs. 39811 crore in 2011-12.

The company profit has grew 394% in 2002-03 i.e., Rs.4104 Crore in 2002-03 to Rs. 20286 Crore in 2010-11, the profit was fell from -1.2% in 20286 Crore to 20040 Crore in 2011-12.

The equity dividend to share holders was 50% in 2002-03 and it was increased to 130% in 2008-09. But due to adjusted for issue of bonus shares in 2009-10 in the ratio of 1:1 equity dividend allotted was 70% in 2009-10 which increased to 85% in 2011-12.

Dividend payout which refers to the amount of cash that a company sends to its shareholders in the form of dividends has increased from Rs. 698 Crore in 2002-03 to Rs. 2531 Crore in 2011-12.

The funds raised by issuing shares in return for cash and other consideration is called as share capital it was Rs. 1396 Crore in 2002-03 which increased to Rs. 3271 Crore in 2010-12.

The reserve created out of profits transferred from profit and loss account is called reserve. The balance in the profit and loss account is called a surplus. The reserve and surplus of a company was Rs. 28931 Crore in 2002-03 which substantial increased to Rs. 1, 62,825 Crore in 2011-12. The company net assets or net worth has increased from 30327 Crore in 2002-03 to Rs. 1, 66,096 Crore in 2011-12.
The Gross fixed assets like machine, land, equipments etc. are Rs. 52547 Crore in 2002-03 which increased to 2 Rs. 05,493 Crore in 2011-12. The company total asset was Rs. 63737 Crore in 2002-03 which increased to Rs. 2, 95,140 Crore in 2011-12. The company market capitalization represents the aggregate value of company or stock which was Rs. 38603 crores in 2002-03 increased to Rs. 2, 44,757 Crore in 2011-12 which amounts to 534% growth. Company working employee were Rs. 12915 in 2002-03 which increased to Rs. 23166 in 2011-12

The earnings per share is a rough measurement of the amount of a company's profit that can be allocated to one share of its stock. Basic earnings per share (EPS) do not factor in the dilutive effects on convertible securities. The earnings per share of the company has increased from Rs. 29.3 in 2002-03 to Rs. 105 in 2007-08 after that it fell to Rs. 49.7 because the earnings of reliance company had decreased it. It marginally gains to Rs. 61.2 in 2011-12. The turnover per share of a company was Rs. 358.8 in 2002-03 which robustly increased to Rs.1037.80 in 2011-12. The book value per share also increased from Rs.217.2 in 2002-03 to 507 in 2011-12. The stock price of Reliance Industries in BSE was 297.7 in 2002-03 which increased to 2881.05 in 2007-08. It fell 1230.25 in 2008-09 after that share price is continuously going down till it was 2011-12. Rs. 692.9 in 2011-12.

The important reasons for the fall in the share price are:-

1) Reliance Industries buyback offer: RIL announced a share buy-back programme on January 20, 2012, which remained open up to January 19, 2013 or earlier as may be determined by the Company after necessary compliances. This buy-back programme was the largest-to-date in the history of Indian capital markets. The Board of Directors of the Company at its meeting held on January 20, 2012 unanimously approved the buyback of up to twelve Crore fully paid up equity shares of ` 10 each, at a price not exceeding `870 per equity share, payable in cash, up to an aggregate amount not exceeding’ 10,440 Crore from the open market through stock exchange(s). During the year, Company has bought and extinguished 36, 63,431 equity shares. Consequently a sum of ‘four crore has been appropriated to Capital Redemption Reserve Account from Statement of Profit and Loss and’ 275 Crore has been reduced from Securities Premium Reserve. The paid-up equity share capital of the Company as on March 31, 2012 has been reduced to ` 3,271 crore.
2) Decreased total earnings  
3) Global economic slowdown  
4) Reliance Industries shares hit on Kejriwal's charges: shares of Reliance Industries fell by 2.1 per cent a day after anti-corruption activist Arvind Kejriwal accused the energy conglomerate of hoarding natural gas and exerting pressure on the government to favors it.  

**Linear Regression Model**  
In order to test the impact of stock market on industries the following model has been framed. In this model Revenue is dependent and Sensex are independent variable. This Model presumes that Revenue depends upon Sensex.  

The model is written as  

\[ R = f(SEN) \]  

In order to make the operation easier to handle the log of all the variables are taken, then  

\[ LR = \alpha_0 + \alpha_1 LSEN \]  

Where  

\[ LR = \text{Log Revenue} \]  

\[ LSEN = \text{Sensex} \]  

**Correlation**  
In order to know the direction and magnitude of relation between Revenue and Sensex the Pearson Correlation was done with the help of SPSS 16 which yielded following result.  

<table>
<thead>
<tr>
<th>Pearson Correlation</th>
<th>Revenue</th>
<th>Sensex</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1.000</td>
<td>.929</td>
</tr>
<tr>
<td>Sig. (1-tailed)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>10</td>
<td>10</td>
</tr>
</tbody>
</table>

The Reliance Industry Revenue is highly correlated with BSE Sensex as its coefficient value of 0.929 which is nearer to one.  

**Results of Regression Estimation**  

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std.Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>8.882</td>
<td>0.534</td>
<td>6.645</td>
<td>.000</td>
</tr>
<tr>
<td>LSEN</td>
<td>.950</td>
<td>0.133</td>
<td>7.122</td>
<td>.000</td>
</tr>
<tr>
<td>( R^2 )</td>
<td>0.864</td>
<td>Durbin-Watson</td>
<td>1.963</td>
<td></td>
</tr>
</tbody>
</table>
### ANOVA(c)

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>d.f</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td>.597</td>
<td>1</td>
<td>.597</td>
<td>50.726</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>.094</td>
<td>8</td>
<td>.012</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>.691</td>
<td>9</td>
<td></td>
<td>.000(a)</td>
</tr>
</tbody>
</table>

The calculated F value is 50.726 with a corresponding value of .000 which states that it is significant at 5% level. Hence the overall fitness of the model is justified.

The value of R square is .864 which is nearing to one indicating that regression model is a good fit. The data implied that 0.864% of variance of the Revenue has been explained by the regressor of Sensex. The adjusted R square is 0.847 which means that about 0.847% of the variation in the observed behavior in dependent variable Revenue. In order to test the presence of auto correlation Durbin Watson statistics was done which came to 1.963 which indicated that the problem of autocorrelation is fairly solved.

Revenue = a (8.82) + (0.950) SEN

\[
\begin{align*}
(16.645) & \quad (7.122)
\end{align*}
\]

The model reveals that 1 percent increase in Sensex will lead to an increase in Revenue by 95 percent.

