International Journal of Management, IT & Engineering
Vol. 9 Issue 6, June 2019,
ISSN: 2249-0558 Impact Factor: 7.119
Journal Homepage: http://www.ijmra.us, Email: editorijmie@gmail.com
Double-Blind Peer Reviewed Refereed Open Access International Journal - Included in the International Serial Directories Indexed & Listed at: Ulrich's Periodicals Directory ©, U.S.A., Open J-Gage as well as in Cabell's Directories of Publishing Opportunities, U.S.A

FUNDAMENTAL ANALYSIS OF INDIAN PETROLEUM PSU'S AND INFLUENCING FACTORS ON PETROLEUM PRICES – FORECASTING THE NEAR FUTURE OF PETROLEUM PSU STOCKS

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ABSTRACT:

The study of "Fundamental analysis of Indian Petroleum PSU's – Forecasting the Near Future"is intended to analyzee present performance of petroleum PSU'sand predict the next 4 years future. This study used the secondary published data of oil companies, IMF reports and stock market participants. The article has made an attempt to identify the inflencing factors on international crude oil prices and its effect on Indian petroleum PSU's financial performance.This fundamental analysis involvesanalysis of economic indicators, industry analysis, financial ratios of the selected PSU's. These studies are helpful forinvestment decisions.This research observed that crude oil prices are directly corelated with the world GDP, OPEC decisions and stability in the gulf region. Substitue 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 makesprofit and this profit will be dependent on government subsidy decisions.

Keywords: Petroleum Industry, international petro market, investment decisions, Indian Oil companies, Policy, subsidy

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STATEMENT OF THE PROBLEM

Even though fundamental analysis is one of the highly researched topics. Research related to fundamental 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 theinfluencing 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 ofBPCL, HPCL, IOCL,ONGC for 2009-2017
- IMF reports, Stock market Reports, News Paper articles and other publications

3 Phases of Fundamental Analysis:-

PHASE	NATURE OF ANALYSIS	PURPOSE	TOOLS AND TECHNIQUES
FIRST	Economic analysis	To get the country's overall economic status.	Economic indication
SECOND	Industry analysis	Access to the prospects of various industry groups.	Industry life cycle analysis, competitive analysis of industries
THIRD	Company analysis	Analyze the company's financial and non-financial aspects to determine whether to buy, sell or hold the company's shares.	Financial Analysis: Sales, Profitability, EPS, etc. Non-financialanalysis: management of corporate image, product quality, etc.

ECONOMIC ANALYSIS OF INDIA:

According Purchasing Power Parity (PPP) data 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.

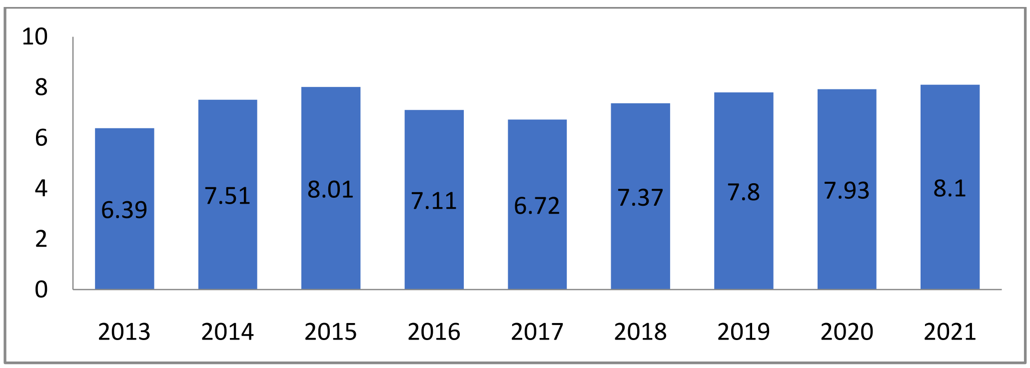

Figure 1.1(Source: - IMF outlook)

World growth rate:

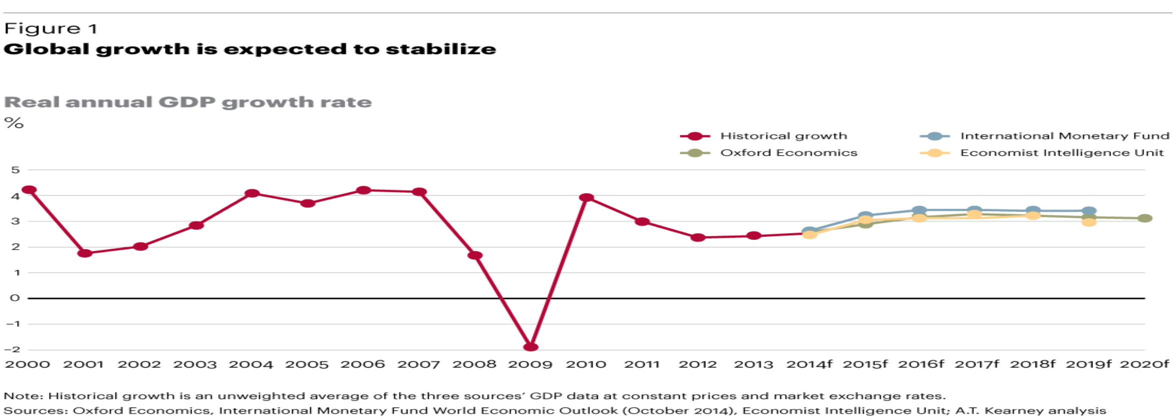

Figure1.2(Source: Oxford Economics, IMF outlook, AT Kearney Analysis)

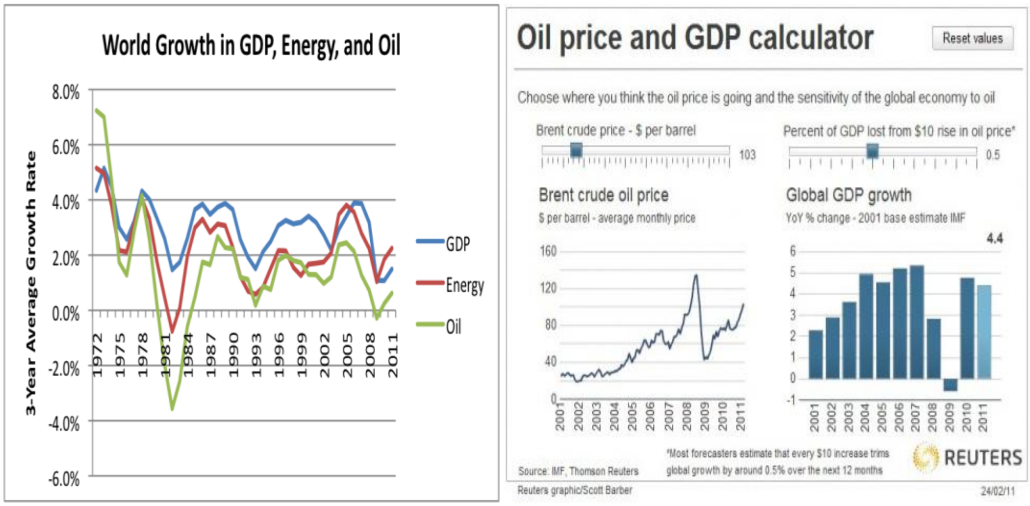

Fig 1.3 (Source: IMF, Thomson Reuters)

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. Accordingto 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 $3/4^{th}$ 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 souces is high, effec on petroleum is limited in the immediate future. Howevr in the long run substitue 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 SUPLIERS**

- 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 refinaries 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.

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

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 governmentintend to keep the low price due to upcoming election then Petroleum companies may be pushed intothe financial problem. Hence we advice investors to be very 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. 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 volatality.

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

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 2016and 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 uncertainity 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 operationssince 1974. HPCL has 14675 retail outlets in india. HPCL has 3 refinaries 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.

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

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 very cautions 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 isthe direct result of higher profit due to low oil prices in the international market. Indiangovernment policies facilitated Oil companies to earn more profit keeping the prices at higherlevel. Indian Government is the biggest beneficiary due to higher profit to oil distributioncompanies. This dividend may decrease if crude oil prices increase in the international market. Thestrong cartel of oil exporting countries may ensure oil prices at higher level. Hence investorsneed to be more cautious.

Revenue:

The above table shows the revenue increase during 2013-2014.This is due to the increase of petroleum prices, howeverrevenue 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.

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

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 marke, 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 lowerprices 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 2017so 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.

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

Earning per share:

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

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

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 decease in the petroleum products.

Profit before tax:

Theprofit 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 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. PoliticalInstability 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

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

Suggestions to Investors:

- Investors need to observe the world GDP growth, gulf stability and OPEC decisions while Investmenting 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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