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What Decides the Indian Petroleum PSU's Stock Prices?**Dr Virupaksha Goud G***

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Abstract

The study of Indian Petroleum PSU's stock prices is intended to analyze present performance of petroleum PSU's and predict the next 4 years future. This study has used the secondary published data of oil companies, IMF reports and stock market participants. The article has made an attempt to identify the influencing factors on international crude oil prices and its effect on Indian petroleum PSU's financial performance. This analysis involves analysis of economic indicators, industry analysis, financial ratios of the selected PSU's. These studies are helpful for investment decisions. This research observed that crude oil prices are directly correlated with the world GDP, OPEC decisions and stability in the gulf region. Substitues of petroleum products has started to make certain impact but it is limited at this moment. If the prices of crude oil increases then petroleum exploration companies such as ONGC, OIL makes profit else petroleum refining and distribution companies such as BPCL, HPCL, and IOCL makes profit and this profit will be dependent on government subsidy decisions.

Statement of the Problem

Even though analysis of petroleum industry is one of the highly researched topics. Research related to analysis of PSU's of Oil and Gas company stocks is limited. This project is undertaken to fill the research gaps and contribute to knowledge related to Indian Petroleum PSU's stocks performance at present and in near future.

Objectives

- To analysis the performance of selected oil and gas companies in the stock market.

- To determine the influencing factors on crude oil prices in international market.
- To forecast the future of selected oil and gas companies stocks
- To advice the customers on their investment decisions on petroleum PSU's.

Research Methodology:

The present is based on the secondary data sources which includes-

- This research used the annual report of BPCL, HPCL, IOCL,ONGC for 2009-2017

- IMF reports, Stock market Reports, News Paper articles and other publications

Economic Analysis of India:

According to Purchasing Power Parity of 2017, India is the fourth largest economy in the world. In coming yeras, India has the potential to turn out to be the world's 3rd biggest economic power. As the economy expands, other industries follow the expansion. Since petroleum is the basic energy in the economy, Petroleum companies have more opportunities to grow more faster than other industries.

GDP growth rate:

Gross domestic product (GDP) is a monetary measure of the value of all final products and services that a country produces in a given year. The Indian GDP growth is mentioned in the below table. India is expected to grow at 7.37 for 2018, 7.8 for 2019, 7.93 for 2020 and 8.1 for 2021.

Industry Overview

In 2015, India became the third largest energy consumer in the world, with oil and natural gas accounting for 37% of total energy consumption. Annual consumption is 4 million barrels (MBPD) of oil and 49 billion cubic meters (natural gas) of natural gas per day. By 2035, India's energy demand is expected to increase from 723.9 tons in 2016 to 1,516 tons in 2035. According to the International Energy

Agency (IEA), it is expected that by 2040, India's energy demand will account for nearly one-third of global energy demand.

In 2016-17, India's crude oil and natural gas production were respectively 720,000 barrels and 31 billion cubic meters, but due to the low production base, the country is still a net energy importer. From April to January 2017, the output of crude oil and natural gas reached 600,000 barrels and 26.7 million barrels respectively. India's crude oil refining industry is booming. As of 2017, its annual production capacity is 247.566 million tons. In 2017, India's public and private sector refineries processed 157.8 million tons of crude oil and 91.622 million tons of crude oil respectively.

The Indian government has taken some initiatives, including the launch of the National Natural Gas Hydrate Project (NGHP), a coalition of national exploration and production (E&P) companies and research institutes to use natural gas hydrates as an alternative energy source. It allows 100% of E&P projects/company's foreign direct investment (FDI) and 49% automatic route refining.

Oil and gas supply and demand

- Oil consumption has expanded at a CAGR of 2.98 per cent during FY2008–17E to reach 4.13 mbpd by 2019.

- Due to increase in demand for oil, so India's dependency on oil imports is likely to increase. Due to rapid increase in the economic growth there by increases the demand of oil for production. With rising income levels, demand for automobile is estimated to increase, in turn leading to augmented demand for oil and gas.
- India gas consumption has been increased at a CAGR(compound annual growth rate) of 2.3% between 2007 and 2016
- Gas consumption is projected to rise 216 bcm(billion cubic meters) by 2021-2022.