The findings of the study reveal that stock market positively influences the Revenue of Reliance Industry.
# 6.8 Tata Power Limited

<table>
<thead>
<tr>
<th>Establishment</th>
<th>1919</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>Private</td>
</tr>
<tr>
<td>IPO</td>
<td>2000</td>
</tr>
<tr>
<td>Category</td>
<td>Power</td>
</tr>
<tr>
<td>Sector</td>
<td>Energy</td>
</tr>
<tr>
<td>Key person</td>
<td>Cyrus P Mistry (Chairmen)</td>
</tr>
<tr>
<td>Location</td>
<td>Mumbai, Maharashtra, India</td>
</tr>
<tr>
<td>Vision</td>
<td>To be the most admired and responsible Integrated Power Company with international footprint, delivering sustainable value to all stakeholder.</td>
</tr>
<tr>
<td>Mission</td>
<td>Will become the most admired and responsible Power Company delivering sustainable value by:</td>
</tr>
<tr>
<td></td>
<td>• Operating the assets at benchmark levels</td>
</tr>
<tr>
<td></td>
<td>• Executing projects safely, with predictable benchmark quality, cost and time</td>
</tr>
<tr>
<td></td>
<td>• Growing the Tata Power businesses, be it across the value chain or across geographies, and also in allied or new businesses</td>
</tr>
<tr>
<td></td>
<td>• Driving Organizational Transformation with conviction and capabilities to deliver with strategic intent</td>
</tr>
<tr>
<td></td>
<td>• Achieving sustainability intent of ‘Leadership with Care’, by adopting leading and best practices on Care for the Environment, Care for the Community, Care for the Customers and Shareholders, and Care for the People</td>
</tr>
<tr>
<td>Products</td>
<td>Electrical Power, Natural Gas</td>
</tr>
<tr>
<td>Revenue (Rs. Crore)</td>
<td>8496 Crore (2011-12)</td>
</tr>
<tr>
<td>Net profit (Rs. Crore)</td>
<td>1170 Crore (2011-12)</td>
</tr>
<tr>
<td>Net Fixed assets (Rs. Crore)</td>
<td>7783.07 Crore (2012)</td>
</tr>
</tbody>
</table>

Tata Power (The Tata Power Company limited) was established in 1919 by Dorabji Tata, with headquarters at Mumbai, India. It has come a long way by now becoming India’s largest integrated private power company. The Tata Hydro-electric Power Supply company limited (established in 1910) and the Andhra Valley Power Supply Company Limited (established in 1916) were merged into Tata power, to form one unified entity.
The company became public limited company as it initiated the IPO in 2000. The market cap as on 23 Aug 2012 was 4.3 billion. The Company had 206,102 shareholders and they were holding 2,296,606,040 shares. The total public shareholding is 67.19% and total shareholding of promoter and promoter Group is 32.81%. Its total income in 2011-12 is 8496 crore with Rs.1170 Crore net profit.

It is engaged in the generation, transmission, and distribution of electric power. It supplies power directly to bulk consumers such as Central and Western Railways, Mumbai port, refineries, textile mills, fertilizer factories, Bhabha Atomic Research Centre (BARC), municipal corporation water pumping plants, and other major continuous processes industries requiring uninterrupted power supply. Tata power is having the market share of 8.02% in companies trading through bilateral contracts.

The company has an installed generation capacity of 8500MW in India. Out of which the thermal power generation capacity stands at 7647 MW, while generation through clean sources such as hydro, solar and wind stand at 852 MW. Some of the major projects of company are 4000MW Mundra Ultra Mega Power project, 1580MW Trombay Thermal Plant, 1050MW Maithon Thermal Plant, 300MW Bhira Hydro station, 81.3 MW Belgaum Thermal plant and 25MW Mithapur solar plant. The projects that are under implementation are 114 MW Dagachhu Hydro project, 1980MW Tiruldin power project and 1600MW Coastal Maharashtra project etc.

Tata power is also engaging in many businesses. In Transmission business it’s having over 1085 circuit kilometers of transmission lines, connecting generating station in Mumbai operations to 18 receiving stations in Mumbai. Tata power having over 13,000 circuit kilometers of distribution network in Mumbai and New Delhi and in retail it engaged in serving over 1,300,000 customers with sales of over 7,500 Ms in financial year 2012. Tata power trading company limited is aiming to expand all over the country including North eastern states.
Strategic Engineering Division

The strategic engineering division which is in operation for over 30 years. It has been pursuing development and production activities for the Indian defense sector. Over 90 percent of the company’s strategic electronic efforts are executed for the defense sector. The division has long standing relationships with the armed forces and DRDO.

The company aggressively is expanding its global operations and has already made its presence in some key developing markets. Tata power has acquired 30% stake in three of Indonesia’s leading coal companies, it’s doing business in Singapore through coal supply and the shipping of coal for its thermal power generation operation, South Africa through a joint venture, Australia through investment in enhanced geothermal and clean coal technologies and in Bhutan through a hydro project in partnership with the Royal Government of Bhutan.

Awards

Tata power has got many awards and recognition, the important are:-

1) Tata power was awarded “Best Fast Track completed power Transmission projects award” at the 5th India power awards 2012, organized by the council of power utilities at New Delhi.

SWOT:
An attempt is made to analyze the Strengths, weakness, opportunities and threats of the Tata Power Company limited in this section.

Strength:
The strengths of the Tata Power Company limited are:

1. The company is having advantage of being “Tata Brand” which has attained customers trust
2. It has huge expansion capability as it has large reserves and low Debt-Equity Ratio
3. Research and Development is strong and it has access to newer technologies
4. Tata Power had diversified its products & services. It is also generating clean power via hydro, wind, solar energies etc.
5. The Company had its international presence felt in South Africa, Australia, Malaysia, Saudi Arabia, Kuwait, Bhutan, Singapore, and Cyprus etc
6. Despite having a comparatively small employee workforce of 3000-odd employees, the skill and dedication of each employee is of the highest level

**Weakness:**
The weaknesses of the Tata Power Company limited are:

1. Limited Market share due to intense competition from Reliance Power, Adani power and NTPC
2. Limited presence in South India which is a lucrative market having IT hubs further it is yet to make its presence felt in central India

**Opportunity:**
The opportunities of the Tata Power Company limited are:

1. There is increasing demand for power. The planning commission working group has estimated that India requires additional 76000 MW during 12th plan and there is a need to add 93000 MW in 13th Plan.
2. Government of India is indicating at privatizing the distribution of power and hence there is lot of opportunity to grow
3. The demand for generating green power is also on the rise
4. Many emerging economies and developing economies are privatizing their energy sector and hence lots of opportunity to grow.

**Threats:**
The threats of the Tata Power Company limited are:

1. Continues rise in the price of imported coal. The price of coal has gone up from about US$ 50/tonne to over US $ 100/tonne.
2. The supply of domestic coal remains a big concern with environmental factors weighing negatively. Domestic coal supply is inadequate to meet current demand and there is not enough infrastructures in both the exporting countries and India, to handle large quantities of coal for import into India.
3. Changes in International policies regarding import of coal and oil.
4. Government policies and regulations like delays in land acquisition, environment clearances and other approvals remain an area of concern.
5. Lack of adequate water is another threat to the capacity addition plans, since 79% of the upcoming projects will be in areas of water scarcity.
Table No: 6.7 Financial Performance of Tata Power Company limited
TATA Power has made its mark in power segment. Hence it has a consistent and successful financial performance over the years. Operating Income refers to the measure of a company's earning power from ongoing operations, equal to earnings before deduction of interest payments and income taxes. It is also called as operating profit or EBIT (earnings before interest and taxes).

Operating income of the enterprise was Rs. 4300 crores in 2002-03 which marginally fell to 3930 (-8% growth) crores in 2004-05. There after it successively increased to Rs. 7236 in 2009-10 this is 84 percent growth during the period. Further it was decreased Rs. 7098 in 2009-10 and Rs. 6980 in 2010-11. Rs. 8496 was recorded in 2011-12 which 21 percent growth against previous period. Operating expenses of a company was Rs. 3116 crores in 2002-03 which grew to 6711 crores in 2011-12 which is 97 percent growth.

Operating Profit earnings before Interest and tax (EBIT) is Rs. 1184 Crore in 2002-03 which increased to 1287 in 2003-04 then it fell to Rs. 723 Crore in 2006-07. Further it increased from Rs.937 Crore in 2007-08 to Rs. 1879 in 2009-10. Again operating profit of enterprises fell to Rs. 1588 Crore in 2010-11 which increased to Rs. 1785 Crore in 2011-12.

The other income of the enterprise (except the year of 2005-06 and 2009-10) was Rs. 152 crores in 2002-03 which grew to 983 crores in 2011-12 which grew by 546 percent. The share of other income in the operating income increased from 3.5 percent to 11.5 percent during the period.

The company interest on loans and finance charges includes financing fees charged by intermediaries financial institution and the fees or salaries of any personal required to compute the financing process was Rs. 341 Crore in 2002-03 which increased to Rs. 515 Crore in 2011-12. Depreciation cost of enterprise (which is incurred on machineries) also increased from Rs. 318 Crore in 2002-03 to Rs. 570 Crore in 2011-12.
The company also paid substantial amount of tax to the government. It paid Rs.157 Crore in 2002-03 which increased to Rs. 513 Crore by 2011-12. TATA Power has paid 57 percent of its Profit before tax to the government, in 2002-03, it increased to 94 percent in 2011-12. Hence the company’s net profit or profit after tax grew (125 %) to Rs. 1170 Crore in 2011-12 from Rs. 520 crores in 2002-03.

The share holder’s reserves of enterprises Rs. 3162 Crore in 2002-03 which increased to Rs. 10525 Crore in 2011-12. Borrowing of company was Rs. 2399 Crore in 2002-03 and it increased to Rs. 7906 Crore in 2011-12.

The earnings per share are a rough measurement of the amount of a company's profit that can be allocated to share of its stock. Basic earnings per share (EPS) do not factor in the dilutive effects on convertible securities. The earnings per share of the company increased from Rs. 23 in 2002-03 to Rs. 41 in 2011-12. The operating income of Tata power increased to R. 4.53 (Share sub-division Rs. 10 to Rs. 1) in 2011-12. The equity dividend to share holders was 65 percent in 2002-03 and it increased to 125 percent in 2011-12.

The stock price of TATA Power in BSE was Rs. 111.7 in 2002-03 which increased to Rs. 1470.95 in 2007-08. Steeply it fell to Rs. 748.35 in 2008-09, further the share price decreased to 87.25 in the year of 2011-12.

The important reasons for the decrease in the share price are:-

1. Lower power generation: power generation, both in Mumbai and outside the megapolis were less and what was significant was on Mumbai
2. Decreased earnings
3. Global economic slowdown
4. Poor Sales, realization: The mixed merchant sales and the average merchant sales realization went down
Linear Regression Model

In order to test the impact of stock market on industries the following model has been framed. In this model Revenue is dependent and Sensex are independent variable. This Model presumes that Revenue depends upon Sensex.

The model is written as

\[ R = f(SEN) \]

In order to make the operation easier to handle the log of all the variables are taken, then

\[ LR = \alpha_0 + \alpha_1 \text{LSEN} \]

Where

LR= Log Revenue
LSEN= Sensex

Correlation

In order to know the direction and magnitude of relation between Income and Sensex the Pearson Correlation was done with the help of SPSS 16 which yielded following result.

<table>
<thead>
<tr>
<th>Pearson Correlation</th>
<th>Revenue</th>
<th>Sensex</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sig. (1-tailed)</td>
<td></td>
<td>.000</td>
</tr>
<tr>
<td>N</td>
<td></td>
<td>10</td>
</tr>
</tbody>
</table>

TATA Power Industry Revenue is correlated with BSE Sensex as its coefficient value of 0.823 which is nearer to one.

Results of Regression Estimation

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std.Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>2.289</td>
<td>0.356</td>
<td>6.431</td>
<td>.000</td>
</tr>
<tr>
<td>LSEN</td>
<td>.365</td>
<td>0.089</td>
<td>4.099</td>
<td>.003</td>
</tr>
<tr>
<td>(R^2)</td>
<td>0.677</td>
<td>Durbin-Watson</td>
<td>1.036</td>
<td></td>
</tr>
<tr>
<td>(R^2)</td>
<td>0.637</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The calculated F value is 16.805 with a corresponding value of .000 which states that it is significant at 5% level. Hence the overall fitness of the model is justified.

The value of R square is .677 which is nearing to one indicating that regression model is a good fit. The data implied that 0.677% of variance of the Revenue has been explained by the regressor of Sensex. The adjusted R square is 0.637 which means that about 0.637% of the variation in the observed behavior in dependent variable Revenue. In order to test the presence of auto correlation Durbin Watson statistics was done which came to 1.607 which indicated that the problem of autocorrelation is fairly solved.

Revenue=a (2.289) + (.365) SEN

(6.431)  (4.099)

The model reveals that 1 percent increase in Sensex will lead to an increase in Industrial Revenue by 36 percent.

The findings of the study reveal that stock market is not much positively influences the TATA Power Industry.
6.9 Coal India Limited

<table>
<thead>
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<th>Establishment</th>
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<tr>
<td>Type</td>
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<td>IPO</td>
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<td>Category</td>
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<tr>
<td>Sector</td>
<td>Energy</td>
</tr>
<tr>
<td>Key person</td>
<td>Mr. S. Narsing Rao, (Chairmen &amp; MD)</td>
</tr>
<tr>
<td>Location</td>
<td>Kolkata, West Bengal, India</td>
</tr>
<tr>
<td>Vision</td>
<td>To emerge from the position of domestic leader to leading global player in the energy sector by adopting best practices from mine to market with due care to environmental and social sustenance</td>
</tr>
<tr>
<td>Mission</td>
<td>The Mission of Coal India Limited is to Produce planned quantity of coal Efficiently and Economically in an Eco-friendly manner with due regard to safety, conservation &amp; quality.</td>
</tr>
<tr>
<td>Products</td>
<td>Raw Coal, primarily non-coking</td>
</tr>
<tr>
<td>Gross Profit (Rs. Crore)</td>
<td>21326.64 Crore (2011-12)</td>
</tr>
<tr>
<td>Net profit (Rs. Crore)</td>
<td>14788.2 Crore (2011-12)</td>
</tr>
<tr>
<td>Total assets(Rs. Crore)</td>
<td>106946 Crore (2012)</td>
</tr>
</tbody>
</table>

Coal India, the public enterprise was established in 1975 with headquarters at Calcutta, West Bengal, India. It is now the single largest coal production in the world. Total manpower of the company including its subsidiaries are 3, 71,546. As on March 2012, Coal India emerged as the Most Valued Company in the country in terms of Market Capitalization (Rs. 2, 51,296 crore) by 17th August 2011. It was conferred Maharatna Status by Government of India on 11th April 2011. Earlier it enjoyed the Mini Ratna status from 2008 and Navaratna status from 2008.

Coal India became public limited company in 2010. It was listed in SENSEX on 4th Nov 2010. Within short span of 9 months it made to 30 stocks Sensex on 8th august 2011. No other enterprise has made it the SENSEX in such a short duration.

CIL include the whole range of identification of coal reserves, detailed exploration followed by design and implementation and optimizing operations for coal extraction in its mines is operating through 81 mining areas, The CIL is an apex body with 7 wholly owned coal producing subsidiaries and 1 mine planning and Consultancy Company spread over 8 states of India. CIL also owns 26 technical and management training institutes and 102 vocational training institute centers.
The principal product of CIL is raw coal, primarily non-coking. CIL is also looking for diversification opportunities in the areas of coal bed methane, Coal gasification, coal liquefaction and power generation.

**Subsidiaries**

CIL have eight fully owned Indian subsidiary companies namely:-

1) Eastern Coalfields Limited (ECL), Sanctoria, West Bengal,
2) Bharat Coking Coal Limited (BCCL), Dhanbad, Jharkhand,
3) Central Coalfields Limited (CCL), Ranchi, Jharkhand,
4) Western Coalfields Limited (WCL), Nagpur, Maharashtra,
5) South Eastern Coalfields Limited (SECL), Bilaspur, Chhattisgarh,
6) Northern coalfields Limited (NCL) Singrauli, Madhya Pradesh
7) Mahanadi Coalfields Limited (MCL), Sambalpur, Orissa
8) Central Mine Planning and Design Institute Limited (CMPDIL), Ranchi, Jharkhand

In addition CIL has a foreign subsidiary in Mozambique namely ‘Coal India Africana Limited’ (CIAL)

CIL produces over 431.32 million tons of Coal in the financial year 2011. It alone meets 40% of primary commercial energy requirement of India. It produces around 81.1% of India’s overall coal production. It commands nearly 74% of the Indian coal market. It feeds 82 out of 86 coal based thermal power plants in India. It accounts for 76% of total thermal power generating capacity of the utility sector.