Oil and Gas Production in India:

- In FY17, total crude oil imports were valued at US\$ 80.3 billion as compared to US\$ 70 billion in FY16. In FY17, imports accounted for 82 per cent of the country's total oil demand. In FY18, up to January, crude oil imports stood at 4.04 mbpd.
- According to the Organisation of the Petroleum Exporting Countries (OPEC), the demand for oil across the world will grow by 1.26 million barrels per day (mb/d). Moreover, majority of the oil demand across the globe is expected to originate from India.
- Domestic gas production is more than 3/4th of the total gas consumption of

the country. Due to the economic growth demand is also expected to increase.

- In India, auto LPG sector registered sales growth of 4.9 per cent to 346 TMT in 2016-17. Auto LPG consumption grew 10.7 per cent during April-December 2017.

Industry Analysis Using Five Force Model

➤ **Threat of Substitutes**

The main alternative sources are Nuclear Energy, Solar Energy, Coal, wind energy and Biofuels. Even though growth in these alternative sources is high, effect on petroleum is limited in the immediate future. However in the long run substitute threat is formidable. biofuels and electricity are also expected to drag down petroleum fuels demand in the long run.

➤ **Competitive Rivalry**

The competitiveness of oil and gas industry and especially in the upstream sector of the industry is significantly intensive. Although the larger competition are extraordinary, a number of them represent primary international corporations that have constrained oil-specific control rights, however its depend on complex technical expertise.

➤ **Threat of New Entrants:**

- The threat of new entrants remains low due to the capital-extensive nature of the industry and economies of scale.

➤ **Bargaining Power of Suppliers**

- Although there are few individuals to operate, the bargaining power is mild. The government every so often delays offering subsidies to oil businesses and will increase losses.

➤ **Bargaining Power of Buyers:**

- Customers have low/non-existent bargaining strength. Customers are PRICE-TAKER now not a PRICE-MAKER.

Company Analysis - Data Analysis and Interpretation

Bharth petroleum corporation ltd (BPCL)

Bharat Petroleum Ltd. is the India's 2nd largest oil company in terms of market share. It runs 14161 petrol pumps in india as on dec 2017. It has 3 refineries and has 27.5 mt capacity. It came in to existence in the year 1976 by the reason of Burma shell oil storage and distribution companies' merger. The Strategic business units of BPCL (SBU) is divided into refinery, retail, Commercial, Lubricating, LPG and Aviation sectors.

Operating Profit Ratio:

It is also expressed as a percentage of sales, and then indicates that the efficiency of the enterprise controlling charges and

charges is related to commercial enterprise operations. the operating profit of the company has been increasing since 2013 to 2016. However in the year 2017 there is a decrease in the operating profit margin. In the year 2017 sales has increased but operating expense has decreased. Operating profit may increase if government allows international market based pricing. Operating profit of Q2 of FY 2018-19 has increased by 3 times due to higher refining margin compared to previous year quarter results (eBS)¹. If government doesn't subsidise the petrolrum products then BPCL earns better profit. If government intend to keep the low price due to upcoming election then Petroleum companies may be pushed into the financial problem, Hence we advice to the investors to be cautions on government policies on petroleum.

Profit before tax:

The table shows healthy increase in profits since 2013. This is majorly because of decreasing trend of petroleum prices at international market. If the petroleum prices decreases then Distribution companies make more profit in the Indian market. However since December 2018, Petroleum product price started to rise again in the northward direction hence PBT may come under the pressure.

¹ eBS – ebusiness Standard – article reference number provided at the end

Observing the changes in the prices we advice cautious decision with reference to customer investments. Expected PBT may decrease to 10000 crores for FY 2018 due to increase in crude prices and price volatility.

Dividends:

Dividends are payments made via the organisation to shareholders. Dividends are showing the increasing trend in the above table. However this may get effected for FY18 due to increased petroleum prices. Expected dividend may decrease due to increase in crude prices.

Revenue :

Revenue is the top line earned from sales activities and fees for given year. The above table shows Reduction in the revenue during 2014 - 17. This is mainly due to lowe price of Petroleum products. During 2013-14 prices were at peak level hence the revenue was more. However due to decrease in prices of petroleum products, total revenue has come down.

Earning Per Share :

Earning per share of the company is gradually increased from the year 2013 to 2016 and decreased in 2017. This is result of higher crude prices in international market. EPS may decrease if petroleum prices increases in the international market. Present political uncertainty indicates no short term decrease in petroleum prices hence Investors need to

be cautious while taking investment decision.