CIL is one of the largest profit making, tax and dividend paying enterprise. Its market cap is Rs. 2,159,565. Its share price as on 23 Aug 2012 was 359.10. The paid up capital of the company as on 31.03.2010 is Rs.6316.36 Crore. CIL and its subsidiaries have achieved an aggregate pre-tax profit of Rs. 21,272 Crore in the financial year 2011-12. It has distributed Rs.6, 316.36 Crore of dividends among shareholders.
SWOT:

An attempt is made to analyze the Strengths, weakness, opportunities and threats of the Coal India Africana Limited in this section.

Strength:
The strengths of the Coal India Limited are:

1. CIL Produces 81.1% of India's overall coal production
2. 52% of primarily commercial energy is Coal dependent in India. 40% of primary commercial energy requirement is met by CIL.
3. CIL Commands nearly 74% of the Indian coal market
4. CIL Feeds 82 out of 86 coal based thermal power plants in India
5. CIL Accounts for 76% of total thermal power generating capacity of the Utility sector
6. CIL Insulates Indian coal consumers against price volatility
7. CIL Makes the end user industry globally competitive

Weakness:
The weaknesses of the Coal India Limited are:

1. The CIL weak output of coal hits energy sectors. CIL is unable to supply the coal based on the demand in the domestic market. The IEA (International Energy Agency has pointed out that miss match between domestic output and demand is one of the factor for energy crisis
2. The logistic infrastructures are overburdened and add to the price as they are costly.

Opportunities:
The opportunities of the Coal India Africana Limited are:

1. The demand for energy is increasing
2. Global demand for Coal is increasing

Threats:
The threats of the Coal India are:

1. Increasing cost
2. lakh workers of CIL with 2 lakh contract workers repeated threatening go on strike and
3. Reacting the strike on bonus and pay pension
Table No: 6.8 Financial Performance of Coal India Limited
Coal India Limited attained Maharatna status by its sheer performance. The company grew year after year consistently. The total earnings of the enterprise were 23586.95 crores in 2002-03 which increased to 69952.33 crores by 2011-12. The total earning of enterprise during the period increased by whooping 196% percent. The total earnings consist of revenue from operation, other operational income and other income. The total earning consists of gross sales, other revenue receipts, boiler and domestic consumption accretion IDE creation in stocks, Net sales.

The gross sale of a company was Rs. 24228.06 Crore is 2002-03 which increase to Rs. 78410 Crore in 2011-12. As net sales which are the amount deduction of levies (Royalties, Cess etc.) by Gross Sales were 20397.28 Crore in 2002-03 which increase to Rs. 62415.43 Crore in 2011-12.

The other Revenue Receipts which refers to earnings from that a company derives from any source other than its operations. For example, if a company sells one of its factories or receives income from interest payments, it is considered other revenue. it was increased from Rs. 1547.64crovers in 2002-03 to 7536.90crovers in 2011-12. The share of other income in the total earnings increased marginally from 6.5 percent to 10.8 percent during the said period.

The gross profit of the company also increased successively. It increased from Rs. 3436.39 crores in 2002-03 to Rs. 21326.64 crores in 2011-12. The Total Expenditure including paid to employees remuneration and benefits, nets and wages, V.R.S payment, social overheads, stores and spares, power and fuel, boiler and colliery consumption contractors, miscellaneous expenses, interests, depreciation etc. it was increased considerably with every passing year. It was Rs. 20454.16 crores in 2002-03 which increased to Rs. 48679.67 crores in 2011-12.

The enterprise also has paid substantial taxes to the government. In 2002-03 it paid 1410.83 crores which increased Rs. 6484.45 crores in 2011-12. Coal India Limited has paid 45 percent of its profit before tax to the government by 2002-03 and it decreased to 30 percent in 2011-12. Hence the profit after tax increased from Rs. 1721.96 crores in 2002-03 to Rs. 14788.2 crores in 2011-12. The Net profit (after tax and dividend on percent. And equity) was also increased from 1631.54 Crore in 2002-03 to 8471.88 Crore in 2011-12. Total capital employed
was 10618.74 Crore in 2002-03 which increased to 66627.24 in 2011-12. Company reserve funds set which is aside to meet unforeseen incidents for emergencies or other future needs increased from Rs 4699.5 Crore in 2002-03 to Rs. 14035.64 Crore in 2011-12.

The funds raised by issuing shares in return for cash and other consideration are called as share capital. It was 7220.54 crores in 2002-03 which increased to 6316.36 crores in 2011-12. The dividend per share increased form Rs. 16 in 2002-03 to Rs. 270 in 2008-09 divined per share decreased Rs. 3.5 in 2009-10, which increased to Rs. 10 in 2011-12. As book value of shares also decreased from Rs. 1019 in 2002-03 to Rs. 64.4 in 2001-12. It had touched lowest nadir of Rs. 10 in 2009-10.

The stock price of COAL India Ltd. share reduced from Rs. 314.5 in 2010 to Rs. 300.85 in 2011, but it gained momentum and reached Rs. 355.05 in 2012, which marginally fell to Rs. 318.7 in 2013.

The important reasons for a down fall in the stock price of COAL INDIA Ltd are:-
1. Increasing cost, lack of clarity on various aspects related to the fuel supply agreements (FSAs) with customers and absence of coal price increases are being attributed as reasons for the stock’s decline.
2. Inflationary pressure
3. Disinvestments concerns

**Multivariate Regression Model**

In order to test the impact of stock market on industries the following model has been framed. In this model Revenue is dependent and Sensex are independent variable. This Model presumes that Production depends upon Sensex.

The model is written as

\[ R = f(S) \]

In order to make the operation easier to handle the log of all the variables are taken, then

\[ LR = \alpha + \alpha LSEN \]

Where

\[ LR = \text{Log Revenue} \]

\[ LSEN = \text{Sensex} \]
Correlation

In order to know the direction and magnitude of relation between Revenue and Sensex the Pearson Correlation was done with the help of SPSS 16 which yielded following result.

<table>
<thead>
<tr>
<th>Pearson Correlation</th>
<th>Revenue</th>
<th>Sensex</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1.000</td>
<td>.905</td>
</tr>
<tr>
<td>Sig. (1-tailed)</td>
<td>Revenue</td>
<td>.</td>
</tr>
<tr>
<td></td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>Revenue</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Sensex</td>
<td>10</td>
</tr>
</tbody>
</table>

The COAL industry Revenue is highly correlated with BSE Sensex as its coefficient value of 0.905 which is nearer to one.

Results of Regression Estimation

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std.Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>2.666</td>
<td>0.320</td>
<td>8.326</td>
<td>.000</td>
</tr>
<tr>
<td>LSEN</td>
<td>.482</td>
<td>0.080</td>
<td>6.024</td>
<td>.000</td>
</tr>
<tr>
<td>(R^2)</td>
<td>0.819</td>
<td></td>
<td>Durbin-Watson</td>
<td>1.727</td>
</tr>
<tr>
<td>(R^2)</td>
<td>0.797</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

ANOVA(c)

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>d.f</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td>.154</td>
<td>1</td>
<td>.154</td>
<td>36.283</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>.034</td>
<td>8</td>
<td>.004</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>.188</td>
<td>9</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The calculated F value is 36.283 with a corresponding value of .000 which states that it is significant at 5% level. Hence the overall fitness of the model is justified.

The value of R square is .819 which is nearing to one indicating that regression model is a good fit. The data implied that 0.819% of variance of the Revenue has been explained by the regressor of Sensex. The adjusted R square is 0.797 which means that about 0.79% of the variation in the observed behavior in dependent variable Revenue. In order to test the presence of
auto correlation Durbin Watson statistics was done which came to 1.727 which indicated that the problem of autocorrelation is fairly solved.

Revenue = a (2.666) + (0.482) SEN

(8.326) (6.024)

The model reveals that 1 percent increase in Sensex will lead to an increase in Revenue by 48 percent.

The findings of the study reveal that stock market positively influences the Revenue of Coal India Industry.
6.10 National Thermal Power Corporation (NTPC)

<table>
<thead>
<tr>
<th>Establishment</th>
<th>1975</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>Public Sector Enterprises</td>
</tr>
<tr>
<td>IPO</td>
<td>2004</td>
</tr>
<tr>
<td>Category</td>
<td>Electric Utilities</td>
</tr>
<tr>
<td>Sector</td>
<td>Energy</td>
</tr>
<tr>
<td>Key person</td>
<td>Arup Roy Choudhury (Chairmen &amp; MD)</td>
</tr>
<tr>
<td>Location</td>
<td>Mumbai, Maharashtra, India</td>
</tr>
<tr>
<td>Vision</td>
<td>To be the world’s largest and best power producer, powering India’s growth.</td>
</tr>
<tr>
<td>Mission</td>
<td>Develop and provide reliable power, related products and services at competitive prices, integrating multiple energy sources with innovative and eco-friendly technologies and contribute to society.</td>
</tr>
<tr>
<td>Products</td>
<td>Electrical Power, Natural Gas</td>
</tr>
<tr>
<td>Total Income (Rs. Crore)</td>
<td>64514.79 Crore (2011-12)</td>
</tr>
<tr>
<td>Net profit (Rs. Crore)</td>
<td>9223.73 Crore (2011-12)</td>
</tr>
<tr>
<td>Total Net assets(Rs. Crore)</td>
<td>139465.92 Crore (2011-12)</td>
</tr>
</tbody>
</table>

National Thermal Power Corporation (NTPC) is the public sector enterprise with its headquarters in New Delhi, India. It was established a 7th November 1975. Today it is one of the largest state owned utilities enterprise in the country. Its became Public enterprise by issuing IPO to the public in October 2004 consisting of 5.25 percent as fresh issue and 5.25 per cent as offer for sale by Government of India. It also got listed on BSE in 2004. The Government, by February 2012 holder 84.5 per cent of stake in NTPC. NTPC is now generating 40,174 MW and has embarked on plan to become a 75000 MW company by 2017. It was conferred Maharashtra Status by Government of India on 21 May 2010. The Forbes Global 2000 for 2012 ranked NTPC as 337th in the World. It is also ranked as No.1 Independent power producer in the World in 2011 by ‘PLATTS’, a part of prestigious McGraw Hill group amongst 250 global energy companies and it is 3rd in Asia among electricity utilities.

NTPC has pioneered in new technologies like MGR, DDCMIS, HVDC transmission, sliding pressure operation of SG, Combined cycle power generation are some of the new concepts/ technologies introduced by NTPC. NTPC has also introduced super critical technology, 765 KV transmissions, advanced class GTs. NTPC is also engaged in the development of Integrated Coal Gasification Combined Cycle (IGCC) technology suitable to Indian coal through its collaborative effort with US aid.
The core business of NTPC is engineering, construction and operation of power generating plants and providing consultancy to power utilities in India and abroad. The total installed capacity of the company is 41,184 MW (including JVs) with 16 coal based and 7 gas stations, located across the country. In addition under JVs (Joint Ventures) 7 stations are coal-based, and another station uses naphtha/LNG as fuel and 2 renewable energy projects. By 217, the power generation portfolio is expected to have a diversified fuel mix with coal based capacity of around 27,535 MW, 3955 MW through gas, 1328 MW from renewable energy sources (RES). NTPC has adopted a multi-pronged growth strategy which includes capacities, subsidiaries and takeover of stations. NTPC has been operating its plants at high efficiency levels. Although the company has 17.75 percent of the total national capacity, it contributes 27.40 percent of total power generation due to its focus on high efficiency.

NTPC’s share in the total installed capacity of the country was 24.51 percent in 2001 and it generated 29.68 percent of the power of the country in 2008-09. NTPC’s share of the country’s total installed capacity decreased to 18.52 percent and it generated 27.4 percent of the power generation of the country in 2011-12.

Awards

The NTPC has got many awards. The important being

1) Business Leader in the Power Sector by the NDTV Business Leadership Awards 2013 for NTPC
2) Top honors for NTPC as Best Company to work for the year 2012 in India
3) NTPC Limited received the recognition ‘Significant Achievement in HR Excellence’ at prestigious CII National HR Excellence Award-2011.
4) NTPC is ranked 19th by the GPTW for 2011 amongst 25 top Best Companies in India
5) NTPC is ranked 6th amongst 25 top Best Employers in Country
6) NTPC bagged two awards at the Asia Best Employer Brand Ceremony held at Singapore recently for ‘Best HR Strategy in line with Business’ and ‘Award for Talent Management’.
7) Overall 7th in ‘India’s Best Companies to Work for 2010’, it is 1st amongst the PSUs and 1st in Manufacturing & Production Industry Segment.
8) Great Place to Work Award 2010
9) NCPEDP-Shell Helen Keller Award 2009
10) Vishwakarma Rashtriya Puraskar (VRP) – 2007
12) NTPC was awarded Best Environment Management Award for Safety in the 36th State Safety Award Ceremony
13) NTPC's National Capital Thermal Power Project, Dadri Awarded the Golden Peacock Environment Management Award for the year 2010.
14) NTPC awarded The Sunday Indian Special Mega Excellence - "India's Best Environment Driven Company Award-2009". This award is a special award to recognize and applaud the commitment of NTPC Limited towards environment and ecology.
15) NTPC Limited India’s largest power generation company has been given SCOPE Excellence Award Gold Trophy in Institutional Category for the year 2009-10
16) NTPC- CenPEEP received the international Gold Star Award for Quality 2009 in recognition of outstanding commitment to Quality contributing towards the success for India in the business world. This award is recognition of the pro-active work carried out by NTPC

SWOT:
An attempt is made to analyze the Strengths, weakness, opportunities and threats of the National Thermal Power Corporation in this section.

Strength:
The strength of the National Thermal Power Corporation are:

1. 24011 dedicated and skill personnel
2. Employee friendly work culture and employee oriented policies
3. Well integrated project management system
4. Decades of experience in the sector shows its credibility
5. Efficient production process at majority of plants
6. Well integrated project management system, timely as well as efficient completion of projects.
7. Use of tool like integrated Data Acquisition and Analysis System (ISAAS) for on-site efficiency evaluation, performance Evaluation of Power System Efficiencies (PEPSE) for verifying equipment and system efficiencies and gap identification, Steam path audit for estimation of solid particle erosion (SPE) and efficiency of steam turbine components, etc.