HPCL

A corporation involved in refining and marketing operations since 1974. HPCL has 14675 retail outlets in india. HPCL has 3 refineries and has 23.8 mt capacity. The organization has coastal refineries in Western and Eastern costs, accounting for 10.3% of the nations refining capacity. HPCL is an Indian government company with Navratna status, and Forbes 2000 and Global Fortune 500 agencies. It incorporated under the Indian Companies Act 1913. HPCL has the second largest petroleum pipeline in India.

EPS

Similar to BPCL, Earnings per share of the company is gradually increased from the year 2013 to 2016 but in the year 2017 it decreased. World GDP growth and international creude prices are the major indicators. Investors decision may depend on above indicators.

Operating Profit:

The operating profit of the company has been increasing continuously since from the year 2013 to 2017. Because the company utilize its operating expenses effectively. Operating profit may increase if government allows international market based pricing. Operating profit of Q2 of FY 2018-19 has increased by 80% due to higher refining margin compared to

previous year quarter results (eBS). If government doesn't subsidise the petrolrum products then HPCL earns better profit. If government intend to keep the low price due to upcoming election then Petroleum companies may be pushed into the financial problem, Hence we advice investors to be cautious on government policies on petroleum.

Profit Before Tax:

The above graph shows healthy increase in profits since 2013. This is majorly because of decreasing trend of petroleum prices at international market. If the petroleum prices decreases then Distribution companies make more profit in the Indian market. However since December 2017, Petroleum product prices started to rise again in the northward direction hence PBT may come under the pressure. Observing the changes in the prices we advice cautious decision with reference to customer investments.

Dividends:

This Dividend is the direct result of higher profit due to low oil prices in the international market. Indian government policies facilitated Oil companies to earn more profit keeping the prices at higher level. Indian Government is the biggest beneficiary due to higher profit to oil distribution companies. This dividend may decrease if crude oil prices increase in the international market. The strong cartel of

oil exporting countries may ensure oil prices at higher level. Hence investors need to be more cautious.

Revenue:

The above table shows the revenue increase during 2013-2014. This is due to the increase of petroleum prices, however revenue decreased in the year 2015 and 2016 majorly because of lower petroleum prices. But it again there is increase in 2017. Total revenue is dependent on petroleum product final prices.

ONGC

ONGC is India's biggest manufacturer of crude oil and natural gasoline company. ONGC accounting for 77% of India's crude oil manufacturing and 81% of India's natural gasoline production. ONGC started in August 14, 1956. Indian government holds 74.14% stake in the organization. Crude oil is utilized by downstream companies which include IOC, BPCL, and HPCL to produce petroleum byproducts (together with fuel, diesel, kerosene, naphtha, and cooking fuel LPG). ONGC is the top energy company in India and holds 20th rank among the global energy majors.

Earnings Per Share:

ONGC is the one among the highest dividend paying company from India. However its dividend decreased due to low Prices crude oil. ONGC was making good profit during 2013-14 due to high crude

prices. However due to decrease in petroleum prices ONGC profits decreased along with petroleum prices. Hence there is volatility in the EPS of ONGC

Operating profit:

As the crude prices decreased in international market, ONGC's OPS get effected from the year 2015. Since ONGC in the exploration business its profit is dependent on higher crude prices.

Profit before tax:

The above graph shows decrease in profits since 2013. This is due to lower prices of the crude oil and increase in the cost of production of crude oil. The company suffered from lower price realization from its crude oil sold from joint venture fields and a write-off on dry wells drilled.

Dividends :

The above graph shows healthy increase in the dividends of the company year by year. ONGC has taken a positive decision on dividend distribution to its stakeholders. This may be because of Its main stakeholder (Government of India) pressure. This dividend distribution culture may continue as Indian government depend on ONGC dividend for its non tax revenue. Dividend expecting investors may invest in ONGC.

Revenue:

The above graph show that there is increase in the revenue of the company this is due to the increase in the petroleum

prices during 2014. But it has been decreased from the year 2014 to 2016 this is because of decrease in the petroleum price. But since the prices of petroleum has increased in 2017 so the revenue has been increased. ONGC revenue may increase in 2018 due to recovery of crude oil prices. New projects may additionally help ONGC to increase its revenue in upcoming years.