**Weakness:**
The weaknesses of the National Thermal Power Corporation are:
1. Depleting raw materials and increase in the price of inputs.
2. Government intervention in the decisions on production, distribution and price (India’s electricity act) affects the NTPC
3. Prices are determined by India's Electricity Act

**Opportunity:**
The opportunities of the National Thermal Power Corporation are:
1. Growing demand for energy
2. New and cleaner source of power
3. The company has also taken several steps to be an integrated major in the power sector. As a step in backward integration, company has entered into coal mining business and is also exploring the possibilities in energy value chain through participation in NELP blocks

**Threats:**
The threats of the National Thermal Power Corporation are:
1. Rising cost of production
2. Huge competition from growing private sector firms
3. Projects implementation delay risks
4. Problems related to acquisition of land and rehabilitation
5. Risk pertaining to coal mining and coal washeries.
6. Threats of retention of skilled employees
Table No: 6.9 Financial Performance of National Thermal Power Corporation
NTPC has attained Mahartna status. The company grew year after year consistently. The operating income of a company's from ongoing operations, equal to earnings before deduction of interest payments and income taxes increased from Rs.20430.2 Crore in 2002-03 to Rs.64514.79 Crore in 2011-12, it is also called as operating profit or EBIT (earnings before interest and taxes). The operating Income of enterprise during the period increased by whooping 215 percent.

Profit before depreciation, interest and finance charges and Tax of enterprises was Rs. 7253.8 Crore in 2002-03 which increased to Rs.17420.18 Crore in 2011-12 which was 140 percent growth.

Depreciation of a company amounted to Rs.1529.1 Crore in 2002-03 which increased to Rs.2791.7 Crore in 2011-12. The share of Depreciation cost in the Operating income declined from 7.4 percent in 2002-03 to 4.3 percent in 2011-12.

Profit before interest and finance charges and Tax also increased from Rs. 5724.7 Crore in 2002-03 to Rs.14628.48 Crore in 2011-12. Interest and finance cost of enterprises was 991.6 Crore in 2002-03 which increased to Rs. 2302.32 Crore in 2011-12. The share of Interest and finance cost in the Operating income declined from 4.8 percent in 2002-03 to 3.5 percent in 2011-12.

The enterprise also has paid substantial taxes to the government in 2002-03 it paid Rs. 1125.6 crores which increased to Rs. 3102.43 crores in 2011-12. The notable thing is due to increasing in tax(Net) NTPC paid 23.8 percent of its profit before tax to the government in 2002-03 and it increased to 25 percent in 2011-12. Hence the profit after tax increased from Rs. 3607.5 crores in 2002-03 to Rs. 9223.73 crores in 2011-12. The dividends of the company also rose from 708 crores in 2002-03 to Rs. 3298.19 crores in 2011-12. During the same period the enterprise also paid the corporate dividend tax of Rs.39.5 crores in 2002-13 which increased to Rs.527.92 crores in 2011-12.

A Gross Fixed Asset of Enterprise was Rs.36610.6 Crore in 2002-03 and it was increased to Rs. 81830.26 Crore in 2011-12. As Total Net Assets of Enterprises also increased from Rs.49331.6 Crore in 2002-03 to Rs.139465.92 Crore in 2011-12.
The funds raised by issuing shares in return for cash and other consideration are called as share capital. It was Rs.7812.5 crores in 2002-03 which increased to Rs. 8245.86 in 2011-12. The reserve and surplus of enterprises was Rs.23700.2 crores in 2002-03 which increased. The company employed capital in Rs. 38634.3 Crore in 2002-03 which increased to Rs. 75136.67 Crore in 2011-12. Return on net worth was Rs.12.13 in 2002-03 which increased to 16.88 Rs. in 2011-12. Book value per share of the company was Rs. 40.32 in 2002-03 which increased to Rs.88.89 in 2011-12.

NTPC share rose from Rs.87.35 in 2004 to Rs.250.05 in 2007 which fell to Rs.181 in 2008, but it gained momentum and reached Rs.235.7 in 2009, which decline to Rs. 156.45 in 2012. But it marginally rose to Rs.157.4 in 2013.

**Linear Regression Model**

In order to test the impact of stock market on industries the following model has been framed. In this model Revenue is dependent and Sensex are independent variable. This Model presumes that Revenue depends upon Sensex.

The model is written as

\[ R = f (SEN) \]

In order to make the operation easier to handle the log of all the variables are taken, then

\[ \ln R = \alpha^0 + \alpha^1 \ln S \]

Where

\[ \ln R = \text{Log Revenue} \]

\[ \ln S = \text{Sensex} \]

**Correlation**

In order to know the direction and magnitude of relation between Revenue and Sensex the Pearson Correlation was done with the help of SPSS 16 which yielded following result.

<table>
<thead>
<tr>
<th></th>
<th>Industrial Production</th>
<th>Sensex</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Correlation</td>
<td>Revenue</td>
<td>1.000</td>
</tr>
<tr>
<td>Sig. (1-tailed)</td>
<td>Revenue</td>
<td>.</td>
</tr>
<tr>
<td>N</td>
<td>Revenue</td>
<td>10</td>
</tr>
</tbody>
</table>

303
The NTPC Revenue is not much correlated with BSE Sensex as its coefficient value of 0.548 which is nearer to one.

### Results of Regression Estimation

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std.Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>3.223</td>
<td>0.725</td>
<td>4.443</td>
<td>.002</td>
</tr>
<tr>
<td>LSEN</td>
<td>.336</td>
<td>0.181</td>
<td>1.855</td>
<td>.101</td>
</tr>
<tr>
<td>R^2</td>
<td>0.301</td>
<td>Durbin-Watson</td>
<td>.736</td>
<td></td>
</tr>
<tr>
<td>R^-2</td>
<td>0.2013</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The calculated F value is 3.442 with a corresponding value of .101 which states that it is insignificant at 5% level. Hence the overall fitness of the model is not well justified.

The value of R square is .301 which is nearing to one indicating that regression model is a good fit. The data implied that 0.30.1% of variance of the Revenue has been explained by the repressor of Sensex. The adjusted R square is 0.213 which means that about0.21.3% of the variation in the observed behavior in dependent variable Revenue. In order to test the presence of auto correlation Durbin Watson statistics was done which came to .736 which indicated that the problem of autocorrelation is arise.

\[
\text{Revenue} = a (3.223) + (.336) \ \text{SEN} \\
(4.443) \quad (1.855)
\]

The model reveals that 1 percent increase in Sensex will lead to an increase in Industrial Revenue by 33 percent.

The findings of the study reveal that stock market is not much influences the Revenue of NTPC Industry.
6.11 Gas Authority of India limited (GAIL)

<table>
<thead>
<tr>
<th>Establishment</th>
<th>1984</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>Public Sector Enterprise</td>
</tr>
<tr>
<td>IPO</td>
<td>1995</td>
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<tr>
<td>Category</td>
<td>Energy, petrochemicals</td>
</tr>
<tr>
<td>Sector</td>
<td>Energy</td>
</tr>
<tr>
<td>Key person</td>
<td>Shri. B. C. Tripathi (Chairmen &amp; MD)</td>
</tr>
<tr>
<td>Location</td>
<td>New Delhi, India</td>
</tr>
<tr>
<td>Vision</td>
<td>Be the leading company in Natural Gas and Beyond, with Global Focus, Committed to Customer Care, Value Creation for all Stakeholders and Environmental Responsibility</td>
</tr>
<tr>
<td>Mission</td>
<td>To accelerate and optimize the effective and economic use of Natural Gas and its fractions for the benefit of the national economy.</td>
</tr>
<tr>
<td>Income (Rs. Crore)</td>
<td>40821.79 Crore (2011-12)</td>
</tr>
<tr>
<td>Net profit (Rs. Crore)</td>
<td>3653.84 Crore (2011-12)</td>
</tr>
<tr>
<td>Total Net assets(Rs. Crore)</td>
<td>31769.19 Crore (2011-12)</td>
</tr>
</tbody>
</table>