IOCL

Indian Oil Corporation (IOCL) is the top ranked Indian company amongst Fortune Global 500 corporations. IOC runs 26489 petrol pumps in india and has marketshare of 44% refining ability and 67% of its downstream pipeline potential. IOC Ltd Group owns and operates 9 of India's 23 oil refineries and has an annual refining capacity of 69.3 million ton. It is the country biggest business corporation and has a net earnings of Rs. 19,106 crore (\$2.848 billion) for the FY 2016-17.

Earning Per Share:

The earnings per share of the company is increased due to decrease in crude oil prices. Since 2017 again a small amount of increase in the prices of crude products hence EPS slightly reduced in the year 2017.

Operating Profit:

The operating profit ratio of the company has been slightly increased from the year

2013 to 2014 but there is a decrease in the ratio in the year 2015 this is because the utilization of operating expenses was not effective. But the ratio has been increasing tremendously in the year 2016 and 2017. This is due to the decrease in the crude prices. Further same may not be possible as crude oil prices recovered in the world market. In short run abnormal volatility is less due to stable forecast of world gdp growth.

Profit Before Tax :

The above table shows continuous increase in the profit before tax. This is due to the decrease in the prices of crude oil. If crude oil prices fall then investors are advised to invest in IOCL with caution.

Dividends:

The above graph shows healthy increase in the dividend of the company. This is majorly because of sudden increase in the profit of the company due to lower crude oil prices. Same may not be possible in the immediate future.

Revenue:

The above table shows that the increase in the revenue in the year 2014 but started to decrease from the year 2014 to 2016. This fluctuation is due to the variation in the crude prices. When the prices of petroleum decrease the revenue decreases and if the price of petroleum increase revenue also increase.

Oil India Limited

Oil India Ltd, established in February 18, 1959. In 1961 it became a joint venture between Indian Government and British Burmah Petroleum Co., Ltd. In 1981, OIL have become a completely owned Indian government corporation. OIL is involved in the exploration, development and production of crude oil and natural gas, Transport crude oil and convert liquefied petroleum gas. OIL moreover offers an expansion of E&P related Services and holds a 26% stake in Numaligarh Refinery Limited.

EPS:

The above table shows continuous decrease in the earning per share of the company. Due to low crude oil Prices. Oil India was making good profit during 2014, however due to decrease in petroleum prices OIL profits decreased. Hence there is volatility in the EPS of OIL. Recovery of crude prices in the international market may benefit OIL. Investors may opt for OIL instead of petroleum distribution companies.

Operating Profit:

The operating profit of the company is decreasing since, from the year 2014. This is because there is inefficient utilization of the operating expenses and increase in the sales but decrease in the profit. This is because of decrease in the petroleum products.

Profit Before Tax:

The profit of the company is constantly decreasing since from 2014 this may be due to the increase in the cost of production. And due to the decrease in the petroleum prices. So the investors need to be very cautious while taking the investment decisions. This trend may change because of the recovery of crude oil prices.

Revenue :

The above table depicts that the revenue of the company is not constant. It shows a fluctuation in the revenue of the company. This is due to the fluctuations in the prices of the crude oil. Since the decrease in the petroleum prices the revenue has decreased. But again when the prices started to increase the revenue started to increase. But from the year 2015 it shows a healthy increase of revenue.

Dividends:

The above table shows that high dividend in the year 2013 but it has started to decrease till the year 2015 this is because of decrease in the petroleum prices but again dividend started to increase from 2015 to 2017 this is due to the increase in the prices of petroleum products.

Summary of findings:

- Indian's energy consumption mix pattern expected in 2035 is coal 42%², petroleum 24%, solid biomass and

² Deloitte, Vision 2040 global scenerio for the oil and gas industry

waste 15%, natural gas 11%, nuclear and other renewable 8%.

- By analysing the Porter's five force model we found out that threat of new entrants is low, threat from substitute is also medium, bargaining power of the buyers is low, competitive rivalry is low but bargaining power of suppliers is medium.
- The profit of the ONGC and OIL increase when the crude oil prices increases. Decrease when the price of crude oil prices decreases.
- The profits of the BPCL, HPCL, IOCL increases when the price of the petroleum product decreases.
- World GDP growth and Cartel of petroleum producing countries are the deciding factors of crude oil prices. Indian Petroleum Industry is grossly dependent International Petroleum market. In coming years India is higher role in decideing the crude oil prices in International market due to its big size market. Indian Government revenue and fiscal deficit is also depend on crude oil prices. Political Instability within in the oil producing countries may worsen the industry stability.

Limitations:

- Research is dependent on secondary data

- Forecasting is based on historic and present data and not considered any unexpected risk

Suggestions to Investors:

- Investors need to observe the world GDP growth, gulf stability and OPEC decisions while Investing in petroleum Companies.
- If the Crude Prices increases, then investors may invest in ONGC and OIL.
- If The Crude prices decreases, then investor may invest in BPCL, HPCL and IOCL

Conclusion:

Indian petroleum is the one of the highly politically sensitive and economically important industry. Since majority of petroleum products are imported from abroad, the entire industry is depend on international market prices. Indian government is the major shareholder in petroleum companies and control the market. World GDP growth rate, OPEC decisions and Gulf countries stability are the major deciding factors of crude oil prices. If the prices increases then petroleum exploration companies such as ONGC, OIL make profit else petroleum distribution companies such as BPCL, HPCL, and IOCL make profit.

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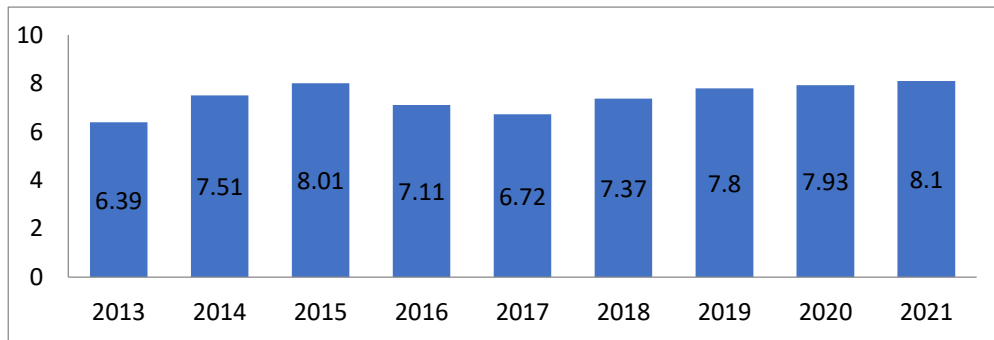
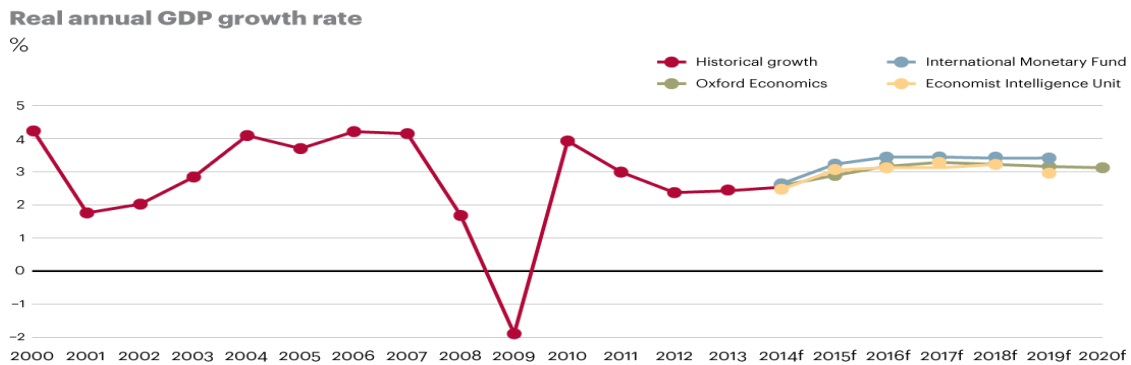


Figure 1.1(Source: - IMF outlook)

World growth rate:

Figure 1
Global growth is expected to stabilize



Note: Historical growth is an unweighted average of the three sources' GDP data at constant prices and market exchange rates.
Sources: Oxford Economics, International Monetary Fund World Economic Outlook (October 2014), Economist Intelligence Unit; A.T. Kearney analysis

Figure 1.2 (Source: Oxford Economics, IMF outlook, AT Kearney Analysis)