GAIL was established as central public enterprises in 1984. Today GAIL is a pioneer in city Gas distribution business in India. It attained Maharashtra status on April 26, 2013. GAIL has set up several JVs for CGD to supply gas to households, transport sector & commercial consumers in various cities including Hyderabad, Agartala, Kanpur, Indore, Vadodara, Lucknow, Agra and Pune. In 2008, GAIL incorporated a wholly owned subsidiary, GAIL Gas Ltd (GGL) to exclusively focus on city gas distribution business. GGL has been authorized for implementation of CGD projects in four cities namely Kota, Dewas, Sonepat & Meerut in the 1st round of bidding by Petroleum & Natural Gas Regulatory Board (PNGRB). GAIL Leveraging on its pipeline network, GAIL has built a strong Optic Fibre Cable (OFC) network of approximately 13,000 km for its own internal use and leasing of bandwidth as a carriers' carrier. It has set up many joint ventures for city gas distribution to supply Gas to household transport sector and commercial consumers in various cities. The more successful among them are the first JV Mahanagar Gas Limited formed with British Gas incorporated to implement Mumbai city distribution project in 1994. In 1998 Indraprastha Gas Limited (IGC) was incorporated for supply of gas to household, transport and commercial consumers in Delhi.
GAIL accounted for $3/4$th of the natural gas transmitted through pipelines in India. It is more than $1/2$ of the natural gas sold in India. It is $1/5$th (21%) of polyethylene produced in country. It contributes pipeline transmission of around $1/4$th of the country’s total LPG. It supplies gas for about half (50%) of country’s fertilizer produced Supply for about half (50%) country’s gas-based power generation. It is operated in more than $2/3$rd of country’s CNG station. It is more than $1/2$ of the country’s piped natural gas supply.

It became Public enterprise by issuing IPO to the public in the year 1995. The Government sold 28.5 million equity shares, representing 3.4% of the company's equity capital, to domestic and qualified foreign investors. It was listed in NSE, BSE and DSE.

The Major products and Brands of GAIL are:-

**Petrochemicals:**

G-Lex: pressure pipes, OFC ducts, blow molded containers, thin films, monofilament, and raffia etc.G-Lene: raffia, wire and cable, pipe coating, injection moulding, film, rotomoulding, coating/lamination

**City Gas Distribution:**

CNG: automobiles, PNG: cooking, water heating, air conditioning, space heating, steam generation, power generation, dryers, furnaces, boilers

**Liquid Hydrocarbons**

G Propane: manufacture of textiles, glass, picture tubes, automobile, bearings, gorging, casting, leiling industry, paint shops of major car manufactures ceramics, brick kilns, drying ovens, metal industry, refrigerant in air conditions, etc.

G Pentane: artificial ice formation, low temperature thermometers, solvent extraction processes, blowing agent in plastics, pesticides, production of iso and normal pentane
Telecom

Gailtel: Bandwidth Leasing, Infrastructure Leasing

Subsidiaries and Joint Ventures

The important subsidiaries through which GAIL is doing it power generation, Gas trading, Shale Gas, LNG, City Gas Projects and Petrochemicals in India for natural gas supplies to households, commercial and transport sector through its subsidiaries and joint venture companies. The subsidiaries and joint ventures are:-

NATURAL GAS, LNG AND POWER

GAIL Global (Singapore) Pvt. Limited (wholly owned Subsidiary)
GAIL Global (USA) Inc (Wholly owned Subsidiary)
GAIL China Gas Global Energy Holdings Limited
Petronet LNG Limited (PLL)
Ratnagiri Gas and Power Private Limited (RGPPL)

CITY GAS DISTRIBUTION

GAIL Gas Limited (wholly owned subsidiary
Aavantika Gas Limited (AGL)
Bhagyanagar Gas Limited (BGL)
Central U.P. Gas Limited (CUGL)
Green Gas Limited (GGL)
Indraprastha Gas Limited (IGL)
Mahanagar Gas Limited (MGL)
Maqharashtra Natural Gas Limited (MNGL)
Tripura Natural Gas Company Limited (TNGCL)

PETROCHEMICALS

Brahmaputra Cracker and Polymer Limited (BCPL) (Subsidiary)
ONGC Petro-additions Limited (OPAL)
Awards

1) GAIL has got many awards and recognition, the important among them:-
2) 11th ICSI National Award for Excellence in Corporate Governance, 2011
3) Corporate Governance Award 2012 by Indian Chamber of Commerce
4) Platt’s Global Energy Award, 2011, for ‘World’s No. 1 Company in Downstream Operations’
5) No.1 gas utility company in Asia and No.2 gas utility company globally, ‘PLATTS Top 250’, 2010.
6) GAIL’S Jamanagar-Loni and Vizag Secendrabad, LPG pipeline unit won the first and second national Award for Excellence in Cost Management 2011 respectively under the category of Public Sector Service Unit.
7) International Safety award from British Safety Council, United Kingdom for Gas Processing Unit and Natural Gas Compressor Station, Vaghodia; Gas Processing Unit, Gandhar; Jamnagar –Loni LPG Pipeline; Regional Natural Gas Pipeline Network, National Capital
8) Region, Delhi and Agra.
10) GAIL, Usar bagged the Confederation of Indian Industry(CII)-shohrab Goderj Green Business Centre (GBC) Environmental Best Practices Awards for 2012 under “Most Innovative Project of the Year “
11) GTI has received the prestigious Golden Peacock Quality Award for Training System and ‘GreenTech Gold HR award for outstanding achievement in Training Excellence’ for the year 2011

SWOT:
An attempt is made to analyze the Strengths, weakness, opportunities and threats of the Gas Authority of India limited in this section.
**Strength:**

the strength of the Gas Authority of India limited are:

1. GAIL account for 3/4th of the natural gas transmitted through pipelines in India.
2. It is more than 1/2 of the natural gas sold in India.
3. GAIL has skill and dedicated 3900 man power of 3900
4. The compound average growth rate in 10 years shows that it has grown by more than 16%
5. World’s No. 1 Company in Downstream Operation 2011
6. GAIL is the market leader in the transmission of natural gas with about 5,500km of pipeline network and has a market share of 74% in natural gas volume.
7. GAIL has embarked on as pipeline network augmentation for laying another 7500 km of pipelines at an investment of about Rs.30,000 Crore
8. GAIL Company is implementing the Natural Gas Pipelines which have been authorized by MoP NG: (1) Dabhol-Bengaluru Pipeline (2)Kochi-Mangalore/Bengaluru Pipeline 3) Jagdishpur-Haldia Pipeline
9. Diversified Business Segments
10. Leading market presence

**Weakness:**

the weaknesses of the Gas Authority of India limited are:-

1. Decline in Liquidity ratio
2. Respected intervention of government on many issues despite the Maharatna status
3. 85% of Natural Gas Transmission revenue comes from the regulated tariff. If market rates are allowed, GAIL would have been strengthened
4. Natural Gas throughput has decreased due to significant decrease in the RIL throughput.
Opportunity:
The opportunities of the Gas Authority of India limited are:

1. According to MoP&NG’s statistics, India has approximately 1241 BCM of natural gas reserves as of 01.04.2011, which at current consumption level yields an R/P (Reserves to Production) ratio of approximately 30 years.
2. There is a possibility of new discoveries from the blocks awarded in NELP rounds and future shale gas exploration, which may increase the availability of natural gas domestic sources.
3. GAIL has got the mandate from MoP&NG for sale and transportation and additional 7.23 MMSCMD of gas from new fields of ONGC’s nominated blocks.
4. GAIL has entered into short and medium term agreements to buy LNG from international suppliers.
5. The liquid Hydrocarbon sales increased by 5% from 1,373 TMT to 1441 TMT during 2011-12. Similarly, Petrochemical sales showed a growth of 7% during the period.