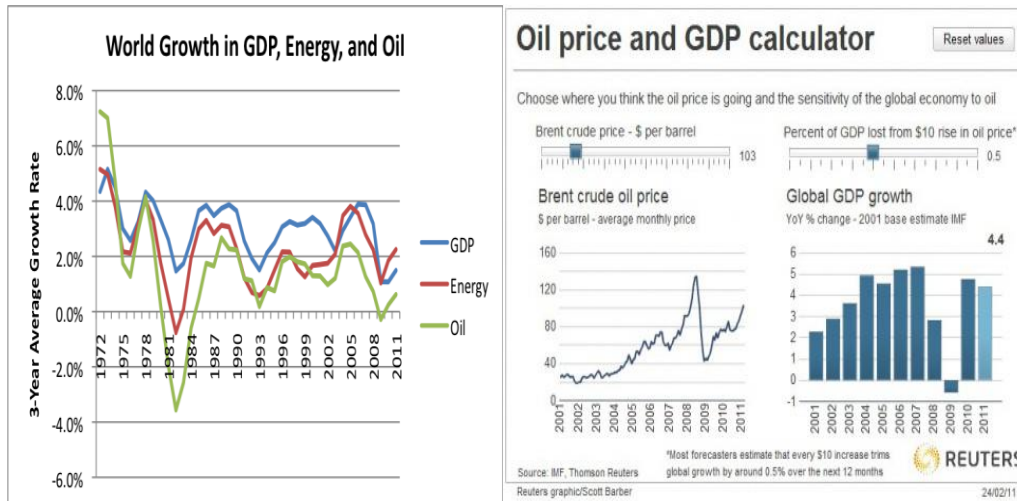


Fig 1.3 (Source: IMF, Thomson Reuters)

Year	Operating profit	Operating profit margin	PBT (%ge)	Equity dividend	Revenue	EPS
2017	11056.26	2.54	4.36	4555.43	204811.25	61.31
2016	8314.67	3.1	4.80	2241.56	191315.49	102.78
2015	8086.22	3.49	2.41	1626.94	240286.86	70.32
2014	6106.8	5.89	2.23	1229.24	261529.19	56.16
2013	3866.85	5.35	1.72	795	241795.98	36.55

Table 1.1 :- 5 years financial performance of BPCL

Year	Operating profit	Operating profit margin	PBT (%ge)	Equity dividend	Revenue	EPS
2017	31078.66	39.99	24916.70	9517.99	85246.60	13.95
2016	37609.73	47.99	23390.31	7272.18	84560.24	18.71
2015	43556.14	52.55	26939.15	8127.72	88237.53	20.73
2014	43969.55	52.41	31920.82	8127.72	90603.47	25.83
2013	43582.44	52.50	30574.87	8127.72	88442.08	24.46

Table 1.3 :- 5 years financial performance of ONGC

Year	Operating profit	Operating profit margin	PBT (%ge)	Equity dividend	Revenue	EPS
2017	10577.05	5.65	9020.84	2935.89	188538.43	61.12
2016	7905.14	4.4	5743.61	1168.26	180709.24	114.07
2015	5666.59	2.74	4149.65	829.64	207794.59	80.72
2014	5237.73	2.34	2673.88	524.87	224245.58	51.2
2013	4261.66	2.06	1361.17	287.83	207833.62	26.72

Table 1.2 :- 5 years financial performance of HPCL

Year	Operating profit	Operating profit margin	PBT	Equity dividend	Revenue	EPS
2017	31781.06	8.83	26321.24	10545.42	364081.74	40.31
2016	21048.59	6.06	16826.54	2867.53	349498.59	47.44
2015	10154.64	2.32	8002.85	1602.45	441670.18	21.72
2014	15702.23	3.31	10021.81	2112.32	476627.38	28.91
2013	13736.85	3.07	5641.50	1505.33	450611.2	20.61

Table 1.4 :- 5 years financial performance of IOCL

Year	Operating profit	Operating profit margin	PBT	Equity dividend	Revenue	EPS
2017	3104.81	32.64	2146.32	1495.26	11191.07	19.32
2016	3588.24	36.74	3440.57	1302.33	11158.63	38.29
2015	3530.39	36.21	3728.7	1202.38	11019.86	41.76
2014	4027.6	41.89	4410.44	1292.45	11241.34	49.59
2013	4614.71	46.36	5283.22	1803.41	11456.32	59.71

Table 1.5 :- 5 years financial performance of Oil India Ltd