Threats:
The threats of the Gas Authority of India limited are:

1. Ensuring compliance with the relevant legal and regulatory requirement.
2. Assuring demonstrable achievement of objectives and improvement of financial stability of the Organization.
3. The government decision on sharing the under recoveries on Petroleum products given as discount to oil marketing companies would threaten the company’s profitability.
4. Fluctuation in gas and petrochemical price.
5. Intense domestic competition from ONGC and RIL in Petrochemicals.
6. There is new customers find it very difficult to deal with the requirement of GAIL.
7. In Global front, biggies in USA and Asia are playing a barrier for GAIL.
Table No: 6.10 Financial Performance of Gas Authority of India limited
GAIL attained Maharatna status by its performance. The company grew year after year consistently. The Gross sales of the enterprise were Rs.10641.99 crores in 2002-03 which robustly increased to Rs.40821.79 crores by 2011-12. The Gross sales of enterprise during the period increased by whooping 283 percent. Gross Sales is a measure of overall sales that isn't adjusted for customer discounts or returns, calculated simply by adding all sales invoices, and not including operating expenses, cost of goods sold and payment of taxes,

Gross margin of enterprises was Rs.643.54 Crore in 2002-03 which increased to Rs.6247.18 Crore in 2011-12. Gross margin refers to a company's total sales revenue minus its cost of goods sold, divided by the total sales revenue, expressed as a percentage. The gross margin represents the percent of total sales revenue that the company retains after incurring the direct costs associated with producing the goods and services sold by a company. Total expenditure was Rs.7293.68 Crore in 2002-03 which increased to Rs.34574.61 Crore in 2011-12.

The enterprise also paid substantial taxes to the government. In 2002-03, it paid Rs. 879.18 crores which increased to Rs. 1686.17 crores in 2011-12. The notable thing is due to increase in corporate tax GAIL paid 34 percent of its profit before tax to the government in 2002-03 and it decreased to 31 percent in 2011-12. Hence the profit after tax or Net profit increased from Rs. 1639.11 crores in 2002-03 to Rs. 3653.84 crores in 2011-12, which is 122 percent growth. The dividend (including interim dividend) of the company also rose from 591.96 crores in 2002-03 to Rs. 1103.37 crores in 2011-12. During the same period the enterprise also paid the corporate dividend tax of Rs.43.34 crores in 2002-03 which increased to Rs. 179.02 crores in 2011-12.

Net Worth of enterprises refers to total assets minus total liabilities. Net worth is an important determinant of the value of a company, composed primarily of all the money that has been invested since its inception, as well as the retained earnings for the duration of its operation. Net worth can be used to determine creditworthiness because it gives a snapshot of the company's investment history also called owner's equity, shareholders' equity, or net assets. Net worth of a company was Rs.6336.57 Crore in 2002-03 which increased successively to Rs. 21449.44 Crore in 2011-12. Capital employed of enterprises for production process was increased from Rs.8129.81 Crore in 2002-03 which increased to Rs. 28739.97 Crore in 2011-12.
The funds raised by issuing shares in return for cash and other consideration are called as paid up capital. It was Rs.845.65 crores in 2002-03 which increased to Rs. 1268.48 crores in 2011-12.

Reserve and surplus of enterprises was Rs.5493.48 Crore in 2002-03 which increased to Rs.20356 Crore in 2011-12. Net fixed assets and investment of enterprises respectively was Rs.6262.1 and Rs. 687.94 Crore in 2002-03 and they increased to Rs.15857.62 and 3548.93 Crore respectively in 2011-12.

The earnings per share increased from Rs. 19.38 in 2002-03 to Rs. 30.76 in 2011-12. The dividend per share was Rs. 7 in 2002-03 which increased to Rs. 10 in 2007-08 which marginally fell to Rs. 7 in 2008-09 further it increased to Rs. 8.7 in 2011-12.

The stock price of GAIL 270% share rose from Rs. 70.2 in 2002-03 to Rs.384 in 2011-12 which is 270 percent growth. In its successful journey, it had reached the peak of Rs. 542.05 in 2007-08.

The important reasons for fall in GAIL share price are:-
1. Decline in KG D6 Production
2. GAIL has emerged as the lowest bidder for Surat-Paradip pipeline due to aggressive bidding
3. decline in domestic gas suppliers

Linear Regression Model

In order to test the impact of stock market on industries the following model has been framed. In this model Revenue is dependent and Sensex are independent variable. This Model presumes that Revenue depends upon Sensex.

The model is written as

\[ R = f(SEN) \]

In order to make the operation easier to handle the log of all the variables are taken, then

\[ LR = \alpha_0 + \alpha_1 \text{LSEN} \]

Where

\[ LR = \log \text{Revenue} \]
\[ \text{LSEN} = \text{Sensex} \]
Correlation

In order to know the direction and magnitude of relation between Revenue and Sensex the Pearson Correlation was done with the help of SPSS 16 which yielded following result.

<table>
<thead>
<tr>
<th>Pearson Correlation</th>
<th>Industrial Revenue</th>
<th>Sensex</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1.000</td>
<td>.876</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sig. (1-tailed)</th>
<th>Revenue</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue</td>
<td>.000</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>N</th>
<th>Revenue</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue</td>
<td>10</td>
<td>10</td>
</tr>
</tbody>
</table>

GAIL Revenue is correlated with BSE Sensex as its coefficient value of 0.876 which is nearer to one.

Results of Regression Estimation

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std.Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>1.725</td>
<td>0.498</td>
<td>3.465</td>
<td>.008</td>
</tr>
<tr>
<td>LSEN</td>
<td>.639</td>
<td>0.124</td>
<td>5.140</td>
<td>.001</td>
</tr>
<tr>
<td>$R^2$</td>
<td>0.768</td>
<td>0.738</td>
<td></td>
<td></td>
</tr>
<tr>
<td>$R^2$</td>
<td></td>
<td>Durbin-Watson</td>
<td>.857</td>
<td></td>
</tr>
</tbody>
</table>

ANOVA(c)

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>d.f</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>.270</td>
<td>1</td>
<td>.270</td>
<td>26.772</td>
<td>.001(a)</td>
</tr>
<tr>
<td>Residual</td>
<td>.082</td>
<td>8</td>
<td>.010</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>.352</td>
<td>9</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The calculated F value is 26.772 with a corresponding value of .001 which states that it is significant at 5% level. Hence the overall fitness of the model is justified.

The value of $R^2$ square is .768 which is nearing to one indicating that regression model is a good fit. The data implied that 76.8% of variance of the Revenue has been explained by the repressor of Sensex. The adjusted $R^2$ square is 0.738 which means that about 73.8% of the
variation in the observed behavior in dependent variable Revenue. In order to test the presence of
auto correlation Durbin Watson statistics was done which came to .857 which indicated that the
problem of autocorrelation is arise.

Revenue=a (1.725) + (.639) SEN

(3.465)  (5.140)

The model reveals that 1 percent increase in Sensex will lead to an increase in Industrial
Revenue by 63 percent

The findings of the study reveal that stock market positively influences the Revenue of GAIL
Industry.

6.12 Conclusion
Corporate Enterprises thereafter do not get direct funds from the existing stocks of the company,
but the individual traders receive the gain or loss due to the transaction. But still every Corporate
Enterprises aspire and strive hard to maintain the good prices for its stocks. If Company performs
well, it will reflect in the stock prices. The founder of Public Company will also have a
significant number of the outstanding shares with them. Hence rise in the stock prices will have
the reflection on their monetary stock. When Company is faring well is stock market, the credit
rating agencies, analysts will rate the Company better. The Company if required can easily raise
the debt at reasonable interest rate. As the Company grows it may also seek additional equity
financing. The Company utilizing its brand name may sell more shares to the public and raise
money. Discussion regression results explain that stock market is positively influencing on the
selected industries. Except NTPC Sensex is positively correlated with revenue of selected
Industries.